

कृषि अनुसंधान  
डाटा पुस्तिका  
AGRICULTURAL RESEARCH  
DATA BOOK  
2019



भारतीय कृषि अनुसंधान परिषद्  
कृषि भवन, नई दिल्ली-110 001

Indian Council of Agricultural Research  
Krishi Bhawan, New Delhi - 110 001



भाकृअनुप-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान  
लाईब्रेरी एवेन्यू, पूसा, नई दिल्ली-110 012

ICAR-Indian Agricultural Statistics Research Institute  
Library Avenue, Pusa, New Delhi - 110012

कृषि अनुसंधान  
डाटा पुस्तिका

AGRICULTURAL RESEARCH  
DATA BOOK  
2019

The contents of AGRICULTURAL RESEARCH  
DATA BOOK 2019 are also available at the  
ICAR-Indian Agricultural Statistics Research Institute  
Website: <http://www.iasri.res.in/>



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तौकीर अहमद : अध्यक्ष, प्रतिदर्श सर्वेक्षण प्रभाग  
**Tauqueer Ahmad : Head, Division of Sample Surveys**  
प्राची मिश्रा साहू : प्रमुख वैज्ञानिक  
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अंकुर बिश्वास : वैज्ञानिक  
**Ankur Biswas : Scientist**  
दीपक सिंह : वैज्ञानिक  
**Deepak Singh : Scientist**  
राजू कुमार : वैज्ञानिक  
**Raju Kumar : Scientist**  
प्रदीप बसाक : वैज्ञानिक  
**Pradip Basak : Scientist**

संगणकीकरण **Computerisation**  
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*Project Director (DKMA) : Satendra Kumar Singh*  
प्रधान उत्पादन अधिकारी : वीरेन्द्र कुमार भारती  
*Chief Production Officer : Virender Kumar Bharti*  
तकनीकी अधिकारी (उत्पादन) : कुल भूषण गुप्ता  
*Technical Officer (Production) : Kul Bhushan Gupta*

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त्रिलोचन महापात्र, पीएच.डी.

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सचिव एवं महानिदेशक

**TRILOCHAN MOHAPATRA, Ph.D.**

FNA, FNASc, FNAAS

SECRETARY & DIRECTOR GENERAL

भारत सरकार  
कृषि अनुसंधान और शिक्षा विभाग एवं  
भारतीय कृषि अनुसंधान परिषद  
कृषि एवं किसान कल्याण मंत्रालय, कृषि भवन, नई दिल्ली 110 001

GOVERNMENT OF INDIA  
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION  
AND

INDIAN COUNCIL OF AGRICULTURAL RESEARCH  
MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
KRISHI BHAVAN, NEW DELHI 110 001  
Tel.: 23382629; 23386711 Fax: 91-11-23384773  
E-mail: dg.icar@nic.in

## प्राक्कथन

कृषि अनुसंधान देश में कृषि के समग्र एवं स्थायी विकास के लिए महत्वपूर्ण है। भारतीय कृषि अनुसंधान परिषद, राष्ट्रीय स्तर पर कृषि अनुसंधान के क्षेत्र में एक शीर्ष संगठन है जो देश में कृषि के क्षेत्र में कृषि अनुसंधान, शिक्षा, प्रसार और सहायता की नई प्रौद्योगिकियों के उपयोग को बढ़ाने एवं समर्थन करने में महत्वपूर्ण भूमिका निभाता है।

भारतीय कृषि अनुसंधान परिषद नीति निर्माताओं, वैज्ञानिकों, प्रसार पदाधिकारियों, छात्रों, शोधकर्ताओं, उद्यमियों, उद्योगपतियों, गतिशील किसानों आदि के उपयोगार्थ कृषि

के विभिन्न पहलुओं पर जानकारी एकत्रित एवं समेकित करती है। कृषि प्रौद्योगिकी का व्यापक प्रसार सुनिश्चित करने के लिए भारतीय कृषि अनुसंधान परिषद इन मूल्यवान जानकारीयों, को **कृषि अनुसंधान डाटा पुस्तिका** के रूप में प्रति वर्ष प्रकाशित करती है। कृषि एवं उसके संबंधित क्षेत्रों के विभिन्न पहलुओं पर आंकड़ों के लिये इस प्रकाशन को संदर्भ पुस्तिका के रूप में व्यापक रूप से उपयोग किया जाता है। कृषि अनुसंधान डाटा पुस्तिका क्षेत्र, उत्पादन, उत्पादकता, भूमि उपयोग, बागवानी, पशुपालन, मत्स्य पालन आदि पर आंकड़ों का एक समृद्ध स्रोत है।

**कृषि अनुसंधान डाटा पुस्तिका 2019** के वर्तमान अंक में नवीनतम उपलब्ध आंकड़ों का समावेश किया गया है। यह अपेक्षा की जाती है कि यह प्रकाशन कृषि पर जानकारी का एक विश्वसनीय आधार बना रहेगा। मैं पाठकों से उनकी टिप्पणियां/सुझाव देने का आग्रह करता हूँ ताकि प्रकाशन की गुणवत्ता को बढ़ाया जा सके। मैं भारतीय कृषि अनुसंधान परिषद के शिक्षा प्रभाग विशेषकर भाकृअनुप-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान को इस कृषि अनुसंधान डाटा पुस्तिका 2019 को प्रकाशित करने के लिए बधाई देता हूँ व उनके इस सफल प्रयास की प्रशंसा करता हूँ।

दिनांक : 02 जुलाई, 2019

त्रि. महापात्र

(त्रिलोचन महापात्र)





त्रिलोचन महापात्र, पीएच.डी.

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सचिव एवं महानिदेशक

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KRISHI BHAVAN, NEW DELHI 110 001  
Tel.: 23382629; 23386711 Fax: 91-11-23384773  
E-mail: dg.icar@nic.in

## FOREWORD

Agricultural research is a pivot for planned growth and sustainable development of agriculture in the country. Indian Council of Agricultural Research (ICAR) is an apex organization in the field of agricultural research at national level which plays a crucial role in promoting and accelerating agricultural research, education, extension and support in demonstrating the use of new technologies in agriculture.

The data generated by ICAR on various aspects of agriculture and allied disciplines is being used by various stakeholders such as policy makers, statisticians, economists, researchers, students, extension workers, entrepreneurs, industrialists, progressive farmers and the general public. Agricultural Research Data Book (ARDB) is an important ICAR publication which provides valuable information in the form of comprehensive compendium regularly on annual basis. This publication is widely used as a reference book for data on various aspects of agriculture and its allied sector. The ARDB is a rich source of data on area, production, productivity, land-use statistics, horticulture, animal husbandry, fishery etc.

The present issue of Agricultural Research Data Book 2019 has been updated with the latest available data. It is anticipated that this publication will continue to serve as a reliable source of information on various aspects of agriculture. I welcome the comments/suggestions from users to improve the quality of this publication. I compliment the Education Division of ICAR especially the ICAR-Indian Agricultural Statistics Research Institute (ICAR-IASRI) for their efforts in bringing out this Agricultural Research Data Book 2019.

Date: 02 July, 2019

(T. MOHAPATRA)

## आमुख

देश में भारतीय कृषि अनुसंधान परिषद (भाकृअनुप) कृषि अनुसंधान और शिक्षा के संगठन एवं प्रबंधन के लिए एक सक्रिय संस्था है और देश की आजादी के बाद से कृषि के समग्र विकास की दिशा में एक महत्वपूर्ण और प्रभावी भूमिका निभा रही है।

विभिन्न स्रोतों से उपलब्ध कृषि अनुसंधान, शिक्षा और सम्बद्ध पहलुओं से सम्बंधित सूचना अनेक प्रकार के प्रकाशित एवं अप्रकाशित रिकार्डों में अलग अलग जगहों पर उपलब्ध हैं। इन अलग अलग जगहों पर उपलब्ध सूचनाओं को 1995 से कृषि अनुसंधान डाटा पुस्तिका में भाकृअनुप-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान (भाकृअनुप-भा.कृ.सां.अ.सं.) एवं भारतीय कृषि अनुसंधान परिषद के संयुक्त प्रयासों के माध्यम से संकलित किया जा रहा है। यह कृषि अनुसंधान डाटा पुस्तिका 2019 अपने प्रकाशन की श्रंखला में बाईसवीं संस्करण है। डाटा पुस्तिका को प्रयोक्ता की सुविधा के उद्देश्य से 10 भागों में विभाजित किया गया है। यह प्राकृतिक संसाधन, कृषि निविष्टि, पशुपालन, डेरी उद्योग, मत्स्यिकी, बागवानी, उत्पादन, उत्पादकता, कृषि अभियांत्रिकी, निर्यात, आयात, विश्व कृषि में भारत का स्थान और मानव संसाधन पर नतीजतम सूचनाएँ उपलब्ध कराती है। कृषि के विभिन्न पहलुओं पर इसमें 173 तालिकाएं हैं। कृषि अनुसंधान डाटा पुस्तिका में भारत में उपलब्ध जून 2019 के अंत तक के नतीजतम आंकड़े हैं।

कृषि अनुसंधान डाटा पुस्तिका का प्रथम संस्करण वर्ष 1995 के अन्त तक की सूचनाओं के आधार पर वर्ष 1996 में प्रकाशित किया गया था। इसके बाद से इसका प्रकाशन नियमित रूप से उपलब्ध नवीनतम आंकड़ों को अद्यतन करके प्रतिवर्ष किया जा रहा है। कृषि अनुसंधान डाटा पुस्तिका 2019 में लिये गये गत वर्षों के आंकड़ों के आधार पर सांख्यिकीय मॉडलों के उपयोग द्वारा भावी वर्षों में खाद्य पदार्थ, फसलों इत्यादि के उत्पादन का आकलन, आंकड़ों की सचित्र/ग्राफिकल प्रस्तुति एवं विभिन्न प्रकार के राज्यवार आंकड़ों का भौगोलिक सूचनातंत्र पद्धति द्वारा मानचित्र बनाकर मूल्य वर्धन किया गया है। उपयोगकर्ताओं के बीच व्यापक स्वीकार्यता होने के कारण कृषि अनुसंधान डाटा पुस्तिका की एक सॉफ्ट कॉपी हमारी संस्थान की वेबसाइट [www.iasri.res.in](http://www.iasri.res.in) पर अपलोड की गई है। हम आशावान हैं कि कृषि अनुसंधान डाटा पुस्तिका 2019 में प्रस्तुत सूचना पाठकों के लिए लाभप्रद होगी। इस डाटा पुस्तिका 2019 में विभिन्न प्रयोक्ताओं से प्राप्त टिप्पणियों और सुझावों को शामिल करने का प्रयास किया गया है। हम डाटा पुस्तिका के प्रस्तुतीकरण पर रचनात्मक सुझाव का स्वागत करते हैं जो इसके भावी अंकों में सुधार लाने के लिए लाभदायक होंगे। अतः अपने सुझाव कृपया इस पते पर भेजें:

**डॉ. लाल मोहन भर, निदेशक**

**भाकृअनुप-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान**

**लाईबेरी एवेन्यू, पूसा, नई दिल्ली-110 012**

**फ़ैक्स: 011-25841564, दूरभाष: 011-25841479, ई-मेल: [director.iasri@icar.gov.in](mailto:director.iasri@icar.gov.in)**

इस डाटा पुस्तिका को तैयार करने के लिए भाकृअनुप-भा.कृ.सां.अ.सं., परिषद के विभिन्न प्रभागों विशेषतः कृषि शिक्षा प्रभाग एवं परिषद के सम्बन्धित अधिकारियों द्वारा किए गए प्रयास भी सराहनीय हैं।



(नरेन्द्र सिंह राठौर)

उप-महानिदेशक (कृषि शिक्षा), भा.कृ.अनु.प.



(लाल मोहन भर)

निदेशक, भाकृअनुप-भा.कृ.सां.अ.सं.

## PREFACE

Indian Council of Agricultural Research (ICAR) is an apex body for organization and management of agricultural research and education in the country which plays an important and effective role towards overall growth of agriculture since Independence.

Information pertaining to agricultural research, education and related aspects available from different sources is scattered over various types of published and unpublished records. These scattered information are being compiled since 1995 in Agricultural Research Data Book (ARDB) through joint efforts of the ICAR-Indian Agricultural Statistics Research Institute (ICAR-IASRI) and Indian Council of Agricultural Research (ICAR). This ARDB 2019 is twenty second edition in the series. It is divided into 10 sections for the purpose of convenience of the users. It provides information on natural resources, agricultural inputs, animal husbandry, dairying, fisheries, horticulture, production, productivity, agricultural engineering, export, import, place of India in world agriculture and human resources. It has 173 tables on different aspects of agriculture. The ARDB 2019 contains the latest information/data as available by the end of June 2019 in the country.

The first edition of the ARDB was published in 1996 consisting of the information up to the end of 1995. Subsequently, an updated version of ARDB is being brought out every year regularly. The ARDB 2019 has some value additions like predicting the future year production of foodgrains, pictorial/graphical representations of data, depicting state-wise data and thematic maps using Geographical Information System (GIS). This issue of the publication has been enriched with latest available information on emerging areas in agriculture sectors. Being a wider acceptability among the users, a soft copy of the ARDB has also been uploaded at our Institute website: [www.iasri.res.in](http://www.iasri.res.in). We are very confident that the information presented in this ARDB 2019 will be useful for users. Efforts have been made to incorporate the comments and suggestions received from various users in this ARDB 2019. Further, we welcome suggestions of the users on the content and the material in ARDB 2019 which will help to enrich the future issues. Suggestions may please be sent to:

**Dr. L.M. Bhar, Director**

**ICAR-Indian Agricultural Statistics Research Institute**

**Library Avenue, Pusa, New Delhi-110 012**

**Fax: 011-25841564, Ph.: 011-25841479, e-mail: [director.iasri@icar.gov.in](mailto:director.iasri@icar.gov.in)**

The contributions made in compilation of ARDB 2019 by officials of various SMDs of the Council particularly Education Division, ICAR, compilation team of ICAR-IASRI and various organizations for supplying requisite information are highly acknowledged.



**(Narendra Singh Rathore)**

Dy. Director General (Agril. Edn), ICAR



**(L.M. BHAR)**

Director, ICAR-IASRI

# विषय-सूची

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	<b>परिवर्णी शब्द</b>	<b>ACRONYMS</b>
000'	हजार	Thousand
000' t	हजार टन	Thousand tonnes
cm	सेंटीमीटर	Centimeter
ha	हेक्टेयर	Hectare
kg	किलोग्राम	Kilogram
kg/ha	किलोग्राम / हेक्टेयर	Kilogram/ hectare
kW	किलोवाट	Kilowatt
kWh	किलोवाट घंटा	Kilowatt hour
mm	मिलिमीटर	Milimeter
Mw	मेगावाट	Megawatt
million ha	मिलियन हेक्टेयर	Million hectare
MJ	मेगा जूल	Mega Joules
ppm	पार्ट्स प्रति मिलियन	Parts per million
ppbv	पार्ट्स प्रति बिलियन बाई वॉल्यूम	Parts per billion by volume
ppmv/year	पार्ट्स प्रति मिलियन बाई वॉल्यूम प्रति वर्ष	Parts per million by volume per year
ppmv	पार्ट्स प्रति मिलियन बाई वॉल्यूम	Parts per million by volume
pptv	पार्ट्स प्रति ट्रायलियन बाई वॉल्यूम	Part per trillion by volume
q	क्विंटल	Quintal
₹	रुपये	Rupees
t	टन्स	Tonnes
t/ha	टन्स / हेक्टेयर	Tonnes/ hectare
µm	माइक्रोमीटर	Micrometer
Neg.	नगण्य	Negligible
FAO	खाद्य एवं कृषि संगठन	Food and Agriculture Organisation
FAQ	उचित औसत गुणवत्ता	Fair Average Quality
K	पोटाश	Potash

N	नाइट्रोजन	Nitrogen
B	बोरोन	Boron
Fe	आयरन	Iron
Zn	ज़िंक	Zinc
Cu	कॉपर	Copper
Mn	मैंगनीज़	Manganese
Mo	मॉलिबडीनम	Molybdenum
SPM	सोलिड पार्टिकुलेट मैटर	Solid Particulate Matter
CWC	केन्द्रीय जल आयोग	Central Water Commission
DAP	लद्दू पशु शक्ति	Draught Animal Power
HSD	उच्च श्रेणी का डीज़ल	High Speed Diesel
HYV	उच्च उपज वाली किस्म	High Yielding Varieties
SPV	सोलर फोटो वोल्टेक	Solar Photo Voltaic
R&D	अनुसंधान एवं विकास	Research and Development
GNP	सकल राष्ट्रीय उत्पाद	Gross National Product
NNP	शुद्ध राष्ट्रीय उत्पाद	Net National Product
PM	पार्टिकुलेट मैटर	Particulate Matter
CFC	क्लोरो-फ्लोरो कार्बन्स	Chloro-Fluoro-Carbons
CIAE	केन्द्रीय कृषि अभियान्त्रिकी संस्थान	Central Institute of Agricultural Engineering

## Conversion Factors between Important Primary and Secondary Agricultural Commodities

<b>Commodity</b>	<b>Conversion Factor</b>
Rice (Cleaned) Production	2/3 of Paddy Production
<b>Cotton</b>	
Cotton Lint Production	1/3 of Kapas Production
Cotton Seed Production	2/3 of Kapas Production 2 times of Cotton Lint Production
<b>Jute</b>	
100 Yards of Hessian	54 lbs of Raw Jute
4148 Yards of Hessian	1 Ton of Raw Jute 5.55 Bales of Raw Jute (of 180 kg. Each)
1 Ton of Sacking	1.11 Tons of Raw Jute 6.17 Bales of Raw Jute (of 180 kg. Each)
1 Ton of Hessian Sacking etc.	1.05 Tons of Raw Jute 5.85 Bales of Raw Jute (of 180 kg. Each)
<b>Groundnut</b>	
Kernel to Nuts in Shell	70 per cent
Oil to Nuts in Shell	28 per cent
Oil to Kernels Crushed	40 per cent
Cake to Kernels Crushed	60 per cent
<b>Sesamum</b>	
Oil to Seeds Crushed	40 per cent
Cake to Seeds Crushed	60 per cent
<b>Rapeseed and Mustard</b>	
Oil to Seeds Crushed	33 per cent
Cake to Seeds Crushed	67 per cent
<b>Linseed</b>	
Oil to seeds Crushed	33 per cent
Cake to Seeds Crushed	67 per cent
<b>Castor Seed</b>	
Oil to Seeds Crushed	37 per cent
Cake to Seeds Crushed	63 per cent
<b>Cotton Seed</b>	
Oil to Seeds Crushed	14 to 18 per cent
Cake to Seeds Crushed	82 to 86 per cent
<b>Coconut</b>	
Copra to Nuts	One Ton of Copra = 6773 Nuts
Oil to Copra Crushed	62 per cent
Cake to Copra Crushed	38 per cent
<b>Nigerseed</b>	
Oil to Seeds Crushed	28 per cent
Cake to Seeds Crushed	72 per cent

<b>Kardi Seed</b>	
Oil to Seeds Crushed	40 per cent
Cake to Seeds Crushed	60 per cent
<b>Mahua Seed</b>	
Oil to Seeds Crushed	36 per cent
Cake to Seeds Crushed	64 per cent
<b>Neem Seed</b>	
Oil to Kernels Crushed	45 to 50 per cent
Cake to Kernels Crushed	50 to 55 per cent
<b>Soybean Seed</b>	
Oil to Soybean Seed Crushed	18 per cent
Meal to Soybean Seed Crushed	73 per cent
Hull from Soybean Seed Crushed	8 per cent
Wastage from Soybean Seed Crushed	1 per cent
<b>Sugar</b>	
Gur from Cane Crushed	11.20 per cent to 11.50 per cent
Crystal Sugar from Gur Refined (Gur Refineries)	62.5 per cent
Crystal Sugar from Cane Crushed (Cane Factories)	10.20 per cent
Khandasari Sugar (Sulphur and Non-sulphur) from standard Gur Refined	46 per cent
Molasses from Cane Crushed	4.0 per cent to 4.5 per cent
Cane-Trash* from Cane Harvested	8.0 per cent to 12.0 per cent
<b>Lac</b>	
Seed Lac	66.0 per cent of Stick Lac
Shell Lac	57.4 per cent of Stick, or 87.0 per cent of Seed Lac
<b>Cashewnut</b>	
Cashew Kernel	25 per cent of Cashewnuts

**Note** : \* This consists of leaves and portion of the top of stalk which are removed from the cane stalk, while harvesting and before sending the cane for milling.

**Source** : *Agricultural Statistics at a Glance* 2016, Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt. of India.

## CONVERSION FACTORS

Area			Weight		
1 ha	=	2.47100 acres	1 metric tonne	=	2204.7 pounds
	=	100 x 100 sq m		=	0.98421 long ton
1 acre	=	0.40468 ha		=	1.10231 short ton
	=	4840 sq yd		=	1000 kg
	=	43560 sq ft	=	10 q	
	=	0.00156 sq miles	1 q	=	100 kg
1 sq mile	=	640 acres	1 long ton	=	2.240 pounds
	=	259 ha	=	1.01605 metric tons	
	=	2.59 sq km	1 short ton	=	2.000 pounds
1 sq kilometer	=	0.3861 sq miles	1 kg	=	0.90781 metric ton
100 sq ft	=	9.290 sq m	1 pound	=	2.20462 pounds
10 Marlas	=	0.0253 ha	1 ounce	=	0.45359 kg
10 Bighas	=	0.8440 ha	16 ounce	=	0.283 kg or 28.35 gm
	=	2.0830 acre	10 pounds	=	1 pound
10 Biswas	=	0.0420 ha	1 mound	=	4.54 kg
20 Biswas	=	1 Bigha	=	81.2857 pounds	
20 Biswani	=	1 Biswa	=	37.32410 kg	
4.8 Bighas	=	1 acre	<b>Distance</b>		
640 acre	=	1 sq mile	1 mile	=	8 furlongs or 1760 yards or 5280 ft
10 Kanals	=	0.5058 ha		=	1.609344 km
1 Kanal	=	20 Marla		=	1609.344 m
<b>Yield</b>			1 furlong	=	220 yards
100 kg per ha	=	1.4869 bushels (60 lb) per acre		=	660 ft
1 bushel (60 lb) per acre	=	67.253 kg per ha		=	0.201168 km
1 kg per ha	=	0.892169 lb per acre		=	201.168 m
1 lb per acre	=	1.120864 kg per ha	=	0.125 mile	
<b>Energy</b>			1 km	=	5/8 mile = 0.6213712 mile = 4.97097 furlong
1 BTU	=	251.9958 calorie		=	3280.83 ft
	=	0.0003930148 horse power-hour		=	1000 m
	=	1055.056 Joule		=	1093.613 yards
	=	0.0002930711 kilo watt-hour	=	1.0936 yards	
1 calorie	=	0.2930711 watt hour	1 meter	=	3.28089 ft
	=	0.003968321 BTU		1 inch	=
	=	4.1868 Joule	1 foot		=
=	0.001163 watt-hour	1 yard		=	2.54 cm
					=
				=	0.3048 m
				=	91.44 cm
				=	0.9144 m

## CONVERSION FACTORS

Atmosphere to lbs per sq inch	14.73
British thermal unit to kilo calorie	0.252
Cubic centimeter to cubic inch	0.061103
Cubic feet to cubic metre	0.02832
Cubic feet to gallons	6.228
Cubic inch to litre	0.01639
Cubic metre to cubic yard	1.308
Foot lbs per second to horse power	0.001818
Foot lbs to kilogram metre	0.1383
U.S. Gallons to litre	3.785
Barrels to gallons	42.00
Grams to ounces	0.03527
Grams to lbs	0.002205
Horse power to kWatts	0.746

**Source** : *Fertiliser Statistics 2016-17*, The Fertiliser Association of India, New Delhi.







भाग-I  
प्राकृतिक संसाधन

SECTION-I  
Natural Resources

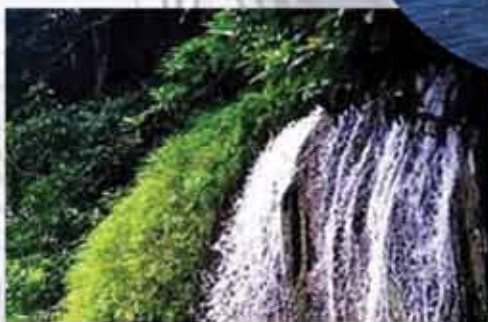




Table 1.1: Land use classification in India

Classification	(million ha)													
	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11#	2011-12#	2012-13#	2013-14#	2014-15#			
I. Geographical area	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	
III. Reporting area for land utilisation statistics (I to 5)	284.32	298.46	303.75	304.16	304.86	305.19	307.48	307.39	307.49	307.80	307.80	307.82	307.82	
I. Forests	40.48 (14.2)	54.05 (18.1)	63.83 (21.0)	67.46 (22.2)	67.81 (22.2)	69.84 (22.9)	71.59 (23.3)	71.60 (23.3)	71.57 (23.3)	71.83 (23.3)	71.83 (23.3)	71.79 (23.3)	71.79 (23.3)	
2. Not available for cultivation (a+b)	47.52	50.75	44.61	39.55	40.48	41.23	43.58	43.53	43.58	43.86	43.86	43.88	43.88	
(a) Non-agricultural uses	9.36 (3.3)	14.84 (5.0)	16.48 (5.4)	19.60 (6.4)	21.09 (6.9)	23.75 (7.8)	26.40 (8.6)	26.31 (8.6)	26.50 (8.6)	26.91 (8.7)	26.91 (8.7)	26.88 (8.7)	26.88 (8.7)	
(b) Barren and uncultivable land	38.16 (13.4)	35.91 (12.0)	28.13 (9.3)	19.96 (6.6)	19.39 (6.4)	17.48 (5.7)	17.18 (5.6)	17.22 (5.6)	17.07 (5.6)	16.95 (5.5)	16.95 (5.5)	17.00 (5.5)	17.00 (5.5)	
3. Other uncultivated land excluding fallow land (a+b+c)	49.45	37.64	35.13	32.31	30.22	27.74	26.15	26.11	26.08	25.83	25.83	25.83	25.83	
(a) Permanent pastures and other grazing land	6.68 (2.3)	13.97 (4.7)	13.26 (4.4)	11.99 (3.9)	11.40 (3.7)	10.66 (3.4)	10.31 (3.4)	10.31 (3.4)	10.26 (3.3)	10.26 (3.3)	10.26 (3.3)	10.26 (3.3)	10.26 (3.3)	
(b) Miscellaneous tree crops and groves	19.83 (7.0)	4.46 (1.5)	4.37 (1.4)	3.58 (1.2)	3.82 (1.3)	3.44 (1.1)	3.20 (1.0)	3.16 (1.0)	3.18 (1.0)	3.19 (1.0)	3.19 (1.0)	3.10 (1.0)	3.10 (1.0)	
(c) Culturable waste land	22.94 (8.1)	19.21 (6.4)	17.50 (5.8)	16.74 (5.5)	15.00 (4.9)	13.63 (4.5)	12.65 (4.1)	12.64 (4.1)	12.64 (4.1)	12.39 (4.0)	12.39 (4.0)	12.47 (4.1)	12.47 (4.1)	
4. Fallow land (a+b)	28.12	22.82	19.33	24.55	23.37	25.04	24.60	25.18	26.32	24.85	24.85	26.18	26.18	
(a) Fallow land other than current fallow	17.45 (6.1)	11.18 (3.7)	8.73 (2.9)	9.72 (3.2)	9.66 (3.2)	10.27 (3.4)	10.32 (3.4)	10.67 (3.5)	11.04 (3.6)	10.69 (3.5)	10.69 (3.5)	11.09 (3.6)	11.09 (3.6)	
(b) Current fallow	10.68 (3.8)	11.64 (3.9)	10.60 (3.5)	14.83 (4.9)	13.70 (4.5)	14.78 (4.8)	14.28 (4.6)	14.51 (4.7)	15.29 (5.0)	14.15 (4.6)	14.15 (4.6)	15.09 (4.9)	15.09 (4.9)	
5. Net area sown	118.75 (41.8)	133.20 (44.6)	140.86 (46.4)	140.29 (46.1)	143.00 (46.9)	141.34 (46.3)	141.56 (46.0)	140.98 (45.9)	139.94 (45.5)	141.43 (45.9)	141.43 (45.9)	140.13 (45.5)	140.13 (45.5)	
6. Area sown more than once	13.15	19.57	24.93	34.63	42.74	44.00	56.12	54.82	54.31	59.52	59.52	58.23	58.23	
7. Gross cropped area (5+6)	131.89	152.77	165.79	172.63	185.74	185.34	197.68	195.80	194.25	200.95	200.95	198.36	198.36	
8. Cropping intensity*	111.07	114.69	117.70	123.05	129.89	131.13	139.64	138.88	138.81	142.09	142.09	141.55	141.55	
III. Net irrigated area	20.85	24.66	31.10	38.72	48.02	55.20	63.67	65.71	66.29	68.12	68.12	68.38	68.38	
IV. Gross irrigated area	22.56	27.98	38.20	49.78	63.20	76.19	88.94	91.79	92.25	95.77	95.77	96.46	96.46	

Note : 1. #: Provisional, 2. \*: Cropping intensity is percentage of the gross cropped area to the net area sown, 3. Figure in parentheses indicate percentage share to the reporting area.

Source : 1. *Land Use Statistics at a Glance 2005-06 to 2014-15*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.daonet.nic.in>)

2. *EnvStats India 2019*, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India.

(Website: [http://www.mospi.gov.in/sites/default/files/reports\\_and\\_publication/statistical\\_publication/EnvStats2019-05-02.pdf](http://www.mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/EnvStats2019-05-02.pdf))

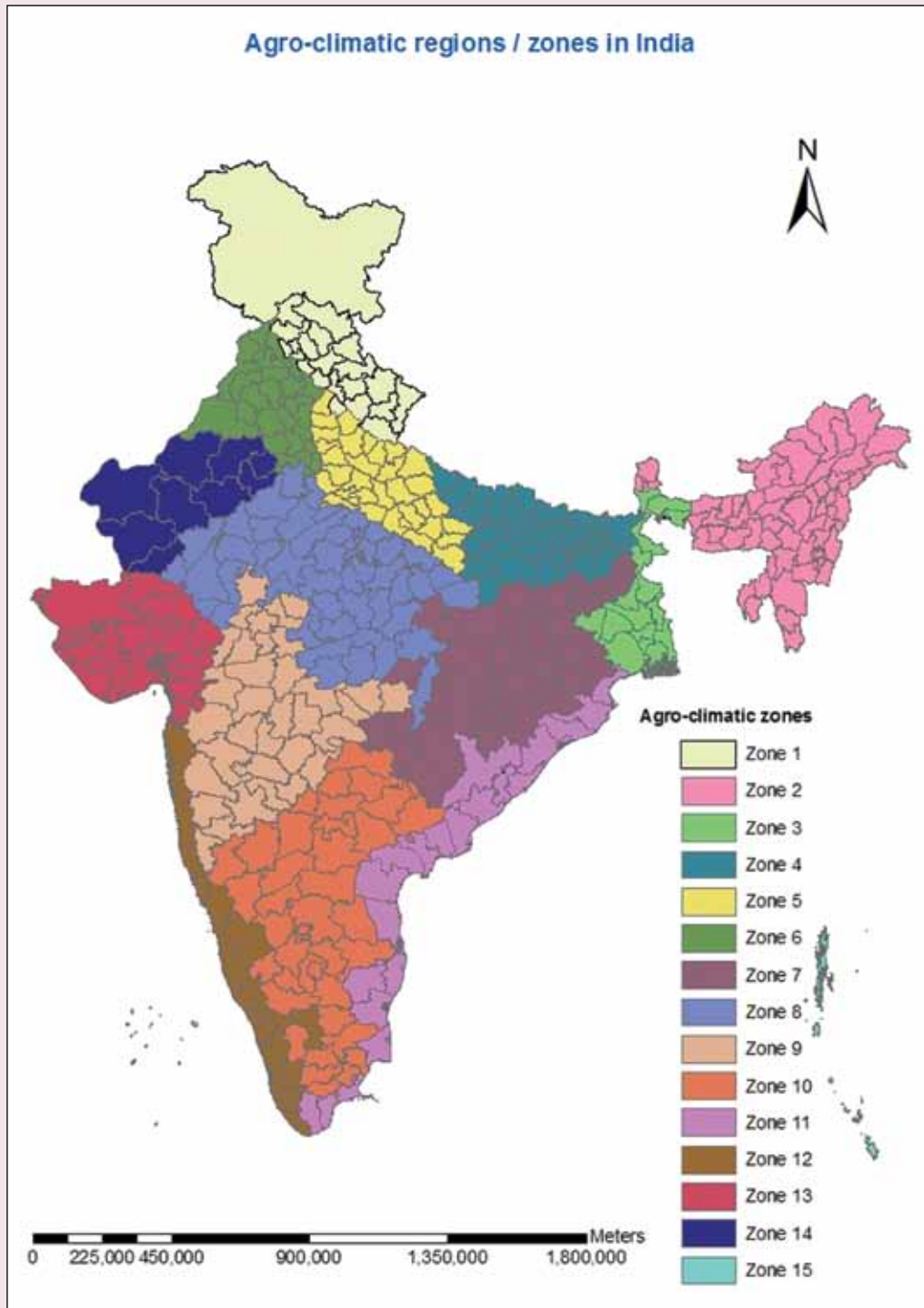
3. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.daonet.nic.in/PDF/Pocket%20Book%202018.pdf>)

4. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 1.2: Agro-climatic regions/zones in India**

<b>S.No.</b>	<b>Agro-climatic regions/zones</b>	<b>States represented</b>
<b>I</b>	<b>Western Himalayan region</b>	Himachal Pradesh, Jammu & Kashmir, Uttarakhand
<b>II</b>	<b>Eastern Himalayan region</b>	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal
<b>III</b>	<b>Lower Gangetic plain region</b>	West Bengal
<b>IV</b>	<b>Middle Gangetic plain region</b>	Uttar Pradesh, Bihar
<b>V</b>	<b>Upper Gangetic plain region</b>	Uttar Pradesh
<b>VI</b>	<b>Trans Gangetic plain region</b>	Chandigarh, Delhi, Haryana, Punjab, Rajasthan
<b>VII</b>	<b>Eastern plateau and hills region</b>	Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, West Bengal
<b>VIII</b>	<b>Central plateau and hills region</b>	Madhya Pradesh, Rajasthan, Uttar Pradesh
<b>IX</b>	<b>Western plateau and hills region</b>	Madhya Pradesh, Maharashtra
<b>X</b>	<b>Southern plateau and hills region</b>	Andhra Pradesh, Karnataka, Tamil Nadu
<b>XI</b>	<b>East coast plains and hills region</b>	Andhra Pradesh, Odisha, Puducherry, Tamil Nadu
<b>XII</b>	<b>West coast plains and ghat region</b>	Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu
<b>XIII</b>	<b>Gujarat plains and hills region</b>	Gujarat, Dadra & Nagar Haveli, Daman & Diu
<b>XIV</b>	<b>Western dry region</b>	Rajasthan
<b>XV</b>	<b>Island region</b>	Andaman & Nicobar Islands, Lakshadweep

**Source** : Planning Commission (Khanna, 1989) has identified 15 resource development regions in the country, 14 in the main land and remaining one in the islands of Bay of Bengal and Arabian Sea.





**Table 1.3: Agro-ecological regions in India**

Eco-system	Region	States represented	Eco-region	Soil type	Growing period (no. of days)
<b>Arid</b>	1. Western Himalaya	Jammu & Kashmir, HP	Cold arid	Shallow Skeletal	<90
	2. Western plain, Kutch and part of Kathiawar Peninsula	Gujarat, Rajasthan, Haryana, Punjab	Hot arid	Desert & Saline	<90
	3. Deccan plateau	AP, Karnataka	Hot arid	Red & black	<90
<b>Semi-arid</b>	4. Northern plain and Central Highlands including Aravallis	Gujarat, Rajasthan, UP, MP, Haryana, Punjab	Hot semi-arid	Alluvium-derived	90-150
	5. Central (Malwa) Highlands, Gujarat plains & Kathiawar Peninsula	Gujarat, MP	Hot semi-arid	Medium & deep black	90-150
	6. Deccan Plateau	Karnataka, AP, Maharashtra, MP	Hot semi-arid	Shallow and medium (with inclusion of deep) black	90-150
	7. Deccan (Telangana) Plateau and Eastern Ghats	AP	Hot semi-arid	Red & black	90-150
	8. Eastern Ghats, TN uplands and Deccan (Karnataka) Plateau	Karnataka, TN, Kerala	Hot semi-arid	Red loamy	90-150
	<b>Sub-humid</b>	9. Northern plain	Bihar, UP, Punjab	Hot sub-humid (dry)	Alluvium-derived
10. Central Highlands (Malwa, Bundelkhand & Eastern Satpura)		MP, Maharashtra	Hot sub-humid	Black & red	150-180 (to 210)
11. Eastern Plateau (Chhattisgarh)		MP	Hot sub-humid	Red & yellow	150-180
12. Eastern (Chhota Nagpur) Plateau and Eastern Ghats		Odisha, West Bengal, Bihar, MP, Maharashtra	Hot sub-humid	Red & Lateritic	150-180 (to 210)
13. Eastern Plain		UP, Bihar	Hot sub-humid (moist)	Alluvium-derived	180-210
14. Western Himalayas		Jammu & Kashmir, HP, UP	Warm sub-humid (to humid with inclusion of per humid)	Brown forest and Podzolic	180-210+
<b>Humid-Per humid</b>	15. Bengal and Assam Plains	West Bengal, Assam	Hot sub-humid (moist) to humid (inclusion of per humid)	Alluvium-derived	210+
	16. Eastern Himalayas	Arunachal Pradesh, Sikkim, West Bengal	Warm per humid	Brown and red hill	210+
	17. North Eastern Hills (Purvanchal)	Tripura, Mizoram, Meghalaya	Warm per humid	Red and Lateritic	210+
<b>Coastal</b>	18. Eastern Coastal Plain	TN, Puducherry, AP, Odisha, West Bengal	Hot sub-humid to semi-arid	Coastal Alluvium-derived	90-210+
	19. Western Ghats & Coastal Plain	Kerala, Goa, Daman & Diu, Maharashtra, Gujarat, Kerala	Hot humid-Per humid	Red, Lateritic and Alluvium-derived	210+
<b>Island</b>	20. Island of Andaman-Nicobar and Lakshadweep	Andaman-Nicobar and Lakshadweep	Hot humid-Per humid	Red loamy and sandy	210+

**Source** : *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

**Table 1.4: Area under broad soil groups**

(million ha)

Major soil groups	Area	% of total geographical area
Red loamy	23.0	7.00
Red sandy	49.0	14.90
Laterite	11.7	3.60
Red & yellow	33.5	10.20
Shallow black	6.5	2.00
Medium black	41.7	12.70
Deep black	16.2	4.90
Mixed red & black	14.8	4.50
Coastal alluvium	6.2	1.90
Coastal sand	1.1	0.30
Deltaic alluvium	7.1	2.20
Alluvial-recent	39.0	11.90
Calcareous alluvium	2.2	0.70
Calcareous sierozem	4.9	1.50
Old alluvium	2.8	0.90
Grey brown	8.9	2.70
Desert soils-regosolic	13.4	4.10
Desert soils-lithosolic	8.5	2.60
Tarai	3.1	0.90
Brown hill	12.4	3.80
Sub-mountain	4.7	1.40
Mountain meadow	6.6	2.00
Saline & alkaline	*	*
Peaty and saline peaty	0.4	0.10
Skeletal	4.2	1.30
Other	6.8	1.90
<b>Total geographical area</b>	<b>328.7</b>	<b>100.00</b>

**Note** : \*: The area of this soil is included into the areas under different groups of soil.

**Source** : 1. *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

2. *Indian Agriculture in Brief-23<sup>rd</sup> Edition*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 1.5: Average size of holdings by different size classes**

(ha)

Major size classes		Average size of operational holdings						
		1970-71	1980-81	1990-91	1995-96	2000-01*	2005-06*	2010-11
<b>Marginal</b>	below 1 ha	0.40	0.39	0.39	0.40	0.40	0.38	0.39
<b>Small</b>	1 to 2 ha	1.44	1.44	1.43	1.42	1.42	1.38	1.42
<b>Semi-medium</b>	2 to 4 ha	2.81	2.78	2.76	2.73	2.72	2.68	2.71
<b>Medium</b>	4 to 10 ha	6.08	6.02	5.90	5.84	5.81	5.74	5.76
<b>Large</b>	10 ha and above	18.10	17.41	17.33	17.20	17.12	17.08	17.38
<b>All size classes</b>		<b>2.28</b>	<b>1.84</b>	<b>1.55</b>	<b>1.41</b>	<b>1.33</b>	<b>1.23</b>	<b>1.15</b>

**Note** : \*: Excluding Jharkhand.

**Source** : *Agriculture Census 2010-11*, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.

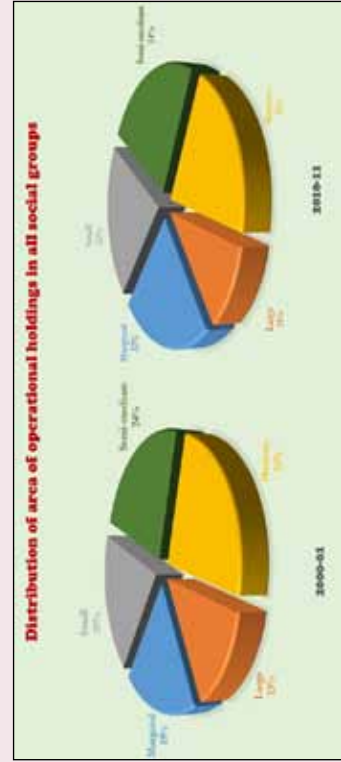
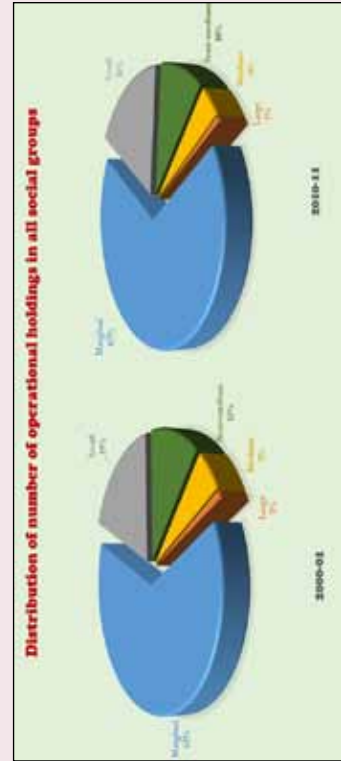
**Table 1.6: Number and area of operational holdings by type of holding**

(Number: 000', Area: 000' ha)

Major size classes	Number					Area								
	1970-71	1980-81	1990-91	1995-96	2000-01*	2005-06*	2010-11	1970-71	1980-81	1990-91	1995-96	2000-01*	2005-06*	2010-11
<b>Marginal (Below 1 ha)</b>	36200 (51.0)	50122 (56.4)	63389 (59.4)	71179 (61.6)	75408 (62.9)	83694 (64.8)	92826 (67.0)	14599 (9.0)	19735 (12.1)	24894 (15.0)	28121 (17.2)	29814 (18.7)	32026 (22.2)	35908 (22.3)
<b>Small (1 to 2 ha)</b>	13432 (18.9)	16072 (18.1)	20092 (18.8)	21643 (18.7)	22695 (18.9)	23930 (18.6)	24779 (17.9)	19282 (11.9)	23169 (14.1)	28827 (17.4)	30722 (18.8)	32139 (20.1)	33101 (20.9)	35244 (22.1)
<b>Semi-medium (2 to 4 ha)</b>	10681 (15.0)	12455 (14.0)	13923 (13.1)	14261 (12.4)	14021 (11.7)	14127 (10.9)	13896 (10.0)	29999 (18.5)	34645 (21.2)	38375 (23.2)	38953 (23.8)	38193 (24.0)	37898 (23.9)	37705 (23.7)
<b>Medium (4 to 10 ha)</b>	7932 (11.2)	8068 (9.1)	7580 (7.1)	7092 (6.1)	6577 (5.5)	6375 (4.9)	5877 (4.2)	48234 (29.7)	48543 (29.6)	44752 (27.1)	41398 (25.4)	38217 (24.0)	36583 (23.1)	33828 (21.2)
<b>Large (10 ha and above)</b>	2766 (3.9)	2166 (2.4)	1654 (1.6)	1404 (1.2)	1230 (1.0)	1096 (0.8)	973 (0.7)	50064 (30.9)	37705 (23.0)	28659 (17.3)	24160 (14.8)	21072 (13.2)	18715 (11.9)	16907 (10.6)
<b>All size classes</b>	<b>71011 (100)</b>	<b>88883 (100)</b>	<b>106637 (100)</b>	<b>115580 (100)</b>	<b>119931 (100)</b>	<b>129222 (100)</b>	<b>138348 (100)</b>	<b>162318 (100)</b>	<b>163797 (100)</b>	<b>165507 (100)</b>	<b>163355 (100)</b>	<b>159436 (100)</b>	<b>158323 (100)</b>	<b>159592 (100)</b>

Note : 1. Figures in parentheses indicate percentage contribution, 2. \*: Excluding Jharkhand.

Source : *Agriculture Census 2010-11*, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.



**Table 1.7: State-wise distribution of number of operational holdings and area operated-all social groups**

(Number: 000', Area: 000' ha)

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large		All Holdings	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Andhra Pradesh	2005-06	7417	3287	2639	3730	1444	3835	487	2759	56	878	12044	14489
	2010-11	8425	3727	2918	4120	1399	3685	397	2209	36	552	13175	14293
Arunachal Pradesh	2005-06	22	11	25	33	30	85	27	169	4	63	109	361
	2010-11	21	12	19	26	34	94	28	155	7	97	109	384
Assam	2005-06	1753	760	591	718	318	846	83	425	5	299	2750	3049
	2010-11	1831	775	497	687	304	818	85	437	4	282	2720	2999
Bihar	2005-06	13139	3313	978	1224	438	1135	98	505	4	74	14657	6251
	2010-11	14744	3669	948	1186	415	1073	81	415	3	45	16191	6388
Chhattisgarh	2005-06	1919	840	760	1078	517	1396	231	1327	34	569	3461	5210
	2010-11	2183	953	831	1179	503	1348	202	1153	28	451	3746	5084
Goa	2005-06	43	12	6	7	3	7	1	7	Neg.	28	53	61
	2010-11	60	28	10	18	6	17	2	12	1	14	78	89
Gujarat	2005-06	1585	792	1345	1959	1081	3004	582	3380	68	1133	4661	10269
	2010-11	1816	885	1429	2075	1080	2989	513	2930	49	1020	4886	9898
Haryana	2005-06	764	346	311	448	283	800	196	1186	49	803	1603	3583
	2010-11	778	360	315	463	284	814	195	1185	46	823	1617	3646
Himachal Pradesh	2005-06	637	258	176	245	88	240	29	165	4	60	933	968
	2010-11	670	273	175	244	85	230	28	156	3	51	961	955
Jammu & Kashmir	2005-06	1123	406	169	237	71	193	14	74	1	12	1378	923
	2010-11	1207	416	167	235	64	171	11	62	1	12	1449	895
Jharkhand	2005-06	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	2010-11	1848	764	429	591	283	775	129	725	20	311	2709	3165

Natural Resources

States/ Union Territories	Agriculture Census		Marginal		Small		Semi-medium		Medium		Large		All Holdings	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Karnataka	2005-06	3656	1651	2013	2876	3468	1278	3468	554	3205	79	1184	7581	12385
	2010-11	3849	1851	2138	3020	3393	1267	3393	511	2904	68	994	7832	12161
Kerala	2005-06	6602	896	215	285	70	179	15	79	2	117	6904	1555	
	2010-11	6580	886	180	282	57	159	12	64	2	120	6831	1511	
Madhya Pradesh	2005-06	3199	1587	2148	3076	1566	4304	868	5087	127	1939	7908	15994	
	2010-11	3891	1915	2449	3466	1655	4510	789	4545	89	1400	8872	15836	
Maharashtra	2005-06	6118	2801	4150	5248	2452	6130	925	4885	70	941	13716	20005	
	2010-11	6709	3186	4052	5739	2159	5765	711	3993	68	1084	13699	19767	
Manipur	2005-06	77	40	49	63	22	55	3	14	Neg.	Neg.	150	172	
	2010-11	77	40	49	63	22	55	3	13	Neg.	Neg.	151	172	
Meghalaya	2005-06	112	55	55	73	29	73	6	34	Neg.	6	203	241	
	2010-11	103	46	58	77	41	113	8	47	Neg.	4	210	287	
Mizoram	2005-06	43	27	31	41	14	32	1	7	Neg.	3	90	110	
	2010-11	50	30	30	38	10	24	2	9	Neg.	4	92	105	
Nagaland	2005-06	12	6	13	16	37	93	76	465	30	593	169	1173	
	2010-11	6	3	20	23	48	125	78	481	25	442	178	1074	
Odisha	2005-06	2597	1342	1156	1588	472	1251	120	658	11	181	4356	5019	
	2010-11	3368	1922	919	1498	311	919	64	381	6	142	4667	4862	
Punjab	2005-06	135	83	183	258	320	854	296	1700	71	1067	1004	3963	
	2010-11	164	101	195	269	325	855	298	1713	70	1029	1053	3967	
Rajasthan	2005-06	2073	1016	1321	1895	1260	3570	1103	6796	429	7662	6186	20939	
	2010-11	2512	1238	1511	2162	1335	3774	1127	6918	404	7044	6888	21136	
Sikkim	2005-06	40	15	17	21	11	28	5	30	1	16	73	109	
	2010-11	40	15	17	20	11	27	6	32	1	12	75	107	
Tamil Nadu	2005-06	6228	2286	1234	1721	542	1468	170	958	20	391	8193	6824	
	2010-11	6267	2292	1181	1644	502	1356	151	848	17	350	8118	6488	

States/ Union Territories	Agriculture Census		Marginal		Small		Semi-medium		Medium		Large		All Holdings	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Tripura	2005-06	491	139	54	75	18	46	2	10	Neg.	10	Neg.	565	280
	2010-11	499	140	55	76	22	54	3	14	Neg.	1	Neg.	578	285
	2005-06	658	260	163	226	78	210	21	117	1	33	1	922	847
Uttarakhand	2010-11	672	296	157	225	65	175	17	94	1	25	1	913	816
	2005-06	17507	6972	3103	4341	1392	3796	428	2374	28	424	28	22458	17906
	2010-11	18532	7171	3035	4243	1334	3629	398	2199	25	380	25	23325	17622
West Bengal	2005-06	5675	2799	1006	1595	283	772	28	138	1	221	1	6992	5526
	2010-11	5853	2891	980	1557	267	731	23	110	1	222	1	7123	5510
	2005-06	5	2	2	3	3	8	2	7	Neg.	2	Neg.	2	22
Andaman & Nicobar Islands	2010-11	5	2	2	3	3	8	2	7	Neg.	1	Neg.	12	22
	2005-06	1	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	1	1
	2010-11	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	1	1
Chandigarh	2005-06	8	4	4	5	2	5	1	4	Neg.	2	Neg.	14	21
	2010-11	8	4	4	5	2	5	1	4	Neg.	2	Neg.	15	20
	2005-06	7	2	1	1	Neg.	1	Neg.	Neg.	Neg.	Neg.	Neg.	8	4
Dadra & Nagar Haveli	2010-11	8	2	Neg.	1	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	8	3
	2005-06	14	6	6	8	3	10	2	11	Neg.	3	Neg.	25	38
	2010-11	11	5	5	6	3	8	2	9	Neg.	2	Neg.	20	30
Delhi	2005-06	10	2	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	10	3
	2010-11	10	2	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	10	3
	2005-06	25	7	4	5	2	5	1	4	Neg.	2	Neg.	31	24
Puducherry	2010-11	28	10	3	4	1	4	Neg.	3	Neg.	1	Neg.	33	22
	2005-06	83694	32026	23930	33101	14127	37898	6375	36583	1096	18715	1096	129222	158323
	2010-11	92826	35908	24779	35224	13896	37705	5875	33828	973	16907	973	138348	159592

Note : 1. Data for the year 2005-06 for Jharkhand not collected, 2. Data for the year 2005-06 for Maharashtra and Bihar is estimated, 3. Total may not tally due to rounding off figures, 4. Neg.: Negligible (i.e. less than 500 units/hectare), 5. N.A.: Not available.

Source : Agriculture Census 2010-2011, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.



**Table 1.8: State-wise percentage distribution of number of operational holdings and area operated-all social groups**

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Andhra Pradesh	2005-06	61.59	22.69	21.91	25.75	11.99	26.47	4.05	19.04	0.47	6.06
	2010-11	63.94	26.08	22.15	28.82	10.62	25.78	3.02	15.45	0.27	3.87
Arunachal Pradesh	2005-06	20.33	3.14	23.11	9.11	28.06	23.55	24.61	46.70	3.88	17.51
	2010-11	19.63	3.09	17.69	6.75	31.14	24.47	25.56	40.34	5.97	25.34
Assam	2005-06	63.74	24.93	21.51	23.56	11.56	27.75	3.02	13.95	0.18	9.80
	2010-11	67.31	25.83	18.25	22.91	11.16	27.27	3.12	14.58	0.15	9.39
Bihar	2005-06	89.64	53.00	6.68	19.58	2.99	18.15	0.67	8.09	0.02	1.18
	2010-11	91.06	57.44	5.86	18.56	2.56	16.80	0.50	6.50	0.02	0.71
Chhattisgarh	2005-06	55.44	16.12	21.95	20.69	14.94	26.79	6.68	25.48	0.99	10.92
	2010-11	58.26	18.74	22.18	23.20	13.43	26.51	5.39	22.68	0.74	8.88
Goa	2005-06	80.92	20.45	10.96	11.83	5.08	11.07	2.26	11.22	0.78	45.44
	2010-11	78.82	26.61	11.16	16.80	6.22	18.36	2.98	17.89	0.82	20.34
Gujarat	2005-06	34.01	7.71	28.86	19.08	23.18	29.25	12.49	32.92	1.45	11.03
	2010-11	36.89	8.58	29.12	20.08	22.00	28.92	10.48	28.41	1.51	14.00
Haryana	2005-06	47.67	9.66	19.42	12.51	17.64	22.34	12.23	33.10	3.04	22.40
	2010-11	48.11	9.89	19.47	12.69	17.55	22.34	12.04	32.52	2.83	22.56
Himachal Pradesh	2005-06	68.21	26.67	18.82	25.27	9.48	24.82	3.12	17.04	0.38	6.20
	2010-11	69.69	28.52	18.23	25.53	8.86	24.21	2.88	16.43	0.34	5.31
Jammu & Kashmir	2005-06	81.50	44.06	12.12	25.73	5.18	20.90	0.99	8.04	0.05	1.27
	2010-11	83.25	46.51	11.53	26.19	4.39	19.05	0.79	6.94	0.04	1.31
Jharkhand	2005-06	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	2010-11	68.23	24.13	15.83	18.66	10.44	24.49	4.75	22.90	0.75	9.82
Karnataka	2005-06	48.23	13.33	26.56	23.22	16.86	28.00	7.31	25.88	1.05	9.56

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Kerala	2010-11	49.14	15.22	27.30	24.83	16.17	27.90	6.52	23.88	0.86	8.17
	2005-06	95.63	57.61	3.11	18.32	1.01	11.49	0.22	5.07	0.04	7.52
	2010-11	96.32	58.62	2.64	18.69	0.83	10.53	0.18	4.24	0.03	7.92
Madhya Pradesh	2005-06	40.45	9.93	27.16	19.24	19.81	26.91	10.98	31.81	1.60	12.12
	2010-11	43.86	12.10	27.60	21.89	18.65	28.48	8.89	28.70	1.00	8.84
	2005-06	44.61	14.00	30.26	26.23	17.87	30.64	6.74	24.42	0.51	4.70
Maharashtra	2010-11	48.98	16.06	29.56	28.90	15.75	29.04	5.18	20.10	0.53	5.90
	2005-06	50.85	23.24	32.44	36.51	14.84	32.12	1.85	7.87	0.03	0.26
	2010-11	50.95	23.36	32.43	36.47	14.76	32.11	1.83	7.80	0.03	0.26
Meghalaya	2005-06	55.34	22.72	27.23	30.50	14.12	30.32	3.19	14.05	0.12	2.41
	2010-11	52.22	21.29	29.13	33.35	15.28	30.61	3.24	13.00	0.12	1.55
	2005-06	48.34	24.36	34.61	37.13	15.33	29.12	1.63	6.39	0.08	2.99
Mizoram	2010-11	54.65	28.79	32.38	36.00	10.80	22.94	1.88	8.47	0.29	3.80
	2005-06	7.31	0.49	7.97	1.35	21.74	7.91	44.97	39.66	18.01	50.59
	2010-11	4.29	0.37	11.47	2.19	26.45	11.42	43.65	44.64	14.14	41.39
Odisha	2005-06	59.62	26.73	26.54	31.63	10.84	24.92	2.74	13.11	0.26	3.61
	2010-11	72.17	39.53	19.68	30.81	6.67	18.90	1.36	7.84	0.12	2.92
	2005-06	13.42	2.10	18.22	6.52	31.85	21.55	29.44	42.91	7.06	26.92
Punjab	2010-11	15.62	2.55	18.57	6.78	30.83	21.56	28.35	43.18	6.62	25.93
	2005-06	33.51	4.85	21.36	9.05	20.37	17.05	17.83	32.46	6.93	36.59
	2010-11	36.46	5.86	21.94	10.23	19.38	17.86	16.36	32.73	5.86	33.33
Sikkim	2005-06	54.25	13.83	22.53	19.16	14.70	25.33	7.36	27.24	1.16	14.44
	2010-11	54.02	13.88	22.61	19.12	14.43	25.24	7.93	30.22	1.04	11.53
	2005-06	76.01	35.51	15.06	25.22	6.62	21.51	2.07	14.03	2.24	5.73
Tamil Nadu	2010-11	77.19	35.33	14.56	25.34	6.19	20.89	1.85	13.06	0.21	5.39
	2005-06	86.77	49.71	9.63	26.59	3.23	16.39	0.34	3.67	0.03	3.64

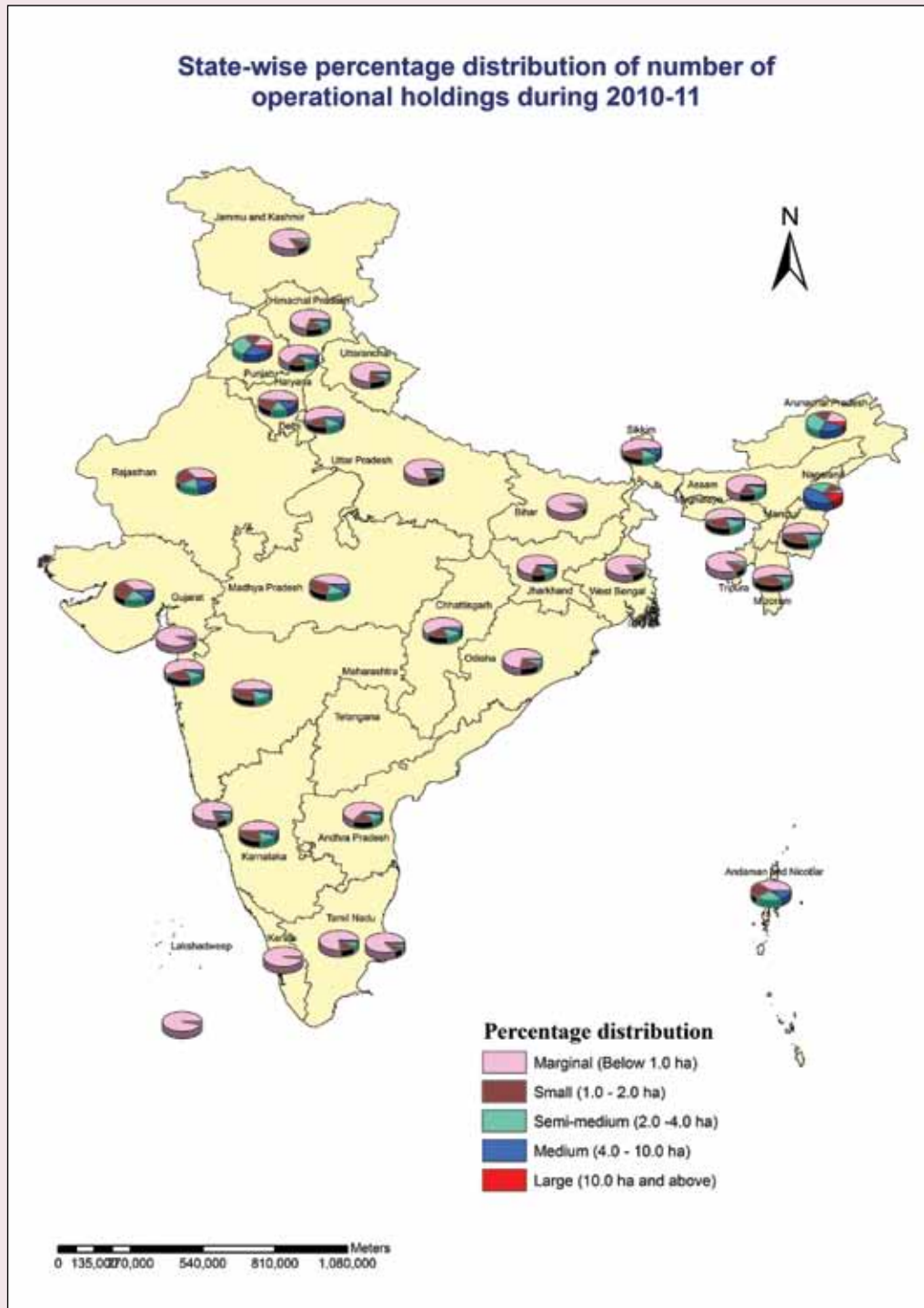
Natural Resources

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Uttarakhand	2010-11	85.17	44.93	9.75	26.20	4.36	21.85	0.71	6.58	0.02	0.43
	2005-06	71.42	30.73	17.67	26.73	8.44	24.84	2.32	13.83	0.14	3.87
	2010-11	73.65	36.23	17.24	27.60	7.10	21.50	1.90	11.55	0.12	3.11
Uttar Pradesh	2005-06	77.96	38.93	13.82	24.24	6.20	21.20	1.91	13.26	0.12	2.37
	2010-11	79.23	39.27	13.14	24.58	5.79	21.10	1.73	12.82	0.11	2.23
	2005-06	81.17	50.65	14.38	28.87	4.04	13.98	0.40	2.49	0.01	4.00
West Bengal	2010-11	82.16	52.47	13.76	28.26	3.75	13.26	0.32	1.99	0.01	4.02
	2005-06	41.61	9.80	18.27	14.65	25.48	35.67	14.29	32.96	0.35	6.92
	2010-11	39.19	9.25	20.46	15.85	26.58	37.71	13.49	31.62	0.28	5.57
Andaman & Nicobar Islands	2005-06	68.75	25.64	17.59	22.54	8.48	22.18	4.82	25.49	0.36	4.16
	2010-11	63.45	22.58	18.63	20.64	10.92	24.15	6.58	29.03	0.42	3.60
	2005-06	53.34	19.18	27.62	25.54	12.95	24.75	5.27	21.61	0.82	8.92
Dadra & Nagar Haveli	2010-11	55.54	20.38	26.51	26.33	12.27	24.63	4.98	20.73	0.71	7.92
	2005-06	88.21	46.87	7.95	21.79	2.82	15.02	0.85	10.16	0.17	6.16
	2010-11	92.35	56.81	5.48	19.78	1.64	11.15	0.43	7.18	0.13	5.08
Daman & Diu	2005-06	55.50	15.82	22.48	20.76	13.61	26.03	7.63	29.81	0.77	7.58
	2010-11	55.17	16.20	22.04	20.14	14.53	27.05	7.53	28.95	0.73	7.66
	2005-06	95.79	62.61	2.61	13.10	1.27	11.67	0.25	5.72	0.08	6.91
Lakshadweep	2010-11	95.81	62.22	2.60	13.23	1.26	11.79	0.25	5.78	0.08	6.98
	2005-06	78.95	30.09	12.15	22.11	6.12	21.49	2.43	18.13	0.35	8.18
	2010-11	85.71	45.11	8.36	18.66	4.36	18.98	1.35	11.75	0.21	5.51
Puducherry	2005-06	64.77	20.23	18.52	20.91	10.93	23.94	4.93	23.11	0.85	11.82
	2010-11	67.04	22.24	17.93	22.07	10.05	23.59	4.25	21.18	0.73	10.92

Note : 1. Data for the year 2005-06 for Jharkhand not collected, 2. N.A.: Not available, 3. Total may not tally due to rounding off figures.

Source : *Agriculture Census 2010-2011*, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.

### State-wise percentage distribution of number of operational holdings during 2010-11



**Table 1.9: India's major natural disasters since 1990**

Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
1990	Cyclone	Andhra Pradesh and Tamil Nadu	928	₹ 22.47 billion
1991	Earthquake	Uttar Kashi, Uttar Pradesh	768	₹ 0.89 billion
1992	Drought	Maharashtra		₹ 28.23 billion
1993	Floods	Arunachal Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Mizoram, Punjab, Rajasthan, Tripura and Uttar Pradesh	1643	₹ 21.06 billion
1993	Earthquake	Maharashtra	N.A.	N.A.
1994	Cyclone	Andhra Pradesh and Tamil Nadu	226	Loss to property estimated at ₹ 6.12 billion in Tamil Nadu and 4,44,194 ha. of land in Andhra Pradesh.
1995	Floods	Large parts of the country	1360	Property worth ₹ 17.7 billion and 2.35 million hectare crop damaged.
1996	Floods	Large parts of the country	1700	Property worth ₹ 22.0 billion and 20.0 million hectare crop damaged.
1996	Cyclone	Andhra Pradesh	1058	0.3 million houses fully and a similar number partially damaged. 0.1 million hectare crop damaged. Loss to property worth ₹ 61.26 billion.
1997	Earthquake	Jabalpur	39	N.A.
1998	Earthquake	Chamoli	100	N.A.
1999	Cyclone	Odisha	9887	1.8 million hectare crop area and 1.6 million houses damaged.
1999	Cyclone	West Bengal	N.A.	₹ 577.30 million
2000	Floods	Andhra Pradesh, Assam, Arunachal Pradesh, West Bengal, Bihar, Punjab, Uttar Pradesh, Himachal	3048	Estimated value of public properties ₹ 1957.82 crores.

Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
		Pradesh, Gujarat, Karnataka, Kerala, MP and Sikkim		
2001	Earthquake	Gujarat	N.A.	Estimated value of public properties ₹ 21,262 crores. Over 20,000 people killed, 1,50,000 injured and 1,59,00,000 affected, 12.54 lakh house damaged.
2004	Tsunami/ Tide waves	Andaman & Nicobar Islands, Andhra Pradesh, Tamil Nadu and Puducherry	N.A.	Over 10,749 people killed. 5,640 people expected missing. About 6.5 lakh people moved to the referred places.
2005	Earthquake	Pakistan & Kashmir	N.A.	Over 87,000 people killed.
2008	Kosi floods	North Bihar	527	19323 livestock perished, 3.3 million persons affected.
	Cyclone Nisha	Tamil Nadu	204	
2009	Floods	Andhra Pradesh, Karnataka	300	N.A.
	Drought	252 districts in 10 States	N.A.	N.A.
2010	Cloud-burst	Leh, Ladakh in Jammu & Kashmir	N.A.	N.A.
2011	Earthquake	North Eastern India with epicenter near Nepal Border and Sikkim	97	N.A.
	Floods	19 districts of Odisha	45	N.A.
	Earthquake	Sikkim, West Bengal, Bihar	60	N.A.
	Cyclone Thane	Tamil Nadu, Puducherry	47	N.A.
2012	Floods	Assam	N.A.	N.A.
	Floods	Uttarkashi, Rudraprayag and Bageshwar district & of Uttarakhand	52	N.A.
	Cyclone Nilam	Tamil Nadu	65	N.A.
2013	Cyclone Mahasen	Tamil Nadu	8	N.A.
	Floods/Land-	Uttarakhand and Himachal Pradesh	4094	N.A.



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Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
	slides			
	Cyclone Phailin	Odisha and Andhra Pradesh	23	N.A.
	Floods	Andhra Pradesh	53	N.A.
	Floods	Odisha	21	N.A.
2014	Cyclone Hud Hud	Andhra Pradesh & Odisha	N.A.	N.A.
	Floods	Jammu & Kashmir	N.A.	N.A.
2015	Cyclonic Storms	West Bengal	N.A.	N.A.
	Floods and Heavy Rains	Tamil Nadu, Rajasthan, Andhra Pradesh, Gujarat	N.A.	N.A.
2016	Cyclonic Storm	Tamil Nadu	N.A.	N.A.
2017	Lightning	Odisha and Maharashtra	N.A.	N.A.
2018	Floods and Heavy Rains	Kerala and Uttar Pradesh	N.A.	N.A.

**Note** : N.A.: Not available.

**Source** : EnviStats India 2019, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India.  
(Website: [http://www.mospi.gov.in/sites/default/files/reports\\_and\\_publication/statistical\\_publication/EnviStats2019-05-02.pdf](http://www.mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/EnviStats2019-05-02.pdf))

**Table 1.10: Year-wise damage due to natural extreme events in India**

Year	Live Lost human (in No.)	Cattle Lost (in No.)	Houses damaged (in No.)	Cropped areas affected (in Lakh hectares)
2001-02	834	21269	346878	18.72
2002-03	898	3729	462700	21.00
2003-04	1992	25393	682209	31.98
2004-05	1995	12389	1603300	32.53
2005-06	2698	110997	2120012	35.52
2006-07	2402	455619	1934680	70.87
2007-08	3764	119218	3527041	85.13
2008-09	3405	53833	1646905	35.56
2009-10	1677	128452	1359726	47.13
2010-11	2310	48778	1338619	46.25
2011-12	1600	9126	876168	18.87
2012-13	946	24293	667319	14.44
2013-14	5677*	102998	1210227	63.75
2014-15	1674	92180	725390	26.85
2015-16	1460	59057	1313371	31.09
2016-17 <sup>(P)</sup>	1487	41965	546518	25.49
2017-18 <sup>(P)</sup>	2057	46488	915878	47.44

**Note** : 1. \*: Includes persons missing in the natural disaster, 2. P: Provisional.

**Source** : EnviStats India 2019, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India. Website: [http://www.mospi.gov.in/sites/default/files/reports\\_and\\_publication/statistical\\_publication/EnviStats/EnviStats2019-05-02.pdf](http://www.mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/EnviStats/EnviStats2019-05-02.pdf)

**Table 1.11: Drought years in India**

Year	Area affected (million sq. km.)	% area of the country affected	Category
1876	0.49	15.8	Slight
1877	2.03	64.7	Calamitous
1883	1.03	32.8	Moderate
1884	0.70	22.2	Slight
1885	0.48	15.4	Slight
1891	1.15	36.7	Moderate
1896	0.68	21.7	Slight
1899	1.99	63.4	Calamitous
1901	0.89	28.5	Moderate
1902	0.54	17.1	Slight
1904	0.98	31.1	Moderate
1905	1.09	34.7	Moderate
1907	0.85	27.2	Slight
1911	0.97	30.8	Moderate
1913	0.70	22.3	Slight
1915	0.63	20.2	Slight
1918	2.16	68.7	Calamitous
1920	1.22	38.8	Moderate
1925	0.80	25.5	Slight
1928	0.67	21.4	Slight
1936	0.86	27.6	Slight
1941	1.01	32.3	Moderate
1951	1.04	33.2	Moderate
1952	0.81	25.8	Slight
1965	1.35	42.9	Moderate
1966	1.01	32.3	Moderate
1968	0.45	20.6	Slight
1969	0.62	19.9	Slight
1971	0.42	13.3	Slight
1972	1.39	44.4	Severe
1974	0.92	29.3	Moderate
1979	1.24	39.4	Moderate
1982	1.04	33.1	Moderate
1985	0.95	30.1	Moderate
1986	0.60	19.0	Slight
1987	1.55	49.2	Severe
2002	N.A.	N.A.	Severe
2009	N.A.	N.A.	Severe

**Note** : N.A.: Not available.

**Source** : *Fertiliser Statistics 2016-17*, The Fertiliser Association of India, New Delhi.

Table 1.12: Flood damages/heavy rains in India

Year	Area affected (million ha)	Population affected (million)	Damage to crops		Damage to house		Cattle lost (000 <sup>'</sup> )	Human lives lost Nos.	Damage to public utilities (₹ million)	Total damages to crops, houses & public utilities (₹ million)
			Area (million ha)	Value (₹ million)	Nos. (000 <sup>'</sup> )	Value (₹ million)				
1953	2.29	24.28	0.93	420.80	265	74.20	47	37	29.00	524.00
1960	7.53	8.35	21.27	425.50	610	143.10	14	510	63.10	631.70
1965	1.46	3.61	0.27	58.70	113	2.00	7	79	10.70	71.40
1970	8.46	31.83	4.91	1627.80	1434	486.10	19	1076	764.40	2878.30
1975	6.17	31.36	3.85	2714.90	804	341.00	17	686	1660.50	4716.40
1980	11.46	54.12	5.55	3663.70	2533	1708.50	59	1913	3032.80	8405.00
1985	8.38	59.59	4.65	14253.70	2450	5838.60	43	1804	20500.40	40592.70
1990	9.30	40.26	3.18	6956.10	1020	2137.30	134	1855	4552.70	17089.20
1991	6.36	33.89	2.70	5790.20	1134	1804.20	41	1187	7288.90	14883.30
1992	2.64	19.26	1.75	10275.80	687	3082.80	79	1533	20106.70	33445.30
1993	11.44	30.41	3.21	13086.30	1926	5283.20	211	2864	14455.30	33824.90
1994	4.81	27.55	3.96	8886.20	915	1652.10	52	2078	7407.60	17945.90
1995	5.24	35.93	3.24	17147.90	2002	13078.90	62	1814	6796.30	37023.10
1996	8.05	44.73	3.83	11244.90	727	1765.90	73	1803	8613.90	30057.40
1997	4.57	29.66	2.26	6927.40	505	1525.00	28	1402	19859.30	28311.80
1998	10.85	47.44	7.50	25941.70	1933	11087.80	107	2889	51577.70	88607.20
1999	7.77	27.99	1.75	18508.70	1613	12990.60	91	745	4628.30	36127.60
2000	5.38	45.01	3.58	42466.20	2629	6809.40	123	2606	39369.80	88645.40
2001	6.18	26.46	3.96	6884.80	716	8164.70	33	1444	56044.60	71094.20
2002	7.09	26.32	2.19	9130.90	762	5993.70	22	1001	10620.80	25745.40

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Year	Area affected	Population affected	Damage to crops		Damage to house		Cattle lost	Human lives lost	Damage to public utilities	Total damages to crops, houses & public utilities
	(million ha)		(million)	Area (million ha)	Value (₹ million)	Nos. (000')				
2003	6.12	43.20	4.27	7307.23	775	756.48	15	2166	3262.15	11325.87
2004	5.31	43.73	2.89	778.69	1664	879.60	134	1813	1656.09	3529.71
2005	12.56	22.93	12.30	2370.92	716	380.53	120	1455	4688.22	7660.49
2006	1.10	25.22	1.82	2850.67	1497	3636.85	267	1431	13303.93	21546.29
2007	7.14	41.40	8.79	3121.53	3280	2113.11	89	3389	8049.04	13425.34
2008	3.43	29.91	3.19	3401.56	1567	1141.89	102	2876	5046.48	9595.34
2009	3.84	29.54	3.59	4232.61	1236	10809.80	63	1513	17509.35	32554.77
2010	2.62	18.30	4.99	5887.38	294	875.95	40	1582	12757.25	19520.59
2011	1.90	15.97	2.72	1393.85	1153	410.48	36	1761	6053.57	7857.89
2012	2.14	14.69	1.95	1534.11	175	240.57	32	933	9169.97	10944.65
2013*	3.64	21.15	3.64	3214.99	662	526.12	157	2137	3938.12	11094.96
2014*	10.24	9.25	5.09	1439.15	169	459.22	17	1402	4740.34	6638.27
2015*	0.26	22.70	2.42	12693.08	870	7998.93	26	963	8343.79	29099.93
<b>Total</b>	<b>442.53</b>	<b>1981.17</b>	<b>236.67</b>	<b>84890.97</b>	<b>75918</b>	<b>42598.16</b>	<b>5930</b>	<b>102986</b>	<b>136395.50</b>	<b>268551.11</b>
<b>Average</b>	7.02	31.45	3.76	1347.48	1205.05	676.16	94.12	1634.70	2165.01	4262.72
<b>Maximum (Year)</b>	17.05 (1978)	70.45 (1978)	12.30 (2005)	12693.08 (2003)	3507.54 (1978)	10809.80 (2009)	618 (1979)	11316 (1977)	17509.35 (2009)	32551.76 (2009)

Note : \*: Tentative.

Source : *Compendium of Environment Statistics India 2016*, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India.  
(Website: <http://www.mospi.gov.in>)

Table 1.13: All India rainfall distribution

Year	Monsoon Season (June-September)			Post-Monsoon (October-December)			Winter Season (January-February)			Pre-Monsoon Season (March-May)			Over all Rainfall (June-May)		
	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure
1993-94	902.1	908.9	-0.7	131.6	119.6	10.0	44.5	40.8	9.1	106.1	123.3	-13.9	1184.3	1192.6	-0.7
1994-95	999.2	906.8	10.2	121.5	119.6	1.6	53.1	41.1	29.2	123.5	123.2	0.2	1297.3	1190.7	9.0
1995-96	904.5	904.7	0.0	117.8	119.9	-1.8	37.4	40.8	-8.3	94.9	123.9	-23.4	1154.6	1189.3	-2.9
1996-97	927.6	905.7	2.4	128.0	120.8	6.0	21.0	40.6	-48.3	118.9	123.2	-3.5	1195.5	1190.3	0.4
1997-98	927.4	908.6	2.1	187.7	119.5	57.1	44.1	41.9	5.3	132.3	128.3	3.1	1291.5	1198.3	7.8
1998-99	945.2	903.6	4.6	178.8	121.8	46.8	28.4	42.8	-33.6	123.1	130.6	-5.7	1275.5	1198.8	6.4
1999-00	866.9	903.2	-4.0	144.7	121.8	18.8	43.1	42.5	1.4	128.8	129.5	-0.5	1183.5	1197.0	-1.1
2000-01	833.7	902.3	-7.6	64.1	121.7	-47.3	16.2	42.2	-61.6	129.7	129.3	0.3	1043.7	1195.5	-12.7
2001-02	826.0	901.1	-8.3	137.7	121.7	13.1	35.0	41.2	-15.0	121.5	132.0	-8.0	1120.2	1196.0	-6.3
2002-03	737.1	911.7	-19.2	83.4	123.7	-32.6	53.2	38.3	38.9	107.7	131.7	-18.2	981.4	1205.4	-18.6
2003-04	947.3	902.7	4.9	134.6	125.0	7.7	34.5	39.2	-12.0	161.6	129.6	24.7	1278.0	1196.5	6.8
2004-05	779.6	893.3	-12.7	111.8	125.7	-11.1	69.8	43.8	59.0	124.7	134.5	-7.3	1085.9	1197.3	-9.3
2005-06	879.3	892.5	-1.0	138.4	125.8	10.0	27.8	43.9	-37.0	139.9	134.6	3.9	1185.4	1196.8	-1.0
2006-07	886.6	892.2	-0.6	99.3	125.9	-21.1	34.3	43.8	-21.7	112.8	133.6	-15.6	1133.0	1195.5	-5.2
2007-08	936.9	892.2	5.0	85.4	125.9	-32.2	42.6	43.2	-1.4	115.3	133.5	-13.6	1180.2	1194.8	-1.2
2008-09	873.2	892.2	-2.1	87.2	125.9	-30.7	23.6	43.8	-46.1	91.0	134.5	-32.3	1075.0	1196.4	-10.1
2009-10	689.8	892.2	-22.7	135.5	125.9	7.6	24.6	43.8	-43.8	122.9	133.7	-8.1	972.8	1195.6	-18.6
2010-11	912.8	893.2	2.2	153.2	126.3	21.3	31.9	40.9	-22.0	114.4	131.3	-12.9	1212.3	1191.7	1.7
2011-12	899.9	887.5	1.4	65.7	127.2	-48.3	38.8	40.9	-5.8	90.3	131.3	-31.2	1094.7	1186.9	-7.8
2012-13	819.5	886.9	-7.6	100.6	127.2	-20.9	51.4	40.9	25.7	101.9	131.3	-22.4	1073.4	1186.3	-9.5
2013-14	936.7	886.9	5.6	149.5	127.2	17.5	46.2	40.9	13.0	130.0	131.3	-1.0	1262.4	1186.3	6.4
2014-15	777.5	886.9	-12.3	85.2	127.2	-33.0	37.6	41.4	-9.2	181.5	131.5	38.0	1081.8	1187.0	-8.9
2015-16	760.6	887.5	-14.3	97.8	127.2	-23.1	17.9	41.4	-56.8	131.0	131.5	-0.40	1007.3	1187.6	-15.2
2016-17	862.0	887.5	-2.9	69.7	127.2	-45.2	39.3	41.4	-5.1	128.4	131.5	-2.4	1099.4	1187.6	-7.4
2017-18*	841.3	887.5	-5.2	112.7	127.2	-11.4	1.0	5.3	-81.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Note : 1. \*: Position is up to 10<sup>th</sup> January, 2018 (Winter season is under progress), 2. N.A.: Not available.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 1.14: State-wise consumption of electricity for agricultural purpose during 2014-15 and 2015-16**(1 Giga Watt hour = 10<sup>6</sup> Kilo Watt hour)

Zones/States/UTs	Consumption for agricultural purposes		Total consumption		% Share of consumption for agricultural purposes	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
<b>NORTHERN</b>	<b>51703.49</b>	<b>54188.51</b>	<b>236648.26</b>	<b>249815.94</b>	<b>21.85</b>	<b>21.69</b>
Haryana	9654.38	9506.00	32197.33	35092.26	29.99	27.09
Himachal Pradesh	547.72	51.65	7841.52	7957.79	6.98	0.65
Jammu & Kashmir	310.86	305.00	6372.00	7143.92	4.88	4.27
Punjab	10223.57	11513.88	39383.82	40843.00	25.96	28.19
Rajasthan	19088.87	19968.35	49920.12	50358.78	38.24	39.65
Uttar Pradesh	11755.28	12671.19	64706.68	70966.90	18.17	17.86
Uttarakhand	108.10	141.03	9980.11	10298.14	1.08	1.37
Chandigarh	1.67	1.83	1471.66	1496.98	0.11	0.12
Delhi	13.04	29.58	24775.02	25658.17	0.05	0.12
<b>WESTERN</b>	<b>60793.30</b>	<b>62523.59</b>	<b>251154.19</b>	<b>268286.23</b>	<b>24.21</b>	<b>23.30</b>
Gujarat	15942.82	11204.49	73889.76	77027.77	21.58	14.55
Madhya Pradesh	15068.90	18868.19	41757.01	46384.45	36.09	40.68
Chhattisgarh	3112.28	4025.24	17101.55	18886.90	18.20	21.31
Maharashtra	26632.69	28396.58	108496.08	115355.69	24.55	24.62
Goa	30.00	18.00	3151.20	3391.20	0.95	0.53
Daman & Diu	2.30	2.46	1594.96	1691.98	0.14	0.15
Dadra & Nagar Haveli	4.31	8.63	5163.63	5548.24	0.08	0.16
<b>SOUTHERN</b>	<b>54228.66</b>	<b>54171.15</b>	<b>235607.85</b>	<b>245290.74</b>	<b>23.02</b>	<b>22.08</b>
Andhra Pradesh	10899.60	10970.00	41913.67	44352.74	26.00	24.73
Telangana	12569.14	11991.48	39638.88	41288.97	31.71	29.04
Karnataka	17988.64	19318.48	55165.52	57223.18	32.61	33.76
Kerala	298.28	288.16	18785.92	19828.92	1.59	1.45
Tamil Nadu	12406.00	11548.33	77617.76	80083.19	15.98	14.42
Puducherry	67.00	54.70	2441.47	2468.14	2.74	2.22
Lakshadweep	0.00	0.00	44.63	45.60	0.00	0.00
<b>EASTERN</b>	<b>2110.12</b>	<b>2232.40</b>	<b>81472.75</b>	<b>89937.75</b>	<b>2.59</b>	<b>2.48</b>
Bihar	313.22	344.33	9807.30	13249.63	3.19	2.60
Jharkhand	89.03	97.98	16532.88	17541.57	0.54	0.56
Odisha	215.80	265.83	15439.85	16053.22	1.40	1.66
West Bengal	1492.07	1524.26	39058.55	42496.61	3.82	3.59
Andaman & Nicobar Islands	0.00	0.00	229.46	242.27	0.00	0.00
Sikkim	0.00	0.00	404.71	354.46	0.00	0.00
<b>NORTH EASTERN</b>	<b>77.89</b>	<b>69.72</b>	<b>9366.96</b>	<b>10033.36</b>	<b>0.83</b>	<b>0.69</b>
Assam	39.00	34.00	5484.00	6199.00	0.71	0.55
Manipur	6.06	1.79	465.10	474.98	1.30	0.38
Meghalaya	0.10	0.00	1232.52	1283.18	0.01	0.00
Nagaland	0.00	0.00	529.34	549.47	0.00	0.00
Tripura	32.62	33.91	786.13	813.06	4.15	4.17
Arunachal Pradesh	0.07	0.00	542.65	375.17	0.01	0.00
Mizoram	0.04	0.02	327.22	338.50	0.01	0.01
<b>All-India</b>	<b>168913.46</b>	<b>173185.37</b>	<b>814250.01</b>	<b>863364.02</b>	<b>20.74</b>	<b>20.06</b>

- Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
2. Central Electricity Authority, New Delhi. (Website: <http://www.cea.nic.in>)



**Table 1.15: Sector-wise electricity consumption in India**(1 Giga Watt hour = 10<sup>6</sup> Kilo Watt hour)

Year	Industry	Agriculture	Domestic	Commercial	Traction and Railways	Others	Total energy consumed
<b>1985-86</b>	66,980 (54.41)	23,422 (19.03)	17,258 (14.02)	7,290 (5.92)	3,182 (2.58)	4,967 (4.03)	123,099 (100.00)
<b>1990-91</b>	84209 (44.24)	50321 (26.44)	31982 (16.80)	11181 (5.87)	4112 (2.16)	8552 (4.49)	190357 (100.00)
<b>1995-96</b>	104693 (37.79)	85732 (30.95)	51733 (18.67)	16996 (6.14)	6223 (2.25)	11652 (4.21)	277029 (100.00)
<b>2000-01</b>	107622 (33.99)	84729 (26.76)	75629 (23.89)	22545 (7.12)	8213 (2.59)	17862 (5.64)	316600 (100.00)
<b>2005-06</b>	151557 (36.80)	90292 (21.92)	100090 (24.30)	35965 (8.73)	9944 (2.41)	24039 (5.84)	411887 (100.00)
<b>2007-08</b>	189424 (37.74)	104182 (20.75)	120918 (24.09)	46685 (9.30)	11108 (2.21)	29660 (5.91)	501977 (100.00)
<b>2008-09</b>	209474 (37.81)	109610 (19.79)	131720 (23.78)	54189 (9.78)	11425 (2.06)	37577 (6.78)	553995 (100.00)
<b>2009-10</b>	236752 (38.64)	120209 (19.62)	146080 (23.85)	60600 (9.89)	12408 (2.03)	36595 (5.97)	612645 (100.00)
<b>2010-11</b>	272589 (39.25)	131967 (19.00)	169326 (24.39)	67289 (9.69)	14003 (2.02)	39218 (5.65)	694392 (100.00)
<b>2011-12</b>	352291 (44.87)	140960 (17.95)	171104 (21.79)	65381 (8.33)	14206 (1.81)	41252 (5.25)	785194 (100.00)
<b>2012-13</b>	365989 (44.40)	147462 (17.89)	183700 (22.29)	72794 (8.83)	14100 (1.71)	40256 (4.88)	824301 (100.00)
<b>2013-14</b>	384418 (43.97)	152744 (17.47)	199842 (22.86)	74247 (8.49)	15540 (1.78)	47418 (5.42)	874209 (100.00)
<b>2014-15</b>	418346 (44.11)	168913 (17.81)	217405 (22.92)	78391 (8.22)	16177 (1.71)	49289 (5.20)	948522 (100.00)
<b>2015-16</b>	423523 (42.30)	173185 (17.30)	238876 (23.86)	86037 (8.59)	16594 (1.66)	62976 (6.29)	1001191 (100.00)
<b>2016-17</b>	440206.00 (41.48)	191151.00 (18.01)	255826.00 (24.11)	89825.00 (8.46)	15683.00 (1.48)	68493.00 (6.45)	1061183.00 (100.00)
<b>2017-18*</b>	468825.00 (41.48)	204293.00 (18.08)	273550.00 (24.20)	96141.00 (8.51)	14356.00 (1.27)	73079.00 (6.47)	1130244.00 (100.00)
<b>Growth rate of 2017-18 over 2016-17 (%)</b>	<b>6.50</b>	<b>6.88</b>	<b>6.93</b>	<b>7.03</b>	<b>-8.46</b>	<b>6.70</b>	<b>6.51</b>
<b>CAGR 2008-09 to 2017-18 (%)</b>	<b>8.39</b>	<b>6.42</b>	<b>7.58</b>	<b>5.90</b>	<b>2.31</b>	<b>6.88</b>	<b>7.39</b>

**Note** : 1. \*: Provisional, 2. Figures in parentheses indicate percentage electricity consumption in different sectors, 3. CAGR: Compound annual growth rate.

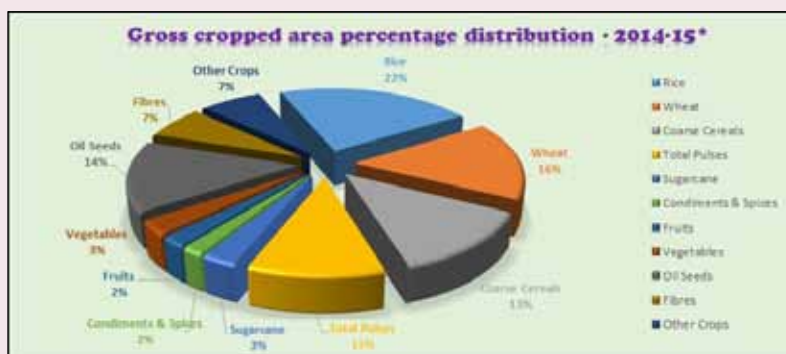
**Source** : *Energy Statistics 2019*, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India. (Website: <http://www.mospi.gov.in>)

**Table 1.16: Gross cropped area percentage distribution**

Crop	2011-12*	2012-13*	2013-14*	2014-15*
Rice	22.33	22.00	22.12	22.30
Jowar	3.16	3.25	2.86	3.15
Bajra	4.51	3.95	4.03	3.96
Maize	4.39	4.42	4.49	4.43
Ragi	0.60	0.58	0.60	0.60
Wheat	15.41	15.70	15.62	16.17
Barley	0.34	0.36	0.34	0.37
Other Cereals & Millets	0.44	0.41	0.36	0.35
<b>Coarse Cereals</b>	<b>13.44</b>	<b>12.96</b>	<b>12.69</b>	<b>12.86</b>
<b>Total Cereals</b>	<b>51.18</b>	<b>50.66</b>	<b>50.43</b>	<b>51.33</b>
Gram	3.97	4.11	4.68	3.86
Tur	1.92	1.80	1.76	1.71
Other Pulses	6.07	5.41	5.40	5.37
<b>Total Pulses</b>	<b>11.97</b>	<b>11.32</b>	<b>11.83</b>	<b>10.94</b>
<b>Total Food-grains</b>	<b>63.14</b>	<b>61.97</b>	<b>62.26</b>	<b>62.27</b>
Sugarcane	2.76	2.80	2.75	2.81
Condiments & Spices	1.86	1.69	1.65	1.74
<b>Total Fruits</b>	<b>2.06</b>	<b>2.12</b>	<b>2.07</b>	<b>2.11</b>
Potatoes	0.82	0.85	0.84	0.89
Onions	0.32	0.27	0.30	0.33
<b>Total Vegetables</b>	<b>2.78</b>	<b>2.82</b>	<b>2.81</b>	<b>2.92</b>
Groundnut	2.66	2.68	2.70	2.57
Sesamum	0.97	0.92	0.84	0.93
Rapeseed & Mustard	2.80	3.07	3.01	2.72
Linseed	0.12	0.12	0.11	0.11
Other Oil Seeds	7.80	8.15	8.31	7.99
<b>Total Oil Seeds</b>	<b>14.35</b>	<b>14.94</b>	<b>14.98</b>	<b>14.33</b>
Cotton	6.22	6.12	5.93	6.38
Jute	0.41	0.40	0.38	0.38
Mesta	0.04	0.04	0.03	0.04
<b>Total Fibres</b>	<b>6.71</b>	<b>6.58</b>	<b>6.37</b>	<b>6.82</b>
Tobacco	0.20	0.22	0.23	0.24
Other Crops	6.14	6.85	6.89	6.76
<b>Gross Cropped Area</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Note : \*: Provisional.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.



**Table 1.17: Crop-wise irrigated area**

(million ha)

Crops	2005-06	2006-07	2007-08	2008-09*	2009-10*	2010-11*	2011-12*	2012-13*	2013-14*	2014-15*
<b>Rice</b>	24.96 (56.8)	25.26 (58)	25.22 (57.7)	26.58 (58.8)	24.20 (56.9)	25.49 (58.8)	25.58 (58.6)	24.99 (58.5)	26.52 (59.7)	26.58 (60.1)
<b>Wheat</b>	24.16 (90.5)	25.73 (90.9)	26.09 (91.3)	25.69 (91.7)	26.20 (91.8)	27.65 (92.2)	28.06 (93)	28.50 (93.5)	29.37 (93.6)	30.21 (94.2)
<b>Total foodgrains</b>	56.49 (45.7)	58.55 (47.2)	59.51 (47.3)	60.41 (48.5)	58.11 (47.8)	61.00 (48.1)	61.55 (49.8)	61.74 (51.3)	64.97 (51.9)	65.53 (53.1)
<b>Total pulses</b>	3.44 (14.5)	3.63 (15.4)	3.95 (15.9)	3.92 (16.5)	3.66 (16.2)	3.78 (14.9)	3.78 (16.1)	4.07 (18.5)	4.69 (19.7)	4.31 (19.9)
<b>Fruits &amp; Vegetables</b>	6.05 (61)	5.92 (60.9)	6.22 (61.6)	6.35 (62.0)	5.86 (62.1)	6.02 (63.7)	6.17 (64.9)	6.24 (65.1)	6.38 (65.1)	6.55 (65.6)
<b>Total oil seeds</b>	8.67 (28.4)	8.27 (29)	7.79 (27.2)	8.04 (27.1)	7.23 (25.9)	7.20 (24.9)	7.73 (27.5)	8.17 (28.2)	8.22 (27.3)	7.78 (27.4)
<b>Sugarcane</b>	4.33 (93.3)	4.86 (93.8)	4.88 (93.8)	4.56 (93.5)	4.27 (93.8)	4.82 (92.7)	5.11 (94.8)	5.18 (95.2)	5.27 (95.3)	5.02 (90.2)
<b>Total gross irrigated area</b>	84.28 (43.7)	86.75 (45.1)	88.06 (45.1)	88.90 (45.5)	85.09 (45.0)	88.94 (45.0)	91.79 (46.9)	92.25 (47.5)	95.77 (47.7)	96.46 (48.6)

**Note** : 1. \*: Provisional, 2. Figures in parentheses indicate percentage of the total area under the crop.

**Source** : 1. *Land Use Statistics at a Glance 2005-06 to 2014-15*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 1.18: Source-wise irrigated area**

(million ha)

Source	2005-06	2006-07	2007-08	2008-09*	2009-10*	2010-11*	2011-12*	2012-13*	2013-14*	2014-15*
<b>Govt. canals</b>	16.49 (27.1)	16.80 (26.8)	16.53 (26.2)	16.69 (26.2)	14.79 (23.9)	15.48 (24.3)	15.84 (24.1)	15.51 (23.4)	16.12 (23.7)	16.02 (23.4)
<b>Private canals</b>	0.23 (0.4)	0.22 (0.4)	0.22 (0.3)	0.20 (0.3)	0.19 (0.3)	0.17 (0.3)	0.17 (0.3)	0.17 (0.2)	0.16 (0.2)	0.16 (0.2)
<b>Tanks</b>	2.08 (3.4)	2.08 (3.3)	1.97 (3.1)	1.98 (3.1)	1.59 (2.6)	1.98 (3.1)	1.92 (2.9)	1.75 (2.6)	1.84 (2.7)	1.72 (2.5)
<b>Tube wells</b>	26.03 (42.8)	26.94 (42.9)	28.50 (45.1)	28.37 (44.6)	28.37 (45.8)	28.54 (44.8)	29.94 (45.6)	30.54 (46.1)	31.13 (45.7)	31.61 (46.2)
<b>Other wells</b>	10.04 (16.5)	10.70 (17.1)	9.86 (15.6)	10.39 (16.3)	9.99 (16.1)	10.63 (16.7)	10.59 (16.1)	10.76 (16.2)	11.31 (16.6)	11.35 (16.6)
<b>Other sources</b>	5.97 (9.8)	6.00 (9.6)	6.11 (9.7)	6.02 (9.5)	7.02 (11.3)	6.87 (10.8)	7.25 (11.0)	7.55 (11.4)	7.56 (11.1)	7.52 (11.0)
<b>Net irrigated area</b>	60.84 (100)	62.74 (100)	63.19 (100)	63.64 (100)	61.95 (100)	63.67 (100)	65.71 (100)	66.29 (100)	68.12 (100)	68.38 (100)

**Note** : 1. \*: Provisional, 2. Figures in parentheses indicate percentage of the net irrigated area.

**Source** : *Land Use Statistics at a Glance 2005-06 to 2014-15*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 1.19: State-wise net area irrigated by source during 2014-15\***

(000' ha)

Zones/States/UTs	Canals			Tanks	Wells		Other sources	Total net irrigated area	
	Govt.	Private	Total		Tube wells	Others			
<b>NORTH</b>	<b>5071</b>	<b>113</b>	<b>5184</b>	<b>192</b>	<b>15177</b>	<b>1525</b>	<b>197</b>	<b>22277</b>	
Haryana	1151	N.A.	1151	N.A.	1818	4	0	2974	
Himachal Pradesh**	4	N.A.	4	0	23	2	83	113	
Jammu & Kashmir**	179	112	291	8	4	6	22	331	
Punjab	1175	N.A.	1175	N.A.	2943	N.A.	N.A.	4118	
Uttar Pradesh**	2482	N.A.	2482	184	10183	1474	67	14389	
Uttarakhand	78	1	79	0	188	39	24	330	
Chandigarh **	N.A.	N.A.	N.A.	N.A.	0	N.A.	N.A.	0	
Delhi**	2	N.A.	2	N.A.	18	0	1	22	
<b>SOUTH</b>	<b>3539</b>	<b>1</b>	<b>3540</b>	<b>963</b>	<b>3892</b>	<b>2238</b>	<b>762</b>	<b>11395</b>	
Andhra Pradesh	1429	N.A.	1429	293	1010	70	125	2927	
Karnataka	1177	N.A.	1177	158	1402	379	473	3589	
Kerala	86	1	87	47	30	133	117	414	
Tamil Nadu	669	0	669	368	493	1191	4	2726	
Telangana	174	N.A.	174	97	948	465	43	1726	
A & N Islands**	N.A.	N.A.	N.A.	0	N.A.	0	0	0	
Puducherry	4	N.A.	4	N.A.	9	N.A.	0	13	
Lakshadweep**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
<b>EAST</b>	<b>1073</b>	<b>48</b>	<b>1121</b>	<b>117</b>	<b>1978</b>	<b>87</b>	<b>4957</b>	<b>8261</b>	
Arunachal Pradesh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	56	56	
Assam	77	N.A.	77	10	74	1	134	296	
Bihar	934	N.A.	934	57	1860	20	115	2987	
Jharkhand	7	N.A.	7	49	38	63	50	207	
Odisha	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1259	1259	
West Bengal **	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3102	3102	
Manipur **	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	69	69	
Meghalaya	47	34	81	N.A.	N.A.	N.A.	N.A.	81	
Mizoram	2	14	16	N.A.	N.A.	N.A.	N.A.	16	
Nagaland	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	97	97	
Sikkim**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	12	12	
Tripura**	6	N.A.	6	1	6	3	63	79	
<b>WEST</b>	<b>6338</b>	<b>0</b>	<b>6338</b>	<b>452</b>	<b>10557</b>	<b>7503</b>	<b>1603</b>	<b>26452</b>	
Chhattisgarh	902	N.A.	902	43	428	20	73	1466	
Gujarat **	771	N.A.	771	45	1122	2181	114	4233	
Madhya Pradesh	1646	0	1646	273	3281	3122	1262	9584	
Maharashtra **	1080	N.A.	1080	N.A.	2164	N.A.	N.A.	3244	
Rajasthan	1929	N.A.	1929	70	3557	2176	150	7882	
Goa	9	N.A.	9	21	5	3	2	39	
Daman & Diu	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Dadra & Nagar Haveli	1	N.A.	1	N.A.	N.A.	1	2	4	
<b>All India</b>	<b>2014-15*</b>	<b>16020</b>	<b>163</b>	<b>16182</b>	<b>1723</b>	<b>31606</b>	<b>11354</b>	<b>7519</b>	<b>68383</b>
	<b>2013-14*</b>	<b>16120</b>	<b>160</b>	<b>16278</b>	<b>1840</b>	<b>31130</b>	<b>11310</b>	<b>7560</b>	<b>68120</b>
	<b>2012-13*</b>	<b>15510</b>	<b>170</b>	<b>15677</b>	<b>1750</b>	<b>30540</b>	<b>10760</b>	<b>7550</b>	<b>66290</b>

**Note** : 1. \*: Provisional, 2. \*\*: Figures are either estimated based on the data for the latest available year received from the States/UTs or are estimated/taken from Agriculture Census, 3. N.A.: Not available or no reporting of data from the States/UTs, 4. '0' means area is less than 500 ha, 5. Totals may not tally due to rounding off figures.

**Source** : *Land Use Statistics at a Glance 2005-06 to 2014-15*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 1.20: All-India cultivated and irrigated area under food grains with land man ratio**

Year	Gross area under food grains ('000 ha)		% Share of area under food grains to Gross area sown	% Share of irrigated area under food grains to Gross irrigated area	Land man ratio
	Cultivated	Irrigated			
1950-51	101196	18317	76.7	81.2	N.A.
1955-56	111325	20626	75.6	80.4	0.35
1960-61	115564	22065	75.6	78.9	0.32
1965-66	114887	24032	74.0	77.8	0.29
1970-71	124910	30117	75.3	78.9	0.28
1975-76	128538	34093	75.0	78.6	0.26
1980-81	127608	37851	73.9	76.0	0.24
1985-86	128756	40407	72.1	74.4	0.22
1990-91	127948	44866	68.9	71.0	0.20
1991-92	122520	45790	67.2	69.7	0.20
1992-93	125234	46855	67.4	70.2	0.19
1993-94	124782	48261	66.9	70.7	0.19
1994-95	125949	49894	67.0	70.6	0.19
1995-96	123463	49543	65.9	69.4	0.18
1996-97	125101	52175	66.0	68.6	0.16
1997-98	125716	52440	66.2	69.3	0.16
1998-99	126879	54957	66.2	69.9	0.17
1999-00	124719	55661	66.2	70.3	0.17
2000-01	122680	53609	66.2	70.4	0.17
2001-02	124222	54131	66.1	69.1	0.16
2002-03	115254	50043	66.3	68.5	0.16
2003-04	124971	53242	65.9	68.2	0.16
2004-05	122710	54715	64.2	67.5	0.16
2005-06	123610	56489	64.1	67.0	0.15
2006-07	124106	58550	64.5	67.5	0.15
2007-08	125859	59512	64.5	67.6	0.15
2008-09*	124635	60415	63.8	68.0	0.15
2009-10*	121481	58122	64.3	68.3	0.15
2010-11*	126955	61065	64.3	68.7	0.14
2011-12*	123576	61612	63.1	67.1	0.14
2012-13*	120402	61748	62.0	66.9	0.14
2013-14*	125113	64970	62.3	67.8	0.14
2014-15*	123524	65534	62.3	67.9	0.14

**Note** : 1. \*: Provisional, 2. Land man ratio = Arable land & land under permanent crops/population, 3. N.A.: Not available.

**Source** : *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

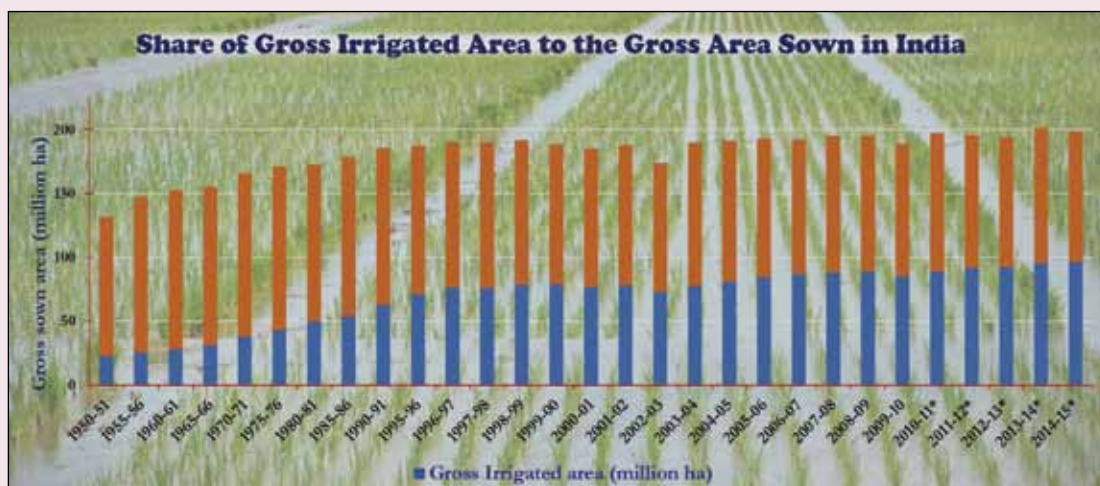
**Table 1.21: All India cultivated and irrigated area—gross and net along with cropping intensity**

(million ha)

Year	Area sown			Irrigated area			Intensity of gross irrigated area to gross sown area (%)	Cropping intensity (%)
	Gross	Net	More than once	Gross	Net	More than once		
1950-51	131.89	118.75	13.15	22.56	20.85	1.71	17.1	111.1
1955-56	147.31	129.16	18.16	25.64	22.76	2.88	17.4	114.1
1960-61	152.77	133.20	19.57	27.98	24.66	3.32	18.3	114.7
1965-66	155.28	136.20	19.08	30.90	26.34	4.56	19.9	114.0
1970-71	165.79	140.86	24.93	38.20	31.10	7.09	23.0	118.2
1975-76	171.30	141.65	29.64	43.36	34.59	8.77	25.3	120.9
1980-81	172.63	140.29	32.34	49.78	38.72	11.06	28.8	123.3
1985-86	178.46	140.90	37.56	54.28	41.87	12.42	30.4	126.7
1990-91	185.74	143.00	42.74	63.20	48.02	15.18	34.0	129.9
1995-96	187.47	142.20	45.27	71.35	53.40	17.95	38.1	131.8
1996-97	189.50	142.93	46.57	76.03	55.11	20.91	40.1	132.6
1997-98	189.99	141.95	48.04	75.67	55.21	20.46	39.7	133.9
1998-99	191.65	142.75	48.90	78.67	57.44	21.23	41.0	134.3
1999-00	188.40	141.06	47.33	79.22	57.53	21.69	42.0	133.6
2000-01	185.34	141.34	44.01	76.19	55.21	20.98	41.1	131.1
2001-02	188.01	140.73	47.28	78.37	56.94	21.44	41.7	133.6
2002-03	173.89	131.94	41.95	73.06	53.90	19.16	42.0	131.8
2003-04	189.66	140.71	48.95	78.04	57.06	20.99	41.1	134.8
2004-05	191.10	140.64	50.46	81.08	59.23	21.85	42.4	135.9
2005-06	192.74	141.16	51.58	84.28	60.84	23.44	43.7	136.5
2006-07	192.38	139.82	52.56	86.75	62.75	24.01	45.1	137.6
2007-08	195.22	141.02	54.21	88.06	63.19	24.87	45.1	138.4
2008-09	195.33	141.90	53.43	88.90	63.64	25.26	45.5	137.7
2009-10	189.19	139.17	50.02	85.09	61.95	23.14	45.0	135.9
2010-11*	197.68	141.56	56.12	88.94	63.67	25.26	45.0	139.6
2011-12*	195.79	140.98	54.82	91.79	65.71	26.08	46.9	138.9
2012-13*	194.24	139.94	54.31	92.25	66.29	25.96	47.5	138.8
2013-14*	200.95	141.43	59.52	95.77	68.12	27.66	47.7	142.1
2014-15*	198.36	140.13	58.23	96.46	68.38	28.07	48.6	141.6

Note : 1. \*: Provisional, 2. Cropping intensity = Gross/Net sown area x 100.

Source : Fertiliser Statistics 2017-18, The Fertiliser Association of India, New Delhi.



**Table 1.22: Distribution of land use, number and area of holdings in India by irrigation status and size classes for all social groups as per Agriculture Census 2010-11\***

(Number: 000', Area: 000' ha)

Sl. No.	Size Class (in ha.)	Total Holdings		Wholly Irrigated Holdings		Wholly Unirrigated Holdings		Partially Irrigated Holdings			Net Area Sown	Area Under Current Fallows	Net Area Cultivated	Uncultivated Land Excluding Fallow Land	Fallow Other than Current Fallow	Culturable Waste Land	Total Uncultivated Land	Land not Available for Cultivation
		No.	Area	No.	Area	No.	Area	No.	Total Area	Irrigated Area								
1	Below 0.5	64679	15441	27668	6762	24749	5468	6757	1418	796	13649	1334	14983	89	58	36	183	276
2	(0.5-1.0)	28147	20467	11597	8002	11913	8260	3230	2277	1272	18539	1415	19954	115	119	68	302	211
	<b>Marginal</b>	<b>92826</b>	<b>35908</b>	<b>39266</b>	<b>14764</b>	<b>36662</b>	<b>13729</b>	<b>9987</b>	<b>3695</b>	<b>2067</b>	<b>32188</b>	<b>2749</b>	<b>34936</b>	<b>204</b>	<b>177</b>	<b>104</b>	<b>485</b>	<b>487</b>
3	(1.0-2.0)	24779	35244	8643	11675	11669	15512	3516	4795	2598	31982	2267	34249	197	286	157	641	354
	<b>Small</b>	<b>24779</b>	<b>35244</b>	<b>8643</b>	<b>11675</b>	<b>11669</b>	<b>15512</b>	<b>3516</b>	<b>4795</b>	<b>2598</b>	<b>31982</b>	<b>2267</b>	<b>34249</b>	<b>197</b>	<b>286</b>	<b>157</b>	<b>641</b>	<b>354</b>
4	(2.0-3.0)	9649	23164	3167	7231	4463	9834	1700	3793	2012	20859	1494	22353	153	259	135	546	266
5	(3.0-4.0)	4247	14540	1359	4395	1895	5908	847	2619	1366	12922	1017	13939	110	200	107	417	185
	<b>Semi-medium</b>	<b>13896</b>	<b>37705</b>	<b>4526</b>	<b>11626</b>	<b>6358</b>	<b>15742</b>	<b>2546</b>	<b>6412</b>	<b>3378</b>	<b>33781</b>	<b>2511</b>	<b>36291</b>	<b>263</b>	<b>459</b>	<b>241</b>	<b>963</b>	<b>450</b>
6	(4.0-5.0)	2431	10762	787	3295	1036	4086	529	2102	1073	9484	778	10262	87	184	89	360	140
7	(5.0-7.5)	2511	15129	757	4297	1090	5739	593	3165	1655	13201	1046	14247	140	365	165	670	212
8	(7.5-10.0)	933	7937	267	2127	417	2996	222	1659	847	6781	620	7401	86	238	92	417	119
	<b>Medium</b>	<b>5875</b>	<b>33828</b>	<b>1811</b>	<b>9719</b>	<b>2543</b>	<b>12821</b>	<b>1344</b>	<b>6926</b>	<b>3575</b>	<b>29466</b>	<b>2444</b>	<b>31910</b>	<b>313</b>	<b>787</b>	<b>347</b>	<b>1446</b>	<b>471</b>
9	(10.0-20.0)	799	10489	209	2548	385	4135	183	2041	971	8723	910	9633	121	437	132	690	165
10	20 & Above	174	6418	37	1208	98	2894	35	1051	496	5153	602	5755	75	344	85	504	159
	<b>Large</b>	<b>973</b>	<b>16907</b>	<b>246</b>	<b>3756</b>	<b>484</b>	<b>7028</b>	<b>218</b>	<b>3092</b>	<b>1467</b>	<b>13876</b>	<b>1512</b>	<b>15388</b>	<b>197</b>	<b>780</b>	<b>217</b>	<b>1194</b>	<b>324</b>
	<b>All Classes</b>	<b>138348</b>	<b>159592</b>	<b>54492</b>	<b>51540</b>	<b>57715</b>	<b>64832</b>	<b>17611</b>	<b>24920</b>	<b>13085</b>	<b>141292</b>	<b>11483</b>	<b>152775</b>	<b>1173</b>	<b>2490</b>	<b>1067</b>	<b>4729</b>	<b>2087</b>

Note : 1. Totals may not tally due to rounding off, 2. #. Exclude Bihar, Jharkhand and Maharashtra, 3. \*: Provisional.

Source : Information received from Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.



**Table 1.23: Rural population and agricultural workers**

(million)

Year	Total population	Average annual exponential growth rate (%)	Rural population	Total Workers	Agricultural Workers		
					Cultivators	Agricultural labourers	Total
1	2	3	4	5	6	7	8
1951	361.1	1.25	298.6 (82.7)	139.5	69.9 (71.9)	27.3 (28.1)	97.2 (69.7)
1961	439.2	1.96	360.3 (82.0)	188.7	99.6 (76.0)	31.5 (24.0)	131.1 (69.5)
1971	548.2	2.22	439.0 (80.1)	180.4	78.2 (62.2)	47.5 (37.8)	125.7 (69.7)
1981	683.3	2.20	523.9 (76.7)	244.6	92.5 (62.5)	55.5 (37.5)	148.0 (60.5)
1991	846.4	2.14	628.9 (74.3)	314.1	110.7 (59.7)	74.6 (40.3)	185.3 (59.0)
2001	1028.7	1.97	742.6 (72.2)	402.2	127.3 (54.4)	106.8 (45.6)	234.1 (58.2)
2011	1210.8	1.50	833.5 (68.9)	481.9	118.8 (45.1)	144.3 (54.9)	263.1 (54.6)

**Note** : 1. For 2001, figures include estimated figures for those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as Census result of 2001, Census in these three sub-divisions were cancelled due to technical and administrative reasons, 2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu & Kashmir. Hence the population figures for 1991 of Jammu & Kashmir have been worked out by 'interpolation'. The data on workers in columns 5-7 exclude Jammu & Kashmir, 3. The 1981 Census could not be held in Assam. The figures for 1981 for Assam have been worked out by 'interpolation'. The data on workers in columns 5-7 exclude Assam, 4. Figures in parentheses in column 4 represent percentages to the total population, 5. Figures within parentheses in column 6 and 7 are percentages to column 5, 6. Figures within parentheses in column 8 is percentage share of Agricultural Workers in Total Workers.

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in/PDF/Pocket%20Book%202018.pdf>)

**Table 1.24: Dynamics of agricultural workers in India**

(million)

Item	1991	2001	2011
Total population	846.3	1028.7	1210.8
Total workers	313.7	402.2	481.7
Total no. of workers as % of population	37.1	39.1	39.8
No. of agricultural workers	210.5	234.0	263.0
% of agricultural workers to total workers	67.1	58.2	54.6
Male	136.6	142.8	165.4
Female	73.9	91.2	97.6
% of females in agricultural work force	35.1	39.0	37.1

**Source** : *Census of India 2011, Primary Census Abstract*, Registrar General of India, New Delhi.

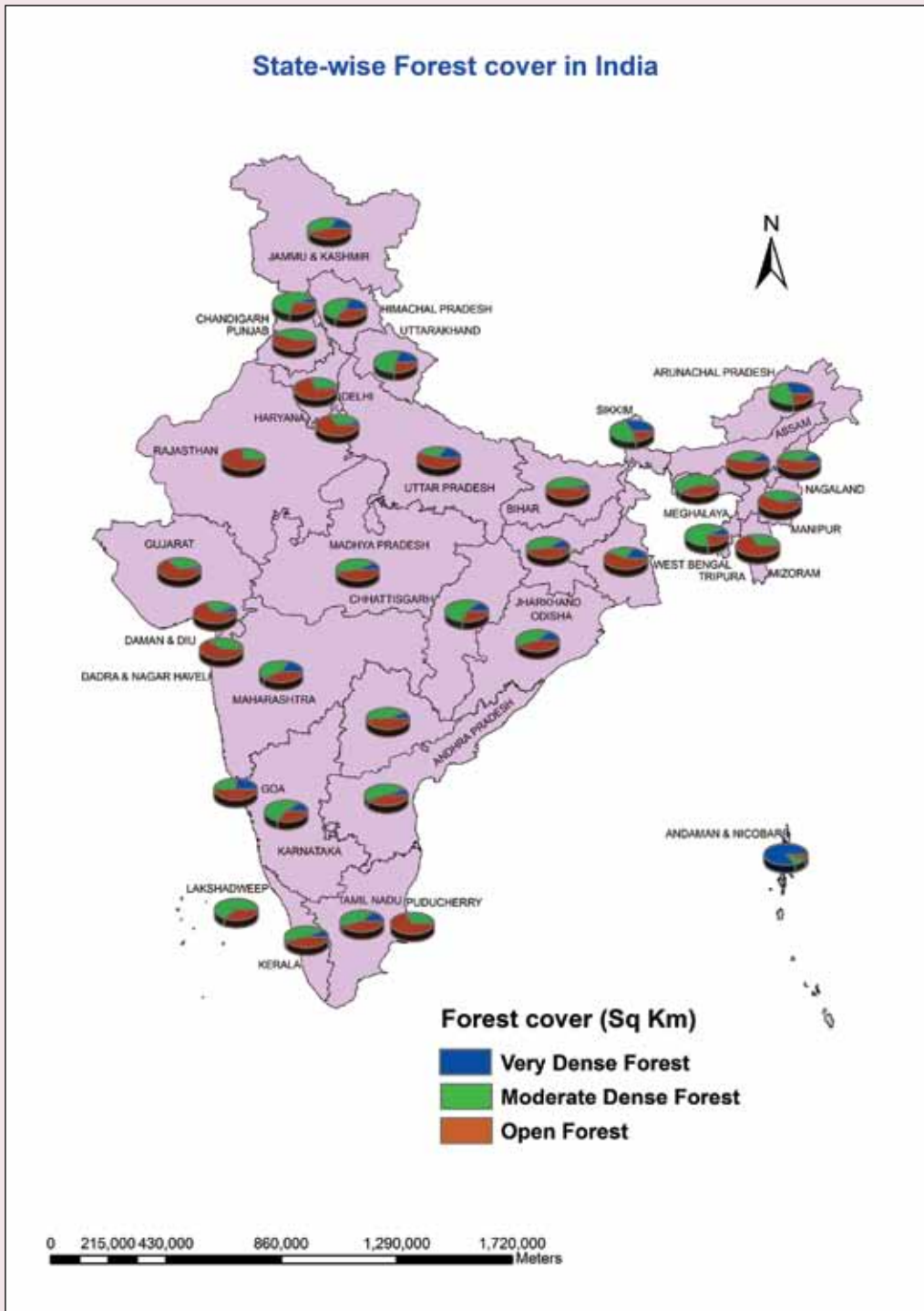
**Table 1.25: Forest cover in States/UT's in India in 2017**

(sq km)

States/UT's	Geographical area (G.A.)	Forest cover area				Percent of G.A.	Percent change wrt 2015
		Very dense forest	Moderate dense forest	Open forest	Total forest		
Andhra Pradesh	162968	1957	14051	12139	28147	17.27	1.31
Arunachal Pradesh	83743	20271	30955	15288	66964	79.96	-0.23
Assam	78438	2797	10192	15116	28105	35.83	0.72
Bihar	94163	332	3260	3707	7299	7.75	0.05
Chhattisgarh	135192	7064	32215	16268	55547	41.09	-0.01
Delhi	1483	6.72	56.24	129.45	192.41	12.97	0.25
Goa	3702	538	576	1115	2229	60.21	0.51
Gujarat	196224	378	5200	9179	14757	7.52	0.02
Haryana	44212	28	452	1108	1588	3.59	0.02
Himachal Pradesh	55673	3110	6705	5285	15100	27.12	0.71
Jammu & Kashmir*	222236	4075	8579	10587	23241	10.46	0.11
Jharkhand	79716	2598	9686	11269	23553	29.55	0.04
Karnataka	191791	4502	20244	12604	37550	19.58	0.57
Kerala	38852	1663	9407	9251	20321	52.30	2.68
Madhya Pradesh	308252	6563	34571	36280	77414	25.11	0.00
Maharashtra	307713	8736	20652	21294	50682	16.47	-0.01
Manipur	22327	908	6510	9928	17346	77.69	1.18
Meghalaya	22429	453	9386	7307	17146	76.45	-0.52
Mizoram	21081	131	5861	12194	18186	86.27	-2.52
Nagaland	16579	1279	4587	6623	12489	75.33	-2.71
Odisha	155707	6976	21370	23008	51345	32.98	0.57
Punjab	50632	8	806	1023	1837	3.65	0.13
Rajasthan	342239	78	4340	12154	16572	4.84	0.14
Sikkim	7096	1081	1575	688	3344	47.13	-0.13
Tamil Nadu	130060	3672	10979	11630	26281	20.21	0.06
Telangana	112077	1596	8738	10085	20419	18.22	0.50
Tripura	10486	656	5246	1824	7726	73.68	-1.56
Uttar Pradesh	240928	2617	4069	7993	14679	6.09	0.12
Uttarakhand	53483	4969	12884	6442	24295	45.43	0.04
West Bengal	88752	2994	4147	9702	16847	18.98	0.02
A & N Islands	8249	5678	684	380	6742	81.73	-0.11
Chandigarh	114	1.36	13.82	6.38	21.56	18.91	-0.09
Dadra & Nagar Haveli	491	0	80	127	207	42.16	0.20
Daman & Diu	111	1.40	5.82	13.27	20.49	18.46	0.79
Lakshadweep	30	0	17.04	10.06	27.10	90.33	0.13
Puducherry	490	0	17.60	36.07	53.67	10.95	-0.67
<b>Total</b>	<b>3287469</b>	<b>98158</b>	<b>308318</b>	<b>301797</b>	<b>708273</b>	<b>21.54</b>	<b>0.21</b>

**Note** : 1. G.A.: Geographical Area, 2. \*: Includes area outside LOC under illegal occupation of Pakistan and China.

**Source** : *India State of Forest Report 2017*, Forest Survey of India, Ministry of Environment & Forests, Govt. of India.



**Table 1.26: Potential availability of agriculture-based biomass**

Biomass	(million t)									
	1990-91	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18*
Rice husk	37.1	42.5	48.0	52.7	52.6	53.3	52.7	52.2	54.9	56.5
Wheat straw	73.5	92.7	115.5	126.2	124.4	127.5	115.1	122.7	131.0	132.6
Maize cobs	2.7	3.6	6.5	6.5	6.7	7.3	7.3	6.8	7.8	8.6
Pearl millet straw	11.4	11.2	17.2	17.1	14.5	15.4	15.2	13.4	16.3	N.A.
Sugarcane bagasse	80.4	97.7	113.0	119.1	112.6	116.2	119.6	115.0	101.0	124.4
Groundnut shell	2.5	2.1	2.7	2.3	1.6	3.2	2.4	2.2	2.5	3.0
Cotton stalks	22.3	25.6	33.7	36.5	35.9	35.9	38.5	36.9	32.5	37.3
Jute sticks	3.1	3.1	2.6	2.7	2.6	2.5	2.4	2.3	2.3	2.2

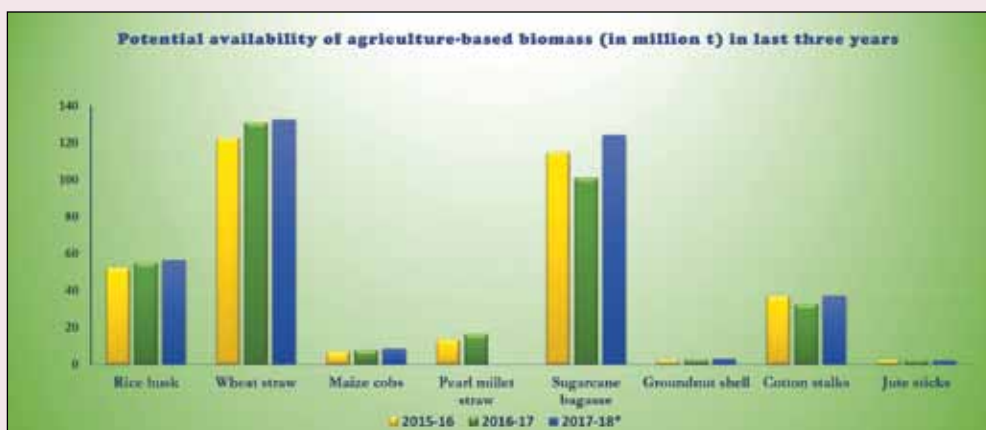
Note : 1. \*: Provisional,

2. N.A.: Not Available

2. The conversion factors used are listed below:

Rice husk	=	yield of clean rice x 0.5
Wheat straw	=	grain yield x 1.33
Maize cobs	=	grain yield x 0.3
Straw from pearl millet	=	grain yield x 1.66
Bagasse	=	weight of cane x 0.33
One coconut	=	135 g shell, 164 g fibre, and 246 g pith
Groundnut shell	=	kernel yield x 0.33
Cotton stalks	=	3 tonnes / hectare
Jute sticks	=	3 tonnes / hectare

Source : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in/PDF/Pocket%20Book%202018.pdf>)



**Table 1.27: State-wise potential availability of agriculture-based biomass during 2016-17\***

(million t)

States	Rice husk	Wheat straw	Maize cobs	Pearl millet straw	Sugarcane bagasse <sup>s</sup>	Groundnut shell <sup>s</sup>	Cotton stalks <sup>s</sup>
Andhra Pradesh	3.73	N.A.	0.49	0.12	3.07	0.26	2.01
Assam	2.62	0.04	N.A.	N.A.	0.34	N.A.	N.A.
Bihar	3.74	6.77	0.77	N.A.	4.84	N.A.	N.A.
Chattisgarh	4.03	0.21	N.A.	N.A.	N.A.	N.A.	N.A.
Gujarat	0.97	3.64	0.24	1.54	4.28	0.78	8.16
Haryana	2.23	15.32	N.A.	1.59	2.15	N.A.	1.80
Himachal Pradesh	N.A.	0.93	0.23	N.A.	N.A.	N.A.	N.A.
Jammu & Kashmir	N.A.	0.63	0.15	0.02	N.A.	N.A.	N.A.
Jharkhand	1.78	0.57	0.18	N.A.	N.A.	N.A.	N.A.
Karnataka	1.27	0.23	0.98	0.42	12.70	0.16	1.89
Madhya Pradesh	2.12	23.86	0.95	1.13	1.66	0.12	1.65
Maharashtra	1.68	2.22	1.14	1.39	23.85	0.08	11.49
Odisha	4.19	N.A.	N.A.	N.A.	0.19	0.02	N.A.
Punjab	5.52	21.87	0.14	N.A.	2.17	N.A.	1.02
Rajasthan	N.A.	11.97	0.44	6.91	N.A.	0.35	1.35
Tamil Nadu	2.02	N.A.	0.38	0.20	8.75	0.29	0.42
Telangana	2.59	0.01	0.78	0.03	0.80	0.07	5.31
Uttar Pradesh	6.48	39.98	0.47	2.89	47.98	0.02	N.A.
Uttarakhand	0.32	1.17	N.A.	N.A.	1.97	N.A.	N.A.
West Bengal	7.55	1.24	0.21	N.A.	0.69	N.A.	N.A.
<b>All India</b>	<b>55.08</b>	<b>130.85</b>	<b>7.88</b>	<b>16.27</b>	<b>116.21</b>	<b>2.23</b>	<b>35.61</b>

Note : 1. N.A.: Not available, 2. \*: 4<sup>th</sup> Advance estimates, 3. \$: Figures relates to 2015-16.

4. The conversion factors used are listed below:

Rice husk	=	yield of clean rice x 0.5
Wheat straw	=	grain yield x 1.33
Maize cobs	=	grain yield x 0.3
Straw from pearl millet	=	grain yield x 1.66
Bagasse	=	weight of cane x 0.33
Groundnut shell	=	kernel yield x 0.33
Cotton stalks	=	3 tonnes / hectare

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 1.28: Selected economic and social indicators

Indicator	1980-81	1990-91	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>MACRO-ECONOMIC INDICATORS</b>											
Gross Domestic Product (GDP) <sup>a</sup> at current prices (₹ Crore)	136838	531814	2000743	7248860	8736329	9944013	11233522	12467959	13771874*	15362386#	17095005@
Gross Domestic Product (GDP) <sup>a</sup> at constant prices (₹ Crore)	798506	1347889	2348481	4918533	8736329	9213017	9801370	10527674	11369493*	12298327#	13179857@
Per capita income (at constant prices ₹ Crore)	10712	14330	20418	36202	63462	65538	68572	72805	77659*	82931#	87623@
Rate of Gross Capital Formation to GDP at current prices <sup>c</sup> (percentage)	19.2	26	24.3	36.5	39	38.7	33.8	33.5	32.1*	30.9#	32.3@
Rate of Gross Savings to GDP at current prices <sup>c</sup> (percentage)	17.8	22.9	23.7	33.7	34.6	33.9	32.1	32.2	31.1*	30.3#	30.5@
Index of agricultural production <sup>d</sup>	102.1	148.4	165.7	121	124.3	124	129.8	124	120.8	131.8	136.7**
Index of agricultural production(IIP) <sup>e</sup>	43.1	91.6	162.6	165.5	170.3	103.3	106.7	111	114.7	120	125.3
Wholesale Price Index (WPI) <sup>f</sup>	36.8	73.7	155.7	143.3	156.1	106.9	112.5	113.9	109.7	111.6	114.9
Consumer Price Index for industrial workers (CPI-IW) <sup>f</sup>	81	193	444	180	195	215	236	251	265	276	284
<b>OUTPUT</b>											
(a) Food grains (million tonnes)	129.6	176.4	196.8	244.5	259.3	257.1	265	252	251.6	275.1	284.8**
(c) Coal and lignite (million tonnes)	119	225.5	332.6	570.4	582.3	602.9	610	657.4	683	704.4	N.A.
(d) Crude oil (million tonnes)	10.5	33	32.4	37.7	38.1	37.9	37.8	37.5	36.9	36	35.7
(e) Electricity generator (utilities only) (billion kWh)	121	264	500	844.8	922.5	964.5	1026.6	1105.1	1167.6	1236.4	N.A.
<b>FOREIGN TRADE</b>											
(i) Export	6711	32553	203571	1136964	1465959	1634318	1905011	1896446	1716378	1849434	1956515
US\$ million	8486	18143	4456028	249815.5	305963.9	300400.6	314405	310338	262291.1	275852	303526
(ii) Import	12549	43198	230873	1683467	2345463	2669162	2715434	2737087	2490298	2577675	3001033
US\$ million	15869	24075	505364.4	369769	489319	490737	450198	447964	381007	384356	465580
Foreign exchange reserves (excluding gold, SDRs and Reserve Tranche Position at IMF)	4822	4388	184482	1224883	1330511	1412631	1660914	1985458	2219061	2244939	2597570
US\$ million	5850	2236	39554	274330	260069	259726	276359	295947	336104	346319	399442
<b>SOCIAL INDICATORS</b>											
Population(Million) <sup>h</sup>	683.3	846.4	1028.7	1186	1220	1235	1251	1267	1283	1299	1316
Birth rate <sup>i</sup>	33.9	29.5	25.4	21.8k	21.6k	21.4k	21.0k	20.8	20.4	N.A.	N.A.

## Natural Resources

Indicator	1980-81	1990-91	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Death rate <sup>i</sup>	12.5	9.8	8.4	7.1k	7.0k	7.0k	6.7k	6.5	6.4	N.A.	N.A.
Life Expectation at birth (In years) <sup>j</sup>	50.4	58.7	62.5	67	67.5	67.9	68.3	N.A.	N.A.	N.A.	N.A.
(a) Male	50.9	58.6	61.6	65.4	65.8	66.4	66.9	N.A.	N.A.	N.A.	N.A.
(b) Female	50	59	63.3	68.8	69.3	69.6	70	N.A.	N.A.	N.A.	N.A.
Education literacy rate (%) <sup>l</sup>	43.6	52.2	64.8	73	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(a) Male	56.4	64.1	75.3	82.1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(b) Female	29.8	39.3	53.7	65.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

**Note :** 1. \*: 3rd Revised Estimates (New Series), 2. #: 2nd Revised Estimates (New Series), 3. N.A.: Not Available, 4. @: 1st Revised Estimates (New Series) \*\* As per 4th Advance Estimates, 5. a. GDP figures prior to 2011-12 are at factor cost based on 2004-05 series. Figures from 2011-12 onwards are based on 2011-12 series, 6. b. Per capita Income prior to 2011-12 are based on constant (2004-05) prices and from 2011-12 onwards are based on constant (2011-12) prices, 7. c: Figures upto 2010-11 are percentages of GDP at market prices (2004-05 series) and from 2011-12 onwards are percentage of GDP at market prices (2011-12 series), 8. d: Base year for data till 2000-01 is Triennium ending (T.E.) 1981-82 and for data from 2010-11 onwards is T.E. 2007-08, 9. e: IIP and WPI from 2012-13 onwards are as per Base Year: 2011-12=100 and earlier data is based on old base years. f: Figures from 2010-11 onwards are based on Base Year: 2001=100 and earlier data is based on old base years, 10. g: As on end-March, 11. h: Relates to mid-financial year (as on October 1) based on estimated population figures of C.S.O., 12. i: For calendar year. Figure shown against 1990-91 is for calendar year 1991 and so on, 12. j: Data for 1950-51, 1960-61, 1970-71 and 1980-81 relate to the decades 1941-50, 1951-60, 1961-70 and 1971-80 respectively, centered at midpoints of the decade, i.e., 1946, 1956, 1966 and 1976, the estimates for 1990-91 refer to the period 1988-92 and so on, 13. Estimates for 2010-11 refers to abridged life expectancy table of period 2008-12, 2011-12 refers to 2009-13, 2012-13 refers to 2010-14 and 2013-14 refers to 2011-15. 14. k: Estimates from Sample Registration System (SRS) Statistical Report, Office of RGI, 15. l: Data for 1950-51, 1960-61, 1970-71, 1980-81, 1990-91 and 2000-01 are as per Census of India 1951, 1961, 1971, 1981, 1991 and 2001. The figures for 1951, 1961 and 1971 relate to population aged 5 years and above and those for 1981, 1991, 2001 and 2011 to population aged 7 years and above. All India literacy rates exclude Assam for 1981 and J&K for 1991.

**Source :** *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in/PDF/Pocket%20Book%202018.pdf>)





भाग-II  
कृषि निविष्टि

SECTION-II  
Agricultural Inputs





**Table 2.1: Crop-wise distribution of certified/quality seeds**

(lakh q)

Year	Cereals	Pulses	Oilseeds	Fibers	Potato	Others	Total
1992-93	36.72	3.40	10.75	2.09	7.10	0.27	60.33
1993-94	38.74	3.62	11.38	2.01	6.17	0.28	62.20
1994-95	41.35	3.60	12.01	2.20	6.62	0.08	65.86
1995-96	44.03	3.58	12.64	2.58	6.85	0.24	69.92
1996-97	46.43	4.19	12.53	3.18	6.69	0.25	73.27
1997-98	51.78	3.89	12.87	3.21	6.83	0.21	78.79
1998-99	57.27	4.06	13.83	2.92	6.86	0.03	84.97
1999-00	61.14	3.87	12.98	2.93	6.89	0.17	87.98
2000-01	59.47	3.85	12.54	2.91	7.23	0.27	86.27
2001-02	65.56	4.69	12.10	2.89	6.33	0.23	91.80
2002-03	66.97	6.60	13.36	2.74	7.16	0.21	97.04
2003-04	70.82	8.17	19.39	2.78	7.01	0.23	108.40
2004-05	81.41	7.40	23.42	2.76	5.05	0.22	120.26
2005-06	86.73	7.37	24.35	2.89	5.08	0.33	126.75
2006-07	109.87	9.63	27.00	3.05	5.12	0.34	155.01
2007-08	123.80	12.57	34.33	2.63	5.35	0.37	179.05
2008-09	147.43	14.48	39.92	2.58	10.55	0.85	215.81
2009-10	165.15	19.69	50.71	2.65	18.68	0.23	257.11
2010-11	182.62	20.83	50.61	2.64	20.08	0.55	277.34
2011-12	189.96	22.26	61.49	3.09	16.68	1.64	294.85
2012-13	204.37	24.51	58.41	2.95	21.47	1.73	313.44
2013-14	183.03	27.80	61.09	2.87	24.63	1.97	301.39
2014-15	203.20	24.77	43.03	3.86	28.12	0.14	303.12
2015-16	194.95	22.71	47.44	2.49	33.88	2.57	304.04
2016-17	229.11	29.47	49.97	2.17	0.38	0.33	311.43

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.(Website:<http://eands.dacnet.nic.in>)  
2. Department of Agriculture, Cooperation & Farmers Welfare, Seeds Division.

**Table 2.2: Commodity-wise indent and production of breeder seeds under AICRP-NSP (Crops) and ICAR Seed Project during 2013-14 to 2017-18**

(q)

Crops	2013-14		2014-15		2015-16		2016-17		2017-18	
	Indent	Production	Indent	Production	Indent	Production	Indent	Production	Indent	Production
<b>Cereals</b>	43098.3	49307.9	45587.4	63127.8	64505.2	81996.9	49729.4	69928.1	42954.3	62336.6
<b>Pulses</b>	9386.5	8887.8	10781.3	11242.4	10252.1	11245.0	17670.5	18470.4	18595.6	26399.8
<b>Oilseeds</b>	26132.7	24282.4	28664.5	24239.4	45941.9	32963.5	35658.9	33134.2	35414.7	28596.3
<b>Fibre crops</b>	46.6	48.7	162.5	183.5	117.6	181.7	160.4	229.9	120.9	189.9
<b>Forage crops</b>	754.0	905.4	1096.6	1281.7	1342.9	1436.4	826.4	853.6	962.4	1143.2
<b>Total</b>	<b>79418.1</b>	<b>83432.2</b>	<b>86292.2</b>	<b>100074.8</b>	<b>122159.6</b>	<b>127823.4</b>	<b>104045.7</b>	<b>122616.2</b>	<b>98047.9</b>	<b>118665.9</b>

Source : ICAR-Indian Institute of Seed Science, Mau, Uttar Pradesh.

Table 2.3: List of field crop varieties/hybrids released and notified in 2018

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>CEREALS</b>				
<b>Rice</b>	Daksha (KMP-175)	Karnataka	45.0-50.0	Suitable for recurring drought and rainfed condition, aerobic rice, maturity: 110-115 days, tolerant to sheath blight and sheath rot.
	JR-81	Madhya Pradesh	55.0-60.0	Suitable for irrigated conditions, long slender grains, maturity: 120-125 days.
	Improved Chinnor	Madhya Pradesh	30.0-32.0	Suitable for irrigated conditions, medium slender aromatic rice, maturity: 150-155 days.
	Improved Jeera Shankar	Madhya Pradesh	30.0-32.0	Suitable for irrigated conditions, aromatic short bold rice, maturity: 140 days.
	Mahisagar (IET 22100)	Gujarat	50.0-55.0	Suitable for irrigated mid early conditions, medium slender grains, maturity: 115-120 days.
	CN 1272-55-105 (IET-19886)	WB, Bihar, Orissa, AP, Karnataka & Maharashtra	54.0	Suitable for irrigated long duration condition, maturity 145-150 days.
	CO52	Tamil Nadu	61.9	Suitable for irrigated condition as transplanted rice, medium slender grains, maturity: 135 days, resistant to brown plant hoppers and leaf hopper.
	JRB 1 (IET 23422)	Madhya Pradesh	45.2-71.4	Suitable for irrigated early condition, short bold grains, maturity: 115 days.
	GNRH-1(NVSR-H-1003) hybrid	Gujarat	50.7	Suitable for transplanted rice growing areas, first rice hybrid of Gujarat, long slender grains, maturity: 110-115 days, tolerant to insect pests.
	GNR-5 (NVSR-6137)	Gujarat	57.9	Suitable for salt affected rice growing areas of Gujarat, long slender grain, maturity: 125 days, salinity tolerant, tolerant to brown plant hopper (BPH).
	CO 43 Sub-1 (IET 25676)	Tamil Nadu, Andhra Pradesh, Odisha, Karnataka	40.4	Suitable for irrigated lowland ecosystems during Rabi, developed through Marker Assisted Backcross Breeding (MABB), short bold grains, maturity: 135-140 days, tolerant to flash flooding/ submergence up to 2 weeks.
	27P37 PR 14101 (IET 24844) Hybrid	Chhattisgarh, Madhya Pradesh & Maharashtra	60.0-65.0	Suitable for irrigated conditions, high yielding hybrid with long bold grain, maturity: 125-130 day.
	28S41 PR 14109 (IET 24891) Hybrid	UP, Odisha, WB, Jharkhand, Maharashtra, MP, Chhattisgarh, Telangana, AP, Karnataka & TN	60.0	Suitable for irrigated conditions, maturity: 134-138 days, resistant to bacterial leaf blight, tolerant to leaf blast.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
Rice	28P67 PR 14105 (IET 24879) Hybrid	Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal, Chhattisgarh and Maharashtra	65.0	Suitable for irrigated conditions, long bold grain maturity: 130-135 days, tolerant to neck blast and brown spot.
	DRR Dhan 47 (IET 23356)	Telangana, Andhra Pradesh, Karnataka, Kerala and Pudducherry	50.0	Suitable for irrigated/transplanted and low fertility ecology, long bold grain, maturity: 110-115 days, lodging resistant, drought tolerant and shattering tolerant, resistant to blast.
	DRR Dhan 48 (IET 24555)	Andhra Pradesh, Telangana, Tamil Nadu, Karnataka and Kerala	50.0-55.0	Suitable for irrigated/transplanted production ecology, high zinc line with BLB resistance maturity: 135-140 days, lodging resistant, fertilizer responsive, non-shattering.
	DRR Dhan 49 (IET 24557)	Gujarat, Maharashtra & Kerala	50.0-55.0	Suitable for irrigated/transplanted and medium fertility ecology, high zinc line (25.2 ppm) with BLB resistance, maturity: 125-130 days, lodging resistant, shattering tolerant, fertilizer responsive.
	DRR Dhan 50 (IET 25671)	Andhra Pradesh, Telangana, Tamilnadu, Karnataka, Bihar, Odisha, Chhattisgarh, UP & MP	58.6 (normal) 37.5 (drought) 25.3 (submergence)	Suitable for irrigated/transplanted and rainfed low land and drought prone areas, medium slender grains, maturity: 140-145 days, lodging resistant, drought tolerant, submergence tolerant.
	DRR Dhan 51 (IET 25484)	Uttar Pradesh, Gujarat, Telangana & Chhattisgarh	45.0-50.0	Suitable for irrigated rice ecosystem, developed by Marker Assisted Backcross Breeding (MABB), short bold rice, maturity: 135-140 days, non-lodging, responsive to fertilizer application, resistant to blast.
	CAU-RI (IET 23544)	Manipur & Meghalaya	55.0-65.0 (normal cultivation) 23.95 (upland condition)	Suitable for rainfed direct seeded/transplanted upland hill and terrace condition, maturity: 130-135 days, moderately tolerant to drought.
	Him Palam Lal Dhan-1 (HPR 2795)	Himachal Pradesh, Meghalaya and Manipur	35.0	Suitable for low elevated hills under rainfed ecology for direct sowing, maturity: 120-124 days, drought tolerant, tolerant to blast, resistant to leaf and neck blast under natural epiphytotic conditions in low elevated hills.



Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	Punjab Basmati-4 (RYT 3404) (IET-25399)	Punjab	43.2	Suitable for lowland irrigated rice ecosystem, developed by Marker Assisted Backcross Breeding (MABB), scented grains, maturity: 145 days, this genotype is resistant to all the 10 pathotypes of bacterial blight pathogen prevalent in the Punjab state.
	Punjab Basmati-5 (RYT 3432) (IET-26153)	Punjab	37.0	Suitable for lowland irrigated rice ecosystem, developed by Marker Assisted Backcross Breeding (MABB), long slender aromatic rice, maturity: 137-140 days, this genotype is resistant to all the 10 pathotypes of bacterial blight pathogen prevalent in the Punjab state.
	PR-126 (RYT 3379) (IET-24721)	Punjab	76.1	Suitable for irrigated mid-early rice ecosystem, maturity: 123 days, this genotype is resistant to 7 of the 10 pathotypes of bacterial blight pathogen known in the Punjab state.
	MDU.6 (IET-23994)	Tamil Nadu	61.1	Suitable for irrigated early condition, long slender rice, maturity: 115-120 days, non-shattering.
	PDKV Kisan (SKL-22-39-31-25-31-34)	Eastern Vidarbha Zone of Maharashtra	40.0-42.0	Suitable for irrigated and assured rainfall during kharif season in transplanted condition, medium slender grains, maturity: 130-135 days, resistant to leaf blast, bacterial leaf blight (BLB) and gall midge biotype 4.
	CNRH 102 (IET 22913)	West Bengal	50.0-60.0	Suitable for irrigated/ rainfed condition, medium slender grains, maturity: 125 days, resistant to lodging and tolerant to shattering.
	Ranjit SUB-1	Assam	55.0	Suitable for lowland rice ecology, medium slender grains, maturity: 145-150 days, can tolerate upto 12 days complete submergence. Non-lodging, non-shattering.
	Bahadur SUB-1	Assam	60.0	Suitable for lowland rice ecology, medium bold grains, maturity: 145-150 days, can tolerate upto 12 days complete submergence, non-lodging, non-shattering.
	CSR-46 (CSR 2K 262)	Uttar Pradesh	6.0-6.5 t/ha (under non-stress soil ) 3.5-5.0 t/ha (salt-affected soils)	Suitable for alkalinity/sodicity condition, maturity: 125-135 days, long slender grains, tolerant to alkalinity (pH9.8-10)/ sodicity.
	Gobinda (OR 2324-8) IET 21009	Odisha	40.0	Suitable for rainfed and irrigated shallow medium land, maturity: 135 days.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	Hasanta (OR 2328-5) IET 21477	Odisha	39.5	Suitable for rainfed and irrigated shallow lowland, maturity: 145 days, tolerant to sheath rot.
	Ashutosh (OR 2331-14) IET 21341	Odisha	40.0	Suitable for rainfed shallow and semi-deep lowland, maturity: 150 days.
	Trupura Chikan Dhan	Tripura	56.0-58.0 (boro season under irrigated conditions)	Suitable for irrigated and favourable rainfed shallow lowland and in <i>boro</i> season, very fine grain variety, maturity: 120-125 days.
	Tripura Sarat	Tripura	58.0-60.0 (boro season)	Suitable for irrigated and favourable rainfed shallow lowland in <i>boro</i> season, maturity: 120-125 days.
	Tripura Nirog	Tripura	58.0-60.0	Suitable for irrigated and favourable rainfed shallow lowland and in <i>kharif</i> as well as <i>boro</i> season, maturity: 125-128 days.
	Tripura Hakuchuk - 2	Tripura	55.4	Suitable for transplanted lowland as well as direct seeded upland, under transplanted and 33 q/ha under direct seeded upland, maturity: 100-105 days in transplanted & 90-95 days in direct seeded, drought tolerant.
	Tripura Khara -2	Tripura	56.0-58.0 (Normal)	Suitable for rainfed, drought prone lowlands, variety performed very well under moderate to severe drought stress, maturity: 115-120 days, drought tolerant.
	Tripura Khara -1	Tripura	56.0-58.0 (Normal)	Suitable for rainfed drought prone lowlands, the variety performed very well under moderate to severe drought stress, maturity: 115-120 days, drought tolerant.
	Tripura Hakuchuk - 1	Tripura	55.4 (in 100 days under transplanted conditions) 33.0 (under direct seeded upland)	Suitable for transplanted lowland as well as direct seeded upland, maturity: 100-105 days in transplanted & 90-95 days in direct seeded, drought tolerant.



Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
Rice	Tripura Jala -1	Tripura	50.0-55.0	Suitable for water stagnant lowlands, semi deep water condition, very good for making high quality puffed rice, maturity: 145-150 days.
	Tripura Aush	Tripura	50.0-54.0	Suitable for transplanted in August (spring / summer), maturity: 100-105 days, drought tolerant.
	VNR-2228 (IET 24951) VNR-218	Punjab, Haryana, Uttarakhand, MP, Rajasthan, Chhattisgarh and Maharashtra	63.7	Suitable for transplanted condition in irrigated and rainfed ecologies in <i>kharif</i> season, mid-early duration hybrid, maturity: 125-130 days, resistant to lodging.
	VNR-2111 PLUS (IET 24075) (VNR 212)	Punjab, Haryana, Uttarakhand, WB, Odissa, Bihar, UP, Jharkhand, MP, Chhattisgarh & Maharashtra	63.0	Suitable for irrigated and rainfed ecologies in <i>kharif</i> season in transplanted condition, maturity: 115-120 days, tolerant to terminal water stress.
	VNR-216 (IET 25287)	Chhattisgarh, Maharashtra & Gujarat, West Bengal	59.0	Suitable for irrigated and rainfed ecologies in <i>kharif</i> season, long duration hybrid, short bold grains, maturity: 140-145 days, tolerance to lodging, BPH and BLB, high tolerance to lodging under high winds.
	Gujarat Anand Rice-14 (GAR-14) (IET-24619)	Western region of Maharashtra and Gujarat for Kharif season	51.0	Suitable for irrigated transplanted growing area of <i>kharif</i> seasons, aromatic short grain, aromatic short slender rice, maturity: 137-140 days, resistant to neck blast.
	ADT 52 (IET 25521) AD 13121	Central Zone Chhattisgarh and Maharashtra	49.0	Suitable for irrigated rice ecosystem ( <i>kharif</i> ), maturity: 140-150 days, moderately resistant to leaf blast, neck blast, sheath rot grain discoloration and RTD.
	CSR 60 (IET 25378) (CSR 2013 MI-10)	Uttar Pradesh, Pondicherry	34.0	Suitable for high fertility, transplanted and <i>kharif</i> condition, long slender grains, maturity: 120-130 days, resistant to lodging, shattering and suitable to high alkaline irrigated conditions.
	CSR 56 (IET 24537)	Uttar Pradesh & Haryana	35.0	Suitable for irrigated, alkaline, high fertility, transplanted and <i>kharif</i> condition, long bold grains, maturity: 120-130 days, resistant to leaf blast, blight, brown spot, glume discoloration diseases, stem borer, leaf folder and white backed plant hopper
	YNP9761(IET 24338)	Chhattisgarh, West Bengal, Bihar & Odisha	62.0	Suitable for <i>kharif</i> irrigated areas, mid-early, yield: 62q/ha, maturity: 135-140 days, moderately resistant to leaf blast, sheath blight and brown spot.
	Bina Dhan 17 GSR (SAGC&) (IET 24460)	West Bengal, Assam and Tripura	55.0-60.0	Suitable for irrigated mid-early conditions, long slender, maturity: 115-120 days, resistant to BLB, sheath blight.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	BRR1 Dhan 69 (WTR 1) (IET 24461)	West Bengal, Assam and Tripura	55.0-60.0	Suitable for Boro cultivation, medium bold seeds, maturity: 145-155 days, resistant to blast, BLB, sheath blight and stem borer, tolerant to cold in vegetative phase.
	BRR1 Dhan 75 (Hua 565) (IET 24459)	West Bengal, Assam and Tripura	45.0-50.0	Suitable for irrigated condition, long bold, maturity: 110-120 days, moderate resistance to blast, BLB, sheath blight, stem borer, BPH, GLH.
	Pusa Samba 1850 (IET 25480) (Pusa 1850-27)	Chattisgarh and Odisha	47.7	Suitable for irrigated, high fertility and <i>kharif</i> season, maturity: 140-145 days, it is a MAS derived rice variety, highly resistant to blast.
	ADT 51 (AD 09367) (IET 23617)	Tamil Nadu	65.3	Suitable for semi-dry and transplanted cultivation in samba season (August sowing) in Cauvery delta districts of Tamil Nadu, for both direct seeding (Semidry) and transplanting, medium slender grains, maturity: 150-160 days, resistant to blast, yellow stem borer and leaf folder.
	KHP-13 (Bharath) (IET 21479)	Karnataka	50.0-55.0	Suitable for lowland situations of Hill Zone of Karnataka, medium slender grains, maturity: 165-170 days, non-lodging and blast tolerant.
	KKP -5	Karnataka	80.0-85.0	Suitable for irrigated area of southern Karnataka, high yielding, medium slender grain, maturity: 130-135 days, resistant/tolerance to blast, BLB and BPH.
	Pradeep (IET 20923) (OR 2327-23)	Odisha	50.0	Suitable for rainfed and irrigated medium lands, long slender, maturity: 125-135 days, moderately resistant to leaf blast, sheath blight, sheath rot and whorl maggot.
	Pratibha (IET 21582) (OR 2172-7)	Odisha	52.0	Suitable for rainfed and irrigated medium lands, long slender, maturity: 120-130 days, resistant to leaf blast, brown spot and sheath rot.
	Gomati Dhan (TRC-2005-1) (TRC-05-8-4-42-8-3-7) (IET 21512)	South Tripura, West Tripura and Dhalai districts of Tripura.	58.0-60.0	Suitable for rainfed shallow lowland and irrigated land in <i>kharif</i> season, medium slender grain with very good cooking quality, completely free from chalkiness, maturity: 130-135 days.
	Khowai (TRC-2005-3) (TRC-05-2-6-4-39-3-6) (IET 21564)	South Tripura, West Tripura and Dhalai districts of Tripura	54.0-56.0	Suitable for rainfed shallow lowland in <i>kharif</i> and irrigated land in <i>boro</i> season, maturity: 130-135 days.
	Muktashree (IET 21845)	West Bengal	52.3 (Boro) 41.70 (Kharif)	Suitable for irrigated, transplanted condition, maturity mid-early, moderately tolerant to sheath blight, brown spot, leaf folder and moderately resistant to leaf blast, black plant hopper, gall midge, resistant to lodging and grain shattering.
	Krishna (RNR-2458) (IET-21492)	Telangana	60.0	Suitable for irrigated medium ecosystem, maturity: 135 days grain type: short slender, resistant to blast, moderately resistant to sheath rot.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	JGL 11118 (Anjana)	Telangana	62.0	Suitable for irrigated early, maturity: 115-135 days, resistant to gall midge, tolerant to bacterial leaf blight and cold, fine grain.
	JGL 17004 (Prathyumna)	Telangana	50.0	Suitable for late planting under contingency situation, irrigated very early, maturity: 95-120 days, resistant to gall midge, cold, tolerant to blast, fine grain.
	JGL 11727 (Pranahitha)	Telangana	62.0	Suitable for irrigated medium, fine grain, maturity 135 days, resistant to gall midge, tolerant to bacterial leaf blast and tolerant to bacterial leaf blight.
	CR Dhan 801 (IET 25667) (IR 96322-34-223-B-1-1-1- CR3955-2)	Andhra Pradesh, Telangana, Odisha, Uttar Pradesh and West Bengal	55.0	Suitable for rainfed shallow lowland, maturity: 140-145 days, moderately resistant to bacterial blight, rice tungro virus, leaf folder and case worm, tolerant to submergence and drought.
	Mukul (CR Dhan 311) (IET 24772) (CR2829-PLN-100)	Odisha	44.6-48.5	Suitable for rainfed shallow lowland and medium land, maturity: 120-126 days, tolerance to leaf blast, glume discoloration, brown spot, rice tungro virus disease and bacterial leaf blight, moderately tolerance against gall midge and stem borer, non lodging and resistant to shattering.
	CR Dhan 510 (IET 23895) (CR2593-1-1-1-1)	West Bengal and Odisha	52.6 (West Bengal) 40.1 (Odisha)	Suitable for rainfed lowland (semi-deep water ecology), maturity: 160-165 days, moderately resistance to leaf blast, neck blast and bacterial blight, stem borer and leaf folder, tolerant to lodging.
	CR Dhan 204 (IET 21692)	Jharkhand and Tamil Nadu	40.0	Suitable for mid early aerobic conditions, maturity 110-115 days, good grain quality, moderately resistant to leaf blast, neck blast, brown spot, sheath rot, stem borer.
	CR Dhan 306 (IET 22084)	Madhya Pradesh, Bihar and Puducherry	50.0	Suitable for irrigated mid early conditions, maturity: 120-125 days, moderately resistant to brown spot, stem borer, leaf folder, white backed plant hopper.
	CR Dhan 205 (IET 22737)	Tamil Nadu, Gujarat, Odisha and Punjab	37.0	Suitable for early aerobic conditions, maturity: 105-110 days, moderately resistant to leaf blast, brown spot, sheath rot, stem borer, leaf folder.
	Samvrudh (IET 23272) (MTU 1155)	Odisha, West Bengal, Chhattisgarh and Maharashtra.	57.0	Suitable for irrigated transplanted conditions, maturity: 115-125 days, moderately resistant to leaf blast, BLB, brown spot, sheath rot, leaf scald, stem borer, resistant to neck blast and rice tungro rice disease, resistance to lodging (non-lodging), low shattering and highly responsive to nitrogen.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	Ksheera (IET 24495) (MTU 1172)	Odisha and Andhra Pradesh.	4.5-5.0 t/ha (semi deep water conditions), 5.5-6.0 t/ha (normal irrigated conditions)	Suitable for semi deep water ecosystem, maturity: 150 days (kharif), 110-140 days (rabi), low grain shattering, moderately resistant to leaf blast, sheath rot, BLB, brown spot.
	Varam (IET 25495) (MTU 1190)	Chhattisgarh, Maharashtra, Andhra Pradesh, Telangana and Tamil Nadu.	55.0-65.0	Suitable for irrigated transplanted conditions, maturity: 140-145 days (kharif), 125-130 days (rabi), moderately resistant to leaf blast, neck blast and BLB.
	S9002 (NK 17508) (IET 24904) Hybrid	Haryana, Uttar Pradesh, Jharkhand, Maharashtra.	65.0	Suitable for irrigated early condition, maturity: 120 days, moderately resistant to leaf blast and neck blast.
	S4001 (NK 14722) (IET 24117) Hybrid	Uttar Pradesh, Jharkhand	62.0	Suitable for irrigated mid early condition, maturity: 125-130 days, moderately resistant to leaf blast and neck blast.
	Chhattisgarh Devbhog (IET 23879) (R-1656-1146-5-513-1)	Uttar Pradesh and Chhattisgarh.	44.2	Suitable for irrigated ecosystem of Chhattisgarh and for cultivation on rainfed bunded with medium to heavy textured soils of Chhattisgarh plains, maturity: 135-140 days.
	Zinco Rice-MS (IET 25477) (R-RHZ-LI-23)	Chhattisgarh, West Bengal and Odisha.	58.0	Suitable for early/medium sown condition, rainfed and irrigated condition, maturity: 100 days, resistant to lodging and shattering, moderately tolerance to leaf blast, brown spot, sheath rot and rice tungro disease.
	DRR Dhan 52 (IET 23354) (RP5125-12-5-3-B-IR84898-B)	Haryana, Gujarat and Odisha.	59.0	Suitable for direct seeding, drought tolerant, heat tolerant, maturity: 110-115 days (early), resistant to blast and moderate resistance to neck blast, sheath rot, sheath blight, brown spot and rice tungro disease, lodging resistance.
	Ratmagri-8 (RTN 28-1-5-3-2) (IET 25493)	Odisha, Uttar Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh and Telangana.	40.7	Suitable for early sown and transplanted midlands conditions, maturity: 135-138 days, non-lodging, non-shattering, moderately tolerant to water stress and coastal salinity.
	CR Dhan 309 (IET 25345) (IR 95797-CR3847-2-1-1-1-1)	Assam, Chhattisgarh and Uttar Pradesh.	50.0	Suitable for early irrigated condition, maturity: 115 days, moderately tolerant to leaf blast and rice tungro virus, resistant to stem borer, leaf folder and whorl maggot leaf.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Rice	CR Dhan 802 (SUBHAS) (IET 25673) (CR3925-22-7)	Madhya Pradesh and Bihar.	22.0 (submergence) 41.0 (normal conditions)	Maturity: 140 days, moderately resistant to bacterial blight, sheath rot and rice tungro virus, resistant to stem borer, leaf folder, plant hopper and case worm.
	CR Dhan 511 (IET 23906) (CR2789-9-2)	West Bengal and Odisha.	37.6-47.3	Maturity: 160-165 days, moderately resistant to leaf blast, neck blast, bacterial blight diseases, stem borer and leaf folder.
	Chhattisgarh Zinc Rice-2 (CGZR-2) (IET 23829)	Chhattisgarh	45.0	Suitable for rainfed and irrigated condition under early/medium sown conditions, medium maturity, high zinc rich rice, short slender translucent grain.
	Trombay Chhattisgarh Dubraj Mutant-1 (TCDM-1) (IET 26249)	Chhattisgarh	39.9	Suitable for irrigated ecosystem of Chhattisgarh for cultivation on rainfed bunded having heavy textured soils of Chhattisgarh plains, maturity 125-130 days.
	Jammu Basmati 129 (SJR 129-2-2) (IET 24597)	Basmati growing belt of Jammu & Kashmir	44.3	Suitable for irrigated ecology, medium maturity, moderately resistant to bacterial leaf blight diseases, brown spot, stem borer and leaf folder.
	PKV Tilak (SYE-503-78-34-2)	Maharashtra	35.0-40.0	Suitable for irrigated areas in transplanted conditions during kharif season in Vidarbha region, maturity. 140-145 days.
	Ratnagiri-6 (RTN 65-1-2-2-2) (IET 25529)	Maharashtra	45.0	Suitable for transplanted conditions of mid land paddy growing areas, maturity: 118-125 days, moderately resistant to leaf blast and bacterial leaf blight disease, stem borer leaf folder and gall midge.
	Ratnagiri-7 (RTN RR-4) (IET 25448)	Maharashtra	40.0-45.0	Suitable for transplanted conditions of mid land paddy growing areas, maturity: 122-125 days, moderately resistant to leaf blast and bacterial leaf blight disease, resistant to stem borer, leaf folder and gall midge.
	Sakoli-9 (SKL-2-50-56-45-30-60)	Maharashtra	38.0-42.0	Suitable for transplanted conditions during kharif season in Vidarbha region, maturity 130-135 days, medium slender grain, moderately resistant to leaf blast, neck blast, sheath rot, brown spot and stem borer.
	HUR-1304 (Malviya Dhan-1304) (IET 23985)	Uttar Pradesh	35.5	Suitable for irrigated ecology for whole UP, maturity 108-110 days, moderately resistant to rice neck blast, bacterial leaf blight and glumes discolouration, tolerant to brown plant hopper and store pest weevil.
	HUR-1309 (Malviya Sugandh Dhan-1309) (IET 23873)	Uttar Pradesh	50.0-55.0	Maturity: 115-120 days (medium), aromatic short grain, moderately resistant to rice neck blast disease, and glumes discolouration.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Rice</b>	GR-15 (NVS-6121)	Gujarat	55.4	Suitable for transplanted areas of Gujarat, contains high zinc (21.58 ppm), good amount of amylose content (24.81%), long bold grain, maturity 120-125 days, moderately resistant against bacterial leaf blight, grain discoloration and sheath rot, tolerant to brown plant hopper, moderate resistance against stem borer, leaf folder and sheath mite.
	KRL 283	Uttar Pradesh	20.9	Suitable for timely sown, irrigated conditions salt affected soils of U.P., maturity: 134-144 days, resistant to leaf blight, karnal bunt and hill bunt.
<b>Wheat</b>	DBW 168	Maharashtra and Karnataka	47.46	Suitable for timely sown, irrigated conditions, maturity: 95-141 days (Avg. 115 days), resistant to brown and black rusts.
	DBW 173	Punjab, Haryana, Delhi, Rajasthan (excluding Kota and Udaipur division), Western UP (except Jhansi division), Jammu and Kathua district of J&K, Paonta Valley and Una district of HP and Tarai region of Uttarakhnad	47.2	Suitable for irrigated, late sown conditions, heat tolerant, high protein (12.5%), high Fe (40.7 ppm) and Zn (33.1 ppm), maturity: 106-138 days (Avg. 122 days), resistant to yellow and brown rusts.
	UAS 375	Maharashtra and Karnataka	21.4	Suitable for timely sown, rainfed conditions, high protein (13.8%), maturity: 97-117 (Avg. 103) days, resistant to brown and black rusts and karnal bunt.
	Pusa Wheat 1612 (HI 1612)	Eastern UP, Bihar, Jharkhand, WB (excluding hills), Odisha, Assam and plains of other NE States	37.6	Suitable for timely sown, restricted irrigated conditions of NEPZ, high protein content (11.5%), maturity: 113-144 (Avg. 125) days, tolerant to heat stress, resistant to stripe, leaf rusts, leaf blight and loose smut.
	MACS 4028 (d)	Maharashtra and Karnataka	19.3	Suitable for rainfed, low fertility, timely sown conditions in Peninsular zone, high protein (14.7%), iron (46.1 ppm) and Zinc (40.3 ppm), maturity: 99-105 (102) days, resistant against stem and leaf rusts, foliar aphids, root aphids and brown wheat mite.
	Pusa Wheat 8777 (HI 8777)	Maharashtra and Karnataka	18.5	Suitable for rainfed timely sown conditions in Peninsular zone, high levels of essential micronutrients like iron and zinc etc., maturity: 105-110 (108) days, tolerant to heat stress, stem rust, leaf rust, Karnal bunt, loose smut, flag smut and foot rot.
	HUW 669 (Malviya 669)	Uttar Pradesh	24.1	Suitable to late sown, rainfed/limited irrigation condition, maturity: 130-140 days, drought tolerant, resistant to all the three rusts, leaf blight, lodging, having fertilizer responsiveness.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Wheat	Chhattisgarh Genhu-3 (CG 1013)	Chhattisgarh	33.3	Suitable for irrigated timely sown conditions, high hectolitre weight 78.1 kg/l, maturity: 119 days, resistance to brown rust.
	UAS-334	Karnataka	49.1	Suitable for irrigated timely sown conditions, good protein (13.3 %) and zinc (43.1 ppm) content, maturity: 100-107 days, resistance to stem and leaf rust.
	AAI-W9 (SHIATS-w9)	Uttar Pradesh	36.0-40.0	Suitable for irrigated late sown conditions, maturity: 110 days, resistant to lodging, tolerant to higher terminal temperature (38-40°C) of March/April, resistant to all the three rust/diseases viz. stripe rust, leaf rust, stem rust as well as smut, leaf blight and kernel bunt in field condition.
	AAI-W10 (SHIATS-w9)	Uttar Pradesh	45.0-50.0	Suitable for timely sowing (15-30 November) under irrigated conditions, maturity: 120 days, resistant to lodging, tolerant to higher terminal temperature (35-40°C) of March/April, resistant to all the three rust viz. stripe rust, leaf rust, stem rust as well as smut, leaf blight in field condition.
	PBW 752 (Bread wheat)	Punjab, Haryana, Delhi, Rajasthan, UP, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.	49.7	Suitable for late sown, irrigated conditions, maturity: 120 days, hard grain, hardness index (84), protein content (12.4%), high level of resistance to yellow and brown rusts, better adaptability to change in sowing time.
	PBW 757 (Bread wheat)	Punjab, Haryana, Delhi, Rajasthan, UP, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.	36.7	Suitable for very late sown, irrigated conditions, maturity: 104 days, good chapati quality (8.07), high Zn content (42.3 ppm), high degree of resistance to yellow and brown rusts.
	Pusa Wheat 3237 (HD 3237)	Punjab, Haryana, Delhi, Rajasthan Uttar Pradesh, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.	48.4	Suitable for restricted irrigation, timely sown conditions, maturity: 145 days, good chapati making quality (7.98), resistance to yellow and brown rust, less reduction in yield at zero irrigation.
	Pusa Wheat 1620 (HI 1620)	Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.	49.1	Suitable for timely sown, restricted irrigation conditions, maturity: 146 days, good chapati making quality (7.52), resistance to yellow and brown rust, tolerance to lodging
	Pusa Yashasvi (HD 3226)	Punjab, Haryana, Delhi, Rajasthan, Uttar Pradesh, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.	57.5	Suitable for irrigated, timely sown condition, maturity: 142 days, high wet gluten content (30.85%), resistance to yellow and brown rust.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Wheat</b>	Karan Vandana (DBW 187)	Uttar Pradesh, Bihar, Jharkhand, West Bengal, Odisha, Assam and North Eastern States.	48.8	Suitable for timely sown irrigated conditions, maturity: 120 days, having good biscuit spread factor (8.6 cm), high Fe content (43.1 ppm), resistant to yellow and brown rust.
	Chhattisgarh Amber Wheat (CG 1018)	Chhattisgarh	35.0	Suitable for timely sown restricted irrigated conditions, maturity: 127 days, resistant to brown and black rust
	Jammu Wheat 584 (JW 584)	Jammu	-	Suitable for timely sown irrigated and mid hills conditions, bold grain, medium maturity (140-155 days), moderately resistant to all three rusts (yellow/stripe, leaf and stem rust)
	VL Gehun 967 (VL 967)	Uttarakhand	19.8	Suitable for rainfed timely sown organic conditions of Uttarakhand hills, maturity: 160-170 days, highly resistant to yellow and brown rust along very good chapatti quality.
	VL Gehun 3004 (VL 3004)	Uttarakhand	43.8	Suitable for late sown irrigated conditions of Uttarakhand plains, maturity 120-123 days, highly resistant to yellow and brown rust, poses 10.4 % protein.
	VL Gehun 2014 (VL 2014)	Uttarakhand	52.0	Suitable for irrigated timely sown organic conditions of Uttarakhand plains, highly resistant to yellow and brown rust, poses 10.8-11.1% protein.
	Ummat PBW 550 (Bread wheat)	Punjab	-	Suitable for timely sown irrigated conditions, medium maturity 140-148 days, highly resistant to yellow and brown rust.
	UP 2844	Uttarakhand	42.0	Suitable for late sown, irrigated condition, protein content (11.7%), maturity (days): 125, resistant to yellow and brown rust.
	UP 2855	Uttarakhand	52.5	Suitable for timely sown, irrigated condition, protein content (11.8%), maturity: 134 days, resistance to brown rust.
	UP 2865	Uttarakhand	45.8	Suitable for late sown, irrigated condition, protein content (12.5%), maturity: 122 days, resistance to brown rust.
<b>Barley</b>	K-1055 (Prakhar)	Uttar Pradesh	38.0	Suitable for irrigated timely sown condition, maturity: 116-145 days (Avg. 132 days), tolerant to lodging and shattering, responsive to fertilizers, resistant to yellow, brown and black rusts and foliar blight.
	Central Barley DWRB 137	MP, Gujarat, Kota and Udaipur division of Rajasthan, UP, Bihar, Jharkhand, WB (excluding hills), Odisha, Assam and plains of NE states	42.4	Suitable for irrigated, timely sown condition in CZ and NEPZ, maturity: 113-119 days (Avg. 115 days), lodging resistant, resistant to yellow, brown and stripe rust.



Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Barley</b>	RD 2899	MP, Gujarat, Chhattisgarh, Kota & Udaipur division of Rajasthan, Jhansi division of UP	42.1	Suitable for timely sown irrigated conditions, high yielding, feed barley variety, maturity: 110-120 days, rust resistant
	RD 2907	Punjab, Haryana, Delhi, Rajasthan, Western U.P, Parts of J&K and HP	35.5	Suitable for timely sown irrigated, saline in alkaline area of NWPZ & NEPZ, high yielding, feed barley variety, maturity: 119-130 days, rust resistance.
	VLB 130	Uttarakhand	20.9	Suitable for rainfed timely sown organic conditions of Uttarakhand hills, medium maturity 150-155 days, highly resistant to yellow and brown rust.
<b>Maize</b>	Gujarat Anand White Maize Hybrid-2 (GAWMH-2)	Gujarat	39.0	Suitable for middle Gujarat Agro climatic Zone-III under rainfed <i>kharij</i> conditions, yield: 39.0 q/ha, fulfills food and nutrition security in tribal belt where white maize is preferred, maturity: 80-85 days, tolerant to stem borer ( <i>Chilo partellus</i> ).
	Shaktiman-5 (MHQPM 09-08) Hybrid	Uttar Pradesh, Bihar, Jharkhand, West Bengal, Orissa and Chhattisgarh in both Kharif and Rabi seasons	105.0	Suitable for rainfed, <i>kharij</i> season, 9.4% protein, high lysine and tryptophan (0.6% of total protein), maturity: 100 days, tolerant to TLB and MLB.
	CP. 999 Hybrid	Karnataka, Tamilnadu, Telangana and Maharashtra.	85.0	Suitable for <i>rabi</i> season under irrigated, high fertility and good management condition, maturity: 107-109 days, moderately resistant against LIR/S, <i>infernus</i> under field condition and major insects of <i>rabi</i> season.
	CP. 838 Hybrid	Punjab, Haryana, UP, Plain Utrakhand, Bihar, Jharkhand, WB, Odisha, Karnataka, TN, Telangana, AP, Maharashtra, Rajasthan, Gujarat	87.0-112.0	Suitable for <i>rabi</i> season under irrigated, high fertility and good management condition, maturity: 105-110 days, highly resistant to major <i>rabi</i> season insect <i>S. inferens</i> under natural field condition.
	MH 9344 (DMH 192) Hybrid	Karnataka, Maharashtra, Andhra Pradesh, Tamil Nadu and Telangana	91.0	Suitable for irrigated, <i>kharij</i> conditions, high plant density, performed exceedingly well under different spacing and fertilizer doses, maturity: 115-120 days, tolerant to moisture stress, highly responsive to high fertilizer and resistant to common rust and charcoal rust.
	ADV-756 (ADV 0990296) Hybrid	Karnataka, Maharashtra, AP, Tamil Nadu, Telangana, Rajasthan, Gujarat, MP and Chhattisgarh	71.0-93.0	Suitable for irrigated and rainfed areas, the hybrid shows better response to higher plant density and higher fertilizer dosage, maturity: 110-115 days, multiple disease resistance, resistant to Curvularia leaf spot (CLS).

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
Maize	HTMH 5108 Hybrid	Karnataka, Maharashtra, AP, Tamil Nadu and Telangana	97.2	Suitable for rainfed and irrigated ecology, good response to high density, maturity: 112-114 days, resistant to lodging.
	HTMH 5109 (HT 51412616) Hybrid	Karnataka, Telangana, Andhra Pradesh, Tamil Nadu and Maharashtra	25.0	Suitable for irrigated, high and medium fertility soils, good performance under moisture stress conditions, maturity: 118-120 days, grains tolerant to stored grain insect-pests.
	Top Class (KMH 1411) Hybrid	Bihar, Jharkhand, WB, Odisha and Eastern Uttar Pradesh	91.4	Suitable for early sown, irrigated <i>rabi</i> conditions with medium to high fertility soil, responsive to inputs, maturity: 136-152 days (Avg. 146) days, non-lodging.
	GK 3150 Hybrid	Rajasthan, Gujarat, Chhattisgarh and Madhya Pradesh	95.0	Suitable for <i>rabi</i> , both high and low fertility conditions, maturity: 124-132 (Avg. 130) days, tolerant to lodging, highly responsive to fertilizer. Resistant to <i>Sesamia inferens</i> (2.0).
	GK 3155 Hybrid	Bihar, Jharkhand, Odisha, Uttar Pradesh and in Rabi season for West Bengal	91.0	Suitable for <i>rabi</i> under normal and high density planting, fertilizer responsive, maturity: 145-150 days, tolerant to lodging, resistant to <i>Sesamia inferens</i> (3.4).
	LG 34.05 (BL 900) Hybrid	UP, Bihar, Jharkhand, WB, Odisha, Maharashtra, Telangana, AP, Karnataka, TN, MP, Chhattisgarh, Gujarat, Rajasthan	110.0-120.0	Suitable for <i>rabi</i> in both high and low fertility conditions, medium, resistant to SDM, BLSB and C rust.
	LG 34.04 (BL 147) Hybrid	Uttar Pradesh, Bihar, Jharkhand, West Bengal and Odisha	91.0	Suitable for <i>rabi</i> in both high and low fertility conditions, maturity: 110-120 days, resistant to C rust, TLB, SDM and BLSB.
	JKMH 4222 (Hybrid)	Rajasthan, Madhya Pradesh, Chhattisgarh, Gujarat states.	59.6	Suitable for both rainfed and irrigated condition of rainy season, in all types well drained soils, tolerant to rainfed and moisture stress condition, maturity: 82-85 days, high level resistance to important diseases i.e. <i>Fusarium</i> stalk rot, Rajasthan downy mildew, Curvularia leaf spot, tolerant to <i>Chilo partellus</i> .
	DMRH 1305	J&K, HP, Uttarakhand (Hill region), Sikkim, Meghalaya, Assam, Tripura, Nagaland, Manipur & Arunachal Pradesh	60.0	Suitable for irrigated condition of rainy season, 60.0 q/ha, maturity: 93 days, high level resistance to Curvularia leaf spot, tolerant to <i>Chilo partellus</i> .
	IMHB 1532	Punjab, Haryana, Delhi, Uttarakhand, UP (NWPZ) and Rajasthan, Gujarat, Madhya Pradesh and Chhattisgarh (CWZ)	60.0	Suitable for irrigated condition of rainy season, dehusked baby corn, maturity: 50-52 days, resistant to Curvularia leaf spot.

Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
Maize	IMHB 1539	J&K, HP, Uttarakhand (Hill region), Meghalaya, Sikkim, Assam, Tripura, Nagaland, Manipur and Arunachal Pradesh	13.0 (dehusked baby corn)	Suitable for irrigated condition of rainy season, moderately resistance response to multiple disease viz., MLB, TLB, C. Rot and BLSB and tolerant to <i>Chilo partellus</i> .
	Pusa Super Sweet Corn 1 (ASKH4)	J&K, HP, Uttarakhand (Hill region), Meghalaya, Sikkim, Assam, Tripura, Nagaland, Manipur and Arunachal Pradesh (North Eastern Hill Region), Punjab, Haryana, Delhi, Uttarakhand (Plain), UP (Eastern & Western region), Bihar, Jharkhand, Odisha, WB, Maharashtra, Karnataka, AP, Telangana & TN	75.0-98.0 (dehusked cob)	Suitable for irrigated condition of rainy season, maturity: 78 days, resistance to Curvularia leaf spot.
	MAH-14-5 Hybrid	Karnataka	90.0-120.0	Suitable for irrigated and rainfed conditions during <i>khari</i> season, maturity: 110-120 days, tolerant to Fuzarium stalk rot, TLB and DM and drought.
	ADV 762 (ADV 7022)	Karnataka, Andhra Pradesh, Telangana, Maharashtra and Tamil Nadu.	85.0	Maturity: 115-120 days, moderate resistance to <i>Turicum</i> leaf blight (TLB), Maydis leaf blights (MLB), <i>Fusarium</i> stalk rot, Charcoal rot, Sorghum Downey Mildew (SDM), <i>Polysora</i> rust and common rust.
	VL Maize Hybrid-57 (FH 3754)	Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.	60.0	Maturity: 95-100 days (mid hills), moderately resistance against <i>H. turicum</i> and <i>H. Maydis</i> .
JMC-3 (PMSY 3)	Jammu	61.4	Suitable for rainfed high fertility soil of mid hills of Jammu, medium maturity 130-135 days, moderately resistant to turicum leaf blight (TLB), maydis leaf blight, moderately tolerant to maize stem borer (MSB) and blister beetle.	
PAC 751	Uttar Pradesh	65.0-70.0	Suitable for irrigated medium ecology of UP, medium maturity 100-105 days, resistant to turicum leaf blight, downy mildew, and erwinia stalk rot, moderately resistant to brown stripe, downy mildew, common rust.	

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Maize</b>	Jawahar Maize 218	Madhya Pradesh	50.5	Suitable for rainfed condition in kharif and irrigated in rabi/summer, maturity 94 days; tolerant to stem and root lodging and water logging conditions, highly responsive to fertilizers, tolerant to <i>H. turcicum</i> and <i>H. maydis</i> leaf blight, tolerant to stem borer.
	Pusa Jawahar Hybrid Maize-1	Madhya Pradesh	64.7	Suitable for rainfed condition in kharif of MP, semi dent, bold seed, orange colour, maturity 85-97 days, tolerant to drought and water logging at early growth stages, resistant to flowering stock rot and Rajasthan downy mildew, tolerant to stem borer
	Gujarat Anand Yellow Maize Hybrid 3 (GAYMH 3) (GYH-0363)	Middle Gujarat	66.5	Suitable for middle Gujarat Agro-climatic zone for rabi season, yield 66.56 q/ha, orange flint grains single cross hybrid with high $\beta$ -carotene than normal maize, medium maturing, moderately resistant against turcicum leaf blight and sorghum downy mildew diseases and resistant against common rust, stem borer.
<b>Pearl Millet</b>	AHB 1200 Fe (MH 2072 (AHB 1200) hybrid	Rajasthan, Gujarat, Haryana, Punjab, Delhi, Maharashtra, Telangana, AP and Tamil Nadu	31.7 (grain yield) 70.0 (fodder yield)	Suitable for rainfed condition of <i>kharif</i> season, biofortified [high iron (77 ppm) and zinc (39 ppm)], bold grain, maturity: 78 days, highly responsive to fertiliser, drought tolerant but in stress require protective life saving irrigation. Resistant to major disease such as downy mildew and tolerant stem borer.
	PB 1705 (MH 2008) Hybrid	Rajasthan, Gujarat, Haryana, Punjab, Delhi, Madhya Pradesh and Uttar Pradesh	36.4 (grain yield) 88 (fodder yield)	Suitable for low to medium rainfall (rainfed), low to high fertility soil during <i>kharif</i> , dual purpose hybrid, suitable for early and late sowing conditions, high iron (49 ppm) and zinc (32 ppm), maturity: 79 days, lodging tolerant, moisture stress tolerant, resistant to DM, blast, rust, smut and ergot, tolerant to shoot fly, stem borer and drought.
	HHB 299 (MH 2076)	Rajasthan, Haryana, Gujarat, Punjab, Delhi, Maharashtra, and Tamil Nadu	32.7 (grain yield) 73.0 (dry fodder yield)	Suitable for <i>kharif</i> season with high grain and dry fodder yield potential, biofortified [high iron (73 ppm) and zinc (41 ppm)], dual purpose fertilizer responsive hybrid, maturity: 81 days, resistant to major diseases such as downy mildew, smut etc., major insect pests such as shoot fly, stem borer, grey weevil, leaf roller, <i>Helicoverpa</i> etc.
	Central Pearl Millet Hybrid RHB 223 (MH 1998) (RHB 223)	Rajasthan, Gujarat and Haryana	29.6 (grain yield) 55.0 (dry fodder yield)	Maturity: 71 days, highly resistant to downy mildew, blast and resistant to smut, major insect pests such as shoot fly, stem borer and grey weevil.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Pearl Millet	GK 1116 (MH 1974) hybrid	Rajasthan	32.7 (grain yield) 70.7 (dry fodder yield)	Suitable for rainfed conditions during <i>kharif</i> season of Rajasthan state in both low and high fertility conditions, dual purpose hybrid, highly responsive to fertilizers and suitable for both early and late planting, maturity: 81 days, tolerant to downy mildew, rust, smut, ergot and stem borer.
	BHB-1202 (Bikaner Hybrid Bajra-1202) (MH 1831)	Rajasthan	17.7 (grain yield) 28.0 (dry fodder yield)	Suitable for early and late planting under rainfed conditions in <i>kharif</i> season of arid region of Rajasthan, dual purpose hybrid, maturity: 76 days, highly resistance to downy mildew, blast and major pests, tolerant to water stress, resistant to lodging.
	Pusa 1201 (MH 1849)	NCT Delhi.	28.1 (grain yield) 72.0 (dry fodder yield)	Suitable for rainfed, <i>kharif</i> season for both high and low fertility conditions, dual purpose hybrid, highly responsive to fertilizers, Maturity: 79 days, highly resistance to downy mildew, smut, rust, stem borer, leaf roller, <i>Helicoverpa</i> and grey weevil.
	Raj Bajra-1 (RBB-1)	Rajasthan	12.0-25.0 (grain yield) 350.0-700.0 (green fodder yield)	Suitable for rainfed and irrigated conditions, 9.33% crude protein in green fodder on dry matter basis, maturity: 85 days, resistant to leaf spot disease, downy mildew and general insect pests.
	MP7878 (MH2155)	Gujarat, MP, Rajasthan, UP, Haryana, Punjab and Delhi	41.8 (grain yield) 106 (dry fodder yield)	Suitable for <i>kharif</i> season, dual purpose stay green hybrid, maturity: 86 days, highly resistant to downy mildew, blast and smut.
	PA 9072 (MH 2082) (PB 1756)	Western Rajasthan, drier Parts of Gurarat and Haryana	27.0 (grain yield) 47.0 (dry fodder yield)	Dual purpose, early maturing, maturity: 75 days, resistant to downy mildew, blast, smut, ergot, shoot fly and stem borer, tolerant to moisture stress and lodging.
	PB 1720 (MH 2107)	Rajasthan, Gujarat, Haryana, Punjab, Delhi, Uttar Pradesh, Madhya Pradesh	33.4 (grain yield) DFY: 79.0	Suitable for early/ late sowing, low to medium rainfall (rainfed), low to high fertility soil conditions during <i>kharif</i> , maturity: 79-81 days, tolerant to shoot fly, stem borer, responsive to fertilizers, lodging tolerant.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Pearl Millet</b>	AHB 1269Fe (MH 2185) (AHB 1269)	Gujarat, Haryana, Punjab, Delhi, Maharashtra, Telangana and Tamil Nadu.	31.6 (grain yield) 74.0 (fodder yield)	Maturity (medium): 82 days, Iron (Fe) 91 ppm, Zinc 43 ppm, resistant to stem borer and <i>Helicoverpa</i> larvae, highly resistant to downy mildew, smut and rust, highly responsive to fertilizers.
	Central Pearl Millet Variety ABV 04 (MP 552)	Maharashtra, Karnataka, Andhra Pradesh, Telangana and Tamil Nadu.	28.6 (grain yield) 58.0 (fodder yield)	Maturity (medium): 86 days, Iron (Fe) 70 ppm, Zinc 63 ppm, highly resistant to downy mildew, smut and resistant to blast, stem borer, grey weevil, <i>helicoverpa</i> , shoot fly and leaf roller.
	PROAGRO 9450 (Bayer 9450)	Uttar Pradesh	30.0-35.0 (grain yield) DFY: 110.0-140.0	Suitable for irrigated and rainfed areas of UP and high soil fertility during kharif and summer seasons in all millet growing areas, maturity 84-88 days, tolerant to lodging, downy mildew and blast diseases, high iron (71.1 ppm) and zinc (57.8 ppm) content in grain.
	Phule Mahashakti (DHBH 1211/MH 2078)	Maharashtra	29.3 (grain yield) FY: 56.0	Suitable for bajra growing areas of Maharashtra, mid-late maturity, maturity (late): 88 days, Iron (Fe) 87 ppm, Zinc 41 ppm resistant to downy mildew.
<b>Sorghum</b>	BIV 44 (SPV 2034)	Karnataka	22.0-25.0 (grain yield) 50.0-60.0 (fodder yield)	Suitable for rabi Season, it is high grain and fodder yielding variety of <i>rabi</i> sorghum, maturity: 120-123 days, it is moderately tolerant to charcoal rot, shoot fly & aphids and suitable for deep soils with adequate moisture situations.
	AKJ-1 (Flaking variety)	Karnataka	12.0-15.0 (grain yield) 40.0-45.0 (fodder yield)	Suitable for <i>rabi</i> sorghum growing areas of Karnataka, having excellent flaking quality with additional benefit of presence of significantly high polyphenols, maturity: 120-123 days, high resistance to rice weevil.
	KMJ-1 (Popping variety)	Karnataka	9.0-10.0 (grain yield) 30.0-35.0 (fodder yield)	Suitable for <i>rabi</i> sorghum growing areas of Karnataka, grain <i>rabi</i> sorghum variety suitable for popping purpose (making pops or <i>araliu</i> ) with good popping yield (75 kg per quintal of seeds), maturity: 120-125 days, higher resistance to rice weevil.
	SMJ-1 (Hurda variety)	Karnataka	7.5-8.5 (fresh grains) 4.5-5.5 (dried grains) 7.0-8.0 (matured)	Suitable for <i>Rabi</i> sorghum growing areas of Karnataka, grain <i>rabi</i> sorghum variety suitable for making hurda/seethani/belasi (tender roasted grains) of good quality very soft sweet, with additional benefit of presence of high micronutrients (iron & zinc) and high polyphenols, maturity: 120-125 days.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Sorghum	SR-2917 (GNJ-1)	Gujarat	34.0	Suitable for <i>kharif</i> sorghum growing area of Gujarat, maturity: 114 days, resistant to grain mold with less incidence of ergot disease and stem borer.
	CSH 36F (Dairy Green) (SPH 1752)/DFSH 109) Hybrid	Punjab, Haryana, Uttar Pradesh, Uttarakhnad, Rajasthan and Gujarat	GFY: 642.0 DFY: 169.0	Suitable for irrigated, medium to high soil fertility condition under normal sowing, protein 11.4q/ha, digestible dry matter 77.5q/ha, maturity: 115-120 days, tolerant to lodging and fertilizer responsive, resistant to grey leaf spot, tolerant to shoot fly dead hearts and stem borer dead hearts.
	CSH 38 (HTJH 3301) (SPH 1779) Hybrid	Tamil Nadu, Gujarat, Telangana, Maharashtra, Karnataka, AP, MP, Rajasthan	45.5 (grain yield) FY: 139.8	Suitable for rainfed <i>kharif</i> with protective irrigation, grain sorghum hybrid, maturity: 106 days, shoot fly and grain mold tolerant, non-lodging.
	CSH 37 (HTJH 3208) (SPH 1778) Hybrid	Tamil Nadu, Gujarat, Telangana, Maharashtra, Karnataka, AP, MP, Rajasthan	46.8 (grain yield) FY: 145.3	Suitable for rainfed <i>kharif</i> with protective irrigation, grain sorghum hybrid, maturity: 104-114 days, tolerant to downy mildew and grain mold under natural conditions, non-lodging, fertilizer responsive.
	K-12	Tamil Nadu	31.0	Suitable for rainfed situation and also perform well during summer irrigated condition, maturity: 95 days, non-lodging, non shattering
	SPV-2217	Karnataka	15.0-18.0 (grain yield) FY: 65.0-70.0	Suitable for <i>rabi</i> season for deep soils of Karnataka, bold and round grains with lustrous bright colour, stay green, maturity: 124 days, tolerant to lodging and charcoal rot disease.
	CSV 34 (SPV 2307)	Maharashtra, Karnataka, Madhya Pradesh and Gujarat	45.0 (grain yield) 129.0 (stover yield)	Suitable for timely sown rainfed conditions of kharif season, grain protein 10.39%; starch 62.54%, maturity: 110-112 days, tolerant to grain mold, <i>Fusarium</i> and zonate leaf spot, tolerant to shoot fly, dead aphid hearts stem borer, non-lodging, non-shattering
	Jaicar Heera (CSV 36/SPV 2301)	Gujarat, Rajasthan, Andhra Pradesh and Tamil Nadu.	33.0 (grain yield) FY: 122.0	Maturity: 106-110 days, moderately tolerant to major diseases like grain molds, anthracnose, leaf blight and zonate leaf spot, tolerant to downy mildew, shoot fly and stem borer.
	Jaicar Sona (CSV 39/SPV 2358)	Tamil Nadu, Telangana, Andhra Pradesh, Rajasthan and Gujarat.	34.0 (grain yield) FY: 115.0	Maturity: 102-110 days, moderately tolerant to major diseases like grain molds, anthracnose, leaf blight and zonate leaf spot, tolerant to downy mildew, shoot fly and stem borer.
	Jaicar Gold (CSH 41)(SPH 1820)	Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, Telangana and Tamil Nadu.	47.3	Suitable for rainfed kharif and irrigated summer, medium to highly fertile soil, timely sowing, good agronomic management conditions, maturity: 106-110 days, tolerance to foliar diseases, shoot fly, stem borer and mites, resistant to midge.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Sorghum</b>	Gujarat Jowar 43 (GJ 43) (DS 127)	Gujarat	27.5 (grain yield) DFY: 143.8	Suitable for edapho-climatic condition in sorghum growing areas of Gujarat, maturity: 113-115 days, moderately resistant to ergot and grain mold disease.
	GPU-66	Karnataka	35.0-40.0	Suitable for late <i>kharif</i> season, green plant parts with narrow leaves, maturity: 112-115 days, resistant to neck and finger blast.
<b>Finger Millet</b>	Vakula (PPR 2700)	Karnataka	25.0-30.0	Suitable for late <i>kharif</i> season, semi dwarf plants, maturity: 105-110 days, resistant to leaf blast and tolerant to drought
	DHPM-78-3	Karnataka	30.0-35.0	Suitable for cultivation in Agro-climatic Zone – 3 and 8 of Karnataka state, suitable for contingency planting, maturity: 115-120 days, resistant to finger and neck blast.
	VL Mandua 379 (VL 379)	Uttarakhand, Bihar, Jharkhand and Madhya Pradesh	31.0-35.0	Suitable for rainfed <i>kharif</i> ecology, fertilizer responsive, maturity: 107-109 days, resistance to neck and finger blast, tolerant to ear head caterpillar incidence
	Chhattisgarh Ragi-2 (BR-36)	Chhattisgarh	34.0-36.0	Withstand better under water stress conditions, responsive to nitrogen fertilizer, maturity: 115-118 days, non lodging, tolerant to stem borer and other major pests.
<b>Foxtail millet</b>	VL Mandua 380	Uttarakhand	23.7	Suitable for Uttarakhand hills under rainfed <i>kharif</i> ecology, maturity 116-118 days, higher calcium content (322.5 mg/100g), moderately resistant to neck and finger blast, no major pest infestation.
	Surya Nandi (SIA-3088)	Karnataka	20.0-25.0	Suitable for all foxtail millet growing areas of the country, suitable for double cropping, maturity: 70-75 days, non-lodging
	DHFT-109-3	Karnataka	26.0-29.0	Suitable for cultivation in agro-climatic Zone-3 and 8 of Karnataka state, suitable for contingency planting, maturity: 86-88 days.
	DHML-36-3	Karnataka	14.0-16.0	Suitable for Karnataka, late maturity (95-100 days).
<b>Little Millet</b>	GNV-3	Gujarat	28.0-29.0	Suitable for dry land/hilly/tribal region, bold seeded multi-tillering little millet variety, good nutritional properties particularly high minerals, crude fiber, calcium, phosphorus, iron and magnesium, maturity: 110-115 days, non-lodging, resistant to leaf, neck and panicle blast disease as well as to grain smut and sheath blight.
	DHLM-36-3 (DHLMV -36-3)	Andhra Pradesh, Jharkhand, Tamil Nadu and Odisha.	11.0	Suitable for rainfed condition in <i>kharif</i> season, maturity: 97 days.



Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Little Millet	DHLM-14-1 (DHLMV-14-1)	Tamil Nadu, Karnataka, Gujarat, Maharashtra and Odisha.	8.8 (grain yield) 65.3 (fodder yield)	Suitable for kharif and rainfed situation, maturity: average of 94-102 days.
	DHPM-2769	Karnataka	23.0-25.0	Suitable for cultivation in agro-climatic Zone-3 and 8 of Karnataka for contingency planting, maturity: 70-72 days.
Proso millet	ATL 1 (TNPm 230)	Tamil Nadu, Bihar, and Karnataka	21.5	Resistant to rust, brown spot, sheath blight and grains smut, maturity: 70-75 days.
	MDU-1	Tamil Nadu	15.0-17.0	Suitable for <i>kharif</i> , <i>rabi</i> and summer seasons, maturity: 95-100 days, non-shattering.
Barnyard Millet	DHBM-93-2	Karnataka	25.0-27.0	Suitable for cultivation in agro-climatic Zone-3 and 8 of Karnataka, suitable for contingency planting, maturity: 86-88 days.
	DHBM-93-3 (DHB-93-3)	Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh and Tamil Nadu.	23.2 (grain) FY: 6.3	Suitable for kharif rainfed condition, maturity: 88-100 days, resistance to shoot fly.
	DHBM-23-3 (DHB-23-3)	Andhra Pradesh, Karnataka, Madhya Pradesh and Tamil Nadu.	23.2 (grain yield) FY: 68.6	Suitable for kharif rainfed condition, maturity: 88-100 days, resistance to shoot fly.
<b>OILSEEDS</b>				
Indian Mustard/Raya	RH 725	Jammu, Punjab, Haryana, Delhi and Northern Rajasthan	20.0	Suitable for timely sowing and rainfed conditions in <i>rabi</i> season, maturity: 141 days, moderately resistant to <i>Alternaria</i> leaf blight, white rust and aphid infestation.
	CS 60 (CS2800-1-2-3-5-1)	Haryana, Punjab, Uttar Pradesh and Rajasthan	18.0	Suitable for timely sown, salt-affected soil and water conditions of <i>rabi</i> season, maturity: 134 days, resistant to <i>Alternaria</i> blight, WR, PM, DM, stag head and SR.
	RSPR-69 (MCN-04-35)	Jammu	19.9	Suitable for irrigated and rainfed area, timely sown, high fertility sub-tropical area of Jammu Division in <i>rabi</i> season, 39.4 % oil content, matures in 135-145 days, Resistant to white rust and moderately resistant to <i>Alternaria</i> blight and major pests.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Toria</b>	Tapeshwari (TK 06-1)	Uttar Pradesh	13.5-14.0	Suitable for rainfed, irrigated areas and recommended for extra early sowing i.e. mid September, maturity: 90-95 days, tolerant to drought and fog, being extra early maturity, it escapes diseases especially <i>Alternaria</i> blight, aphid and white rust.
	Tripura toria 1 (TRC T-1-1-5-1/ IC 615573)	Tripura	8.0-9.0	Suitable for rainfed upland and lowland after kharif, perform well under residual moisture after kharif rice, also as utera crop, maturity: 86 days, resistant to lodging, exhibits very low incidence of white rust, <i>Sclerotinia</i> rot, bacterial stem rot and aphid.
	RSPT-6 (TCN 13-9)	Jammu	11.3	Suitable for irrigated and rainfed area, low fertility, and early sown conditions, rabi season, 42.6% oil content, maturity 85-90 days, moderately resistant to white rust, downy mildew, <i>Alternaria</i> blight, aphid and major pests.
<b>Brown Sarson</b>	HPBS-1	Himachal Pradesh	10.0-12.0	Suitable for rainfed farming in late September -October in low and mid hills of Himachal Pradesh, maturity: 147 days, moderately resistant to white rust.
	GJG 33 (Gujarat Junagadh Groundnut 33)	Andhra Pradesh, Telangana and Tamil Nadu	20.4	Suitable for timely sown, rabi-summer conditions, high oil (51%), maturity: 113 days, tolerant to stem rot, collar rot, dry root rot, foliar fungal (rust, early leaf spot) and peanut bud necrosis diseases (PBND). Tolerant to <i>Helicoverpa</i> and <i>Spodoptera</i> leaf damage.
<b>Groundnut</b>	ICGV 93468 (Avtar)	Uttar Pradesh	16.9	Suitable for irrigated, summer season, high oil (51%), maturity: 85-95 days, tolerant to PBND and jassids
	Nitya Haritha (ICGS 1157)	Zone III (Maharashtra and Madhya Pradesh)	18.0	Suitable for rainfed/ supplementary irrigated kharif conditions, timely sown, maturity: 105-110 days, tolerant to rust, late leaf spot and PBND.
	DH 232	Karnataka	14.8-23.4	Suitable for <i>kharif</i> season, oil content (46.9%), maturity: 105-110 days, tolerant to rust, and late leaf spot diseases.
	DH 245	Karnataka	14.8-23.4	Suitable for <i>kharif</i> season, oil content (45.9%), maturity: 105-108 days, tolerant to rust, late leaf spot diseases.
	ICGV 93468 (Avtar)	Uttar Pradesh	24.0 (summer) 22.5 (kharif)	Suitable for rainfed/ summer season and late sowing in kharif season, oil content 51.10%, maturity: 95 days, tolerant to bud necrosis disease, fungal diseases, jassids and pod borer.
	TMV 14	Tamil Nadu	21.2 (kharif) 22.8 (Rabi)	Suitable for both kharif and rabi season, oil content 48.0%, moderately resistance to late leaf spot and rust disease, tolerance against <i>Spodoptera litura</i> , thrips, <i>Heliothis armigera</i> and leaf minor.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Groundnut</b>	Phule Chaitanya (Central-KDG 160)	Andhra Pradesh, Tamil Nadu and Telangana.	34.0	Suitable for rabi summer, moderately resistant to stem rot and late leaf spot diseases, oil content 51.6%, maturity: 116 days.
	Konkan Bhuratma (RTNG-29)	Maharashtra	25.0-30.0	oil content 50.0%, maturity 115-120 days, resistant to leafs spot, rust, <i>Peanut</i> bud necrosis disease, altermeria leaf blight, <i>thrips</i> , <i>jassids</i> , leaf miner and defoliator insect and pests.
	Gujarat Groundnut HPS 2 (GG HPS 2)	Gujarat	28.3 (pods) 19.4 (kernels)	Suitable for cultivation during kharif rainfed season, oil content 48.8%, maturity 118-129 days, resistant to stem rot and collar rot, rust.
	PDKVG-335 (AK 335)	Maharashtra	25.7 (pods) 18.3 (kernels)	Suitable for rainfed ecology, oil content 48%; maturity: 110-113 days, moderately resistant to Tikka, collar rot, stem rot, jassids, thrips and aphids.
<b>Soybean</b>	Jawahar Soybean 20-98 (JS 20-98)	MP, Bundelkhand region of UP, Rajasthan, Gujarat, Marathwad & Vidarbha region of Maharashtra.	20.9	Suitable for medium to high rainfall normal sowing conditions, maturity: 99 days, resistant to charcoal rot and YMV disease.
	Chhattisgarh Soybean-1 (CG SOYA-1)	Chhattisgarh	21.3	Suitable for soybean growing areas of Chhattisgarh, maturity: 104 days, resistant to Indian bud blight, <i>Myrothecium</i> leaf spot and bacterial pustule disease.
	Kota Soya-1 (RKS 113)	Assam, WB, Jharkhand, Chhattisgarh and North Eastern States	18.8	Suitable for rainfed condition under assured rainfall in <i>kharif</i> season, maturity: 102 days, resistant to YMV disease, good germinability and tolerant to pod shattering.
	DSb. 23 (DSb 23-2)	Karnataka, TN, Telangana, Andhra Pradesh, and Southern Maharashtra	24.4	Suitable for rainfed and irrigated conditions, maturity: 95 days, highly resistant to soybean rust caused.
	KS 103	Pradesh, Karnataka, Telangana, Tamil Nadu	25.4	Suitable for irrigated and rainfed <i>kharif</i> season, maturity: 92 days, resistance to field rust and pest complex.
	MAUS-612	Maharashtra and Southern India.	25.3	Suitable for assured rainfall of 700 to 1000 mm with medium to heavy soil, maturity: 91 days, moderately resistant to charcoal rot.
	Basara (ASb-22)	Telangana	26.6	Suitable for rainfed <i>kharif</i> season, maturity: 105-115 days.
	NRC 127	Madhya Pradesh, Rajasthan, Bundelkhand region of Uttar Pradesh, Gujarat, Marathwada and Vidarbha region of Maharashtra	18.1	Suitable for rainfed, normal sowing time, maturity: 102 days, shown promising resistance against pod borer, Lepidopteran defoliators and pest complex.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Soybean</b>	KDS 726 (Phule Sangam)	Maharashtra, Karnataka, Telangana, AP and TN	24.4	Maturity: 96-97 days, resistant to purple seed stain and tolerant to pest complex.
	VL Soya 89 (VLS 89)	Himachal Pradesh and Uttarakhnad.	23.2	Suitable for timely sown rainfed conditions of northern hill zone, maturity: 116 days, moderate resistance to frog eye leaf spot and pod blight diseases, promising against bugs and leaf hoppers.
<b>Linseed</b>	Jawahar Linseed Sagar-95 (JLS-95) (SLS-95)	Bundelkhand part of UP, Rajasthan, MP and Central Peninsular India	10.1	Suitable for rainfed farming, maturity: 113-133 days, resistant to rust and moderately resistant to wilt.
	Utera Alsi (RLC-143)	Chhattisgarh, Odisha, MP, Bihar, Jharkhand and Assam	5.7	Suitable for moisture stress <i>rabi</i> season, i.e., rice based relay cropping ecosystem, maturity: 118 days, moderately resistant to linseed bud fly.
	Sabour Tisi-1 (BAUP-101)	Uttar Pradesh excluding Bundelkhand, Bihar, Jharkhand, West Bengal and Assam	6.8	Suitable for timely sown under utera/rainfed/high/low fertility condition during <i>rabi</i> season, maturity: 120-122 days, moderately resistant to <i>Alternaria</i> blight and budfly.
	Varsha Alsi (RLC-148)	Rajasthan, MP, Bundelkhand region of UP, Odisha, Maharashtra, Chhattisgarh and Karnataka	10.3	Suitable for rainfed cultivation, maturity: 114 days, moderately resistant to powdery mildew and bud fly.
	Him Palam Alsi-2 (KL-263)	Himachal Pradesh, Haryana and J&K	16.8	Suitable for cultivation in irrigated areas, resistant to rust, moderately resistant to powdery mildew and bud fly.
	Utera Alsi	UP, Bihar, Jharkhand, Assam, Odisha, Chhattisgarh and MP	570.0	Suitable for rice based relay cropping system, maturity: 115-122 days.
<b>Sesame</b>	Rajan (LCK 1009)	Uttar Pradesh	11.1	Suitable for timely sown irrigated condition, maturity 130-135 days, moderately resistant to bud fly and alternaria rust, resistant to rust, brown & medium bold seeded.
	VRI 3	Tamil Nadu	8.5-9.5	Suitable for irrigated tracts of <i>rabi</i> and summer seasons, maturity: 75-80 days, moderately resistant to <i>Macrophomina</i> disease, capsule borer pest in all the stages of the crop.
	Tripura Siping Borok (TRC Til 1-8-1-1)	Tripura	13.0-14.0	Suitable for both summer as well as late kharif, maturity: 83 days, tolerant to <i>Phytophthora</i> blight.
	Suprava (CUMS-17)	WB, Odisha, Maharashtra, Chhattisgarh, Telangana, TN and Karnataka	9.0-12.0	Suitable for irrigated, summer crop, superior performance under timely, early and late sown conditions with very low reductions in seed yield and other agronomic parameters, oil content 48-50%, maturity: 88-92 days, highly resistant to diseases like root rot, phyllody and powdery mildew, suitable for high heat and drought situation.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Sesame</b>	Gujarat Til 6 (G.Til 6) (AT 332)	Gujarat	10.1	Suitable for kharif rainfed conditions of Gujarat state, summer irrigated condition of Saurashtra, oil content 49.68%, white seeds, maturity 87 days, resistant to <i>Macrophomina</i> stem, root rot, powdery mildew, phyllody, leaf curl as well as <i>cercospora</i> and <i>alternaria</i> leaf spot diseases.
	DSFH-3 Hybrid	Karnataka	18.0-20.0	Suitable for rabi season, seed has a high oil content of 38-39%, maturity: 95-98 days.
	LSFH-171 Hybrid	Maharashtra, Karnataka, TN, AP, Telangana, Odisha, Bihar and West Bengal	18.0-20.0	This hybrid is resistant to downy mildew, maturity: 95-100 days
<b>Sunflower</b>	COH 3	Tamil Nadu	16.1 (kharif) 18.2 (rabi)	Suitable for both <i>kharif</i> and <i>rabi</i> , maturity: 90-95 days
	NARL-96 hybrid	Maharashtra, Telangana, Andhra Pradesh, Madhya Pradesh, Chhattisgarh and Rajasthan.	20.2 6.7 (oil yield)	Suitable for early and timely sowing irrigated conditions, maturity: 116-165 days, non-lodging, non-shattering, and fertilizer responsive, tolerant to safflower wilt ( <i>Fusarium oxysporum</i> ) and moderately tolerant to aphids.
	DSH-185	Safflower growing areas of India for both rainfed and irrigated situations	21.0 (irrigated) 14.3 (rainfed)	Suitable for rainfed and irrigated ecology, maturity: 121 days (rainfed), 139 days (irrigated), non-shattering, spiny and fertilizer responsive, resistant to wilt and moderately resistant to <i>Fusarium</i> wilt and aphid infestation.
	Purna (PBNS – 86)	Maharashtra	18.0-20.0 (irrigated) 10.0-12.0 (rainfed)	Suitable for both rainfed and irrigated condition, oil content 30%, maturity: 135 days, moderately tolerant to wilt, <i>Alternaria</i> and aphids.
<b>Castor</b>	GCH8 (SHB 896)	All castor growing states of the Country	17.1 (oil yield) Seed yield: 18.9 (rainfed) 35.8 (irrigated)	Suitable for irrigated as well as rainfed conditions, oil content 48.6%, maturity: 96-126 days, resistant to <i>Fusarium</i> wilt and root rot.
	Gujarat Castor Hybrid-9 (GCH-9) (JHB-1018)	Gujarat	37.8	This variety contains high ricinoleic acid (90.23%), maturity: 180-210 days, resistance to <i>Fusarium</i> wilt and <i>Macrophomina</i> root rot.
	Jawahar Castor-24 (JC-24)	Madhya Pradesh	27.7	Suitable for rainfed and irrigated condition, kharif/early rabi, maturity 95-110 days, tolerant to wilt and root rot, medium bold seeded.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Castor	Jawahar Castor-4 (JC-4)	Madhya Pradesh	-	Suitable for rainfed and irrigated condition, kharif/early rabi, bold seed with oil content 46.5%, maturity 100-130 days, tolerant to wilt and root rot.
<b>PULSES</b>				
<b>Chickpea</b>	Pusa 3043 (BG 3043)	Bihar, Jharkhand, West Bengal, Assam and Eastern Uttar Pradesh	16.0	Suitable for timely sown, <i>rabi</i> season, irrigated condition in the North East Plain Zone, grain protein content 21.1%, maturity: 130 days, capable of escaping terminal drought and heat stresses, moderately resistant to <i>Fusarium</i> wilt and tolerant to dry root rot, collar rot, stunt, <i>Ascochyta</i> blight and <i>Botrytis</i> grey mold.
	Awadh (GNG-2207)	Assam, WB, Jharkhand, Bihar, Eastern UP, Manipur	16.0-17.0	Suitable for timely sown irrigated conditions of <i>rabi</i> season, maturity: 99-145 days, moderately resistant to <i>Fusarium</i> wilt.
	Phule Vikrant (Phule G 0405)	Maharashtra, West Madhya Pradesh, Gujarat and South Rajasthan	20.0-21.0	Suitable for optimum sown irrigated condition, maturity: 110 days, moderately resistant to <i>Fusarium</i> wilt.
	BGD 1111-1	Karnataka	16.0-17.0	Desi type, maturity: 95 days, moderately resistant to <i>Fusarium</i> wilt and tolerant to dry root rot.
	Phule Vikrant (Phule G 0405)	Maharashtra, West Madhya Pradesh, Gujarat and Rajasthan	41.6	Suitable for optimum sown irrigated condition, maturity: 110 days, resistant to <i>fusarium</i> wilt.
<b>Mungbean</b>	Arun (KM 2328)	Uttar Pradesh	8.0-11.0	Suitable for summer season, timely sown condition, protein 25.2%, maturity: 60-62 days, resistant against MYMV, <i>Cercospora</i> leaf spot, WB, MB and anthracnose.
	Pusa 1431	Delhi and adjoining areas of Haryana, Rajasthan and Uttar Pradesh	13.0-14.0	Suitable for early plantings after harvest of mustard and potato in spring season, maturity: 56-66 days, resistant against MYMV, <i>Cercospora</i> leaf spots (CLS), anthracnose, web blight and urdbean leaf crinkles (ULCV), resistant to bruchids.
	Gujarat Anand Mung Bean-5 (GAM-5)	Gujarat	8.1	Suitable for Gujarat, summer season under irrigated condition, bold seeded, maturity: 60-65 days, highly resistant to Yellow Mosaic Virus (YMV).
	Tripura Moong - 1	Tripura	10.0-11.0	Suitable for <i>kharif</i> season, early maturing, medium bold seed, moderately resistant to MYMV, CLS, <i>Anthracnose</i> and resistant to powdery mildew.
	GM-6 (NMK-15-12)	Gujarat	950.0-1050.0	Suitable for <i>kharif</i> and summer season cultivation in Gujarat state, early maturing, highly resistant to MYMV, resistant to <i>Anthracnose</i> , powdery mildew and whitefly.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Mungbean</b>	Varsha (IPM 2K 14-9)	Uttar Pradesh	10.0-11.0	Suitable for <i>khariif</i> season, maturity: 70-75 days, resistant to MYMV and CLS.
	Kanika (IPM 302-2)	Uttar Pradesh	10.0-12.0	Suitable for <i>khariif</i> and spring seasons, maturity: 70 days, highly resistant to MYMV and CLS.
	GM-7 (NMIK-15-08)	Gujarat	10.6	Medium maturity (75-80 days), medium seed size (4-5 g), indeterminate growth habit, better market and cooking quality, MYMV resistance.
<b>Urdbean/ Blackgram</b>	Mukundra Urd-2 (KPU 405)	Rajasthan, Haryana, Punjab, plains of HP and Uttarakhnad.	9.4	Suitable for spring season in NWPZ, resistant to MYMV.
	ADT 6	Tamil Nadu	7.4	Suitable for rice fallow conditions (Dec. – Jan.), maturity: 65-70 days, moderately resistant to Leaf Crinkle virus, powdery mildew and less pod borer damage.
	Black gram KKM 1 (COBG 643/VBN 3)	Tamil Nadu	6.0	Suitable for irrigated ( <i>khariif</i> ) and rice fallow conditions, maturity: 65-70 days, tolerant to root knot nematode, moderately resistant to YMV.
	VBN 8 (VBG 09-005)	Andhra Pradesh, Tamil Nadu, Karnataka and Odisha	13.2	Suitable for summer, irrigated condition, bold seeded with 21.9% protein and 7.5 % arabinose, suitable for Idli & Vada preparation, maturity: 65-75 days, resistant to yellow mosaic virus, leaf crinkle virus, leaf curl virus, stem necrosis; free from powdery mildew and <i>Cercospora</i> leaf spot and moderately resistant to root rot.
	Tripura Maskalai	Tripura	11.0-12.0	Suitable for <i>khariif</i> season, maturity: 75-80 days, moderately resistant to MYMV, CLS, Anthracnose and resistant to powdery mildew.
<b>Pigeonpea /Red gram</b>	IPU 11-02	Uttar Pradesh	10.0-12.0	Suitable for <i>khariif</i> season in entire UP, protein content 26.42%, maturity: 80 days (early), tolerant to drought, multiple disease resistant (yellow mosaic virus, <i>cercospora</i> , leaf spot, anthracnose, leaf crinkle) and powdery mildew, tolerant to major-pest under field conditions.
	GRG 811 (Dharamaraj)	Karnataka	-	Suitable for deep black cotton soil, maturity: 170 days, drought resistant, resistant to wilt and sterility mosaic disease.
	CO 8	Tamil Nadu	13.1	Suitable for rainfed/irrigated condition, maturity: 170-180 days, resistant to sterility mosaic disease and root rot, moderately resistant to <i>Helicoverpa</i> and Maruca.
	GNP-2 (BP-06-33)	Gujarat	12.5	Suitable for <i>khariif</i> in South and North Gujarat, this is the first dual purpose (grain and vegetable) variety of the Gujarat state, medium maturity, moderately tolerant for pod fly, pod borer and moderately resistant to wilt and SMD.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Pigeon pea/Red gram</b>	Pusa Arhar 16 (PADT 16)	NCR Delhi	20.2	Suitable for sole cropping, irrigated condition, maturity: 120 days, resistant to lodging, disease incidence not experienced, suitable for growing of mustard/wheat/potato after its harvest.
	Gujarat Tur-103 (GT-103)	Gujarat	15.0	Seeds of the variety are bold and attractive, medium maturity, resistant to wilt and insect pest.
	BRG 3	Karnataka	18.0-20.0	This variety is resistant to wilt and SMD diseases, maturity: 160-170 days.
	Rajendra Arhar-1 (DA-2012-1)	Bihar	18.7	Maturity: 146 days, resistant to sterility mosaic.
	GT-104 (NPMK-15-05)	Gujarat	18.9	Maturity (medium): 160-170 days, resistant to sterility mosaic disease, spreading plant type, red flower and dark green foliage, pods are green with light purple streaks, good market and cooking quality, resistant to sterility mosaic disease.
	L-4727	Madhya Pradesh, Maharashtra, Chhattisgarh and parts of Rajasthan	11.4-14.4	Suitable for <i>rabi</i> season, rainfed conditions, protein content 26.47%, maturity: 93-120 days, moderately resistant to wilt and exhibits lower pest incidence.
<b>Lentil</b>	Kota Masoor 2(RKL 14-20)	Madhya Pradesh, Maharashtra, Chhattisgarh and parts of Rajasthan	12.1	Suitable for rainfed, normal sown, <i>rabi</i> season cultivation, maturity: 100 days, tolerant to drought and high temperature, moderately resistant to wilt and very less incidence of pod borer and aphids.
	IPL 220	Eastern Uttar Pradesh, Bihar, Assam and West Bengal	13.7	Suitable for rainfed, <i>rabi</i> season, biofortified variety having high concentration of Fe, Zn and Se, Maturity: 121 days, resistant to major diseases including rust, <i>Fusarium</i> wilt and <i>Stemphylium</i> blight.
	IPL-315	Uttar Pradesh	12.3	Suitable for normal sown rainfed conditions in <i>rabi</i> season of lentil growing areas of UP, maturity: 129-138 days, resistant to rust and tolerant to wilt
	IPL 321	Uttar Pradesh	14.0	Suitable for normal sown rainfed conditions in <i>rabi</i> season of lentil growing areas of UP, protein content 26.3%, maturity: 123-138 days, resistant to rust and wilt, tolerant to pod borer and aphid.
<b>Field Pea</b>	Pant Pea 250	Punjab, Haryana, Northern Rajasthan, Western Uttar Pradesh and Uttarakhnad	16.8	Suitable for both rainfed and irrigated situation of <i>rabi</i> season, protein 29.84%, maturity: 124 days, resistant against powdery mildew and moderately resistant to rust, <i>Ascochyta</i> blight and root rot diseases, tolerant to pod borer.
	Pant Pea 243	Madhya Pradesh, Chhattisgarh, Maharashtra and parts of Rajasthan	19.4	Suitable for both rainfed and irrigated situation of <i>rabi</i> season, protein 27.33%, maturity: 109 days, resistant to powdery mildew and moderately resistant to rust, <i>Ascochyta</i> blight and root rot diseases, tolerant to pod borer.



Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
<b>Field Pea</b>	Central Field pea IPFD 2014-2	Madhya Pradesh, Chhattisgarh, Maharashtra and parts of Rajasthan	22.7	Suitable for both rainfed and irrigated situation of <i>rabi</i> season, maturity: 102 days, resistant to powdery mildew and moderately resistant to pod borer, aphid and leaf miner.
	TRCP - 9	Tripura and other states of northern hilly zone	17.0-18.0	Suitable for both rainfed and irrigated situation of <i>rabi</i> , protein content: 20.89%, maturity: 93-95 days, multiple disease resistance to powdery mildew and rust, good tolerance to pod borer and stem fly.
	IPFD 9-2	Uttar Pradesh	38.6	Suitable for irrigated as well as rainfed conditions during <i>rabi</i> season, maturity 122-139 days, resistant to powdery mildew and tolerant to rust disease.
<b>Cowpea</b>	Karan Chamwla 1 (CPD 119)	Rajasthan	7.9	Suitable for rainfed/irrigated condition, maturity: 70 days, tolerant to moisture stress, non-shattering, resistant to moderately resistant against mosaic, necrosis, root rot and CLS, low incidence of pod borer, aphids and leaf hopper.
	GC 6(GC 521)	Gujarat	10.7	Suitable for summer cowpea growing area of North Gujarat, early maturity, lesser infestation for root rot, YMV, leaf curl, leaf hopper and whitefly etc.
	TC - 901	Gujarat, Rajasthan, MP, WB, Maharashtra and Uttarakhand	10.2-13.5	Suitable for summer season under timely sown condition with minimal irrigation, high fodder yield (49.54 q/ha), maturity: 69-75 days, resistant to whitefly and tolerant to spotted pod borer.
	KBC - 9	AP, Karnataka, Kerala, TN and some part of the Odisha	12.0-13.5	Suitable for rainfed/irrigated condition, suitable for <i>in-situ</i> green manure/fodder after harvest, maturity: 80-85 days, resistant to dry root rot and collar rot, moderately resistant to yellow mosaic virus.
	VBN 3 (VCP 0 9-013)	Tamil Nadu	10.1 (rainfed condition)	Contains 25.22% protein, maturity: 75 - 80 days, resistant to Bean Common Mosaic Virus, rust and anthracnose diseases, pod borers <i>viz.</i> , <i>Maruca vitrata</i> , <i>H. armigera</i> and Pod bug.
<b>Rajmash/ French bean</b>	Kota Rajmash 1 (RKR 1033)	Gujarat, Maharashtra, and Southern Rajasthan	16.7	Suitable for <i>rabi</i> season in irrigated and high fertility condition, maturity: 101 days, lodging resistant, non-shattering and responsive to fertilizer and irrigation, resistant to angular leaf spot and <i>Anthracoise</i> and tolerance to wilt, BCMV and <i>Alternaria</i> leaf spot, less incidence of aphids, whitefly and pod borer.
<b>Moth bean</b>	RMO-2251 (MARUDHAR) RMO-225-1-6-3	Rajasthan, Haryana, Gujarat, Punjab	5.0-6.0	In this variety, fodder remains green up to maturity, maturity: 63-67 days, good resistance against sucking pests like jassid and white fly, average incidence of YMV and moderately resistant to leaf crinkle virus in field condition.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Indian bean</b>	GNIB-22 (NIBD-14-01)	Gujarat	43.0-50.0	Suitable for late <i>khariif</i> to late <i>rabi</i> season cultivation in south Gujarat, extra early maturity, suitable as intercrop in sugarcane, pigeonpea, highly resistant to MYMV and <i>Anthracnose</i> , moderately resistant to aphid and pod borer.
	Gujarat Junagadh Indian bean-11 (JIB (V)-16)	Gujarat	95.0-111.0	Suitable for cultivation during late <i>Khariif</i> in Saurashtra and middle Gujarat, maturity: 149 days (medium), tolerant to leaf spot and leaf blight disease, moderately resistant to mosaic virus.
<b>Cluster bean</b>	Karan Guar 1 (RGr-12-1)	Rajasthan	10.5	Suitable for <i>khariif</i> season, maturity: 87 days, drought tolerant, lodging and shattering resistant, moderately resistant to bacterial blight, <i>Alternaria</i> blight, <i>Alternaria</i> leaf spot and root rot, minimum incidence of jassids/leaf fly observed.
<b>COMMERCIAL CROPS</b>				
<b>Cotton</b>	Gujarat Anand Deshi Cotton-2 (GADC-2)	Gujarat	16.4	Suitable for desi cotton growing areas of north-west agro-climatic zone V and Bhal & Coastal Zone VIII, it has recorded 45.4 per cent ginning out turn, 24.2 mm 2.5 % span length, 4.88 micronaire value and 19.3 g/tex tenacity (ICC mode).
	Cotton CO 15 (TCH 1705)	Tamil Nadu, Andhra Pradesh and Karnataka under irrigated condition	28.0	Suitable for winter irrigated ecology, High Density Planting System, maturity: 150 days, moderately resistance to jassids and <i>Alternaria</i> leaf spot, tolerant to leaf hopper.
	BGDS 1063 (IC No.624101) UASR-COT-1	Gujarat, Maharashtra, Odisha, MP, AP, Telangana, Karnataka, TN	22.7	Suitable for irrigated (South Zone) and rainfed conditions (Central Zone), maturity: 165-170 days, moderately resistant to <i>Alternaria</i> leaf spot, rust diseases, moderately tolerant to leaf hoppers.
	SVPR 6 (TSH 04/115)	Andhra Pradesh, Telangana, Karnataka and Tamil Nadu	25.3	Suitable for irrigated areas of medium to high fertile soil of south zone states, maturity: 150-155 days, moderately resistant to leaf hopper and white fly, and <i>Alternaria</i> leaf spot, moderately resistant to leaf hopper and white fly.
	Nirmal-433 (NACH-433) hybrid	Maharashtra, Madhya Pradesh, Odisha and Gujarat	22.0-30.0	Suitable for desi cotton growing area of Central Zone under rainfed/irrigated condition, suitable for timely sown rainfed conditions, maturity: 160-165 days, non-lodging, drought tolerant, highly tolerant to bacterial leaf blight, <i>Alternaria</i> leaf spot/blight, grey mildew, <i>Myrothecium</i> leaf spot and leaf blight, highly tolerant to jassids and moderately tolerant to bollworm.
	Cotton CO 16 (TCH 1777)	Gujarat, Maharashtra and Madhya Pradesh	20.3	Suitable for winter irrigated ecology of central zone, maturity: 150 days, moderately tolerant to bacterial blight, grey mildew and leaf hopper.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Cotton	Raj Vijay Kapas 67 (RVK 67) IH 67 (HR)	Madhya Pradesh	16.1	Suitable for irrigated <i>rabi</i> , maturity: 150 days, tolerant to jassids, aphids, bollworms; drought tolerant.
	Suchitra (Central Cotton CCH 12-2)	Gujarat, Maharashtra, MP, Odisha	17.6	Suitable for irrigated conditions during <i>kharif</i> season, maturity: 150-160 days, moderately tolerant to jassids
	Subiksha (CCH 4474)	AP, Karnataka and Tamil Nadu	15.4 (normal spacing) 37.4 (closer spacing)	Suitable for irrigated tracts during <i>kharif</i> season under closer spacing, maturity: 150 days, resistant to BLB and rust, tolerant to jassids and whitefly.
	Phule Suman (RHH-1007)	Maharashtra, Madhya Pradesh and Gujarat	23.0	Suitable for irrigated, timely sown condition, maturity: 160-170 days, resistant to aphids, thrips and whitefly while tolerant to jassids, leaf hopper and boll-worms, highly responsive to fertilizer.
	HS 292	Andhra Pradesh, Telangana, Tamil Nadu and Karnataka	23.1	Suitable for irrigated, suitable for sowing from July-August, maturity: 160-170 days, moderately resistant to lodging and shattering and responsive to fertilizers, moderately tolerant to biotic and abiotic stresses.
	Gujarat Junagarh Cotton-102 (GJHV- 516)	Maharashtra, Gujarat & Madhya Pradesh	19.5	Suitable for irrigated and high fertility <i>kharif</i> ecology, maturity: 170-200 days, resistant to BLB, Jassids.
	Phule JLA-0603 (JLA – 0603)	Tamil Nadu, Karnataka and Andhra Pradesh	15.1	Suitable for rainfed conditions, maturity: 160-180 days, moderately resistant to sucking pests and boll-worms, resistant to jassids, BLB.
	GN Cot.Hy-32 (GISV-267)	Gujarat	22.0	Suitable for cotton growing irrigated areas, maturity: 160-185 days, moderately resistant to disease free for bacterial leaf blight (BLB), <i>Alternaria</i> leaf spot (ALS).
	GN Cot.Hy-26 (GVHB-170)	Gujarat	16.4	Suitable for cotton growing rainfed areas, maturity: 180-190 days, disease free for wilt and <i>Alternaria</i> leaf spot and resistant to bacteria blight, lower population of sucking pests.
	GN Cot.Hy-29 (GBab-106)	Gujarat	14.9	Suitable for cotton growing rainfed areas, maturity: 160-170 days, showed disease free reaction against wilt, sternaria leaf spot and bacteria blight, recorded below ETL population of sucking pests (Thrips, Whitefly, Jassids and Mealy bug).
	G.Cot.36 (Gujarat Cotton 36) (GSHV 177)	Tamil Nadu, Karnataka and Andhra Pradesh.	24.2	Suitable for irrigated condition, resistant to lodging, shattering, responsive to fertilizer, maturity: 165-185 days.
	G.Cot.34 (Gujarat Cotton 34) (GISV 272)	Gujarat, Maharashtra and Madhya Pradesh.	23.5	Suitable for irrigated condition, resistant to lodging, shattering, responsive to fertilizer, maturity: 160-180 days.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Cotton</b>	Gujarat Cotton-38 (G.Cot-38) (GJHV-497)	Gujarat, Maharashtra and Madhya Pradesh.	23.5	Suitable for irrigated and high fertility kharif ecology, maturity: 170-210 days.
	SCS 1061	Maharashtra, Madhya Pradesh, Odisha and Gujarat.	19.2	Suitable for rainfed conditions, maturity: 140-150 days.
	NHH 715	Maharashtra, Gujarat and Madhya Pradesh, Telangana, Andhra Pradesh, Karnataka and Tamil Nadu	17-1	Suitable for high fertility condition, maturity: 150-160 days (medium), tolerant to sucking pests and diseases viz. bacterial blight, alternaria, myrothecium leaf spot and grey mildew.
<b>Jute</b>	Gujarat Cotton Hybrid-22 (G. Cot.Hy.22) (GJHH-4)	Gujarat	28.6 (seed yield) 10.1 (lint yield)	Suitable for the cultivation under irrigated conditions during kharif season, medium maturity- 175-195 days.
	LD 1019 (Desi cotton)	Punjab	21.5	Suitable for cultivation under irrigated conditions, shattering tolerant <i>desi</i> cotton genotype, maturity: 160 days, moderately resistant to <i>Fusarium</i> wilt and tolerant to whitefly and jassid.
	Shweta (BCCC-1)	West Bengal, Assam, Bihar and Odisha	27.5	Suitable for rainfed mid and high land where jute is cultivated followed by transplanted paddy, low and high fertility, maturity: 120 days, tolerance to stem rot disease and insect pests like semilooper and Bihar Hairy Caterpillar
<b>Mesta</b>	NJ 7010 (Rani)	West Bengal, Assam, Tripura, Odisha, Bihar and Uttar Pradesh	30.9	Suitable for both rainfed and irrigated situation, pre-kharif (mid- March to mid-July), maturity: 120-125 days, less susceptible to stem rot disease and Bihar Hairy Caterpillar.
	JRR-17 (Ayush) (JRR-2012-1)	Odisha, Maharashtra, Andhra Pradesh, Bihar and North eastern states	26.3	Suitable for adapted to rainfed HS mesta growing belt of the country, finer fibre, maturity: 130-135 days, tolerant to foot and stem rot disease and insects like spiral borer, mesta mealy bug
<b>Kenaf</b>	JBMP 3 (Priya) (JRK-2011-1)	Andhra Pradesh, Maharashtra, West Bengal, Odisha, Bihar and North eastern states especially Tripura	26.0	Suitable for adapted to rainfed, mesta growing belt of the country, maturity: 120-130 days, resistant to Yellow Vein Mosaic Disease.
	JBMP-4 (Utkarsh) (JRK-2013-2)	WB, Odisha, Bihar, AP, Maharashtra, Tripura and Assam.	27.9 (fibre yield)	Resistance against yellow vein mosaic, foot and stem rot disease, maturity: 120-130 days (seed to fibre), 150 - 165 days (seed to seed).
<b>Sunhemp</b>	Kavita (SUN-3)	UP, Bihar, MP, Chhattisgarh, Jharkhand, WB, Odisha, TN and Maharashtra.	10.3 (fibre yield)	Suitable for irrigated as well as rainfed mid and high land agro-ecological conditions, maturity: 135-145 days.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
Sugarcane	CoVC 99463	Karnataka	60.0-70.0 t/acre	Suitable for moisture stress conditions, high tillering, better quality, suitable for wide row planting, good ratooner, drought tolerant and good for jaggery making, maturity: mid-late.
	CoLk 09204 (Ikshu-3)	Punjab, Haryana, Uttarakhand, Rajasthan and Central & Western parts of Uttar Pradesh	82.8 t/ha (Cane yield) 9.3 t/ha (CCS yield)	Suitable for irrigated and water logged condition, mid-late clone, non-lodging, non-flowering, better ratooning and nutrient responsive, maturity: mid-late (11-12 months), resistant to moderately resistant for red rot and smut.
	CoPb 94 (CoPb 10181)	North West Zone : Punjab, Haryana, Rajasthan, Uttarakhand and Western & Eastern UP	84.8 t/ha	Suitable for normal irrigated condition, sub-tropical climate, spring planting with recommended dose of fertilizers, high yielding, high sugared, mid-late maturing, maturity: mid-late (11-12 months), red rot resistant.
	UP09453	Eastern Uttar Pradesh, Bihar, West Bengal and Assam	74.7 t/ha	Suitable for irrigated, normal fertility level, tolerant to stress. Sucrose (%) in juice (17.90), Pol (%) in cane (13.23), maturity: early, MR to major diseases and LS to major pests.
	Sri Mukhi (CoA 11321)	Andhra Pradesh	111.3 t/ha (Cane yield) 13.5 t/ha (CCS Yield)	Suitable for assured irrigated, limited irrigated, late planted, rainfed, water logged and red rot prone areas, Sucrose (%) in juice (17.16) and Pol (%) in cane (13.73), maturity: early, resistant to red rot, susceptible to smut & wilt, least susceptible to early shoot borer scale insect and highly susceptible to inter nodal borer.
	Ikshu - 4 CoLk 11206	Punjab, Haryana, Uttarakhand, Rajasthan, Central and Western parts of UP	91.5 t/ha	Suitable for irrigated planting, mid-late maturing commercial variety, good performance under moisture stress condition, maturity: mid-late, resistant to moderately resistant reaction to red rot and smut.
	Ikshu - 5 CoLk 11203	Punjab, Haryana, Uttarakhand, Rajasthan, Central and Western parts of UP	81.9 t/ha (Cane yield) 10.5 t/ha (CCS Yield)	Suitable for irrigated planting, high yielding, red rot resistant commercial variety, Sucrose (%) in juice (18.41) and Pol (%) in cane (13.44), maturity: mid-late, resistant to moderately resistant reaction to red rot and smut at majority of the centres, less susceptible to the main insect pests.
	CO 06022 (06 Co 022)	Ecological conditions of Tamil Nadu and Puducherry.	105.2 t/ha (Cane yield) 13.7 t/ha (CCS Yield)	Suitable for normal conditions of Peninsular Zone as well as drought prone areas, Sucrose (%) in juice (18.88), maturity: 10 months (300 days), early, moderately resistant to prevalent pathotype/races of red rot.
	Bahubali (VCF 0517)	Karnataka	200.0-225.0 t/ha	Suitable for irrigated areas of southern Karnataka, good ratoonability, deep rooting with moderate lodging, maturity: mid-late (12-14 months), resistant to foliar disease, less susceptible to leaf mite and internode borer.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield ( q/ha )	Salient features
Sugarcane	Charehika (CoOr 10346)	Odisha	100.0 t/ha	Suitable for non-lodging, well suited to irrigated uplands and medium lands, could also be grown in rice land with proper water management, maturity: mid-late (360 days), tolerant to water lodging and moisture stress.
	GNS-10 (2008 N 210) (CoN 13073)	Gujarat	143.1 t/ha	Maturity: 360 days (mid-late), resistant to moderately resistant to red rot, resistant to smut & moderately resistant to wilt.
	SNK 07680 (CoSnk 13103) Hiranyakeshi	Peninsular Zone (Gujarat, Maharashtra, Kerala, Karnataka, interior of Tamil Nadu and Andhra Pradesh, MP and Chattisgarh)	40.0-160.0 t/ha	Suitable for irrigated and moisture stress prone condition, maturity: 360 days (mid-late), non flowering, non spiny cane tops making excellent fodder.
	CoG 6 (G 2005 019)	Peninsular Zone (Gujarat, Maharashtra, Kerala, Karnataka, interior of Tamil Nadu and Andhra Pradesh, MP and Chattisgarh)	110.0-120.0 t/ha	Suitable for the salt-affected soil and for high quality jiggery production, maturity: early (300 days) resistance to woolly aphids, short borer and internode borer, moderately resistant to red rot and resistant to smut.
	Uphar (Co 10026)	Peninsular Zone (Gujarat, Maharashtra, Kerala, Karnataka, interior of Tamil Nadu and Andhra Pradesh, MP and Chattisgarh)	109.0 t/ha	Suitable medium and high fertile soil under irrigated condition in autumn season, early maturing (300 days), tolerance to sugarcane white woolly aphid, drought, salinity, resistant to red rot, YLD and smut.
	Co 12029 (Karan 13)	North West Zone (Punjab, Haryana, Rajasthan, Central and western Uttar Pradesh and Uttarakhand)	109.0 t/ha	Suitable for growing under medium and high fertile soil under irrigated condition for planting in autumn & spring season, maturity: mid-late 360 days, resistant to red rot, wilt and smut.
	CoLk 12207 (Ikshu-6)	North Central & North East Zones (Eastern Uttar Pradesh, Bihar, West Bengal, Jharkhand and Assam)	75.4 t/ha	Suitable for water logging, lodging tolerant with multiple ratooning suitable for green fodder, maturity: 300 days (early), resistant to moderately resistant to red rot and smut.
	CoLk 12209 (Ikshu-7)	North Central & North East Zones (Eastern Uttar Pradesh, Bihar, West Bengal, Jharkhand and Assam)	77.5 t/ha	Suitable under moisture stress condition, good ratooner, maturity: 360 days (mid-late), resistant to moderately resistant to red rot and smut, least susceptible to the main insect pests
	Phule-10001 (MS 10001)	Peninsular Zone (Gujarat, Maharashtra, Kerala, Karnataka, interior of TN and AP, MP and Chattisgarh)	-	Early maturity (300 days), tolerant to salt affected soils, salinity and drought, resistant to smut, red rot, wilt foliar disease.

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>FORAGES</b>				
<b>Forage Sorghum</b>	Gujarat Anand Forage Sorghum-11 (GAFS-11)	Gujarat	400.0 (GFY)	Suitable for cultivation in the Middle Gujarat, Bhal and North-West zone under rainfed conditions, it showed higher green forage, tall stature with non-lodging thin stem. In its reaction to anthracnose, zonate leaf spot and leaf blight diseases it was found comparable with checks.
	Gujarat Anand Forage Sorghum-12 (GAFS-12)	Gujarat	300.0 (GFY) 101.0 (DMY)	Suitable for rainfed, middle Gujarat, tall and non-lodging, maturity: 68-76 days.
	Fodder Sorghum CO 31 (TNFS 0952)	Tamil Nadu	1920 (GFY)	Suitable for multicut, tolerant to mild drought, non-lodging, non-shattering.
	CSV 35F (SPV 2317) (UTFS 85)	Delhi, Gujarat, Rajasthan, Uttarakhnad, Haryana, UP, Punjab, MP, Maharashtra, TN, Karnataka	-	Suitable for cultivation during rainfed <i>kharif</i> season, high yielding, and single cut forage sorghum variety with good nutritional quality and good seed yielding ability, maturity: 120-125 days
	CSH 40F (SPV 1797) (UTFSH 2)	Delhi, Gujarat, Rajasthan, Uttarakhnad, Haryana, UP, Punjab, MP, Maharashtra, TN, Karnataka	-	Suitable for green and dry fodder production under rainfed/irrigated (if required) condition, in medium to high fertile soils during <i>kharif</i> season, maturity: 72-75 days (flowering), 110-120 days (hard dough stage), tolerant to major shoot pests viz. Shoot fly and stem borer under natural field conditions.
	CSV 40F (SPV 2387)	Maharashtra, Karnataka and Tamil Nadu	467.0 (GFY) 133.0 (DFY)	Suitable for <i>kharif</i> cultivation in low rainfall situation with protective irrigation, moderately resistant to stem borer, shoot fly, major foliar diseases, single-cut forage variety, 240-250 cm tall, juicy semi-sweet stem.
	Jaicar Haryali (CSV 38F/SPV 2316)	Maharashtra, Karnataka and Tamil Nadu.	-	Suitable for timely sowing (June 15 - July 15), maturity: 105-115 days, resistant to lodging and seed shattering.
	PBN 342 (Hybrid)	Punjab, Haryana, Rajasthan, Odisha, Assam, Tamil Nadu and Karnataka	940.0 (GFY)	It is an irrigated crop, it is <u>E<sub>1</sub></u> hybrid but clonally propagated through stem cuttings or rooted slips, non-seed setting, maturity: perennial, gives good production up to 4 years of planting, tolerant to major diseases and pest
	Phule Marvel-1 (Marvel 90-4)	Maharashtra, Madhya Pradesh, Uttar Pradesh and Gujarat	368.5 (GFY) 100.4 (DFY)	It is a perennial, rainfed grass of grassland and pasture land, can be cultivated as <i>kharif</i> crop, maturity: 60-65 days, resistant to leaf blight, sucking pest and defolians not observed throughout the year.

## Agricultural Inputs

Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Marvel Grass</b>	Bundel Marvel Grass 2013-2 (JHD 2013-2)	Punjab and Rajasthan	442.2 (GFY) 153.1 (DMY)	Suitable for cultivation during <i>kharif</i> season for multicut system under rainfed and irrigated condition, 7-8% protein, medium late, resistant to leaf blight, no major pest incidence observed.
<b>Anjan Grass</b>	Phule Madras Anjan-1 (RCC-10-6) CAZRI Anjan-358 (CAZRI 358)	Punjab, Rajasthan, Gujarat, Uttar Pradesh, Maharashtra, Rajasthan	397.7 (GFY) 111.6 (DMY) 7.8 (CPY)	It is rainfed (perennial) multi-cut crop variety, good fodder quality, maturity: 50-55 days, resistant to leaf blight, tolerant to sucking pests and diseases.
<b>Dhaman Grass (Anjan grass)</b>	CAZRI Anjan-2178 (CAZRI 2178) Bikaneri Dhaman (RCCB -2)	Rajasthan	84.1 (GFY) 20.0 (DMY)	It is rainfed, <i>kharif</i> multicut crop variety, crude protein 5-6%, maturity: perennial crop, highly drought tolerant, no major disease and pest infestation.
<b>Aparajita</b>	CAZRI Anjan 2178 (CAZRI 2178)	Rajasthan	108.4 (GFY) 38.4 (DMY)	It is rainfed <i>kharif</i> crop variety, crude protein 5-6%, maturity: perennial crop, no major disease and pest infestation.
<b>Berseem</b>	JGCT-2013-3 (Titli) Bundel Berseem Single Cut - 1 (JBSC - 1) BL-43	Maharashtra, Rajasthan, Punjab, Haryana, South UP, MP and Gujarat	150.0 (GFY) 35.0 (DMY)	It is perennial rainfed <i>kharif</i> crop variety, yield: 150 q/ha (GFY), 35 q/ha (DMY) under rainfed condition with irrigation, 5-6 cuttings of green fodder can be taken in one year, 6-7 % protein, maturity: perennial, seed set in November after cessation of monsoon, no major disease or pest infestation.
<b>Fodder Cowpea</b>	CO 9	Tamil Nadu	250.0 (GFY) 61.0 (DMY)	It is a rainfed perennial legume, rich in crude protein content (20%), suitable for pastures, grasslands, maturity: perennial, no major infestation of disease and pest.
<b>Forage Sewan Grass</b>	CAZRI Sewan-1 (CAZRI 30-5)	Rajasthan	153.0 (GFY) 60.0 (DMY) 8.2 (CPY) 950.0 (GFY)	It is a single cut short duration forage variety grown under irrigated condition during <i>rabi</i> season, average per day productivity is 1.8 q/ha, 18% CP, tolerant to major biotic stress.
			250.0 (GFY) 45.0 (DMY) 8.0 (Seed yield)	It is a quick growing and tall variety with more number of tillers recommended for irrigated areas of Punjab state, superior quality green fodder and give good seed yield.
			156.8 (GFY) 57.1 (DMY)	Suitable for irrigated condition throughout year, higher protein content (21.56%), reduced fibre portions confer increased digestibility, palatability and intake rate, maturity: shorter in duration (50-55 days), suited for intercropping with sorghum and maize, moderate field tolerant to drought, moderately resistant to yellow mosaic virus and resistant to major pests.
				It is a rainfed <i>kharif</i> perennial crop variety, 6-7% crude protein, maturity: perennial, highly drought tolerant, no major disease and pest infestation.



Crop	Variety	Recommended Zone	Avg. Yield (q/ha)	Salient features
<b>Oats</b>	Central Oat OS 403	Assam, Manipur, Odisha, WB, Eastern Uttar Pradesh, Bihar, Jharkhand, Telangana, AP, Karnataka, TN, Haryana, Punjab, Uttarakhand and Rajasthan	454.3-533.8 (GFY) 92.0-108.0 (DMY) 18.1-20.5 (SY)	Suitable for timely sown, normal fertility and irrigated conditions in <i>rabi</i> season, 9-10% CP, moderately resistant to <i>Helminthosporium</i> leaf blight.
	OL 1802-1 (Single cut)	Punjab, Haryana, Rajasthan, Uttarakhand	530.1 (GFY) 97.3 (DMY)	Suitable for timely sown, normal fertility, irrigated conditions in <i>rabi</i> season, 9-10% CP.
	OL 1769-1 (Single cut)	Western UP, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh	487.8 (GFY) 102.0 (DMY)	Suitable for timely sown, normal fertility and irrigated conditions <i>rabi</i> season, maturity: 157 days, resistant to <i>Helminthosporium</i> leaf blight.
	OL 1760 (Single cut)	Tamil Nadu, Telangana and Andhra Pradesh	355.0 (GFY) 10.5 (SY)	Suitable for timely sown, normal fertility and irrigated conditions <i>rabi</i> season, better nutritional quality in terms of CP and IVDMD, maturity: medium, moderately resistant to <i>Helminthosporium</i> leaf blight.
	Bundel jai 20122 (JHO 2012-2)	Telangana, Andhra Pradesh, Karnataka and Tamil Nadu	354.0 (GFY) 80.0 (DMY)	Suitable for timely sown, normal fertility and irrigated conditions <i>rabi</i> season, 10 % CP, maturity medium (110 days).
<b>Ricebean</b>	Jawahar Oat 04-315 (Jawahar Oat 5)	Madhya Pradesh, Uttar Pradesh and Maharashtra	575-600 (GFY) 95-110 (DMY)	Suitable for irrigated condition for winter season, maturity: 140-150 days (seed to seed), least susceptible against leaf blight, aphids/ tiller and leaf defoliator.
	OL 11 (OL 1760)	Punjab	600 (GFY) 50 (SY)	Single cut variety recommended for irrigated areas of Punjab, superior fodder quality to OL 9 and Kent.
<b>Lucerne</b>	Jawahar Rice bean 05-4 (Jawahar Rice bean-2)	Madhya Pradesh	260.0 (GFY) 47.58 (DMY)	Suitable for rainy season, maturity: 115-120 days (seed to seed), least susceptible to flea beetle at field conditions.
	Lucerne Co 3 (TNLC 14)	Telangana, Andhra Pradesh, Karnataka and Tamil Nadu.	505.0 (GFY) 96.2 (DMY) 11.4 (CPY)	Herbaceous perennial leguminous fodder, suitable for irrigated condition in garden lands, resistance to aphids & rust.
<b>Kalingada Seed</b>	CAZRI Kalingada-1 (CAZJK-13-2) sss(Water Melon)	Arid zone of Rajasthan and Gujarat Rainfed	3.5-4.5 (SY) 125.0-150.0 (fruit yield)	Suitable for rainfed <i>kharif</i> , oil content 28-30%, maturity: 90-95 days, suitable for low rainfall areas (< 300 mm), no serious disease and insect pest noticed.

Source: Division of Crop Science, Indian Council of Agricultural Research, New Delhi.

Table 2.4: List of horticultural crop varieties/hybrids notified/released/identified in 2018

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>FRUITS</b>								
<b>Guava</b>	Arka Kiran	Karnataka State	ICAR-IIHR, Bengaluru	3rd year onwards	All Guava growing states	520-540	Pink pulp with soft seeded variety, Lycopene content of 7.5mg/100g, Seed hardness of 9kg/cms, TSS of 12-13%, mean fruit weight of 230g.	Kharif and Rabi
	Arka Poorna	Institute Identified	ICAR-IIHR, Bengaluru	3rd year onwards	All Guava growing states	540-550	High yielding, plants are semi vigorous in growth habit with prolific bearing, hence suitable for medium to high density planting. The fruits are round, medium to big size (200-230 g) with smooth, shiny pericarp. The pulp is firm, white with thick outer rind, good flavour, TSS 10-12 <sup>o</sup> B), ascorbic acid (190-198 mg/100 g) medium soft seeds (10.0 to 12.0 kg /cm <sup>2</sup> ) and keeping quality. It is a dual purpose variety suitable for both table and processing (osmotic dehydration of rind).	Kharif and Rabi
<b>Banana</b>	Phule Pride	State release (notified)	ICAR-AICRP on Fruits, Banana Research Station, Jalgaon, MPKV-Rahuri	330 days	Banana growing areas of Western Maharashtra and Khandesh	888	Resistance to pseudostem breaking, bunch breaking and lodging and tolerant to sigatoka leaf spot.	June, October and February planting
	Kaveri Kalki	SVRC - Tamil Nadu	ICAR-NRCB, Trichy	345 to 360 days	Tamil Nadu, Kerala, Andhra Pradesh	550-600	40% short statured than its local control (2.6m as against 4.5m). Suited to annual cropping system with 60 days earliness over its local control.	March-April
	Kaveri Sugantham	SVRC - Tamil Nadu	ICAR-NRCB, Trichy	410-415 days	Higher altitudes of Tamil Nadu like Kolli hills Shevoroy Hills, Kodai Hills etc.	480-500	Tolerant to Foc race 4, Highly fragrant Utility in breeding, program due to its ability to set seeds upon crossing.	Feb-Mar

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Banana</b>	Kaveri Saba	SVRC - Tamil Nadu	ICAR-NRCB, Trichy	350 to 370 days	Tamil Nadu, Kerala, Andhra Pradesh	600-620	20% higher yield over local control, mothan, drought tolerant, salt tolerant, high market preference and fetching premium price owing to its good keeping quality with green life of 7-8 days.	Feb-Mar
<b>VEGETABLES</b>								
<b>Brinjal long</b>	DBL-175	AICRP (VC) identified	ICAR-IARI, Pusa, New Delhi	50-55 DAT	Rajasthan, Gujarat, Haryana, Delhi, M.P., Maharashtra and Goa	350-400	Average plant height is 60-65 cm. Fruits are long (18-20 cm length), cylindrical (3.5-4.5 cm diameter), shiny purple in colour with non-spiny green calyx. The average fruit weight is 100-125 g.	Rainy season (Kharif)
<b>Brinjal round</b>	IC-0598429	AICRP (VC) identified	IIHR-CHES, Bhubaneswar	50-60 DAT	Chhattisgarh, Orissa and A.P.	350-360	Plants are medium in height and flowering initiates around 42 days after transplanting. Fruits are solid, oval, and purple green in colour with white patches and pink tinge towards bottom of the fruit, pulp soft. Fruiting period ranges up to 90-95 days.	Rainy season (Kharif)
<b>Bitter gourd (Hybrid)</b>	NBIH-2009	AICRP (VC) identified	Nuzi Veedu Seeds	50-55 DOS	Punjab, Uttar Pradesh, Bihar and Jharkhand	150-200	It has vigorous plant growth habits with green to dark green foliage. Fruits dark green with sharp and dense toothing/tubercles; fruit length is 22-24 cm, 4-5 cm thickness, medium bitter in taste. Fruits are having good shine and self-life.	Rainy season (Kharif) & Spring-summer season (Zaid)
<b>Ivy gourd [Coccinia indica sy. C. grandis (L.)]</b>	Thar Sundari	Centre	CIAH, Bikaner	It is short-perennial (4-5 years)	Tolerant to high temperature (36-38 °C) and abiotic stress (tolerate dry climate 40-42 °C).	268.5	It is stable for sequential female flowering, fruiting and morphological traits. Plants continue flowering even when temperature reached to max. 48° C, however, slightly affecting the fruit size and shape. Used for vegetable.	Spring-summer, rainy-winter season.

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
Sponge gourd ( <i>Luffa cylindrica</i> L.)	Thar Tapish	Centre	CIAH, Bikaner	It is short duration (110-115 days)	It is multiple-stress tolerant/ heat tolerant variety	146	Tolerant to high temperature and abiotic stresses of hot arid agro-climate Potential for kitchen gardening. It is suitable both for rainy and summer season cultivation.	Spring summer season crop.
	Kashi Shreya	AICRP (VC) identified	ICAR-IIVR, Varanasi	50-55 DAS	Punjab, Uttar Pradesh, Bihar and Jharkhand	150-200	Plants are medium viny (3.5-5.5 m) with dark green foliage and fruiting at every node. Fruits dark green, long straight (20-25 cm on flat bed, up to 32 cm on bower) and with 3-3.75 cm diameter. It is resistant to Sponge Gourd Mosaic Virus and downy mildew disease under field condition.	Rainy season (Kharif) & Spring-summer (Zaid)
Sponge gourd (Hybrid)	Kashi Rakshita	AICRP (VC) identified	ICAR-IIVR, Varanasi	48-52 DOS	Punjab, Uttar Pradesh, Bihar and Jharkhand	200-250	It is medium viny (3.5-5.5 m) with dark green foliage and fruiting at every node. Fruits are dark green, long straight (20-25 cm on flat bed and may on up to 30 cm on bower) with 3-4 cm diameter It is resistant to Sponge Gourd Mosaic Virus and downy mildew disease under field condition.	Rainy season (Kharif) & Spring-summer season (Zaid)
Palak/Spinach beet [ <i>Beta vulgaris</i> var. <i>bengalensis</i> Roxb.]	Thar Haripama	Centre	CIAH, Bikaner	180 days	Higher early plant growth vigour and more number of pickings under north-western parts of Rajasthan	128.5-235.8	It produces excellent quality and bigger size tender leaves for fresh vegetable use. Good yield with limited irrigations (drip, channel).	Winter season
Chilli	Arka Khyati	Karnataka State	ICAR-IIHR, Bengaluru	180 days	Southern States	Fresh yield: 400-450 Dry Yield: 50-55	CMS based high yielding F1 hybrid for fresh market, fruits 12 X 1cm; light green and turn deep red on maturity, medium pungent, fruits smooth and turn wrinkled after drying, tolerant to viruses.	Kharif, Rabi-summer

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Chilli (Hybrid)</b>	2014/CHIH YB-3	AICRP (VC) identified	Private sector, Code not yet opened	55-60 DAT	Punjab, Uttar Pradesh, Bihar and Jharkhand	125-150	It has vigorous plant growth. Average fruit length ranges from 7-13 cm, fruit width 0.8-1.25 cm and fruit weight 4-4.5 g. It has an average green fruit yield of 126.13 q/ha.	Rainy season (Kharif)
	<b>Capscum</b>	Arka Anulya	ICAR-IHR, Bengaluru	140-150 days	Karnataka	450-500	High yielding F1 hybrid with powdery mildew tolerance, suitable for fresh green market.	Kharif and Rabi
<b>French Bean</b>	Arka Sharaath	Karnataka State	ICAR-IHR, Bengaluru	70 days	South and North India	185	It has round, string less, smooth pods suitable for steamed beans. Pods are crisp, fleshy with no parchment and perfectly round on cross section. Plants are bushy and photo insensitive. It gives maximum number of pods per plant (44.5).	Kharif and Rabi
	<b>Yard Long Bean</b>	Arka Sukomal	Institute Identified	100 days	All India	240	High yielding rust resistant pole bean variety, takes 60 days for 1st harvest. Pods stringless, oval, green and long (23 cm).	Kharif and Rabi
<b>Onion</b>	Arka Mangala	Karnataka State	ICAR-IHR, Bengaluru	75-80 days	South India	250	Pole, vigorous, photo insensitive. Pods are green with smooth surface.	Kharif and Rabi
		Arka Bheem	Karnataka State	130 days	All India	470	It is a tri-parental synthetic variety with Red to pinkish red elongated globe shaped bulbs. Average bulb weight is 120 g.	Kharif and Rabi
	Bhima Light Red (notified)	Karnataka & Tamil Nadu	ICAR-DOGR, Rajgurunagar, Pune	115 days	It is recently released variety	385	It is light red globe bulbs of about 70 g with thin neck and total soluble solids of 13%. Total weight losses after four months of storage was less than 25%. It is almost free of doubles and bolters.	Rabi Season

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Onion</b>	Bhima Safed (notified)	Chhatisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, and TN	ICAR-DOGR, Rajgurunagar, Pune	110-120 days	3000 ha	185	This variety having white, round to oval bulbs of mainly 70-80 g. It has 11-12% TSS and is thus suitable both for table and processing. It has less than 5% doubles and bolters.	Kharif Season
<b>Garlic</b>	Bhima Purple (notified)	Delhi, UP, Haryana, Bihar, Punjab, Maharashtra, Karnataka and AP	ICAR-DOGR, Rajgurunagar, Pune	135-140 days	900 ha	6-7 t/ha	Attractive purple skinned variety, field tolerant to thrips & foliar diseases, soft neck variety.	Rabi season
<b>Vegetable Amaranth</b>	Arka Samraksha	Karnataka State	ICAR-IIHR, Bengaluru	30-35 days	All India	109	It is a high yielding amaranth variety, with high antioxidant activity of 499mg (AEAC units) and minimum nitrate content of 27.3 mg and 1.34g of oxalates per 100g fresh weight of leaves. It is a pulling type amaranth variety with green leaves and stem.	Year round
	Arka Varma	Karnataka State	ICAR-IIHR, Bengaluru	30-35 days	All India	106	It is a high yielding amaranth variety, with high antioxidant activity of 417mg (AEAC units), nitrate content of 37.6 mg and 1.42 g of oxalates per 100 g fresh weight of leaves. It is a pulling type amaranth variety with green leaves and pink stem.	Year round
<b>Muskmelon</b>	Arka Siri	Institute Identified	ICAR-IIHR, Bengaluru	70 days	North and South India	250	High yielding, good quality (12-13% TSS) musk melon variety with good shelf life (5 days).	Kharif, Rabi

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (g/ha)	Other traits/characteristics	Cropping season
Tomato	Arka Abhed	Institute Identified	ICAR-IIHR, Bengaluru	140-150 days.	North and South India	700-750	Multiple disease resistant tomato hybrid, resistant to four diseases viz., ToLCD (Ty2), BW, EB and late blight. Fruits are firm oblate round, medium large (90-100g), suitable for fresh market.	Kharif, Rabi, summer
	Kashi Aman (notified)	Central release, Notified, No.- S.O.261(E), 16.01.2018	ICAR-IIVR, Varanasi	The first picking can be started within 85 days after transplanting	Punjab, Uttar Pradesh, Bihar and Jharkhand	550-600	The fruits are red in colour, round, very firm with a pericarp thickness of 0.52-0.57cm. Average fruit weight 80-110g. Resistant to ToLCV.	Rabi
	Kashi Amul (notified)	Central release, Notified, No.- S.O.261(E), 16.01.2018	ICAR-IIVR, Varanasi	The fruits mature in 85-90 days post transplanting	Karnataka, Tamil Nadu and Kerala states	500-600	Fruits attractive red in colour, round and firm with pericarp thickness 6-6.5 mm. Average fruit weight 90-115g. This variety has shown high level of resistance ToLCV.	Rabi
Tomato (ToLCV) (Resistant)	2014/TOLC VRES-5	AICRP (VC) identified	Private sector, Code not yet opened	60-70 DAT	Karnataka, Tamil Nadu, Kerala and Pondicherry	300-400	Fruits are round shape, red, medium size, fruit weight ranges from 50-70 g with good firmness.	Rainy season (Kharif)
Cowpea (Bush Type)	CP-55	AICRP (VC) identified	ICAR-IARI, Pusa, New Delhi	50-55 DAS	Rajasthan, Gujarat, Haryana and Delhi	120-150	The pods are smooth, slender, round, straight and light green in colour. The pod length ranged from 20-26 cm and pod diameter 0.6-0.8 cm.	Rainy season (Kharif) & Spring-summer season (Zaid)
Doitchos Bean (Pole Type)	DB-10	AICRP (VC) identified	ICAR-IARI, Pusa, New Delhi	100-120 DAS	M.P., Maharashtra and Goa	300-350	The pods are smooth, flat, light green in colour of 10-12 cm length, 2.2-2.5cm width with acute beak (0.5 – 1.0 cm) and 4-5 seeds per pod. This is resistant to common bean mosaic virus and <i>cercospora</i> disease.	Rainy season (Kharif)

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Cucumber</b>	DC-83	AICRP (VC) identified	ICAR-IARI, Pusa, New Delhi	45-50 DAS	Punjab, Uttar Pradesh, Bihar and Jharkhand	200-250	The fruits are long (15-18cm), light green in colour with mild whitish green stripes and dark green blotchy spots present near the blossom end, straight, rudimentary spines, soft skinned with tender and crispy flesh.	Rainy season (Kharif) & Spring-summer season (Zaid)
<b>Mustard Green</b>	UHF VR-12-1	AICRP (VC) identified	Dept. of Vegetable Crops, College of Forestry and Hill Agriculture, Hill Campus Ranichauri-249199	45-50 DAS	Sikkim, Meghalaya, Manipur, Mizoram, Nagaland and Tripura	350-400	Plants having leaves green to purplish green, uneven in leaf size, colour and bolting time. About 3-4 times leaves can be picked in direct sown crop of rabi (Oct-April) field conditions.	Winter season (Rabi)
<b>FLOWERS/ORCHIDS</b>								
<b>Gladiolus</b>	Arka Ranjini	Institute Identified	ICAR-IIHR, Bengaluru	62-68 days	Maharashtra, Karnataka	Marketable spikes per corm - 1.82	It is having attractive floret colour i.e., Purple (78.A) middle, Red - Purple (72.A) margin with Green-Yellow (1.D) blotch, florets arranged in double rows, short spikes and early flowering. This Gladiolus variety is suitable for cut flower and bedding purpose.	Kharif and Rabi
	Arka Pratham	Institute Identified	ICAR-IIHR, Bengaluru	58-65 days	Maharashtra, Karnataka	Marketable spikes per corm - 1.59	It is having attractive violet floret colour i.e., Purple Violet (82.A) having Purple (77.A) margin and Green White (157.C) line on lower lip, upright spikes and early flowering. This is suitable for cut flower and bedding purpose.	Kharif and Rabi
<b>Crossandra</b>	Arka Chenna	Institute Identified	ICAR-IIHR, Bengaluru	100 days	South India	40 kgs/ week per 1000 plants	This mutant has orange red, thicker petals with strong and thicker stock, possessed moderate resistance to wilt, thrips and midges and had higher shelf life.	Kharif and Rabi



Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Rose</b>	Arka Kinnari	Institute Identified	ICAR-IIHR, Bengaluru	120 days	Karnataka	103 flower stalks production/sq.m/year	It has shining foliage and orange flowers with 4 months maturity. Plant height is 150 cm and suitable for garden display.	Kharrif and Rabi
	Arka Sharmeeli	Institute Identified	ICAR-IIHR, Bengaluru	120 days	Karnataka	106 flower stalks/sq.m/year	Flower petal color is RG-50A and the color of base spot on inner side is YG-11D. Flower color changes from bud to bloom with a maturity of 4 months. Suitable for garden display.	Kharrif and Rabi
	Arka Sinchana	Institute Identified	ICAR-IIHR, Bengaluru	120 days	Karnataka	1400 flowers /plant/year	It is a highly proliferous floribunda rose with bright red color, small flowers and coppery green foliage. It matures in 4 months and is suitable for garden display.	Kharrif and Rabi
<b>MUSHROOM</b>								
<b>Button Mushroom</b>	U3-54	Released All India	ICAR-DMR, Solan	30-32 days	5-7% of total area under button mushroom	22 kg/100 kg compost	Pure white, high yielding, compact, late veil opening.	Throughout the year under controlled conditions
<b>SPICES</b>								
<b>Ginger</b>	Suprabha PGS-35	CVRC notified	High Altitude Research Station, OUA & T, Pottangi, Odisha	230 days	Eastern plateau and hills region-Odisha	16.6 t/ha (fresh)	Plumpy rhizome, less fibre, wide adaptability, suitable for both early and late sowing.	May-June
	Suruchi PGS-19	CVRC notified	High Altitude Research Station, OUA & T, Pottangi, Odisha	218 days	Eastern plateau and hills region-Odisha	17.5 t/ha (fresh)	Plumpy rhizome, dark skinned yellow fleshed, suitable for both irrigated/rainfed, duration 225 days. 10.2% Oleoresin, 2.1% essential oil, 4.0% crude fibre, 23.6% dry recovery.	May-June

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Ginger</b>	Suravi VIKI-3	CVRC notified	High Altitude Research Station, OUA & T, Pottangi, Odisha	223	Eastern plateau and hills region - Odisha	17.5 t/ha (fresh)	Plumpy rhizome, dark skinned yellow fleshed, suitable for both irrigated/rainfed, duration 225 days. 10.2% Oleoresin, 2.1% essential oil, 4.0% crude fibre, 23.6% dry recovery.	May-June
<b>Turmeric</b>	Surama PTS -24	CVRC notified	High Altitude Research Station, OUA&T, Pottangi-764 039, Koraput (Dist), Odisha	253	Eastern plateau and hills region (Orissa), Southern plateau and hills region (TN), Western Himalayan Region (HP), East coast plains and hill region (AP) and West coast plains and ghat region, Kerala	20.0 t/ha	Round and plumpy rhizome, field tolerance to leaf blotch, leaf spot and rhizome scale, curcumin 6.1%, oleoresin 13.1%, essential oil 4.4% and dry recovery 26.0%.	May-June
<b>Coriander</b>	Suguna (LCC-236)	CVRC notified	Regional Agri. Research Stat., APHU, Lam, Guntur, AP	95-105	Andhra Pradesh, Gujarat, Rajasthan, Tamil Nadu, UP	7.5-13.5	Suitable for growing in Andhra Pradesh, Gujarat, Rajasthan, Tamil Nadu, Uttar Pradesh.	October November
	RD 385 Rajendra Dhania	CVRC notified	Rajendra Agricultural University, DHOLI, Bihar	120-140	Middle Gangetic Plain Region All coriander growing regions of the country	14.09	Climatic resilient coriander variety with high yield (14.09 q ha <sup>-1</sup> ) and high oil (0.52%)	October November
	Chhattishgath C Dhania-1	SVRC notified	CARS, Raigarh, JGKV	95-105	Eastern plateau and hills region. All coriander growing regions of the country	13-22	Climatic resilient coriander variety suitable for both leafy and seed purpose. This coriander variety is moderately resistant to powdery mildew and aphids.	October November
	ACr-2	CVRC notified	ICAR NRCSS Ajmer	120-140	Central plateau and hill region - Rajasthan	15.30	Biotic stress variety with stem gall resistance, high linalool content 71.7% and early maturing type was recommended for release at national level.	October November

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Fenugreek</b>	Ajmer fenugreek-5	CVRC notified	ICAR-NRC on Seed Spices, Ajmer	120-130	Central plateau and hills region Rajasthan	17.21	High seed yield, high antioxidant content (66.43 mg/BHTE/ppm) suitable for green leaf production under shade net condition in summer season.	October /November
<b>Ginger</b>	Solan Giriganga	AICRP recommended	Dr. Y. S. Parmar University of Horticulture & Forestry, Solan	225-230	Western and Eastern Himalayan Regions and Lower Gangetic Plain Region of India.	dry matter recovery of 21.01%	Plumpy and bold rhizomes with High dry matter recovery of 21.01%, essential oil -1.45%, oleoresin – 4.69%, crude fibre 4.47% and < 10% incidence of rhizome rot.	April-June
<b>Turmeric</b>	TCP 129 (Uttar Rangini)	AICRP recommended	Uttar Banga Krishi Viswavidyalaya, Pundibari	225-250	West Bengal, Bihar and Tamil Nadu	high dry recovery of 26.51%	Tolerant to leaf spot and leaf blotch and with curcumin content of 5.1%.	May-June
<b>Nutmeg</b>	Konkan Sanyukta	AICRP recommended	Dr. B.S.K.K.V. Dapoli	270	Maharashtra	500 fruits per plant per year	Monococious nutmeg bearing 500 fruits per plant per year with bold nuts (9.20 g), mace wt (1.07 g), high nut oil (27%) and mace oil (17.75%).	Perennial crop- Preferably monsoon up to March
<b>Coriander</b>	Ajmer Coriander-3	AICRP recommended	ICAR-NRC on Seed Spices, Ajmer	120-140	Rajasthan	13.09	High volatile oil (0.55 %) with high linalool (75.42 %), and stable yield.	October /November
	Rajendra Dhania 3	AICRP recommended	Dr. RPCAU, Dholi	120-140	All coriander growing regions of the country	14.09	Climatic resilient coriander variety with high yield (14.09 q ha <sup>-1</sup> ) and high oil (0.52 %).	October /November
	JD (SI)-1	AICRP recommended	JNKVV, Jabalpur	120-140	Madhya Pradesh	14.14	High oil type coriander (0.67 %) with high yield potential (14.14 q ha <sup>-1</sup> ).	October /November
	Chhattisgarh Sri Chandrahansini Dhania-2	AICRP recommended	IGKV, Raigarh	95-105	All coriander growing regions of the country	12-14	Climatic resilient coriander variety suitable for both leafy and seed purpose, moderately resistant to powdery mildew and aphids.	October /November

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Cumin</b>	Gujarat Cumin 5	AICRP recommended	SDAU, Jagudan	92	All cumin growing regions of the country	57.10	High yielding wilt resistant cumin with short duration and high yield (38 % higher yield than GC 4).	October /November
<b>Fennel</b>	Ajmer fennel 3	AICRP recommended	ICAR-NRC on Seed Spices, Ajmer	175-180	All fennel growing regions of the country	21.43	High yielding and high oil (1.9%) fennel resistant to <i>Ramularia</i> blight.	October /November
<b>Fenugreek</b>	HM 425	AICRP recommended	CCSHAU, Hisar	125-130	All fenugreek growing regions of the country	20-22	High yielding powdery mildew and downey mildew resistant fenugreek.	October /November
	Narendra Richa	AICRP recommended	NDUA&T, Kumarganj	120-130	Uttar Pradesh and Andhra Pradesh	12-15	Dual purpose alkaline tolerant fenugreek with moderate resistance to powdery mildew.	October /November
<b>PLANTATION CROPS</b>								
<b>Coconut</b>	IND010S selection from Federated Malay States Tall	Identified for central release	ICAR-CPCRI, Kasaragod & AICRP (Palms)	51 months under irrigated condition	Western Ghats and coastal plains of Kerala, Karnataka and semi-arid regions of Tamil Nadu	148 nuts/palm, 26196 nuts/ha, 27.23 kg copra/palm, 4820 kg/ ha.	Drought tolerant, dual purpose variety suitable for tender nut and copra.	-
<b>TUBER CROPS/POTATO</b>								
<b>Cassava</b>	Sree Sakti	Central Release	ICAR-CTCRI	270-300	Tamil Nadu, Andhra Pradesh, Maharashtra and Kerala	430-550	Resistant to cassava mosaic disease, tolerant to post harvest physiological deterioration, non branching variety, cylindrical tubers with brown skin, cream rind and white flesh colour, high starch content of 29.0%.	Kharif
	Sree Suvarna	Central Release	ICAR-CTCRI	180-240	Tamil Nadu, Andhra Pradesh, and Kerala	350-400	Resistant to cassava mosaic disease, branching/top branching variety with brown stem, dark purple petiole, light brown emerging leaves, conical to cylindrical tubers with brown skin, cream rind and white flesh colour, medium starch, 25-27.0%.	Kharif

Name of crops	Variety	Centre/State release	Releasing centre/ Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
<b>Greater Yam</b>	Chhattisgarh Ratalu-1	Central Release	IGKV, Raipur, AICRP(ITC) Source ICAR-CTCRI	252	Chhattisgarh, Gujarat	150-210	It has cylindrical long tubers with purplish white flesh colour, Tubers take very less time for cooking and have excellent cooking quality. Very good texture of tuber flesh for preparation of Chaat Tikkiya, Sabjee and Ratalu Vada. Resistant against Anthracnose disease under field condition.	Spring Summer (Feb.-March) and Kharif (May-June) planting
	<b>Potato</b>							
	Kufri Ganga (released)	Centre	CPRS, Modipuram	90-110	North Indian plains	350-400	Table purpose variety, field resistance to late blight, ovoid tubers, with shallow eyes, cream flesh, acceptable aroma, mealy texture and moderate tubers dry matter (16-18%).	Rabi
	Kufri Neelkanth (released)	Centre	CPRS, Modipuram	90-110	North Indian plains	350-380	Table purpose variety, moderate resistance to late blight, dark purple black tubers, ovoid in shape with medium deep eyes, cream flesh, good storability and medium dormancy. It is a speciality potato rich in anti-oxidants with excellent flavour.	Rabi
	Kufri Lima (released)	Centre	CPRS, Modipuram	90-100	North Indian plains	300-350	Table purpose variety, possesses tolerance to hopper and mite burn and is resistant to PVY, PVX and moderately resistant to root knot nematode. The variety produces attractive, white-cream, ovoid tubers with shallow eyes and cream flesh.	Rabi
	Kufri Karan (released)	Centre	CPRI, Shimla	100-120	Indian hills and Plateau region	270-290	Both table and processing purpose, high resistance to late blight, viruses and moderate resistance to PCN, high dry matter (18.8%) and good keeping quality.	Kharif

## Agricultural Inputs

Name of crops	Variety	Centre/State release	Releasing centre/ Institute	Maturity range (days)	Area of adaptation	Average yield (q/ha)	Other traits/characteristics	Cropping season
Potato	Kufri Mamik (released)	Centre	CPRS, Patna	90-100	Eastern plains of India	300-320	Field resistance to late blight, produces attractive, deep red, ovoid shaped tubers with shallow eyes and white flesh. The variety has high levels of anthocyanin (0.68 $\mu$ g FW), carotenoids (33.0 $\mu$ /100g FW), micro nutrients (Zn, Fe, Cu, & Mn), waxy texture with good flavours and taste.	Rabi
	Kufri Sahyadri (released)	State	CPRIRS, Ooty	110-120	Nilgiri Hills	280-350	Both table and processing use, combined resistance to PCN and late blight, tubers of the variety are oval in shape with light yellow skin, yellow flesh, shallow deep eyes and are free from after cooking discoloration.	Round the year

Source: Division of Horticultural Science, Indian Council of Agricultural Research, New Delhi.

**Table 2.5: All India consumption of plant nutrients per unit of gross cropped area during 1964-65 to 2017-18**

Year	Gross cropped area (000' ha)	Consumption (kg) per hectare			
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total
1964-65	159,229	3.49	0.93	0.44	4.86
1965-66	155,276	3.70	0.85	0.50	5.05
1966-67	157,355	4.69	1.58	0.73	6.99
1967-68	163,736	6.32	2.04	1.04	9.40
1968-69	159,529	7.58	2.40	1.07	11.04
1969-70	162,265	8.36	2.56	1.29	12.21
1970-71	165,791	8.92	3.26	1.43	13.61
1971-72	165,186	10.88	3.38	1.82	16.08
1972-73	162,150	11.34	3.58	2.14	17.07
1973-74	169,872	10.77	3.82	2.12	16.71
1974-75	164,191	10.75	2.87	2.05	15.67
1975-76	171,296	12.54	2.73	1.62	16.89
1976-77	167,334	14.68	3.79	1.91	20.38
1977-78	172,232	16.91	5.03	2.94	24.88
1978-79	174,802	19.56	6.33	3.38	29.27
1979-80	169,589	20.63	6.79	3.58	30.99
1980-81	172,630	21.31	7.03	3.61	31.95
1981-82	176,750	23.02	7.48	3.83	34.33
1982-83	172,748	24.56	8.29	4.20	37.06
1983-84	179,560	28.98	9.64	4.32	42.94
1984-85	176,330	31.11	10.70	4.76	46.57
1985-86	178,464	31.72	11.24	4.53	47.48
1986-87	176,405	32.40	11.78	4.82	49.01
1987-88	170,738	33.48	12.81	5.16	51.45
1988-89	182,277	39.78	14.93	5.86	60.57
1989-90	182,269	40.52	16.54	6.41	63.47
1990-91	185,742	43.06	17.34	7.15	67.55
1991-92	182,242	44.15	18.22	7.47	69.84
1992-93	185,700	45.38	15.31	4.76	65.45
1993-94	186,580	47.10	14.31	4.87	66.28
1994-95	188,053	50.56	15.59	5.98	72.13
1995-96	187,471	52.40	15.46	6.17	74.02
1996-97	189,502	54.36	15.71	5.43	75.50
1997-98	189,988	57.38	20.60	7.22	85.20
1998-99	191,649	59.24	21.46	6.95	87.65
1999-00	188,396	61.53	25.47	8.91	95.91
2000-01	185,340	58.92	22.74	8.46	90.12
2001-02	188,014	60.16	23.31	8.87	92.33
2002-03	173,889	60.23	23.11	9.21	92.55
2003-04	189,661	58.40	21.75	8.43	88.57
2004-05	191,103	61.30	24.20	10.78	96.27
2005-06	192,737	66.01	27.00	12.52	105.53
2006-07	192,381	71.59	28.81	12.14	112.54
2007-08	195,223	73.86	28.25	13.50	115.61
2008-09	195,328	77.26	33.31	16.96	127.53
2009-10	189,118	82.35	38.45	19.20	140.00
2010-11*	197,683	83.76	40.72	17.78	142.26
2011-12*	195,796	88.36	40.42	13.15	141.93
2012-13*	194,246	86.60	34.25	10.61	131.46
2013-14*	200,950	83.35	28.03	10.44	121.83
2014-15*	198,360	85.45	30.75	12.77	128.96
2015-16*	N.A.	87.58	35.18	12.11	134.87
2016-17*	N.A.	84.37	33.80	12.65	130.82
2017-18*	N.A.	85.50	34.56	14.01	134.07

**Note** : 1.\*: Provisional, 2. Figures of consumption and gross cropped area refer to the same year, except last three years, where gross cropped area is for the year 2014-15, 3. N.A.: Not available.

**Source** : *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

**Table 2.6: State-wise consumption of plant nutrients per unit of gross cropped area**

(kg/ha)

Zone/State	2015-16				2016-17			
	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total
<b>North</b>	<b>125.99</b>	<b>41.25</b>	<b>7.24</b>	<b>174.47</b>	<b>121.49</b>	<b>40.65</b>	<b>8.04</b>	<b>170.18</b>
Haryana	169.65	47.54	3.22	220.42	163.80	47.41	6.96	218.18
Punjab	185.10	53.55	9.94	248.60	178.30	47.20	6.66	232.17
Uttar Pradesh	107.73	40.37	7.43	155.53	104.11	40.83	8.56	153.51
Uttarakhand	143.76	19.75	5.67	169.18	138.47	24.68	7.85	171.01
Himachal Pradesh	37.14	9.96	10.00	57.10	35.17	10.84	11.48	57.49
Jammu & Kashmir	42.90	14.65	6.25	63.79	38.63	15.91	8.37	62.91
Delhi	53.06	4.44	0.00	57.49	73.66	3.11	0.00	76.77
<b>South</b>	<b>107.00</b>	<b>48.17</b>	<b>24.30</b>	<b>179.46</b>	<b>97.35</b>	<b>45.65</b>	<b>23.42</b>	<b>166.43</b>
Andhra Pradesh	135.96	65.09	24.65	225.70	123.56	60.24	28.27	212.07
Telangana	179.23	66.97	22.71	268.91	164.36	56.90	22.19	243.46
Karnataka	96.50	52.24	26.22	174.96	87.50	51.00	24.09	162.58
Kerala	21.25	7.87	14.65	43.78	14.98	8.23	11.18	34.38
Tamil Nadu	104.52	40.81	29.86	175.19	87.36	39.39	27.72	154.48
Puducherry	190.05	37.71	34.44	262.19	209.65	41.60	37.99	289.24
<b>East</b>	<b>89.38</b>	<b>34.04</b>	<b>17.48</b>	<b>140.90</b>	<b>77.00</b>	<b>30.26</b>	<b>17.82</b>	<b>125.07</b>
Bihar	162.19	44.24	13.78	220.21	138.50	40.62	19.30	198.42
Jharkhand	39.59	13.22	1.74	54.54	33.53	9.35	0.73	43.62
Odisha	39.43	16.11	7.09	62.64	34.73	15.03	7.01	56.78
West Bengal	90.23	48.55	35.07	173.84	82.14	43.44	32.70	158.28
<b>North East</b>	<b>26.31</b>	<b>6.02</b>	<b>6.68</b>	<b>39.01</b>	<b>25.09</b>	<b>6.76</b>	<b>6.57</b>	<b>38.41</b>
Assam	31.24	6.19	7.36	44.79	27.42	6.72	7.12	41.26
Tripura	18.47	12.60	11.93	42.99	25.01	12.66	8.44	46.11
Manipur	28.94	7.79	4.89	41.62	23.74	6.52	4.42	34.67
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nagaland	2.82	1.93	1.21	5.95	16.44	11.18	7.10	34.71
Arunachal Pradesh	1.62	0.11	0.33	2.07	0.00	0.00	0.00	0.00
Mizoram	12.62	2.27	3.29	18.18	17.32	3.13	2.43	22.88
<b>West</b>	<b>58.77</b>	<b>27.33</b>	<b>7.75</b>	<b>93.85</b>	<b>57.36</b>	<b>24.89</b>	<b>8.12</b>	<b>90.38</b>
Gujarat	90.45	25.74	8.33	124.51	91.21	27.12	9.64	127.98
Madhya Pradesh	52.45	27.66	3.49	83.59	51.15	24.84	3.70	79.70
Chhattisgarh	61.36	29.79	8.97	100.12	58.96	33.50	9.61	102.07
Maharashtra	65.20	37.83	19.42	122.45	63.07	32.69	19.00	114.75
Rajasthan	42.99	17.83	0.74	61.56	40.48	13.82	0.64	54.93
Goa	24.04	14.71	10.34	49.09	22.21	13.64	9.66	45.51
Daman & Diu	35.99	5.14	0.00	41.13	35.90	2.56	2.56	41.03
D&N Haveli	36.31	19.75	0.00	56.05	43.13	30.00	0.00	73.13
<b>All India</b>	<b>84.84</b>	<b>34.08</b>	<b>11.73</b>	<b>130.66</b>	<b>79.59</b>	<b>31.89</b>	<b>11.93</b>	<b>123.41</b>

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)



**Table 2.7: All India production of straight nitrogenous fertilisers during 1973-74 to 2017-18 (April-March)**

('000 t)

Year	Ammonium sulphate (20.6% N)	Ammonium sulphate nitrate (26% N)	Urea** (46%N)	Calcium ammonium nitrate (25% N)	Ammonium chloride (25% N)	Total	
						Nutrient* N (straight)	Product
1973-74	574.6	48.7	1,406.8	431.3	13.7	889.4	2,475.1
1974-75	589.4	26.7	1,734.3	406.6	10.2	1,030.1	2,767.1
1975-76	611.1	21.3	2,196.7	617.5	15.5	1,300.0	3,462.1
1976-77	586.5	2.0	2,875.3	638.2	17.6	1,608.8	4,119.6
1977-78	557.3	N.A.	3,071.8	509.3	16.7	1,659.3	4,155.1
1978-79	508.6	N.A.	3,306.0	558.3	17.9	1,769.8	4,391.3
1979-80	479.3	N.A.	3,513.5	465.3	12.7	1,834.5	4,470.8
1980-81	436.2	N.A.	3,384.2	347.4	18.9	1,758.7	4,186.7
1981-82	443.2	N.A.	5,384.3	403.8	18.9	2,673.8	6,250.3
1982-83	477.7	N.A.	6,019.9	290.0	37.2	2,938.8	6,824.8
1983-84	424.8	N.A.	6,073.8	326.4	61.6	2,973.5	6,886.6
1984-85	454.0	N.A.	6,687.9	409.2	77.2	3,291.7	7,629.0
1985-86	518.9	N.A.	7,467.3	381.1	103.8	3,663.1	8,471.1
1986-87	534.4	N.A.	9,576.6	389.5	92.3	4,635.8	10,592.8
1987-88	538.7	N.A.	9,834.8	421.3	87.2	4,763.7	10,882.0
1988-89	610.1	N.A.	11,867.1	480.2	96.7	5,728.8	13,054.1
1989-90	586.2	N.A.	12,486.0	425.2	79.9	5,990.6	13,577.3
1990-91	557.5	N.A.	12,835.9	435.9	78.8	6,148.0	13,908.1
1991-92	553.5	N.A.	12,831.3	446.3	112.5	6,156.1	13,943.6
1992-93	563.2	N.A.	13,125.9	545.5	122.2	6,320.9	14,356.8
1993-94	620.3	N.A.	13,150.2	666.2	131.4	6,376.3	14,568.1
1994-95	584.8	N.A.	14,137.1	571.9	136.5	6,800.6	15,430.3
1995-96	634.5	N.A.	15,805.6	491.1	138.9	7,558.8	17,070.1
1996-97	665.6	N.A.	15,628.7	388.5	122.1	7,454.0	16,804.9
1997-98	561.5	N.A.	18,594.5	437.7	110.4	8,806.1	19,704.1
1998-99	550.6	N.A.	19,292.2	466.4	63.4	9,120.3	20,372.6
1999-00	592.4	N.A.	19,807.7	318.2	87.5	9,335.0	20,805.8
2000-01	593.4	N.A.	19,623.8	246.5	102.4	9,236.4	20,566.1
2001-02	574.7	N.A.	19,003.1	180.7	81.5	8,925.4	19,840.0
2002-03	544.4	N.A.	18,621.2	173.3	78.9	8,740.9	19,417.8
2003-04	600.7	N.A.	19,038.3	141.2	77.8	8,936.1	19,858.0
2004-05	615.9	N.A.	20,239.2	184.4	82.4	9,503.6	21,121.9
2005-06	619.3	N.A.	20,085.1	172.8	79.8	9,429.9	20,957.0
2006-07	634.8	N.A.	20,271.2	144.3	74.4	9,510.2	21,124.7
2007-08	483.1	N.A.	19,838.8	134.6	N.A.	9,259.0	20,456.5
2008-09	554.8	N.A.	19,923.2	138.5	N.A.	9,313.6	20,616.5
2009-10	620.8	N.A.	21,120.7	102.7	N.A.	9,869.1	21,844.2
2010-11	637.0	N.A.	21,872.5	98.7	23.1	10,223.0	22,631.3
2011-12	595.4	N.A.	21,992.3	115.0	78.4	10,287.4	22,781.1
2012-13	573.2	N.A.	22,586.6	106.9	50.1	10,547.2	23,316.8
2013-14	624.1	N.A.	22,718.7	44.4	7.7	10,592.2	23,394.9
2014-15	581.5	N.A.	22,592.9	N.A.	40.4	10,522.5	23,214.8
2015-16	560.1	N.A.	24,461.3	N.A.	45.6	11,379.0	25,067.0
2016-17	632.3	N.A.	24,200.8	N.A.	40.8	11,272.8	24,873.9
2017-18	688.7	N.A.	24,026.0	N.A.	43.0	11,204.6	24,757.7

**Note :** 1. \*: For agricultural purposes only, 2. These figures are for 20.5% N grade, 3. \*\*: Net production of saleable urea. Excludes urea used for manufacture of complex fertilisers, 4. N.A.: Not available.

**Source :** *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

**Table 2.8: All India production of straight phosphates during 1967-68 to 2017-18 (April-March)**

('000 t)

Year	Single super phosphate of grade			Triple super phosphate of grade		Total	
	16 % W.S. P <sub>2</sub> O <sub>5</sub>	Super phosphate other grades	Nutrient W.S. P <sub>2</sub> O <sub>5</sub>	46 % W.S. P <sub>2</sub> O <sub>5</sub>	Nutrient W.S. P <sub>2</sub> O <sub>5</sub>	Nutrient P <sub>2</sub> O <sub>5</sub> (straight)	Product
1967-68	949.1	31.3	157.5	0.6	0.2	157.7	981.0
1968-69	664.5	14.7	108.9	4.1	1.8	110.7	683.3
1969-70	609.0	12.4	99.4	7.5	3.4	103.2	629.3
1970-71	613.0	7.9	99.5	5.8	2.6	102.1	626.7
1971-72	773.0	2.6	124.2	7.7	3.5	127.6	783.3
1972-73	781.9	N.A.	125.1	4.9	2.2	127.3	786.8
1973-74	773.3 (10.0)	0.4	125.5	3.0	1.4	126.9	786.7
1974-75	822.8 (12.3)	N.A.	133.8	2.5	1.2	135.0	837.6
1975-76	461.3 (1.6)	1.6	74.0	2.1	1.0	75.0	466.6
1976-77	779.3 (1.8)	7.0	126.2	1.8	0.8	127.3	789.5
1977-78	987.6	N.A.	158.0	7.2	3.3	161.3	994.8
1978-79	1,081.3	34.5 #	177.8	19.6	9.0	186.8	1,135.4
1979-80	1,033.1	16.8 #	167.7	22.4	10.3	178.0	1,072.3
1980-81	1,085.0	22.1 #	176.7	41.5	20.0	196.7	1,150.8
1981-82	1,202.6	6.6 #	193.3	48.0	22.1	215.4	1,257.2
1982-83	1,320.6	N.A.	211.3	23.4	10.8	222.1	1,344.0
1983-84	1,491.7	N.A.	238.7	21.1	9.7	248.4	1,512.8
1984-85	1,898.3	N.A.	303.7	10.0	4.6	308.2	1,908.4
1985-86	2,136.1	N.A.	341.8	1.1	0.5	342.3	2,137.2
1986-87	2,006.1	N.A.	321.0	N.A.	N.A.	321.0	2,006.1
1987-88	2,483.5	N.A.	397.4	N.A.	N.A.	397.4	2,483.5
1988-89	2,944.7	N.A.	471.2	N.A.	N.A.	471.2	2,944.7
1989-90	3,137.8	N.A.	502.1	N.A.	N.A.	502.1	3,137.8
1990-91	3,650.3	N.A.	584.0	N.A.	N.A.	584.0	3,650.3
1991-92	2,984.8	N.A.	477.6	N.A.	N.A.	477.6	2,984.8
1992-93	2,329.3	N.A.	372.7	N.A.	N.A.	372.7	2,329.3
1993-94	2,257.2	N.A.	361.2	N.A.	N.A.	361.2	2,257.2
1994-95	3,010.9	13.7 #	483.7	N.A.	N.A.	483.7	3,024.6
1995-96	3,200.2	1.7 #	512.3	N.A.	N.A.	512.3	3,201.9
1996-97	3,187.0	N.A.	509.9	N.A.	N.A.	509.9	3,187.0
1997-98	3,832.5	N.A.	613.2	N.A.	N.A.	613.2	3,832.5
1998-99	3,816.1	N.A.	610.5	N.A.	N.A.	610.5	3,816.1
1999-00	3,532.7	N.A.	565.2	N.A.	N.A.	565.2	3,532.7
2000-01	2,742.2	N.A.	438.8	N.A.	N.A.	438.8	2,742.2
2001-02	2,504.6	N.A.	400.7	N.A.	N.A.	400.7	2,504.6
2002-03	2,407.7	N.A.	385.2	N.A.	N.A.	385.2	2,407.7
2003-04	2,543.4	N.A.	406.9	N.A.	N.A.	406.9	2,543.4
2004-05	2,461.1	N.A.	393.8	N.A.	N.A.	393.8	2,461.1
2005-06	2,795.2	N.A.	447.2	N.A.	N.A.	447.2	2,795.2
2006-07	2,972.0	N.A.	475.5	N.A.	N.A.	475.5	2,972.0
2007-08	2,246.3	N.A.	359.4	N.A.	N.A.	359.4	2,246.3
2008-09	2,533.6	N.A.	405.4	N.A.	N.A.	405.4	2,533.6
2009-10	3,093.0	N.A.	494.9	N.A.	N.A.	494.9	3,093.0
2010-11	3,712.8	N.A.	594.0	N.A.	N.A.	594.0	3,712.8
2011-12	4,324.0	N.A.	691.8	N.A.	N.A.	691.8	4,324.0
2012-13	4,434.9	N.A.	709.6	N.A.	N.A.	709.6	4,434.9
2013-14	4,211.6	N.A.	673.7	N.A.	N.A.	673.8	4,211.5
2014-15	4,229.6	N.A.	676.7	N.A.	N.A.	676.7	4,229.6
2015-16	4,329.6	N.A.	692.7	N.A.	N.A.	692.7	4,329.6
2016-17	4,296.8	N.A.	687.5	N.A.	N.A.	687.5	4,296.8
2017-18	3,905.9	N.A.	624.9	N.A.	N.A.	624.9	3,905.9

Note : 1. #: 14% W.S. P<sub>2</sub>O<sub>5</sub>, 2. ( ) : Pelofos, 3. N.A.: Not available.

Source : *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

**Table 2.9: Production and use of agricultural inputs in India**

Programme	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>1. Seeds (lakh q)</b>									
<b>I. Production of breeder seeds</b>	1.02	1.19	1.23	1.10	0.82	0.86	0.90	1.11	1.05
<b>II. Production of foundation seeds</b>	10.50	18.06	22.26	16.17	17.43	15.76	14.95	22.09	19.54
<b>III. Distribution of certified/quality seeds</b>	257.11	277.34	294.85	313.44	301.39	303.12	304.04	348.58	352.01
<b>2. Consumption of chemical fertilisers (lakh t)</b>									
<b>I. Nitrogenous (N)</b>	155.80	165.58	173.00	168.21	167.50	169.46	173.72	167.35	169.58
<b>II. Phosphatic (P)</b>	72.74	80.50	79.14	66.53	56.33	60.98	69.79	67.05	68.54
<b>III. Potassic (K)</b>	36.32	35.14	25.76	20.62	20.99	25.32	24.02	25.08	27.79
<b>Total (I+II+III)</b>	<b>264.86</b>	<b>281.22</b>	<b>277.90</b>	<b>255.36</b>	<b>244.82</b>	<b>255.76</b>	<b>267.53</b>	<b>259.49</b>	<b>265.91</b>
<b>Per hectare (kg)</b>	140.15	142.34	142.05	131.36	125.39	128.08	130.66	123.41	128.02
<b>3. Consumption of pesticides (technical grade material) (000' t)</b>	41.82	55.54	52.98	45.62	60.28	56.12	50.41	52.75	58.16
<b>4. Area covered under soil conservation cumulative (lakh ha)</b>	<b>5.32</b>	<b>7.49</b>	<b>4.72</b>	<b>5.46</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>	<b>N.A.</b>

**Note** : N.A.: Not available

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)

**Table 2.10: Maximum retail prices of fertilisers in terms of nutrients  
(exclusive of Central vat/State sales tax and local taxes)  
(50 kg. packing)**

(₹ /kg of nutrient)

Year/effective dates	Maximum sale price of nutrient through					
	Ammonium sulphate (20.6% N)	Urea (46% N)	Calcium ammonium nitrate (25% N)	Diammonium phosphate <sup>@</sup> (18% N-46% P <sub>2</sub> O <sub>5</sub> )	Single super phosphate (16% w.s. P <sub>2</sub> O <sub>5</sub> )	Muriate of potash (60% K <sub>2</sub> O)
Nutrient	(N)	(N)	(N)	(P <sub>2</sub> O <sub>5</sub> )	(P <sub>2</sub> O <sub>5</sub> )	(K <sub>2</sub> O)
1992-93 (w.e.f. 25-08-92)**	9.32	6.00	8.00	11.78-12.43**	15.00-17.50**	7.50**
1993-94	N.A.	6.00	N.A.	11.13-12.87	11.25-17.25	6.00-6.67
1994-95 Kharif (prior 10-6-94)	N.A.	6.00	N.A.	12.65-14.54	11.63-15.50	5.94-6.50
1994-95 w.e.f. 10-6-94	15.44	7.22	N.A.	12.18-14.07	11.63-15.50	5.94-6.50
1994-95 Rabi	15.44	7.22	N.A.	13.58-16.30	13.13-16.88	6.13-6.57
1995-96 Kharif	15.44	7.22	N.A.	16.96-18.48	14.29-17.66	6.03-7.57
1995-96 Rabi	18.45	7.22	N.A.	18.11-19.45	16.25-18.21	7.00-8.00
1996-97 Kharif	19.42	7.22	N.A.	13.64-16.18	13.93-19.25	6.19-7.17
1996-97 Rabi (prior 21-2-97)	19.42	7.22	N.A.	14.92-16.96	16.25-19.25	6.62-7.50
1996-97 Rabi w.e.f. 21-2-97)	19.42	7.96	N.A.	14.63-16.67	16.25-19.25	6.17
1997-98	19.42-20.39	7.96	N.A.	14.93	15.63-18.75	6.17
1998-99 Kharif (prior 29-1-99)	20.39-21.36	7.96	24.00#	14.93	15.63-18.75	6.17
1998-99 (w.e.f. 29-1-99)	20.39-21.37	8.70	24.00#	14.64	15.63-18.75	6.17
1999-2000 (prior 29-2-2000)	22.82-24.51	8.70	24.00#	14.64	15.63-18.75	6.17
1999-2000 (w.e.f. 29-2-2000)	22.82-24.52	10.00	24.00#	15.43	15.63-18.75	7.09
2000-01	23.54-24.51	10.00	32.00#	15.43	15.63-21.88	7.09
2001-02 (w.e.f. Feb 02)	24.07-26.33	10.50	32.00#	16.22	15.63-21.88	7.43
2002-03 (w.e.f. Feb 03)	25.58-27.45	11.02	36.00#	16.45	16.28-21.88	7.76
2002-03 (w.e.f. 12-3-03)	25.58-27.46	10.50	36.00#	16.22	16.25-21.88	7.43
2003-04	25.97-27.79	10.50	36.00#	16.22	16.25-23.94	7.43
2004-05	26.46-28.76	10.50	24.80-40.00	16.22	16.25-23.38	7.43
2005-06	28.28-30.22	10.50	25.93-31.70	16.22	16.25-26.88	7.43
2006-07	30.95-32.65	10.50	28.08-33.50	16.22	16.88-26.88	7.43
2007-08	32.65-48.83	10.50	31.58-36.10	16.22	16.88-26.88	7.43
2008-09	50.24 <sup>d</sup>	10.50	37.38-44.80	16.22	21.25 <sup>e</sup>	7.43
2009-10	50.24 <sup>d</sup>	10.50	39.28-44.80	16.22	21.25 <sup>f</sup>	7.43
2010-11	38.89-42.23 <sup>s</sup>	11.54	40.42-49.60	17.11-18.85 <sup>s</sup>	20.00 <sup>s</sup>	8.43 <sup>s</sup>
2011-12	38.89-68.45 <sup>s</sup>	11.54	43.56-51.60	18.85-39.61 <sup>s</sup>	20.00-39.29 <sup>s</sup>	10.00-20.13 <sup>s</sup>
2012-13	47.57-53.46 <sup>s</sup>	11.65 <sup>a</sup>	52.86-62.00	47.62 <sup>s</sup>	43.78 <sup>s</sup>	28.33 <sup>s</sup>
2013-14	53.91-56.74 <sup>s</sup>	11.65	N.A.	44.35 <sup>s</sup>	41.43 <sup>s</sup>	26.67 <sup>s</sup>
2014-15	59.93-65.78 <sup>s</sup>	11.65	N.A.	46.96 <sup>s</sup>	47.54 <sup>s</sup>	27.50 <sup>s</sup>
2015-16	58.25-61.89 <sup>s</sup>	11.65	N.A.	48.70 <sup>s</sup>	46.76 <sup>s</sup>	26.67 <sup>s</sup>
2016-17	58.25-61.89 <sup>s</sup>	11.65	N.A.	43.27 <sup>s</sup>	45.16 <sup>s</sup>	18.33 <sup>s</sup>
2017-18	62.92 <sup>s</sup>	11.65	N.A.	43.54 <sup>s</sup>	45.44 <sup>s</sup>	19.97 <sup>s</sup>

**Note** : 1. @: P<sub>2</sub>O<sub>5</sub> prices of DAP worked out after deducting proportionate price of N (through urea) from prices of DAP, 2. \*\*: Price of phosphatic and potassic fertiliser were decontrolled, w.e.f. August 25, 1992, 3. The prices shown for 2010-11 to 2014-15 are indicative average prices, 4.a: w.e.f. November 1, 2012, 5.c: Statutorily controlled w.e.f. August 21, 1984, 6. d:w.e.f. July 01, 2008, e: w.e.f. May 1, 2008, 7. f: upto September 30, w.e.f. October 1, 2009 GOI has decided to leave the selling prices of SSP open, 8.#: inclusive of all taxes, 9.\*: Prices upto June 07, 1980 include excise duty, it was withdrawn with effect from June 08, 1980 on all fertilisers, except ammonium sulphate and calcium ammonium nitrate in which case, it was 7.5 per cent ad valorem plus 5% special duty on excise duty. This was also withdrawn with effect from February 28, 1983, 10. S: Nutrient Based Subsidy (NBS) on P&K fertiliser and A/S (GSFC&FACT) was introduced w.e.f. April 1, 2010. Under NBS, retail prices are open and announced by the individual companies,

**Source** : *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.

**Table 2.11: State-wise consumption of pesticides (Technical Grade) in India**

(t)

States/Union Territories	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Andaman and Nicobar Islands	NA	15	7	NA	8	NA	NA
Andhra Pradesh	8869	9289	2803	4253	4050	2713	1884
Arunachal Pradesh	10	17	NA	18	18	17	18
Assam	150	160	183	190	190	NA	306
Bihar	675	655	687	765	787	831	840
Chandigarh	NA	NA	NA	NA	NA	NA	NA
Chhattisgarh	570	600	812	1016	1589	1625	1495
Dadra and Nagar Haveli	NA	NA	NA	NA	NA	NA	NA
Daman and Diu	NA	NA	NA	NA	NA	NA	NA
Delhi	48	NA	NA	48	NA	NA	88
Goa	9	8	9	9	12	48	22
Gujarat	2600	2190	1210	2330	1730	1980	1713
Haryana	4060	4050	4050	4080	4070	NA	4050
Himachal Pradesh	328	310	320	344	379	450	341
Jammu and Kashmir	1818	1711	1789	1723	1921	2251	2188
Jharkhand	84	151	151	430	650	493	541
Karnataka	1858	1412	1615	1735	1793	1434	1279
Kerala	657	807	712	1276	910	1123	1070
Lakshadweep	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	633	850	846	987	696	732	694
Maharashtra	8317	6723	6618	10969	8663	11665	13496
Manipur	30	33	30	31	31	30	33
Meghalaya	10	9	NA	44	28	NA	NA
Mizoram	4	4	4	508	805	NA	NA
Nagaland	NA	15	NA	16	20	20	NA
Odisha	871	555	606	1219	1075	723	770
Puducherry	39	38	41	41	42	43	42
Punjab	5730	5625	5730	5723	5689	5743	5843
Rajasthan	3623	2802	2559	2736	2694	2475	1252
Sikkim	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	2361	1968	1766	2142	2096	2096	2000
Telangana	NA	NA	NA	NA	2862	2950	3840
Tripura	12	266	272	310	346	293	298
Uttar Pradesh	8460	8839	9057	10164	9736	10457	10142
Uttarakhand	199	206	247	174	172	217	131
West Bengal	3515	3670	3465	3190	3060	3712	2624
<b>Total</b>	<b>55540</b>	<b>52979</b>	<b>45619</b>	<b>60282</b>	<b>56121</b>	<b>54121</b>	<b>57000</b>

Note : N.A.: Not available

Source : Ministry of Statistics & Programme Implementation, Govt. of India. (Website: www.indiastat.com)

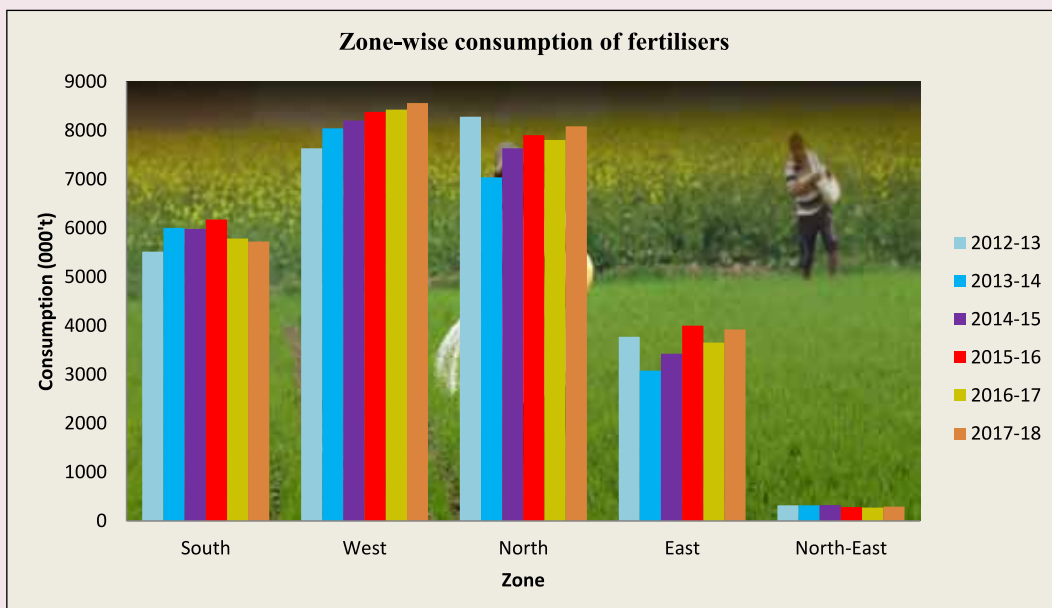
**Table 2.12: Zone-wise consumption of fertilisers**

(‘000 t)

State/Zone	2013-14	2014-15	2015-16	2016-17	2017-18
South Zone	6004.82	5985.38	6177.58	5788.00	5724.28
	(170.35)	(176.43)	(179.46)	(166.43)	(160.34)
West Zone	8042.24	8205.58	8382.02	8426.41	8560.03
	(87.55)	(90.97)	(93.85)	(90.38)	(92.48)
North Zone	7039.97	7634.61	7906.44	7805.66	8087.75
	(162.03)	(174.42)	(174.47)	(170.18)	(175.62)
East Zone	3078.25	3427.26	4001.47	3653.88	3923.23
	(128.06)	(142.27)	(140.90)	(125.07)	(137.15)
North East Zone	317.13	323.29	285.09	275.20	295.61
	(49.95)	(50.74)	(39.01)	(38.41)	(61.77)
<b>All India</b>	<b>24482.41</b>	<b>25576.12</b>	<b>26752.61</b>	<b>25949.15</b>	<b>26590.90</b>

**Note** : Figures in parenthesis indicates estimated consumption of fertiliser in Kgs per hectare

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)



**Table 2.13: State-wise area coverage under micro irrigation in India during 2017 and 2018**

(Area in Ha.)

States	As on 31.03.2017			As on 31.03.2018		
	Drip	Sprinkler	Total	Drip	Sprinkler	Total
Andhra Pradesh	1012093	386415	1398508	1150758	434191	1584949
Arunachal Pradesh	613	0	613	613	0	613
Assam	310	129	439	373	848	1221
Bihar	10309	101124	111433	10496	104080	114576
Chattisgarh	20399	263857	284256	21981	275362	297343
Goa	1086	993	2079	1186	1129	2315
Gujarat	557606	580396	1138002	636663	644473	1281136
Haryana	28081	556079	584160	30038	564873	594911
Himachal Pradesh	4441	3652	8093	5160	4130	9290
Jammu & Kashmir	23	57	80	23	57	80
Jharkhand	16641	14227	30868	18011	14401	32412
Karnataka	514090	536443	1050533	581340	705300	1286640
Kerala	22890	8080	30970	23083	8245	31328
Madhya Pradesh	265194	216470	481664	293610	227815	521425
Maharashtra	1004175	408365	1412540	1089600	455769	1545369
Manipur	288	30	318	288	30	318
Meghalaya	308	307	615	308	307	615
Mizoram	3064	1364	4428	3064	1364	4428
Nagaland	444	5005	5449	444	5005	5449
Odisha	22575	87038	109613	23240	89409	112649
Punjab	35208	12473	47681	35375	12906	48281
Rajasthan	212406	1576139	1788545	228923	1607827	1836750
Sikkim	6044	3042	9086	6044	3042	9086
Tamil Nadu	352375	45136	397511	412370	90836	503206
Telangana	107828	24608	132436	163577	58333	221910
Tripura	444	1651	2095	444	1651	2095
Uttar Pradesh	20118	50674	70792	21960	77067	99027
Uttrakhand	3622	2059	5681	4834	3029	7863
West Bengal	604	50576	51180	629	52688	53317
Others	15169	30636	45805	15169	30636	45805
<b>All India</b>	<b>4238448</b>	<b>4967025</b>	<b>9205473</b>	<b>4779604</b>	<b>5474803</b>	<b>10254407</b>

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)

2. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)

**Table 2.14: Flow of institutional credit in agriculture sector**

(million ₹)

Item	2010-11	2011-12	2012-13	2013-14*	2014-15*	2015-16*	2016-17*	2017-18#
<b>Production (Short term) credit</b>								
Co-operative Banks	690380	818290	1025920	1135740	1303500	1438030	1318800	1383480
Regional Rural Banks	381210	474010	559570	706970	893260	1015790	1050010	1195460
Commercial Banks	2283910	2669280	3149510	3641640	4157360	4199300	4525760	4970780
Other Agencies	0	0	0	0	0	0	0	0
<b>Sub-total (A)</b>	<b>3355500</b>	<b>3961580</b>	<b>4735000</b>	<b>5484350</b>	<b>6354120</b>	<b>6653120</b>	<b>6894570</b>	<b>7549720</b>
<b>Medium/Long term credit</b>								
Co-operative Banks	90830	61340	86110	63890	81190	94920	108780	120410
Regional Rural Banks	61720	70490	77240	119560	131570	176810	182150	214130
Commercial Banks	1174860	1016880	1175400	1633420	1886400	2230240	3472050	3800770
Other Agencies	0	0	0	0	0	0	0	0
<b>Sub-total (B)</b>	<b>1327410</b>	<b>1148710</b>	<b>1338750</b>	<b>1816870</b>	<b>2099160</b>	<b>2501970</b>	<b>3762980</b>	<b>4135310</b>
<b>Short term + Medium/Long term credit</b>								
Co-operative Banks	781210	879630	1112030	1199630	1384690	1532950	1427580	1503890
Regional Rural Banks	442930	544500	636810	826530	1024830	1192600	1232160	1409590
Commercial Banks	3458770	3686160	4324910	5275060	6043760	6429540	7997810	8771550
Other Agencies	0	0	0	0	0	0	0	0
<b>Grand total (A+B)</b>	<b>4682910</b>	<b>5110290</b>	<b>6073750</b>	<b>7301220</b>	<b>8453280</b>	<b>9155090</b>	<b>10657550</b>	<b>11685030</b>

**Note** : 1.\*: Figures have been revised based on the updated information from the respective agency, 2. #: Data submitted by banks on ENSURE portal of NABARD.

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)



**Table 2.15: State-wise crop area insured under all insurance schemes**

States/ Union Territories	2015-2016			2016-2017			2017-2018		
	Gross Area Sown*	Area Insured	% of Area Insured	Gross Area Sown*	Area Insured	% of Area Insured	Gross Area Sown*	Area Insured	% of Area Insured
Andhra Pradesh	76.90	23.49	30.54	76.90	15.81	20.56	76.90	21.60	28.09
Andaman & Nicobar	00.24	00.01	05.75	0.24	0.00	1.06	00.24	00.00	01.03
Arunachal Pradesh	02.99	00.00	00.00	2.99	0.00	0.00	02.99	0.00	0.00
Assam	40.83	00.29	00.70	40.83	0.41	1.00	40.83	00.43	01.06
Bihar	76.73	28.06	36.57	76.73	22.02	28.69	76.73	21.28	27.74
Chandigarh	00.02	00.00	00.00	0.02	0.00	0.00	0.02	00.00	00.00
Chhattisgarh	57.28	23.43	40.90	57.28	24.17	42.19	57.28	22.27	38.88
Dadra & Nagar Haveli	00.23	00.00	00.00	0.23	0.00	0.00	00.23	0.00	0.00
Daman & Diu	00.03	00.00	00.00	0.03	0.00	0.00	00.03	0.00	0.00
Delhi	00.35	00.00	00.00	0.35	0.00	0.00	00.35	0.00	0.00
Goa	01.58	00.00	00.07	1.58	0.00	00.04	1.58	0.00	0.01
Gujarat	127.73	10.31	08.08	127.73	30.18	23.63	127.73	21.61	16.92
Haryana	65.36	00.00	00.00	65.36	20.85	31.89	65.36	19.32	29.56
Himachal Pradesh	09.18	00.54	05.89	9.18	1.30	14.15	09.18	12.74	138.82
Jammu & Kashmir	11.78	00.00	00.00	11.78	00.00	00.00	11.78	01.53	12.95
Jharkhand	15.54	04.17	26.83	15.54	3.74	24.08	15.54	03.01	19.40
Karnataka	122.47	17.18	14.03	122.47	26.11	21.32	122.47	19.08	15.58
Kerala	26.25	00.65	02.46	26.25	00.53	2.02	26.25	00.48	1.84
Lakshdweep	00.03	00.00	00.00	0.03	00.00	00.00	00.03	0.00	0.00
Madhya Pradesh	238.10	121.15	50.88	238.10	122.86	51.60	238.10	125.44	52.68
Maharashtra	234.74	83.01	35.36	234.74	72.98	31.09	234.74	58.58	24.96
Manipur	03.83	00.17	04.39	3.83	00.09	2.38	3.83	00.19	4.87
Meghalaya	03.43	00.01	00.29	3.43	0.00	00.01	3.43	00.03	0.99
Mizoram	01.45	00.00	00.00	1.45	0.00	0.00	1.45	0.00	0.00
Nagaland	05.00	00.00	00.00	5.00	0.00	0.00	5.00	0.00	0.00
Odisha	51.73	20.47	39.57	51.73	10.94	21.16	51.73	14.15	27.36
Puducherry	00.27	00.02	07.19	0.27	0.08	29.55	00.27	0.00	0.00
Punjab	78.57	00.00	00.00	78.57	0.00	0.00	78.57	0.00	0.00
Rajasthan	242.35	114.55	47.27	242.35	103.53	42.72	242.35	92.19	38.04
Sikkim	01.36	00.00	00.08	1.36	0.00	00.10	1.36	00.00	00.08
Tamil Nadu	59.95	12.45	20.77	59.95	13.08	21.82	59.95	12.66	21.11
Telangana	53.15	16.07	30.23	53.15	08.62	16.22	53.15	9.51	17.89
Tripura	04.83	00.01	00.21	04.83	00.05	1.02	4.83	00.03	00.63
Uttar Pradesh	261.47	37.98	14.53	261.47	63.76	24.39	261.47	38.98	14.91
Uttarakhand	10.97	01.11	10.12	10.97	01.32	12.07	10.97	1.16	10.60
West Bengal	96.90	08.73	09.01	96.90	19.96	20.59	96.90	18.72	19.32
<b>Total</b>	<b>1983.60</b>	<b>523.86</b>	<b>26.41</b>	<b>1983.60</b>	<b>562.38</b>	<b>28.35</b>	<b>1983.60</b>	<b>515.02</b>	<b>25.96</b>

Note : 1. \*: Using latest available data for gross cropped area for 2014-2015, 2. N.A.: Not available.

Source : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: eands.dacnet.nic.in)





भाग-III  
पशुपालन, डेरी उद्योग एवं मात्स्यिकी

SECTION-III  
Animal Husbandry, Dairying and Fisheries





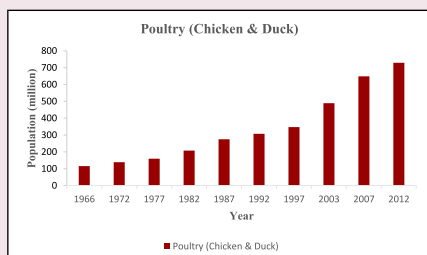
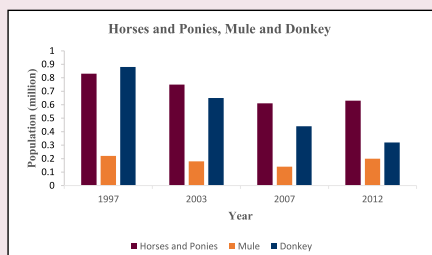
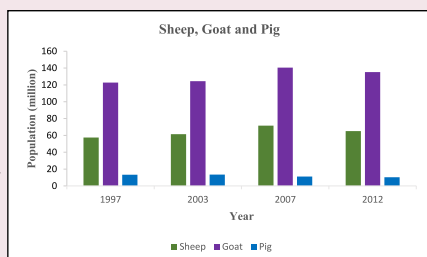
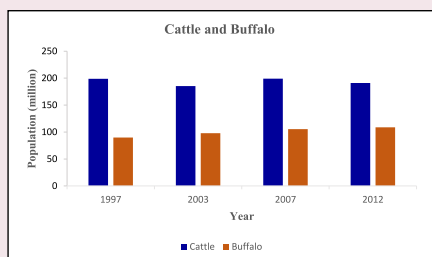
**Table 3.1: Livestock and poultry population in India**

(million number)

Species	1966	1972	1977	1982	1987	1992	1997	2003	2007	2012
<b>Cattle</b>	176.20	178.30	180.00	192.45	199.69	204.58	198.88	185.18	199.08	190.90
<b>Buffalo</b>	53.00	57.40	62.00	69.78	75.97	84.21	89.92	97.92	105.34	108.70
<b>Sheep</b>	42.40	40.00	41.00	48.76	45.70	50.78	57.49	61.47	71.56	65.07
<b>Goat</b>	64.60	67.50	75.60	95.25	110.21	115.28	122.72	124.36	140.54	135.17
<b>Horses &amp; Ponies</b>	1.10	0.90	0.90	0.90	0.80	0.82	0.83	0.75	0.61	0.63
<b>Camel</b>	1.00	1.10	1.10	1.08	1.00	1.03	0.91	0.63	0.52	0.40
<b>Pig</b>	5.00	6.90	7.60	10.07	10.63	12.79	13.29	13.52	11.13	10.29
<b>Mule</b>	0.08	0.08	0.09	0.13	0.17	0.19	0.22	0.18	0.14	0.20
<b>Donkey</b>	1.10	1.00	1.00	1.02	0.96	0.97	0.88	0.65	0.44	0.32
<b>Yak/Mithun</b>	0.03	0.04	0.13	0.13	0.04	0.06	0.06	0.06	0.08	0.08
<b>Total livestock</b>	<b>344.10</b>	<b>353.60</b>	<b>369.00</b>	<b>419.59</b>	<b>445.29</b>	<b>470.86</b>	<b>485.39</b>	<b>485.00</b>	<b>529.70</b>	<b>512.06</b>
<b>Poultry (Chicken &amp; Duck)</b>	115.40	138.50	159.20	207.74	275.32	307.07	347.61	489.01	648.83	729.21
<b>Dog</b>	NC	NC	NC	18.54	17.95	21.77	25.48	29.03	19.09	11.67
<b>Rabbit</b>	NC	NC	NC	NC	NC	NC	NC	0.48	0.42	0.59

**Note** : 1. NC: Not collected, 2. Totals may not tally due to rounding off the figures, 3. Total livestock: Cattle + Buffalo + Yaks + Mithun + Sheep + Goats + Horses & Ponies + Mules + Donkeys + Camels + Pigs.

**Source** : *Basic Animal Husbandry and Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)



**Table 3.2: Growth pattern of livestock and poultry population in India**

Species	Compound annual growth rates (%)										
	1956-61	1961-66	1966-72	1972-77	1977-82	1982-87	1987-92	1992-97	1997-03	2003-07	2007-12
<b>Cattle</b>	10.65	0.34	1.19	0.95	6.92	3.76	2.45	-2.79	-6.89	7.50	-4.10
<b>Buffalo</b>	14.03	3.52	8.30	8.01	12.55	8.87	10.85	6.78	8.90	7.58	3.19
<b>Sheep</b>	2.29	5.47	-5.66	2.50	18.93	-6.28	11.12	13.21	6.92	16.41	-9.07
<b>Goat</b>	9.93	6.08	4.49	12.00	25.99	15.71	4.60	6.45	1.34	13.01	-3.82
<b>Horses &amp; Ponies</b>	-13.33	-15.38	-18.18	0.00	0.00	-11.11	2.50	1.22	-9.64	-18.60	2.12
<b>Camel</b>	12.50	11.11	10.00	0.00	-1.82	-7.41	3.00	-11.65	-30.77	-18.20	-22.63
<b>Pig</b>	6.12	-3.85	38.00	10.14	32.50	5.56	20.32	3.91	1.73	-17.66	-7.54
<b>Mule</b>	25.00	60.00	0.00	12.50	44.44	30.77	11.76	15.79	-18.18	-22.16	43.07
<b>Donkey</b>	0.00	0.00	-9.09	0.00	2.00	-5.88	1.04	-9.28	-26.14	-32.62	-27.17
<b>Yak</b>	N.A.	50.00	33.33	225.00	0.00	-69.23	50.00	0.00	0.00	38.33	-7.23
<b>Total livestock</b>	<b>9.39</b>	<b>2.59</b>	<b>2.76</b>	<b>4.36</b>	<b>13.71</b>	<b>6.13</b>	<b>5.74</b>	<b>3.09</b>	<b>-0.08</b>	<b>9.22</b>	<b>-3.33</b>
<b>Poultry</b>	20.46	1.05	20.02	14.95	30.49	32.53	11.53	13.20	40.68	32.68	12.39
<b>Dog</b>	N.A.	N.A.	N.A.	N.A.	N.A.	-3.18	21.28	17.04	13.92	-34.24	-38.85

**Note** : N.A.: Not available.

**Source** : *Basic Animal Husbandry and Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.3: Results of livestock census 2007 and 2012 in India**

(Number in 000')

Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
<b>I. CATTLE</b>				<b>I. CATTLE</b>			
<b>A. Cattle (Exotic/Crossbred)</b>				<b>A. Cattle (Exotic/Crossbred)</b>			
<b>(i) Male</b>							
(i) under 1 year	2275	216	2491	(i) under 1.5 year	3557	282	3839
(ii) 1-2.5 years	1370	123	1493				
(iii) over 2.5 years				(ii) over 1.5 years			
(a) used for breeding only	406	52	459	(a) used for breeding only	284	34	318
(b) used for agriculture & breeding	1389	87	1475	(b) used for draught only	1366	58	1424
(c) used for bullock cart & breeding	508	50	558	(c) used for both draught & breeding	207	16	222
(d) other	339	28	367	(d) other	152	17	169
<b>Total exotic/crossbred male cattle</b>	<b>6287</b>	<b>556</b>	<b>6844</b>	<b>Total exotic/crossbred male cattle</b>	<b>5566</b>	<b>406</b>	<b>5971</b>
<b>(ii) Female</b>							
(i) under 1 year	4966	550	5516	(i) under 1 year	6519	510	7028
(ii) 1-2.5 years	4128	415	4544	(ii) 1-2.5 years	5116	348	5464
(iii) over 2.5 years				(iii) over 2.5 years			
(a) in milk	9608	1108	10716	(a) in milk	13158	1146	14305
(b) dry	3378	313	3691	(b) dry	4780	335	5115
(c) not calved once	1143	114	1257	(c) not calved once	1449	116	1565
(d) above 10 years	442	50	492	(d) others	250	33	283
<b>Total exotic/crossbred female cattle</b>	<b>23666</b>	<b>2551</b>	<b>26216</b>	<b>Total exotic/crossbred female cattle</b>	<b>31271</b>	<b>2489</b>	<b>33760</b>
<b>Total exotic/crossbred cattle</b>	<b>29953</b>	<b>3107</b>	<b>33060</b>	<b>Total exotic/crossbred cattle</b>	<b>36837</b>	<b>2895</b>	<b>39732</b>
<b>B. Cattle (Indigenous)</b>							
<b>(i) Male</b>							
(i) under 1 year	11087	420	11507	(i) under 2 year	14767	438	15205

Animal Husbandry, Dairying and Fisheries

Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
(ii) 1-3 years	11785	337	12122				
(iii) over 3 years				(ii) over 2 years			
(a) used for breeding only	2082	79	2161	(a) used for breeding only	2029.3	54.75	2084.05
(b) used for agriculture + bullock cart	50036	952	50988	(b) used for draught only	39372	482	39854
				(c) used for both draught & breeding	2930	51	2981
				(d) others	1784	41	1825
<b>Total indigenous male</b>	<b>74991</b>	<b>1789</b>	<b>76779</b>	<b>Total indigenous male</b>	<b>60882</b>	<b>1067</b>	<b>61949</b>
<b>(ii) Female</b>							
(i) under 1 year	15960	767	16727	(i) under 1 year	17296	742	18038
(ii) 1-3 years	15126	623	15749	(ii) 1-3 years	15869	485	16354
(iii) over 3 years				(iii) over 3 years			
(a) in milk	29151	1536	30687	(a) in milk	28475	1175	29649
(b) dry	16733	622	17355	(b) dry	17904	571	18475
(c) not calved once	5819	227	6046	(c) not calved once	5850	181	6031
(d) above 10 years	2565	106	2671	(d) above 10 years	1210	52	1262
<b>Total indigenous female</b>	<b>85354</b>	<b>3882</b>	<b>89236</b>	<b>Total indigenous female</b>	<b>86018</b>	<b>3206</b>	<b>89224</b>
<b>Total indigenous cattle</b>	<b>160344</b>	<b>5669</b>	<b>166015</b>	<b>Total indigenous cattle</b>	<b>146900</b>	<b>4273</b>	<b>151172</b>
<b>Total cattle</b>	<b>190297</b>	<b>8776</b>	<b>199075</b>	<b>Total cattle</b>	<b>183736</b>	<b>7168</b>	<b>190</b>
<b>II. BUFFALOES</b>							
<b>(i) Male</b>							
(i) under 1 year	8646	418	9065	(i) under 2 year	10367	439	10805
(ii) 1-3 years	3921	176	4097				
(iii) over 3 years				(ii) over 2 years			
(a) used for breeding only	804	62	866	(a) used for breeding only	793	43	836
(b) used for agriculture & breeding	3657	90	3747	(b) used for draught only	3403	65	3468
(c) used for bullock cart & breeding	1134	48	1182	(c) used for both draught & breeding	595	26	621
(d) other	613	28	641	(d) other	357	17	374
<b>Total male buffaloes</b>	<b>18775</b>	<b>823</b>	<b>19597</b>	<b>Total male buffaloes</b>	<b>15514</b>	<b>589</b>	<b>16103</b>
<b>(ii) Female</b>							
(i) under 1 year	16597	909	17506	(i) under 1 year	19393	762	20155



Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
(ii) 1-3 years	13170	596	13766	(ii) 1-3 years	15332	525	15858
(iii) over 3 years				(iii) over 3 years			
(a) in milk	33398	2245	35643	(a) in milk	3456	2009	36572
(b) dry	12418	581	12999	(b) dry	13954	528	14481
(c) not calved once	3990	189	4179	(c) not calved once	4378	160	4538
(d) above 10 year	1569	85	1654	(d) others	961	33	994
<b>Total female buffaloes</b>	<b>81141</b>	<b>4604</b>	<b>85745</b>	<b>Total female buffaloes</b>	<b>88582</b>	<b>4018</b>	<b>92599</b>
<b>Total buffaloes</b>	<b>99916</b>	<b>5427</b>	<b>105343</b>	<b>Total buffaloes</b>	<b>104095</b>	<b>4607</b>	<b>108702</b>
<b>III. YAKS</b>							
(i) under 3 years				(i) under 3 years			
(a) male	11	0	11	(a) male	12	0	12
(b) female	15	0	15	(b) female	14	0	14
<b>Total yaks upto 3 years</b>	<b>26</b>	<b>0</b>	<b>26</b>	<b>Total yaks upto 3 years</b>	<b>25</b>	<b>0</b>	<b>25</b>
(ii) over 3 years				(ii) over 3 years			
(a) male	27	0	27	(a) male	23	0	23
(b) female	30	0	30	(b) female	28	0	28
<b>Total yaks over 3 years</b>	<b>57</b>	<b>0</b>	<b>58</b>	<b>Total yaks over 3 years</b>	<b>51</b>	<b>0</b>	<b>51</b>
<b>Total yaks</b>	<b>83</b>	<b>0</b>	<b>83</b>	<b>Total yaks</b>	<b>76</b>	<b>0</b>	<b>76</b>
<b>IV. MITHUNS</b>							
(i) under 3 years				(i) under 3 years			
(a) male	49	6	55	(a) male	61	1	62
(b) female	51	6	56	(b) female	70	1	71
<b>Total mithuns under 3 years</b>	<b>100</b>	<b>12</b>	<b>112</b>	<b>Total mithuns under 3 years</b>	<b>130</b>	<b>2</b>	<b>133</b>
(ii) over 3 years				(ii) over 3 years			
(a) male	63	9	72	(a) male	66	2	67
(b) female	71	10	81	(b) female	95	3	98
<b>Total mithuns over 3 years</b>	<b>134</b>	<b>19</b>	<b>153</b>	<b>Total mithuns over 3 years</b>	<b>161</b>	<b>4</b>	<b>165</b>
<b>Total mithuns</b>	<b>234</b>	<b>31</b>	<b>264</b>	<b>Total mithuns</b>	<b>291</b>	<b>7</b>	<b>298</b>
<b>V. BOVINE<sup>1</sup></b>							
(a) male	100203	3183	103386	(a) male	82122	2065	84187
(b) female	190327	11052	201379	(b) female	206077	9717	215794

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Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
<b>Total bovine</b>	<b>290530</b>	<b>14235</b>	<b>304765</b>	<b>Total bovine</b>	<b>288200</b>	<b>11782</b>	<b>299981</b>
<b>VI. SHEEP</b>							
<b>Sheep (Exotic/Crossbred)</b>							
(i) male	1076	67	1144	(i) male	1148	60	1207
(ii) female	2498	88	2586	(ii) female	2482	92	2574
<b>Total exotic/crossbred sheep</b>	<b>3574</b>	<b>155</b>	<b>3730</b>	<b>Total exotic/crossbred sheep</b>	<b>3630</b>	<b>151</b>	<b>3781</b>
<b>Sheep (Indigenous)</b>							
(i) male	16107	623	16730	(i) male	13577	339	13916
(ii) female	49919	1179	51098	(ii) female	46569	804	47372
<b>Total indigenous sheep</b>	<b>66027</b>	<b>1802</b>	<b>67829</b>	<b>Total indigenous sheep</b>	<b>60146</b>	<b>1142</b>	<b>61288</b>
<b>Total sheep</b>	<b>69601</b>	<b>1957</b>	<b>71558</b>	<b>Total sheep</b>	<b>63775</b>	<b>1294</b>	<b>65069</b>
<b>VII. GOATS</b>							
<b>(i) Male</b>							
(a) under 1 year	20792	1162	21955	(a) under 1 year	19522	927	20449
(b) 1 year and over	17734	1105	18839	(b) 1 year and over	16264	904	17168
<b>Total male goats</b>	<b>38526</b>	<b>2267</b>	<b>40793</b>	<b>Total male goats</b>	<b>35785</b>	<b>1832</b>	<b>37617</b>
<b>(ii) female</b>							
(a) under 1 year	25664	1428	27092	(a) under 1 year	25352	1193	26545
(b) 1 year and over				(b) 1 year and over			
(a) in milk	35066	1977	37043	(a) in milk	34448	1805	36252
(b) dry	24423	1023	25446	(b) dry	24410	895	25305
(c) Not calved once	9635	529	10163	(c) Not calved once	9085	368	9453
<b>Total female goats</b>	<b>94787</b>	<b>4957</b>	<b>99744</b>	<b>Total female goats</b>	<b>93295</b>	<b>4261</b>	<b>97556</b>
<b>Total goats</b>	<b>133314</b>	<b>7224</b>	<b>140537</b>	<b>Total goats</b>	<b>129081</b>	<b>6092</b>	<b>135173</b>
<b>VIII. HORSES and PONIES</b>							
<b>(i) Male</b>							
(a) under 3 years	118	9	127	(a) under 3 years	89	8	97
(b) 3 years and above				(b) 3 years and above			
Used for carts	142	17	160	Used for carts	185	22	207
Used for once	43	7	49	Used for once	39	7	46
<b>Total male horses and ponies</b>	<b>303</b>	<b>33</b>	<b>336</b>	<b>Total male horses and ponies</b>	<b>312</b>	<b>37</b>	<b>350</b>
<b>(ii) Female</b>							

Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
(a) under 3 years	80	6	87	(a) under 3 years	64	6	70
(b) 3 years and above	173	15	189	(b) 3 years and above	187	18	205
<b>Total female horses and ponies</b>	<b>254</b>	<b>22</b>	<b>276</b>	<b>Total female horses and ponies</b>	<b>251</b>	<b>24</b>	<b>275</b>
<b>Total horses and ponies</b>	<b>556</b>	<b>55</b>	<b>611</b>	<b>Total horses and ponies</b>	<b>563</b>	<b>61</b>	<b>625</b>
<b>IX. PIGS</b>							
<b>A. Pigs (Exotic/Crossbred)</b>							
<b>(i) Male</b>							
(a) below 6 months	527	90	617	(a) below 6 months	565	87	653
(b) 6 months and over	505	87	592	(b) 6 months and over	547	84	630
<b>Total exotic/crossbred male pigs</b>	<b>1032</b>	<b>177</b>	<b>1209</b>	<b>Total exotic/crossbred male pigs</b>	<b>1112</b>	<b>171</b>	<b>1283</b>
<b>(ii) Female</b>							
(a) below 6 months	493	86	579	(a) below 6 months	496	77	572
(b) 6 months and over	506	95	601	(b) 6 months and over	519	82	601
<b>Total exotic/crossbred female pigs</b>	<b>999</b>	<b>181</b>	<b>1180</b>	<b>Total exotic/crossbred female pigs</b>	<b>1015</b>	<b>159</b>	<b>1174</b>
<b>Total exotic/crossbred pigs</b>	<b>2031</b>	<b>358</b>	<b>2389</b>	<b>Total exotic/crossbred pigs</b>	<b>2126</b>	<b>330</b>	<b>2456</b>
<b>B. Pigs (Indigenous)</b>							
<b>(i) Male</b>							
(a) below 6 months	1904	171	2075	(a) below 6 months	1770	154	1924
(b) 6 months and over	1874	185	2059	(b) 6 months and over	1588	169	1757
<b>Total indigenous male pigs</b>	<b>3778</b>	<b>356</b>	<b>4134</b>	<b>Total indigenous male pigs</b>	<b>3358</b>	<b>323</b>	<b>3681</b>
<b>(ii) Female</b>							
(a) below 6 months	1964	192	2157	(a) below 6 months	1794	175	1970
(b) 6 months and over	2187	267	2454	(b) 6 months and over	1947	240	2186
<b>Total indigenous female pigs</b>	<b>4151</b>	<b>459</b>	<b>4610</b>	<b>Total indigenous female pigs</b>	<b>3741</b>	<b>415</b>	<b>4156</b>
<b>Total indigenous pigs</b>	<b>7929</b>	<b>816</b>	<b>8744</b>	<b>Total indigenous pigs</b>	<b>7100</b>	<b>738</b>	<b>7837</b>
<b>Total pigs</b>	<b>9960</b>	<b>1174</b>	<b>11134</b>	<b>Total pigs</b>	<b>9226</b>	<b>1068</b>	<b>10294</b>
<b>Total livestock<sup>2</sup></b>	<b>504965</b>	<b>24733</b>	<b>529698</b>	<b>Total livestock<sup>2</sup></b>	<b>491686</b>	<b>20371</b>	<b>512057</b>
<b>X. DOGS</b>							

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Category	2007			Category	2012		
	Rural	Urban	Total		Rural	Urban	Total
<b>A. Domestic</b>							
(a) male	10701	1731	12432	(a) male	6858	1586	8444
(b) female	5812	844	6656	(b) female	2637	592	3228
<b>Total licensed dogs</b>	<b>16513</b>	<b>2575</b>	<b>19087</b>	<b>Total licensed dogs</b>	<b>9495</b>	<b>2178</b>	<b>11673</b>
<b>XI. RABBITS</b>							
(a) male	140	42	183	(a) male	194	61	255
(b) female	195	46	241	(b) female	269	68	337
<b>Total</b>	<b>335</b>	<b>88</b>	<b>424</b>	<b>Total</b>	<b>462</b>	<b>129</b>	<b>592</b>
<b>XII. POULTRY</b>							
A. Fowls	577196	40538	617734	A. Fowls	662852	29794	692646
B. Ducks	26402	1242	27643	B. ducks	22704	835	23539
C. Turkeys and others poultry	3140	312	3452	C. Turkeys and others poultry	12339	686	13025
<b>Total poultry</b>	<b>606738</b>	<b>42092</b>	<b>648830</b>	<b>Total poultry</b>	<b>697895</b>	<b>31314</b>	<b>729209</b>

**Note** : 1. Total may not tally due to rounding off the figures, 2. Bovines<sup>1</sup>: Cattle + Buffalo + Yaks + Mithun,  
3. Livestock<sup>2</sup>: Bovines + Sheep + Goats + Horses & Ponies + Mules + Donkeys + Camels + Pigs.

**Source** : *Basic Animal Husbandry and Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

Table 3.4: State-wise total number of livestock and poultry in 2012

States/ Union Territories	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and Ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total livestock	Total poultry ('000')
Andhra Pradesh	9595.94	10622.79	26395.58	9071.22	394.36	5.19	0.74	13.43	0.15	0.00	0.00	56099.41	161333.93
Arunachal Pradesh	463.76	5.97	13.55	305.54	356.35	4.03	0.33	0.04	0.05	14.06	249.00	1412.67	2244.23
Assam	10307.60	435.27	518.07	6169.19	1636.02	14.15	0.09	1.05	0.73	0.00	0.00	19082.17	27216.17
Bihar	12231.52	7567.23	232.47	12153.52	649.71	48.85	25.06	21.38	8.86	0.00	0.00	32938.60	12748.05
Chhattisgarh	9814.90	1390.55	168.22	3225.31	439.06	2.96	1.17	0.68	0.65	0.00	0.00	15043.50	23102.16
Goa	57.48	31.80	0.02	12.96	43.57	0.03	0.00	0.00	0.00	0.00	0.00	145.85	292.03
Gujarat	9983.95	10385.57	1707.75	4958.97	4.28	18.26	0.16	38.83	30.42	0.00	0.00	27128.20	15005.75
Haryana	1808.12	6085.31	1362.62	369.12	126.95	36.66	9.01	2.90	18.85	0.00	0.00	9819.52	42821.35
Himachal Pradesh	2149.26	716.02	804.87	1119.49	5.03	15.08	23.32	7.35	0.18	2.92	0.92	4844.43	1104.48
Jammu & Kashmir	2798.33	738.99	3389.49	2017.90	2.42	144.49	36.51	17.25	0.93	54.49	0.06	9200.84	8273.70
Jharkhand	8730.08	1185.94	582.93	6581.45	962.37	5.71	3.89	0.38	0.00	0.00	0.00	18052.75	13559.53
Karnataka	9516.48	3470.51	9583.76	4796.15	304.80	12.98	0.76	16.31	0.15	0.00	0.00	27701.90	53442.03
Kerala	1328.63	102.27	1.45	1246.08	55.78	0.22	0.23	0.50	0.01	0.00	0.00	2735.16	24281.93
Madhya Pradesh	19602.37	8187.99	308.95	8013.94	175.25	18.80	6.99	14.92	3.42	0.00	0.00	36332.63	11904.72
Maharashtra	15484.21	5594.39	2580.38	8435.31	325.76	37.29	2.01	29.14	0.18	0.00	0.00	32488.65	77794.57
Manipur	263.84	66.37	11.46	65.16	277.22	1.10	0.37	0.13	0.00	0.00	10.13	695.77	2499.52
Meghalaya	896.00	22.06	20.10	473.07	543.38	2.31	0.18	0.52	0.01	0.00	0.00	1957.63	3400.03
Mizoram	34.57	5.17	0.65	22.21	245.24	0.72	0.01	0.00	0.00	0.00	3.29	311.86	1271.35

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States/ Union Territories	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and Ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total livestock	Total poultry
Nagaland	234.97	32.72	3.84	99.35	503.69	0.47	1.12	0.04	0.09	0.00	34.87	911.16	2178.47
Odisha	11621.27	726.31	1581.13	6513.09	280.32	3.40	5.63	0.52	0.84	0.00	0.00	20732.50	19890.54
Punjab	2427.71	5159.73	128.53	327.27	32.22	32.86	5.16	2.91	0.69	0.00	0.00	8117.10	16794.08
Rajasthan	13324.46	12976.10	9079.70	21665.94	237.67	37.78	3.38	81.47	325.71	0.00	0.00	57732.20	8024.42
Sikkim	140.47	0.70	2.63	113.36	29.91	511.00	0.00	0.00	0.00	4.04	0.00	802.12	451.97
Tamil Nadu	8814.04	780.43	4786.68	8143.34	183.98	5.30	0.00	9.18	0.02	0.00	0.00	22722.98	117348.89
Tripura	948.79	10.81	3.11	610.92	362.53	0.01	0.00	0.00	0.00	0.00	0.00	1936.18	4272.73
Uttar Pradesh	19557.07	30625.33	1353.65	15585.62	1334.39	151.85	42.66	56.64	7.94	0.00	0.00	68715.15	18667.83
Uttarakhand	2006.05	987.78	368.76	1367.41	19.91	16.36	26.90	1.51	0.00	0.06	0.00	4794.73	4641.94
West Bengal	16514.24	597.38	1076.12	11505.95	648.11	4.41	0.08	0.61	0.27	1.09	0.00	30348.25	52837.58
A & Nicobar Islands	45.63	7.86	0.00	65.32	35.92	0.01	0.00	0.00	0.00	0.00	0.00	154.75	1165.36
Chandigarh	8.96	14.03	0.07	0.81	0.14	0.19	0.01	0.00	0.00	0.00	0.00	24.20	108.72
Dadra & Nagar Haveli	41.87	4.06	0.12	4.17	0.00	0.01	0.00	0.00	0.00	0.00	0.00	50.24	85.97
Daman & Diu	2.10	0.43	0.00	2.06	0.01	0.03	0.00	0.00	0.00	0.00	0.00	4.63	28.20
Delhi	86.43	162.14	0.93	17.00	76.35	2.69	0.14	1.09	0.16	0.00	0.00	346.93	43.83
Lakshadweep	3.10	0.00	0.00	46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.60	164.54
Puducherry	59.90	2.11	1.60	54.95	1.01	0.03	0.00	0.02	0.00	0.00	0.00	119.61	208.72
<b>All India</b>	<b>190904.11</b>	<b>108702.12</b>	<b>65069.19</b>	<b>135173.09</b>	<b>10293.70</b>	<b>624.73</b>	<b>196.38</b>	<b>318.79</b>	<b>400.27</b>	<b>76.66</b>	<b>298.26</b>	<b>512057.30</b>	<b>729209.32</b>

**Note:** 1. Total may not tally due to rounding off the figures, 2. 0: Negligible with respect to thousands/not reported.

**Source:** *Basic Animal Husbandry and Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

### State-wise total number of livestock and poultry in 2012

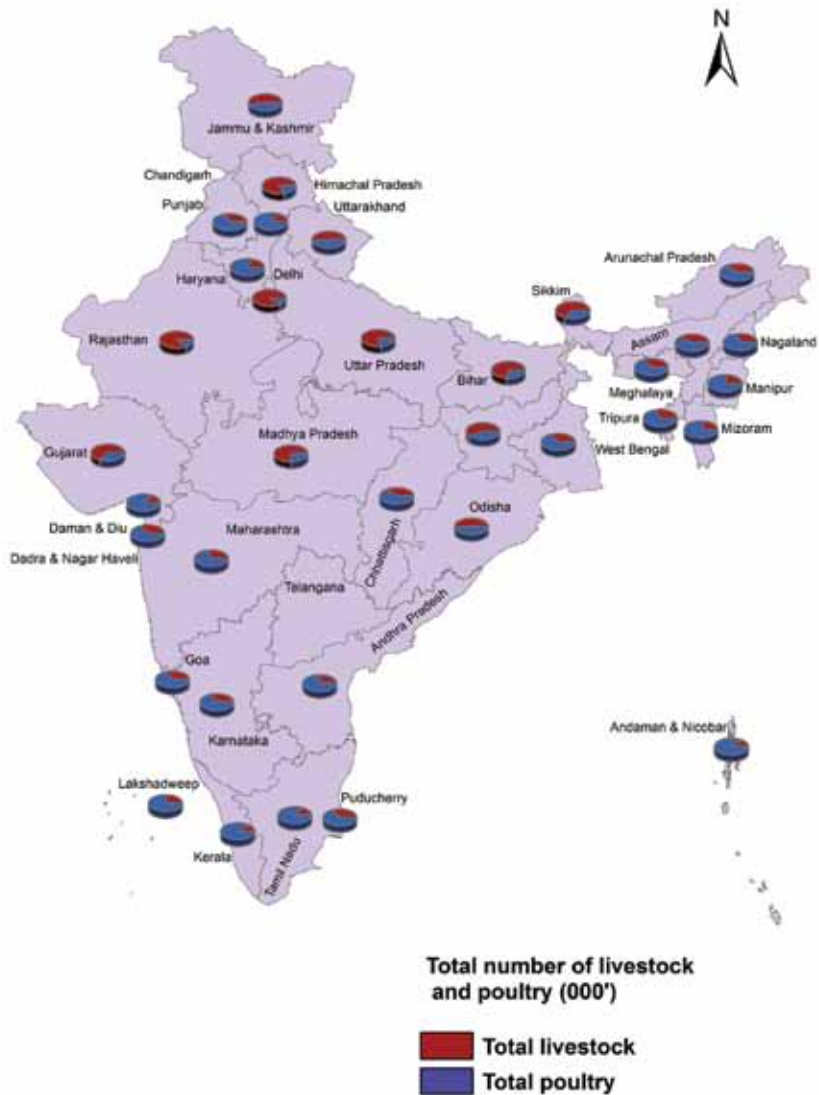


Table 3.5: State-wise number of milch animals in 2007 and 2012

States/ Union Territories	Milch Cows						Milch Buffaloes		
	Crossbred			Indigenous			2007	2012	% Change
	2007	2012	% Change	2007	2012	% Change			
Andhra Pradesh	828.11	1153.25	39.26	2232.82	1928.41	-13.63	6223.72	5102.78	-18.01
Arunachal Pradesh	5.55	8.37	50.80	90.31	103.98	15.14	0.50	1.14	127.94
Assam	152.81	158.96	4.02	2532.96	2913.81	15.04	148.36	136.60	-7.93
Bihar	836.46	1647.73	96.99	2989.88	2873.50	-3.89	2845.96	3112.56	9.37
Chhattisgarh	58.80	71.45	21.53	2359.56	2515.32	6.60	315.88	315.44	-0.14
Goa	8.30	9.71	17.03	16.09	13.40	-16.75	16.46	15.19	-7.66
Gujarat	524.98	962.84	83.41	2003.55	2777.36	38.62	4389.98	5078.82	15.69
Haryana	267.81	485.60	81.32	339.75	269.00	-20.82	2704.05	2765.26	2.26
Himachal Pradesh	409.26	520.86	27.27	459.93	372.33	-19.05	447.64	396.50	-11.42
Jammu & Kashmir	677.65	664.88	-1.88	591.87	481.99	-18.56	551.03	396.39	-28.06
Jharkhand	67.26	125.01	85.87	2146.66	2065.72	-3.77	411.85	341.43	-17.10
Karnataka	1258.92	1732.24	37.60	2655.88	2200.53	-17.14	2373.90	1897.90	-20.05
Kerala	745.19	604.78	-18.84	47.77	32.01	-33.00	13.41	9.23	-31.17
Madhya Pradesh	204.83	383.20	87.09	5994.95	5930.21	-1.08	3979.50	3911.59	-1.71
Maharashtra	1622.60	2037.72	25.58	3283.93	3053.10	-7.03	3324.93	3171.48	-4.62
Manipur	24.15	17.05	-29.40	73.74	62.13	-15.74	15.56	16.87	8.42
Meghalaya	16.90	17.57	3.95	276.28	261.02	-5.52	4.11	3.22	-21.69
Mizoram	4.37	5.27	20.68	8.38	7.38	-11.98	1.80	1.42	-21.15
Nagaland	79.01	39.37	-50.18	59.87	26.92	-55.04	8.49	6.44	-24.11

(000<sup>7</sup>)



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States/ Union Territories	Milch Cows						Milch Buffaloes		
	Crossbred			Indigenous			2007	2012	% Change
	2007	2012	% Change	2007	2012	% Change			
Odisha	332.24	528.62	59.11	2377.45	2554.72	7.46	281.38	223.54	-20.56
Punjab	683.07	1134.10	66.03	166.49	102.79	-38.26	2779.36	2689.21	-3.24
Rajasthan	397.37	860.11	116.45	4630.46	5007.32	8.14	5399.95	6321.76	17.07
Sikkim	23.41	50.53	115.83	18.87	4.30	-77.20	0.07	0.29	314.29
Tamil Nadu	3071.47	3082.98	0.37	1240.43	913.98	-26.32	806.08	377.55	-53.16
Tripura	30.19	42.83	41.89	246.33	229.75	-6.73	4.39	3.19	-27.51
Uttar Pradesh	791.17	1659.78	109.79	5536.56	6594.96	19.12	10564.56	13949.76	32.04
Uttarakhand	156.86	241.52	53.97	604.89	510.02	-15.68	664.78	545.95	-17.87
West Bengal	1054.99	1101.53	4.41	5004.12	4285.97	-14.35	174.19	155.99	-10.45
Andaman & Nicobar	5.42	7.25	33.89	9.87	8.93	-9.48	2.79	2.13	-23.77
Chandigarh	2.89	4.53	56.91	0.72	0.88	22.84	12.17	9.46	-22.24
Dadra & Nagar Haveli	0.55	0.28	-48.27	10.76	7.56	-29.75	1.48	1.09	-26.36
Daman & Diu	0.02	0.07	283.33	0.82	0.59	-28.07	0.42	0.21	-50.24
Delhi	25.36	29.64	16.89	27.59	12.54	-54.56	170.74	92.04	-46.09
Lakshadweep	0.95	0.32	-66.35	0.59	1.02	72.18	0.00	0.00	0.00
Puducherry	38.54	29.57	-23.26	1.82	0.84	-53.60	2.02	1.31	-35.17
All-India	14407.43	19419.55	34.79	48041.96	48124.28	0.17	48641.48	51053.73	4.96

Note : 1. Milch animals include animals in milk and dry, 2. Totals may not tally due to rounding off the figures, 3. 0: Negligible with respect to thousands/not reported.

Source : Basic Animal Husbandry and Fisheries Statistics 2018, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
(Website: <http://www.dahd.mtc.in>)

**Table 3.6: All India production of fish, milk, eggs, wool and meat**

Year	Fish (lakh t)	Milk (million t)	Eggs (million no.)	Wool (million kg)	Meat (million t)
1984-85	28.01	41.50	14,252	38.00	N.A.
1985-86	28.76	44.00	16,128	39.10	N.A.
1986-87	29.42	46.10	17,310	40.00	N.A.
1987-88	29.59	46.70	17,800	40.10	N.A.
1988-89	31.52	48.40	18,980	40.80	N.A.
1989-90	36.77	51.40	20,204	41.70	N.A.
1990-91	38.36	53.90	21,100	41.20	N.A.
1991-92	41.57	55.70	21,980	41.60	N.A.
1992-93	43.65	58.00	22,930	38.80	N.A.
1993-94	46.44	60.60	24,170	39.90	N.A.
1994-95	47.89	63.80	25,980	40.60	N.A.
1995-96	49.49	66.20	27,200	42.40	N.A.
1996-97	53.48	69.10	27,500	44.40	N.A.
1997-98	53.88	72.10	28,689	45.60	N.A.
1998-99	52.98	75.40	29,476	46.90	1.90
1999-00	56.75	78.30	30,447	47.90	1.90
2000-01	56.56	80.60	36,632	48.40	1.90
2001-02	59.56	84.40	38,729	49.50	1.90
2002-03	62.00	86.20	39,823	50.50	2.10
2003-04	63.99	88.10	40,403	48.50	2.10
2004-05	63.05	92.50	45,201	44.60	2.20
2005-06	65.72	97.10	46,235	44.90	2.30
2006-07	68.69	102.60	50,663	45.10	2.30
2007-08	71.27	107.90	53,565	43.90	4.00
2008-09	76.16	112.20	55,562	42.80	4.30
2009-10	79.98	116.40	60,267	43.10	4.60
2010-11	82.31	121.80	63,024	43.00	4.90
2011-12	86.66	127.90	66,450	44.70	5.50
2012-13	90.40	132.40	69,700	46.10	5.90
2013-14	95.72	137.70	74,800	47.90	6.20
2014-15	101.64 <sup>P</sup>	146.30	78,500	48.10	6.70
2015-16	107.95 <sup>P</sup>	155.50	82,900	43.60	7.00
2016-17	114.10 <sup>P</sup>	165.40	88,139	43.50	7.40
2017-18	123.28 <sup>P</sup>	176.30	95,217	41.50	7.70

**Note** : 1. N.A.: Not available, 2. P: Provisional.

**Source** : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

2. *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 3.7: All India estimates of per capita availability of milk and egg during 1984-85 to 2017-18**

Year (March to February)	Human Population (million no.)	Per capita availability of milk (g/day)	Per capita availability of egg (number/annum)
1984-85	739	154	19
1985-86	755	160	21
1986-87	771	164	22
1987-88	788	162	23
1988-89	805	165	24
1989-90	822	171	25
1990-91	839	176	25
1991-92	856	178	26
1992-93	872	182	26
1993-94	892	186	27
1994-95	910	192	29
1995-96	928	195	29
1996-97	946	200	29
1997-98	964	205	30
1998-99	983	210	30
1999-00	1001	214	30
2000-01	1019	217	36
2001-02	1040	222	37
2002-03	1056	224	38
2003-04	1072	225	38
2004-05	1089	233	42
2005-06	1106	241	42
2006-07	1122	251	45
2007-08	1138	260	47
2008-09	1154	266	48
2009-10	1170	273	51
2010-11	1186	281	53
2011-12	1210	290	55
2012-13	1212	299	58
2013-14	1228	307	61
2014-15	1244	322	63
2015-16	1260	337	66
2016-17	1275	355	69
2017-18	1290	375	74

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.8: State-wise estimates of production and per capita availability of milk during 2015-16 to 2017-18**

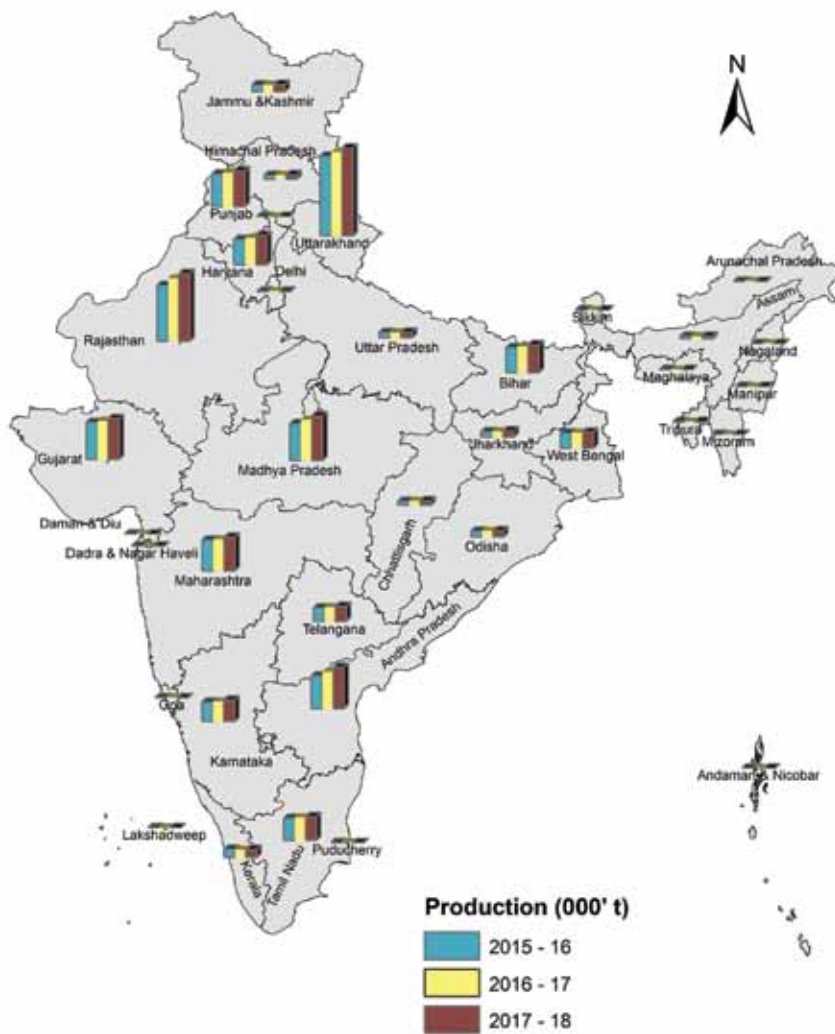
(Production: 000' t, Per capita availability: g/day)

States/Union Territories	2015-16		2016-17		2017-18	
	Production	Per capita availability	Production	Per capita availability	Production	Per capita availability
Andhra Pradesh	10816.99	475.00	12177.94	522.00	13724.99	574.00
Arunachal Pradesh	50.13	105.00	52.53	109.00	54.02	111.00
Assam	843.46	70.00	861.27	71.00	871.89	71.00
Bihar	8288.42	219.00	8711.07	228.00	9241.50	239.00
Chhattisgarh	1277.32	133.00	1373.55	141.00	1469.38	149.00
Goa	54.34	74.00	51.36	68.00	54.88	70.00
Gujarat	12262.35	545.00	12784.12	563.00	13569.06	592.00
Haryana	8381.33	877.00	8974.75	930.00	9809.00	1005.00
Himachal Pradesh	1282.86	505.00	1329.11	521.00	1392.18	542.00
Jammu & Kashmir	2273.35	395.00	2376.09	400.00	2459.79	401.00
Jharkhand	1812.38	152.00	1893.80	157.00	2015.62	165.00
Karnataka	6344.01	282.00	6562.15	291.00	7136.66	313.00
Kerala	2649.82	200.00	2520.34	189.00	2575.98	192.00
Madhya Pradesh	12148.37	428.00	13445.32	468.00	14713.17	505.00
Maharashtra	10152.61	239.00	10402.15	243.00	11102.29	256.00
Manipur	78.97	76.00	78.82	75.00	81.66	77.00
Meghalaya	83.95	83.00	83.96	83.00	85.03	83.00
Mizoram	22.00	57.00	24.16	62.00	25.02	63.00
Nagaland	77.00	89.00	79.37	91.00	74.09	84.00
Odisha	1930.47	124.00	2003.42	128.00	2087.96	132.00
Punjab	10774.20	1032.00	11282.06	1075.00	11854.88	1120.00
Rajasthan	18500.08	704.00	20849.59	785	22427.10	834.00
Sikkim	66.74	282.00	54.35	228.00	58.67	244.00
Tamil Nadu	7243.53	283.00	7556.35	294.00	7741.82	300.00
Telangana	4442.45	N.A.	4681.09	N.A.	4965.37	N.A.
Tripura	152.23	109.00	159.59	114.00	174.26	123.00
Uttar Pradesh	26386.81	335.00	27769.74	348.00	29051.72	359.00
Uttarakhand	1655.81	434.00	1692.42	440.00	1741.69	447.00
West Bengal	5038.47	145.00	5182.60	148.00	5388.61	153.00
Andaman & Nicobar Islands	15.43	87.00	16.14	89.00	16.99	92.00
Chandigarh	43.18	93.00	36.39	76.00	42.30	86.00
Dadra & Nagar Haveli*	8.52	72.00	7.50	62	7.50	62
Daman & Diu	0.80	10.00	0.62	5.00	0.83	9.00
Delhi*	280.83	36.00	279.11	35	279.11	35
Lakshadweep	3.25	113.00	3.24	110.00	2.55	120.00
Puducherry	48.04	108.00	48.31	107.00	48.68	106.00
<b>All India</b>	<b>155490.50</b>	<b>337.00</b>	<b>165404.38</b>	<b>355.00</b>	<b>176347.35</b>	<b>375.00</b>

Note : 1. N.A.: Not available, 2. \*: Due to non-availability of data previous year estimates have been used.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

### State-wise production of milk during 2015-16, 2016-17 and 2017-18



0 215,000 430,000 860,000 1,290,000 1,720,000 Meters

**Table 3.9: State-wise estimates of production and per capita availability of eggs during 2015-16 to 2017-18**

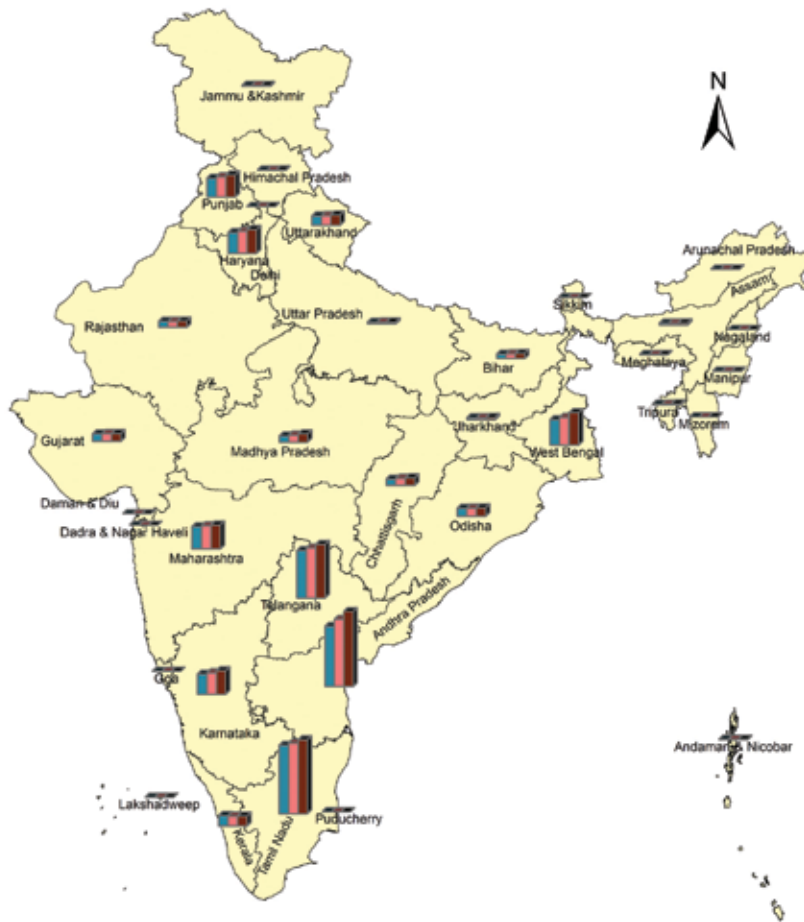
(Production: lakh number, Per capita availability: number/annum)

States/Union Territories	2015-16		2016-17		2017-18	
	Production	Per capita availability	Production	Per capita availability	Production	Per capita availability
Andhra Pradesh	141743.16	289.00	158274.36	312.00	177776.35	341.00
Arunachal Pradesh	427.31	33.00	495.21	38.00	550.08	41.00
Assam	4740.48	14.00	4770.75	14.00	4951.84	15.00
Bihar	10021.04	10.00	11116.68	11.00	12185.12	11.00
Chhattisgarh	15028.45	57.00	16637.69	63.00	17717.62	66.00
Goa	352.09	18.00	292.19	14.00	298.71	14.00
Gujarat	17215.92	28.00	17940.34	29.00	17867.71	28.00
Haryana	49133.39	188.00	52139.05	197.00	55854.60	209.00
Himachal Pradesh	811.67	12.00	958.99	14.00	981.40	14.00
Jammu & Kashmir	2309.47	15.00	2305.29	14.00	2334.24	14.00
Jharkhand	4832.84	15.00	5103.37	15.00	5531.08	17.00
Karnataka	47660.42	78.00	50671.45	82.00	55661.36	89.00
Kerala	24424.82	67.00	23443.83	64.00	23480.67	64.00
Madhya Pradesh	14414.28	19.00	16939.63	22.00	19421.61	24.00
Maharashtra	52858.26	46.00	54774.17	47.00	56991.21	48.00
Manipur	1037.40	36.00	992.00	34.00	1017.84	35.00
Meghalaya	1063.66	39.00	1063.90	38.00	1073.71	38.00
Mizoram	391.13	37.00	408.07	38.00	409.95	38.00
Nagaland	464.52	20.00	397.35	17.00	401.42	17.00
Odisha	19273.00	45.00	19744.74	46.00	20621.86	48.00
Punjab	44218.23	155.00	47825.57	166.00	52250.30	180.00
Rajasthan	13852.98	19.00	13632.52	19.00	14547.86	20.00
Sikkim	101.57	16.00	68.49	11.00	63.28	10.00
Tamil Nadu	161251.99	231.00	166823.99	237.00	174161.11	246.00
Telangana	112058.23	N.A.	118186.35	N.A.	126700.02	N.A.
Tripura	2160.84	57.00	2294.26	60.00	2621.09	67.00
Uttar Pradesh	21928.52	10.00	22889.49	10.00	24398.05	11.00
Uttarakhand	3906.51	37.00	4119.12	39.00	4297.55	40.00
West Bengal	60108.19	63.00	65536.49	68.00	76434.33	79.00
Andaman & Nicobar Islands	989.10	204.00	1032.27	209.00	1074.29	212.00
Chandigarh	166.66	13.00	154.12	12.00	159.52	12.00
Dadra & Nagar Haveli*	72.99	22.00	72.99	22*	72.99	22.00
Daman & Diu	7.83	3.00	4.40	2.00	5.20	2.00
Delhi*	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Lakshadweep	143.91	182.00	146.88	181.00	142.39	172.00
Puducherry	113.50	9.00	113.56	9.00	113.62	9.00
<b>All India</b>	<b>829284.36</b>	<b>66.00</b>	<b>881369.56</b>	<b>69.00</b>	<b>952169.98</b>	<b>74.00</b>

Note : 1. N.A.: Not available, 2. \*: Due to non-availability of data previous year estimates have been used.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**State-wise production of egg during 2015-16, 2016-17 and 2017-18**



**Production (lakh numbers)**



0 215,000 430,000 860,000 1,290,000 1,720,000 Meters

**Table 3.10: State-wise estimates of meat production during 2013-14 to 2017-18**

(000' t)

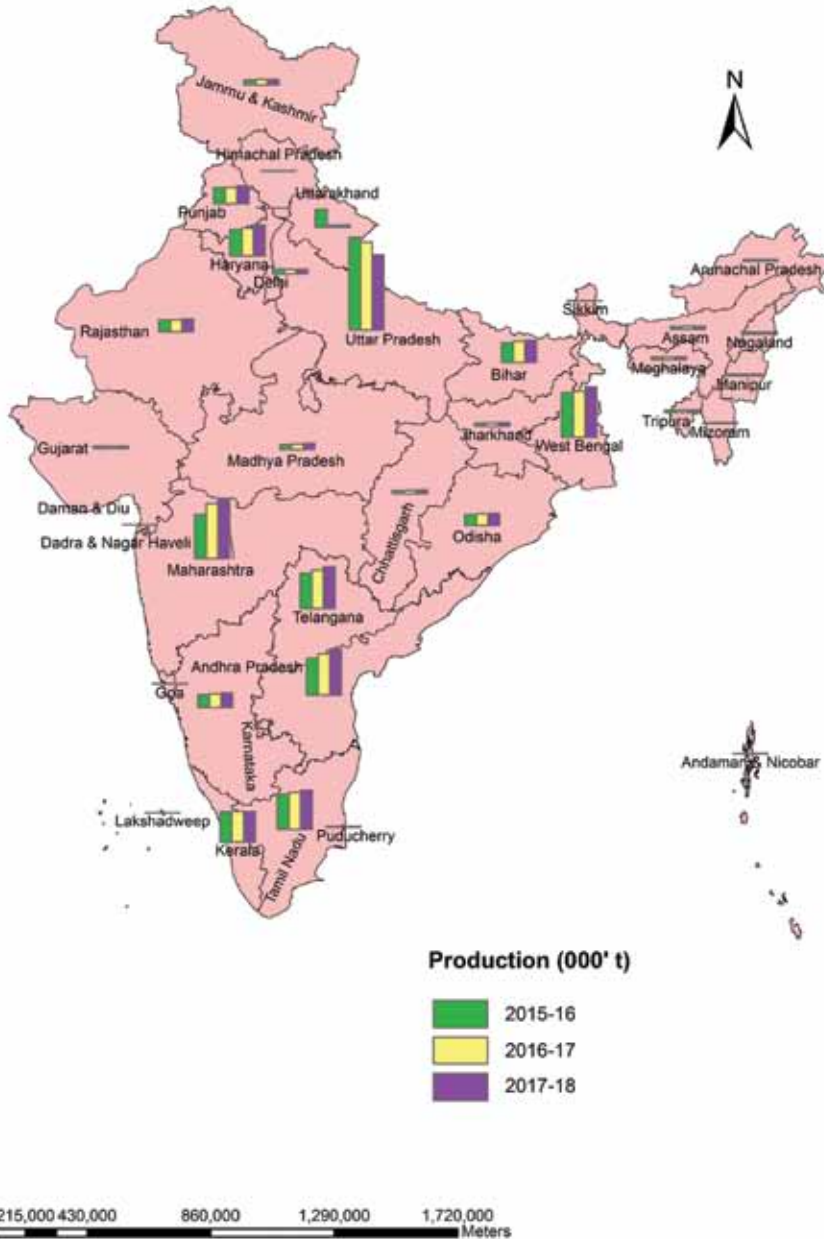
States/Union Territories	2013-14	2014-15	2015-16	2016-17	2017-18
Andhra Pradesh	934.75	527.68	566.28	632.51	708.77
Arunachal Pradesh	18.04	18.72	19.38	20.47	21.39
Assam	38.30	42.58	44.76	46.86	48.35
Bihar	292.28	294.33	301.74	326.26	343.00
Chhattisgarh	29.13	37.71	41.38	49.15	55.17
Goa	5.12	7.85	7.88	7.20	8.40
Gujarat	33.18	34.01	33.93	33.33	33.23
Haryana	366.61	381.40	402.80	427.48	470.38
Himachal Pradesh	3.99	4.00	4.01	4.40	4.49
Jammu & Kashmir	33.03	44.96	75.08	85.10	87.45
Jharkhand	45.45	47.84	50.71	54.73	57.55
Karnataka	169.87	181.46	196.60	209.06	228.01
Kerala	416.06	445.83	466.04	468.84	468.88
Madhya Pradesh	47.67	58.89	69.83	78.64	89.24
Maharashtra	604.63	630.62	675.10	845.01	924.93
Manipur	25.01	26.56	26.27	27.47	27.70
Meghalaya	40.34	41.32	41.13	41.00	43.09
Mizoram	12.19	12.56	13.55	14.79	15.68
Nagaland	67.48	66.98	35.93	31.37	32.40
Odisha	153.72	162.50	164.75	176.52	183.42
Punjab	235.03	236.87	249.91	248.64	276.37
Rajasthan	174.89	180.59	179.93	180.10	188.49
Sikkim	3.00	3.00	5.84	4.40	4.40
Tamil Nadu	464.51	491.93	544.47	572.84	603.35
Telangana	N.A.	505.05	542.05	591.04	645.03
Tripura	32.39	34.25	37.35	39.69	45.26
Uttar Pradesh	1221.25	1397.19	1417.88	1346.11	1151.12
Uttarakhand	23.64	26.03	270.60	28.40	29.45
West Bengal	648.98	657.17	686.34	705.88	772.64
A & N Islands	1.70	4.76	4.90	5.05	5.21
Chandigarh	0.91	1.01	0.98	0.94	1.07
D & N Haveli*	0.09	0.00	0.00	0.00	0.00
Daman & Diu	0.42	0.86	0.52	0.86	0.23
Delhi*	77.08	69.83	69.81	66.44	66.44
Lakshadweep	0.44	0.43	0.60	0.42	0.41
Puducherry	14.31	14.29	14.61	14.61	14.61
<b>All India</b>	<b>6235.48</b>	<b>6691.08</b>	<b>7019.96</b>	<b>7385.61</b>	<b>7655.63</b>

Note : 1. N.A.: Not available, 2. \*: Due to non-availability of data previous year estimates have been used.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)



### State-wise production of meat during 2015-16, 2016-17 and 2017-18



**Table 3.11: State-wise estimates of wool production during  
2012-13 to 2017-18**

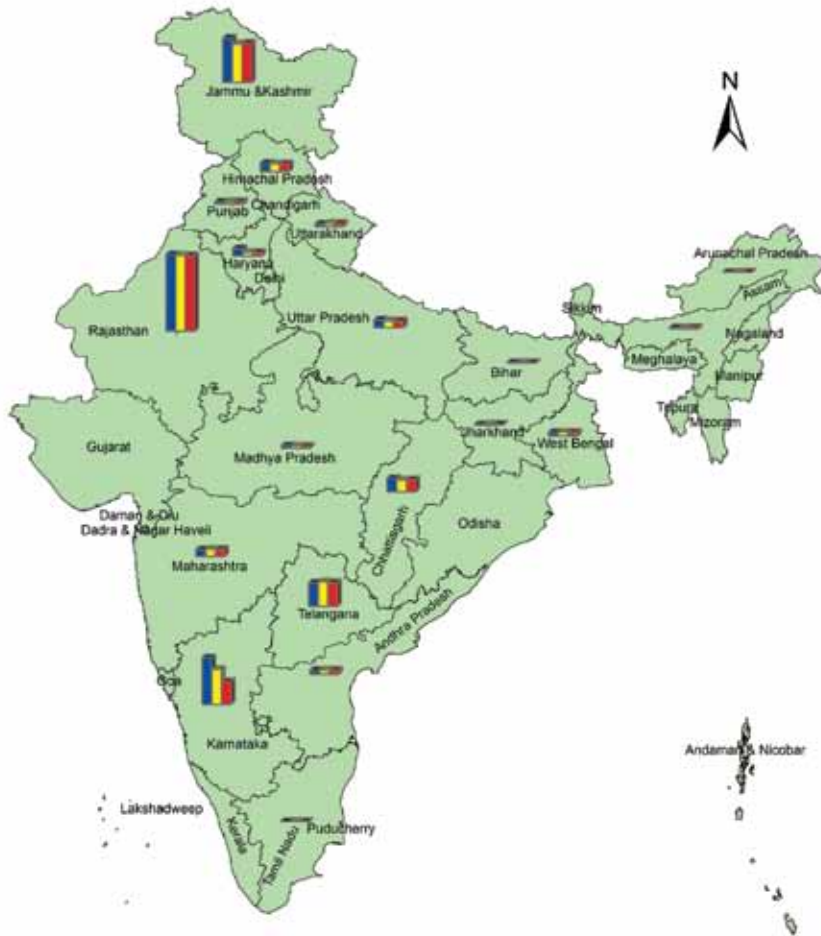
(000' kg.)

States/Union Territories	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<b>Andhra Pradesh*</b>	4923.88	5036.83	778.23	788.63	791.62	794.39
<b>Arunachal Pradesh</b>	16.72	21.55	24.23	35.70	58.25	60.40
<b>Bihar</b>	266.07	270.60	278.42	240.16	280.87	298.10
<b>Chhattisgarh</b>	104.04	105.95	115.53	90.15	87.29	81.77
<b>Gujarat</b>	2819.34	2578.06	2577.41	2282.65	2267.32	2294.96
<b>Haryana</b>	1332.86	1390.41	1428.69	702.17	691.22	693.39
<b>Himachal Pradesh</b>	1648.01	1654.99	1663.07	1408.87	1475.00	1481.87
<b>Jammu &amp; Kashmir</b>	7530.00	8709.70	8371.01	6865.65	7265.51	7489.43
<b>Jharkhand</b>	201.68	156.13	160.76	165.82	177.65	186.59
<b>Karnataka</b>	7779.20	7754.53	8821.44	8191.42	6588.25	4305.00
<b>Madhya Pradesh</b>	413.11	466.34	483.83	442.39	406.22	408.16
<b>Maharashtra</b>	1469.43	1538.62	1385.78	1389.89	1406.65	1436.77
<b>Punjab</b>	531.71	557.73	460.89	472.69	489.64	514.70
<b>Rajasthan</b>	13192.24	15026.77	14463.36	13414.61	14321.27	14287.42
<b>Sikkim</b>	1.00	1.00	0.00	0.00	0.00	0.00
<b>Tamil Nadu</b>	1.00	1.83	1.20	1.36	2.08	1.96
<b>Telangana</b>	N.A.	N.A.	4422.97	4562.41	4658.11	4506.02
<b>Uttar Pradesh</b>	1420.37	1472.55	1493.71	1264.98	1286.10	1299.62
<b>Uttrakhand</b>	370.52	440.14	468.93	513.33	538.24	564.07
<b>West Bengal</b>	713.29	725.17	740.40	748.47	753.07	758.10
<b>All India</b>	<b>44734.47</b>	<b>47908.88</b>	<b>48139.88</b>	<b>43581.34</b>	<b>43544.37</b>	<b>41462.71</b>

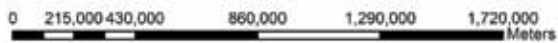
Note : 1. N.A.: Not available, 2. \*: Includes Telangana till 2013-14.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**State-wise production of wool during 2015-16, 2016-17 and 2017-18**



**Production ('000' kg)**



**Table 3.12: Incidence of livestock diseases in India during 2016 and 2017**

(Number)

Disease Name	Species	2016			2017		
		Outbreak	Attack	Death	Outbreak	Attack	Death
Foot and mouth disease	Bovine	132	9269	380	123	22410	155
	Buffalo	12	1915	69	12	507	33
	Ovine/Caprine	11	450	0	3	107	0
	Swine	3	11	0	8	377	200
Hemorrhagic Septicemia	Bovine	43	945	150	50	915	131
	Buffalo	9	217	40	11	356	50
	Ovine/Caprine	28	3238	877	14	463	103
Black quarter	Bovine	76	594	213	59	701	67
	Buffalo	7	28	14	2	4	4
	Ovine/Caprine	2	2	2	1	2	0
Anthrax	Bovine	29	115	115	23	109	109
	Buffalo	3	16	16	N.A.	N.A.	N.A.
	Ovine/Caprine	33	229	229	15	136	136
	Swine	1	4	4	1	2	2
Distomatosis (Liver fluke)/ Fascioliasis	Bovine	48	2601	0	102	4048	0
	Buffalo	14	498	0	47	439	0
	Ovine/Caprine	25	1501	0	36	1664	0
Enterotoxaemia	Ovine/Caprine	57	3921	1649	43	1256	331
Sheep and Goat Pox	Ovine/Caprine	72	2489	678	38	3466	955
Blue tongue	Ovine/Caprine	40	72308	8875	17	651	11718
Contagious caprine Pleuropneumonia	Ovine/Caprine	9	838	321	3	87	19
Amphistomiasis	Bovine	85	7094	0	47	4600	0
	Buffalo	7	114	0	10	73	0
	Ovine/Caprine	35	3345	0	32	3821	0
Swine fever	Swine	38	1017	200	33	1115	422
Fowl typhoid/ Salmonellosis	Avian	45	85181	2525	63	290315	10231
Coccidiosis	Bovine	9	1251	76	125	27708	5
	Buffalo	3	9	0	50	940	1
	Ovine/Caprine	11	98	0	93	7584	0
	Avian	130	99912	5035	82	160508	5681
Ranikhet disease	Avian	157	515233	7505	113	379343	3240
Fowl pox	Avian	84	66160	296	70	24016	784
Fowl cholera	Avian	24	16837	332	17	5418	658
Marek's disease	Avian	9	75451	540	1	20815	0
Infectious bursal disease (Gumboro)	Avian	124	800455	6552	90	495446	7359
Duck plague	Avian	11	748	205	9	124964	56
Coryza	Avian	29	21234	758	23	88975	1646
Chronic respiratory disease	Avian	614	3374258	15967	347	2513779	13232
Canine distemper	Canine	22	264	0	71	1536	53
Rabies	Bovine	24	137	137	85	263	263
	Canine	3	20	20	24	92	92

Disease Name	Species	2016			2017		
		Outbreak	Attack	Death	Outbreak	Attack	Death
<b>Bovine babesiosis</b>	Bovine	115	4007	0	189	12632	19
	Buffalo	6	25	0	39	293	1
	Ovine/Caprine	27	303	0	56	744	0
	Canine	4	5	0	1	1	0
<b>Mastitis</b>	Bovine	80	23681	0	150	71418	0
	Buffalo	1	1	0	65	520	0
	Ovine/Caprine	18	61	0	103	16000	0
<b>Surra/ Trypanosomiasis</b>	Bovine	20	186	18	77	1613	34
	Buffalo	6	10	0	9	38	7
<b>Mange</b>	Bovine	25	699	0	14	93	0
	Ovine/Caprine	15	486	0	2	14	0
	Swine	4	50	0	N.A.	N.A.	N.A.
	Canine	18	116	0	3	10	0
<b>Peste des petits ruminants (PPR)</b>	Ovine/Caprine	93	6491	1720	62	3846	1027
<b>Bovine anaplasmosis</b>	Bovine	24	325	7	94	2705	8
	Buffalo	3	22	0	17	83	0
	Ovine/Caprine	4	27	0	34	315	0
<b>Brucellosis</b>	Bovine	4	46	0	5	46	0
	Buffalo	N.A.	N.A.	N.A.	1	3	0
	Ovine/Caprine	N.A.	N.A.	N.A.	1	8	0
<b>Glanders</b>	Equine	22	75	63	6	2153	2153
<b>Avian influenza (Domestic)</b>	Avian	36	85957	942335	107	217	155

**Note** : N.A.: Not available.

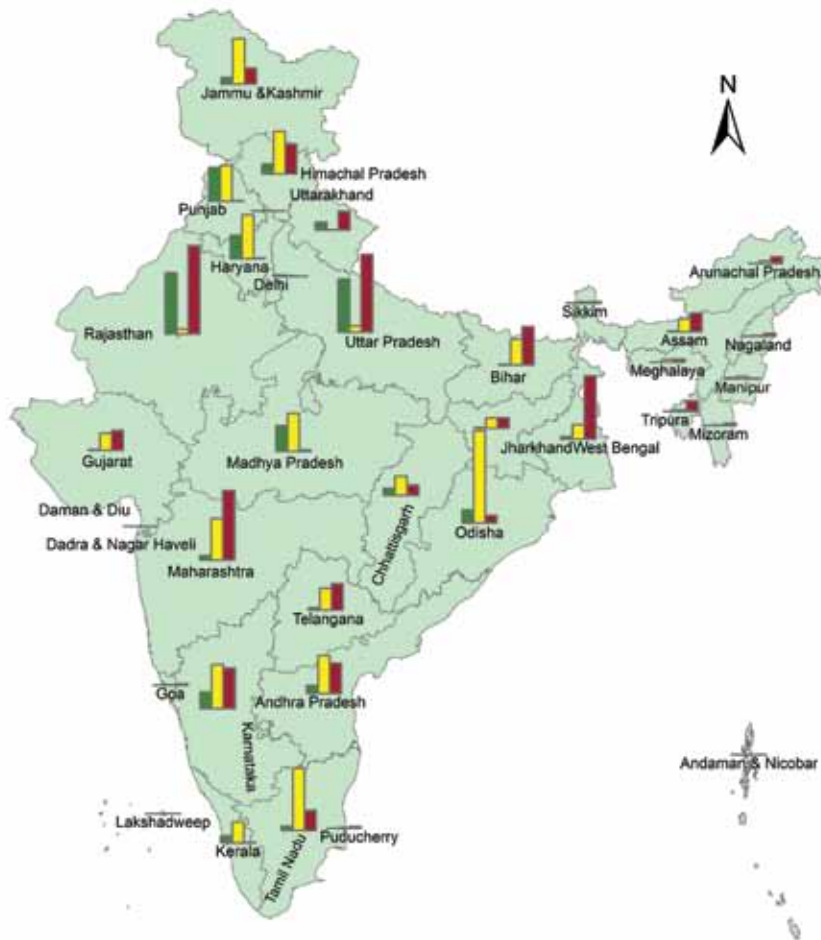
**Source** : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.13: State-wise number of Veterinary Institutions (as on 31.03.2018)**

States/Union Territories	Veterinary hospitals/ Polyclinics	Veterinary dispensaries	Veterinary aid centre/ Stockmen centre/ Mobile dispensaries	Total
Andhra Pradesh	335	1576	1262	3173
Arunachal Pradesh	16	179	308	503
Assam	21	435	767	1223
Bihar	39	1083	1595	2717
Chhattisgarh	321	803	403	1527
Goa	5	24	52	81
Gujarat	34	702	942	1678
Haryana	999	1817	21	2837
Himachal Pradesh	440	1770	1251	3461
Jammu & Kashmir	50	317	727	1094
Jharkhand	35	424	433	892
Karnataka	692	2135	1388	4215
Kerala	279	867	20	1166
Madhya Pradesh	1063	1585	65	2713
Maharashtra	200	1741	2906	4847
Manipur	56	109	34	199
Meghalaya	4	114	122	240
Mizoram	5	35	103	143
Nagaland	11	30	130	171
Odisha	541	3239	314	4094
Punjab	1389	1489	20	2898
Rajasthan	2530	198	5169	7897
Sikkim	18	61	54	133
Tamil Nadu	176	2601	931	3708
Telangana	108	909	1201	2218
Tripura	16	60	458	534
Uttarakhand	328	10	778	1116
Uttar Pradesh	2208	267	3396	5871
West Bengal	112	610	2687	3409
Andaman & Nicobar Islands	10	13	13	36
Chandigarh	5	9	0	14
Dadra & Nagar Haveli	-	-	-	-
Daman & Diu	-	2	3	5
Delhi	50	26	-	76
Lakshadweep	3	6	1	10
Puducherry		17	74	91
<b>Total</b>	<b>12099</b>	<b>25263</b>	<b>27628</b>	<b>64990</b>

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

### State-wise number of Veterinary Institutions as on 31-3-2018



#### Veterinary Institutions

- Veterinary hospitals/ polyclinics
- Veterinary dispensaries
- Veterinary aid centre/ Stockmen centre/ Mobile dispensaries



**Table 3.14: Achievement of some of the key components of dairy development in different states under cooperative sector during 2011-12**

State/Union Territories	DCS Organised (no.)	Farmer Members (000')	Rural Milk Procurement (000' Kg./Day)	Liquid Milk Sale (000' L/Day)
Andhra Pradesh	4979	854	1503	1680
Assam	188	5	7	33
Bihar	11131	614	1061	521
Chhattisgarh	794	33	30	35
Delhi	N.A.	N.A.	N.A.	3050
Goa	178	19	41	69
Gujarat	14631	3041	10450	3512
Haryana	7029	313	534	370
Himachal Pradesh	765	32	68	23
Jharkhand	53	1	5	271
Karnataka	12925	2191	4277	2892
Kerala	3695	859	802	1167
Madhya Pradesh	6744	285	721	525
Maharashtra	21631	1827	3130	2070
Nagaland	49	2	2	4
Odisha	3337	191	300	316
Puducherry	102	36	30	100
Punjab	7639	403	1110	866
Rajasthan	16809	683	1742	1544
Sikkim	289	10	13	21
Tamil Nadu	10418	2184	2161	941
Tripura	84	6	3	13
Uttar Pradesh	22450	978	497	349
West Bengal	3045	215	219	37
<b>Total</b>	<b>148965</b>	<b>14782</b>	<b>28706</b>	<b>20485</b>

**Note** : 1. Chhattisgarh and Jharkhand started reporting separately from 2003-04, 2. DCS: Dairy Cooperative Societies, 3. N.A.: Not available.

**Source** : *Basic Animal Husbandry Statistics 2013*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)



**Table 3.15: Trend of fish production in India**

(000' t)

Year	Fish production			Annual growth rate (%)		
	Marine	Inland	Total	Marine	Inland	Total
1970-71	1086	670	1756	31.80	32.15	31.93
1973-74	1210	748	1958	11.42	11.64	11.50
1978-79	1490	816	2306	23.14	9.09	17.77
1979-80	1492	848	2340	0.13	3.92	1.47
1982-83	1427	940	2367	-1.25	-5.91	-3.15
1983-84	1519	987	2506	6.45	5.00	5.87
1984-85	1698	1103	2801	11.78	11.75	11.77
1985-86	1716	1160	2876	1.06	5.17	2.68
1986-87	1713	1229	2942	-0.17	5.95	2.29
1987-88	1658	1301	2959	-3.21	5.86	0.58
1988-89	1817	1335	3152	9.95	2.61	6.52
1989-90	2275	1402	3677	25.21	5.02	16.66
1990-91	2300	1536	3836	1.10	9.56	4.32
1991-92	2447	1710	4157	6.39	11.33	8.37
1992-93	2576	1789	4365	5.27	4.62	5.00
1993-94	2649	1995	4644	2.83	11.51	6.39
1994-95	2692	2097	4789	1.62	5.11	3.12
1995-96	2707	2242	4949	0.56	6.91	3.34
1996-97	2967	2381	5348	9.60	6.20	8.06
1997-98	2950	2438	5388	-0.57	2.39	0.75
1998-99	2696	2602	5298	-8.61	6.73	-1.67
1999-00	2852	2823	5675	5.79	8.49	7.12
2000-01	2811	2845	5656	-1.44	0.78	-0.33
2001-02	2830	3126	5956	0.68	9.88	5.30
2002-03	2990	3210	6200	5.65	2.69	4.10
2003-04	2941	3458	6399	-1.64	7.73	3.21
2004-05	2779	3526	6305	-5.51	1.97	-1.47
2005-06	2816	3756	6572	1.33	6.52	4.23
2006-07	3024	3845	6869	7.39	2.37	4.52
2007-08	2920	4207	7127	-3.44	9.41	3.76
2008-09	2978	4638	7616	1.99	10.24	6.86
2009-10	3104	4894	7998	4.23	5.52	5.02
2010-11	3250	4981	8231	4.70	1.78	2.91
2011-12	3372	5294	8666	3.75	6.28	5.28
2012-13	3321	5720	9040	-1.51	8.05	4.32
2013-14	3440	6132	9572	3.58	7.20	5.88
2014-15*	3655	6509	10164	6.25	6.15	6.18
2015-16*	3583	7213	10796	-1.97	10.82	6.21
2016-17*	3641	7769	11409	1.62	7.71	5.69
2017-18*	3562	8765	12328	-2.17	12.82	8.06

Note : \* : Provisional.

Source : 1. *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)  
 2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 3.16: State-wise marine and inland fish production**

(000' t)

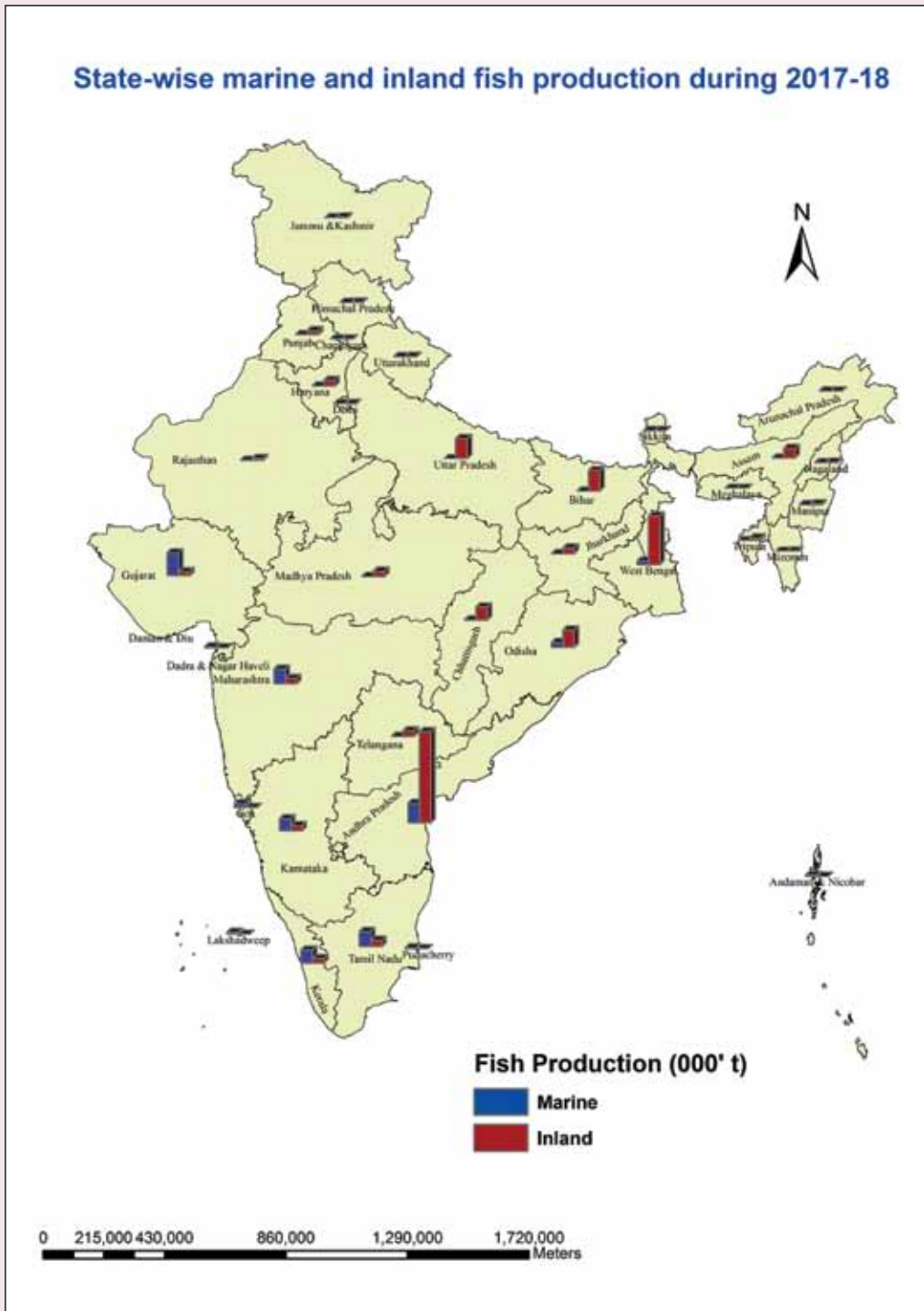
States/ Union Territories	2014-15*			2015-16*			2016-17*			2017-18*		
	Marine	Inland	Total	Marine	Inland	Total	Marine	Inland	Total	Marine	Inland	Total
Andhra Pradesh	475.40	1489.03	1964.43	517.77	1815.66	2333.43	580.24	2185.95	2766.19	611.28	2861.28	3472.56
Arunachal Pradesh	0.00	4.00	4.00	0.00	4.41	4.41	0.00	4.11	4.11	0.00	4.16	4.16
Assam	0.00	282.70	282.70	0.00	291.69	291.69	0.00	306.60	306.60	0.00	304.75	304.75
Bihar	0.00	479.80	479.80	0.00	494.58	494.58	0.00	510.00	510.00	0.00	650.45	650.45
Chhattisgarh	0.00	314.16	314.16	0.00	317.33	317.33	0.00	376.80	376.80	0.00	407.53	407.53
Goa	114.57	3.28	117.85	110.85	4.25	115.10	113.56	4.34	117.89	121.83	5.36	127.19
Gujarat	698.45	111.48	809.93	706.49	119.80	826.30	698.83	113.27	812.10	708.27	118.47	826.74
Haryana	0.00	111.20	111.20	0.00	111.20	111.20	0.00	144.21	144.21	0.00	180.64	180.64
Himachal Pradesh	0.00	10.74	10.74	0.00	10.89	10.89	0.00	12.48	12.48	0.00	11.87	11.87
Jammu & Kashmir	0.00	20.30	20.30	0.00	20.29	20.29	0.00	18.80	18.80	0.00	20.70	20.70
Jharkhand	0.00	106.43	106.43	0.00	117.99	117.99	0.00	145.16	145.16	0.00	182.00	182.00
Karnataka	389.82	223.42	613.24	410.68	284.97	695.65	398.93	158.56	557.49	370.91	157.27	528.18
Kerala	472.74	159.51	632.26	460.26	220.36	680.62	447.28	161.44	608.72	405.12	143.98	549.10
Madhya Pradesh	0.00	109.12	109.12	0.00	115.39	115.39	0.00	138.69	138.69	0.00	161.32	161.32
Maharashtra	423.79	124.95	548.75	471.04	149.91	620.96	462.75	200.17	662.91	461.67	172.71	634.38
Manipur	0.00	30.50	30.50	0.00	31.27	31.27	0.00	32.00	32.00	0.00	32.20	32.20
Meghalaya	0.00	5.89	5.89	0.00	6.14	6.14	0.00	0.01	0.01	0.00	0.01	0.01
Mizoram	0.00	6.39	6.39	0.00	6.54	6.54	0.00	7.63	7.63	0.00	7.89	7.89
Nagaland	0.00	7.84	7.84	0.00	7.84	7.84	0.00	8.61	8.61	0.00	8.86	8.86
Odisha	133.21	306.65	439.86	129.84	339.87	469.71	153.10	455.00	608.10	148.89	543.66	692.55
Punjab	0.00	114.77	114.77	0.00	125.34	125.34	0.00	112.13	112.13	0.00	121.86	121.86

States/ Union Territories	2014-15*			2015-16*			2016-17*			2017-18*		
	Marine	Inland	Total	Marine	Inland	Total	Marine	Inland	Total	Marine	Inland	Total
Rajasthan	0.00	46.31	46.31	0.00	44.35	44.35	0.00	50.20	50.20	0.00	57.14	57.14
Sikkim	0.00	0.44	0.44	0.00	0.44	0.44	0.00	0.40	0.40	0.00	0.38	0.38
Tamil Nadu	457.45	240.16	697.61	457.46	240.16	697.61	472.00	197.30	669.31	464.07	192.76	656.83
Telangana	0.00	265.38	265.38	0.00	264.23	264.23	0.00	198.92	198.92	0.00	167.84	167.84
Tripura	0.00	63.56	63.56	0.00	63.56	63.56	0.00	72.45	72.45	0.00	75.48	75.48
Uttarakhand	0.00	3.94	3.94	0.00	3.58	3.58	0.00	4.30	4.30	0.00	4.32	4.32
Uttar Pradesh	0.00	494.27	494.27	0.00	537.94	537.94	0.00	617.69	617.69	0.00	632.22	632.22
West Bengal	178.85	1438.47	1617.32	176.21	1455.96	1632.18	176.53	1525.29	1701.82	116.45	1533.92	1650.37
Andman & Nicobar Islands	36.98	0.197	37.18	38.14	0.15	38.29	38.58	0.23	38.81	39.28	0.22	39.50
Chandigarh	0.00	0.12	0.12	0.00	0.13	0.13	0.00	0.13	0.13	0.00	0.14	0.14
Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman & Diu	28.77	0.00	28.77	27.26	0.49	27.75	23.40	0.62	24.02	32.36	0.93	33.29
Delhi	0.00	0.675	0.675	0.00	0.78	0.78	0.00	0.72	0.72	0.00	0.68	0.68
Lakshadweep	13.19	0.00	13.19	11.95	0.00	11.95	29.80	0.00	29.80	55.82	0.00	55.82
Puducherry	68.05	5.45	73.51	64.97	5.08	70.05	45.93	4.32	50.25	26.22	2.40	28.62
<b>All India</b>	<b>3491.29</b>	<b>6581.12</b>	<b>10072.41</b>	<b>3582.93</b>	<b>7212.56</b>	<b>10795.49</b>	<b>3640.93</b>	<b>7768.52</b>	<b>11409.45</b>	<b>3562.18</b>	<b>8765.41</b>	<b>12327.57</b>

Note : 1. \*: Provisional, 2. Total may not tally due to rounding off the figures.

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India  
 2. *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

### State-wise marine and inland fish production during 2017-18



**Table 3.17: State-wise trend of prawn production in India**

Year	P/NP/T	Andhra Pradesh	Goa	Gujarat	Karnataka	Kerala	Maharashtra	Odisha	Tamil Nadu	West Bengal	A & N Islands	Daman & Diu	Puducherry	All India
2000-01	P	17162	2284	53983	2913	58275	28206	14585	20257	11760	298	196	3316	213235
	NP	8181	N.A.	N.A.	8951	10892	70051	3887	4594	5900	53	395	1177	114081
	T	25343	2284	53983	11864	69,167	98257	18472	24851	17660	351	591	4493	327316
2001-02	P	16450	2483	48773	2248	49151	33654	15105	21079	11700	434	135	3312	204524
	NP	7729	N.A.	N.A.	6496	3615	75875	4064	4671	6000	100	379	N.A.	108929
	T	24179	2483	48773	8744	52766	109529	19169	25750	17700	534	514	3312	313453
2002-03	P	1160	2284	6710	15251	53490	45442	18398	13151	12730	418	89	3430	171553
	NP	1061	N.A.	42794	318	3342	56965	2213	10875	6110	71	302	1560	125611
	T	2221	2284	49504	15569	56832	102407	20611	24026	18840	489	391	4990	298164
2003-04	P	1160	2284	46330	10826	53437	45442	21228	16848	13050	560	46	2398	213609
	NP	1061	N.A.	9150	464	3364	56965	3023	11755	7950	128	126	1072	95058
	T	2221	2284	55480	11290	56801	102407	24251	28603	21000	688	172	3470	308667
2004-05	P	21507	7703	9302	11841	57252	31537	23398	18636	23780	560	33	2348	207897
	NP	12185	N.A.	53303	N.A.	12655	68634	2031	4263	20000	128	89	1435	174723
	T	33692	7703	62605	11841	69907	100171	25429	22899	43780	688	122	3783	382620
2005-06	P	157094	5837	15683	11690	47752	58670	22790	42096	63297	568	127	1386	426990
	NP	28769	N.A.	57378	1398	11713	67696	2429	1250	57000	128	207	270	228238
	T	185863	5837	73061	13088	59465	126366	25219	43346	120297	696	334	1656	655228
2006-07	P	22160	10250	18449	7500	58008	42519	24968	44454	52,001	407	103	79	280898
	NP	9834	N.A.	58217	351	11592	51801	3161	1342	27,967	158	107	255	164785
	T	31994	10250	76666	7,851	69600	94320	28129	45796	79,968	565	210	334	445683

Animal Husbandry, Dairying and Fisheries

Year	P/NP/T	Andhra Pradesh	Goa	Gujarat	Karnataka	Kerala	Maharashtra	Odisha	Tamil Nadu	West Bengal	A & N Islands	Daman & Diu	Puducherry	All India
2007-08	P	24987	9545	19088	8251	55619	45352	26255	21701	54044	412	103	1674	267031
	NP	11745	N.A.	54980	549	11582	53869	2820	949	32851	173	107	609	170234
	T	36732	9545	74068	8800	67201	99221	29075	22650	86895	585	210	2283	437265
2008-09	P	27742	8693	13509	9071	68016	55956	28879	29863	43452	416	113	1578	287288
	NP	18494	N.A.	27591	741	N.A.	36231	2774	7982	25596	172	117	648	120346
	T	46236	8693	41100	9812	68016	92187	31653	37845	69048	588	230	2226	407634
2009-10	P	24329	11029	17488	16443	67573	38657	25603	30085	49734	349	139	1743	283172
	NP	19860	N.A.	30383	166	N.A.	68743	3974	8062	20988	150	34	717	153077
	T	44189	11029	47871	16609	67573	107400	29577	38147	70722	499	173	2460	436249
2010-11	P	28324	8584	22223	19873	70677	35091	27095	31947	67194	468	367	1018	312861
	NP	18884	N.A.	37182	3366	N.A.	67936	5281	8539	25105	184	110	467	167054
	T	47208	8584	59405	23239	70677	103027	32376	40486	92299	652	477	1485	479915
2011-12	P	36795	9179	16122	25088	NR	37561	27391	96272	79795	492	NR	2074	330769
	NP	16150	N.A.	41806	2557	NR	63186	4235	21443	27091	188	NR	680	177336
	T	52945	9179	57928	27645	0	100747	31626	117715	106886	680	0	2754	508105
2012-13	P	41922	8614	16605	NR	68399	42297	33199	32309	80122	520	466	2061	326514
	NP	20842	N.A.	42228	NR	1659	55964	4657	8636	31532	193	101	610	166422
	T	62764	8614	58833	0	70058	98261	37856	40945	111654	713	567	2671	492936
2013-14	P	43537	10230	16705	NR	60403	45373	28513	32314	85334	518	NR	2144	325071
	NP	21566	N.A.	42365	NR	1652	64263	5492	8686	34700	192	NR	847	179763
	T	65103	10230	59070	0	62055	109636	34005	41000	120034	710	0	2991	504834

Note : 1. P: Pennaid, 2. NP: Non-pennaid, 3. T: Total, 4. NR: Not reported, 5. N.A.: Not available.

Source : *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.mic.in>)

**Table 3.18: Disposition of fish catch and percentage distribution in India**

Year	Marketing fresh	%	Frozen	%	Curing	%	Canning	%	Reduction	%	Offal for reduction	%	Miscellaneous *	%	Total	%
1981	1668.00	68.25	118.10	4.83	441.70	18.07	5.50	0.23	162.00	6.63	21.40	0.88	27.20	1.11	2443.90	100
1982	1701.20	71.87	130.20	5.50	358.00	15.12	5.70	0.24	126.10	5.33	18.30	0.77	27.60	1.17	2367.10	100
1983	1784.60	71.19	145.00	5.78	423.90	16.91	7.30	0.29	110.60	4.41	12.90	0.52	22.40	0.89	2506.70	100
1984	1978.90	69.14	207.00	7.23	424.10	14.82	13.60	0.48	194.80	6.81	9.40	0.33	34.30	1.20	2862.10	100
1985	1843.30	65.27	196.40	6.95	562.20	19.91	9.80	0.35	170.00	6.02	14.00	0.50	28.60	1.01	2824.30	100
1986	1964.00	67.22	209.70	7.18	460.40	15.76	12.10	0.41	158.30	5.42	11.50	0.39	105.80	3.62	2921.80	100
1987	1968.30	67.72	179.00	6.16	526.40	18.11	4.90	0.17	190.60	6.56	18.40	0.63	19.00	0.65	2906.60	100
1988	2075.10	67.32	233.70	7.58	529.00	17.16	20.60	0.67	174.60	5.66	24.20	0.79	25.20	0.82	3082.40	100
1989	2301.40	64.20	261.20	7.29	590.90	16.48	28.70	0.80	315.20	8.79	25.10	0.70	62.00	1.73	3584.50	100
1990	2497.20	65.18	285.70	7.46	598.80	15.63	29.30	0.76	322.30	8.41	34.80	0.91	63.40	1.65	3831.50	100
1991	2706.00	66.91	265.90	6.58	613.80	15.18	30.10	0.74	333.40	8.24	47.70	1.18	47.10	1.16	4044.00	100
1992	2798.40	67.06	284.80	6.82	590.20	14.14	25.90	0.62	355.80	8.53	70.60	1.69	47.40	1.14	4173.10	100
1993	3105.20	68.31	309.50	6.81	644.50	14.18	9.80	0.22	372.80	8.20	16.30	0.36	87.60	1.93	4545.70	100
1994	3250.60	68.64	310.40	6.55	651.90	13.76	12.20	0.26	397.30	8.39	39.30	0.83	74.30	1.57	4736.00	100
1995	3427.00	70.94	320.60	6.64	632.50	13.09	13.20	0.27	358.20	7.41	38.70	0.80	40.60	0.84	4830.80	100
1996	3784.10	72.74	392.70	7.55	639.20	12.29	11.00	0.21	313.20	6.02	22.60	0.43	39.40	0.76	5202.20	100
1997	3874.70	72.03	421.90	7.84	602.30	11.20	14.10	0.26	345.50	6.42	18.00	0.33	102.80	1.91	5379.30	100
1998	3866.60	73.73	390.70	7.45	568.50	10.84	12.00	0.23	303.70	5.79	19.50	0.37	83.30	1.59	5244.30	100
1999	4206.07	78.05	284.21	5.27	421.60	7.82	17.39	0.32	296.53	5.50	53.50	0.99	109.75	2.04	5389.05	100
2000	4287.83	76.38	276.60	4.93	339.91	6.05	50.03	0.89	317.91	5.66	1.32	0.02	340.24	6.07	5613.84	100
2001	4777.14	80.56	264.88	4.47	346.00	5.83	53.17	0.90	308.27	5.20	16.16	0.27	164.43	2.78	5930.05	100
2002	4789.52	81.50	332.68	5.66	388.69	6.61	23.07	0.39	265.96	4.53	42.86	0.73	34.20	0.58	5876.98	100
2003	4828.36	82.04	307.39	5.22	363.60	6.18	36.36	0.62	277.87	4.72	40.81	0.69	31.36	0.53	5885.75	100
2004	5283.61	82.67	385.16	6.03	330.50	5.17	45.03	0.70	269.89	4.22	9.96	0.16	67.07	1.05	6391.22	100
2005	5468.23	83.13	390.23	5.93	330.27	5.02	24.69	0.33	284.56	4.33	34.88	0.53	44.69	0.68	6577.55	100
2006	5559.60	83.13	396.12	5.92	344.76	5.16	24.29	0.36	295.37	4.42	36.24	0.54	31.37	0.47	6687.75	100
2007	6037.80	83.41	424.26	5.86	367.50	5.08	25.51	0.35	334.45	4.62	14.65	0.20	34.43	0.48	7238.60	100
2008	5804.72	83.60	378.63	5.15	335.44	4.83	31.11	0.45	313.13	4.51	45.20	0.65	35.06	0.50	6943.29	100
2009	5955.48	82.82	435.35	6.05	347.71	4.84	33.22	0.46	291.27	4.05	61.69	0.86	66.43	0.92	7191.15	100
2010	6118.89	76.58	733.43	9.18	411.86	5.15	47.46	0.59	283.64	3.55	74.30	0.93	320.58	4.01	7990.16	100
2011	5364.19	73.03	761.13	10.36	472.59	6.43	39.28	0.53	293.80	4.07	0.20	0.003	408.76	5.57	7344.95	100
2012	5811.58	74.24	948.95	12.12	332.67	4.25	42.43	0.54	301.59	3.85	0.06	0.001	391.28	5.00	7828.56	100

Note : \* : Includes unspecified and others.

Source : Handbook on Fisheries Statistics 2014, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.mc.in>)

**Table 3.19: State-wise disposition of fish catch in 2012**

States/ Union Territories	Marketing	Freezing	Curing	Canning	Reduction	Offal for reduction	Miscellaneo- us Purposes	Unspecified	Others	Total
Andhra Pradesh	842202	486634	44982	11308	1200	0	37723	22832	75116	1521997
Arunachal Pradesh	3375	-	-	-	-	-	100	-	-	3475
Assam	247010	-	-	-	-	-	-	-	3190	250200
Bihar	277815	-	-	-	-	-	-	-	66655	344470
Chhattisgarh	260482	-	-	-	-	-	-	-	-	260482
Goa	77965	-	2599	4331	-	-	1733	-	-	86628
Gujarat	245426	-	141504	-	227304	-	-	-	-	787884
Haryana	89251	-	-	-	-	-	-	-	-	111480
Himachal Pradesh	7305	-	-	-	-	-	-	-	-	7381
Jammu & Kashmir	19010	-	-	-	-	-	-	-	-	19042
Jharkhand	107920	-	-	-	-	-	-	-	-	107920
Karnataka	257528	56696	70951	-	27162	21	36790	26000	23629	525567
Kerala	-	-	-	-	-	-	-	-	-	-
Madhya Pradesh	84855	-	-	-	-	-	-	-	-	84855
Maharashtra	460477	-	32733	-	502	-	-	-	-	493712
Manipur	22640	-	2350	-	-	-	-	-	-	24992
Meghalaya	5389	-	-	-	-	-	-	-	-	5389
Mizoram	5340	-	-	-	-	-	-	-	-	5340
Nagaland	5823	-	907	-	-	-	-	110	-	6840
Odisha	284755	15883	24498	-	-	-	-	-	-	325136
Punjab	99131	-	-	-	-	-	-	-	-	99131
Rajasthan	32760	-	-	-	-	-	-	-	-	32760

(t)



States/ Union Territories	Marketing	Freezing	Curing	Canning	Reduction	Offal for reduction	Miscellaneous Purposes	Unspecified	Others	Total
Sikkim	180	-	-	-	-	-	-	-	-	180
Tamil Nadu	399848	174387	-	-	-	-	60864	-	-	635099
Tripura	50507	-	-	-	-	-	6953	-	-	57460
Uttarakhand	3847	-	-	-	-	-	-	-	-	3847
Uttar Pradesh	449750	-	-	-	-	-	-	-	-	449750
West Bengal	1390360	33000	-	-	45420	-	5150	-	-	1473930
Andaman & Nicobar Islands	23698	5468	7292	-	-	-	-	-	-	36458
Chandigarh	90	-	-	-	-	-	-	-	-	90
Dadra & Nagar Haveli	-	-	-	-	-	-	-	108	-	108
Daman & Diu	12302	2493	-	-	-	43	2095	-	-	16933
Delhi	690	-	-	-	-	-	-	-	-	690
Lakshadweep	13177	-	79	-	-	-	-	-	-	13256
Puducherry	30667	631	4780	-	-	-	-	-	-	36078
<b>India</b>	<b>5811575</b>	<b>948950</b>	<b>332675</b>	<b>42431</b>	<b>301588</b>	<b>64</b>	<b>151408</b>	<b>71279</b>	<b>168590</b>	<b>7990104</b>

Note : - : Not available.

Source : Handbook on Fisheries Statistics 2014, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
(Website: <http://www.dahd.nic.in>)

**Table 3.20: State-wise preserved and processed fish commodities in 2012**

States/ Union Territories	Tuna frozen	Marine fish frozen	Fish dried unsalted	Fish dried & salted or smoked	Shark fins, dried, salted etc.	Crab meat frozen	Frozen whole cooked lobster	Frozen lobster tails	Shrimp & prawn frozen	Freeze dried shrimp	Dried prawn/ shrimp	Frozen cuttlefish fillets
1	2	3	4	5	6	7	8	9	10	11	12	13
Andhra Pradesh	24364	24814	39559	62504	45	1890	1000	15910	79546	7724	855	38723
Assam	-	-	638	-	-	-	-	-	-	-	-	-
Bihar	-	-	-	6917	-	-	-	-	-	-	-	-
Chhattisgarh	-	-	-	470	-	-	-	-	-	-	-	-
Goa	27	27549	-	-	-	-	-	-	-	-	-	-
Gujarat	-	130594	217865	1342681	-	-	-	-	6031	-	-	-
Haryana	-	-	-	22229	-	-	-	-	-	-	-	-
Jammu & Kashmir	-	-	508	150	-	-	-	-	-	-	-	-
Karnataka	-	42959	7088	-	-	-	-	-	11352	-	-	-
Kerala	-	66531	17015	50336	-	-	-	-	65447	-	878	-
Maharashtra	-	99627	13300	4819	-	21471	-	-	-	-	7260	11589
Manipur	-	-	112	1136	-	-	-	-	-	-	-	-
Nagaland	-	-	-	732	-	-	-	-	-	-	-	-
Odisha	-	1380	11645	5404	-	370	-	-	14469	-	565	445
Tamil Nadu	-	54680	-	-	-	-	-	-	6491	-	-	4413
Tirpura	-	-	-	-	-	-	-	-	-	-	-	-
West Bengal	-	8958	12198	32	32	-	-	-	29964	-	-	3343
Andaman & Nicobar Islands	382	5282	1276	191	39	-	-	-	256	-	-	-
Daman & Diu	84	2361	-	-	-	-	-	-	-	-	-	-
Lakshadweep	-	-	3	72	-	-	-	-	-	-	-	-
Puducherry	-	631	830	3951	-	-	-	-	-	-	-	-
India	24857	465366	322037	293179	116	2260	22471	15910	213556	7724	9558	58513

(t)

States/ Union Territories	Frozen squids	Canned fish	Canned shrimp prawn	Fish / body oil	Fish meals soluble or similar feedings frozen	Pomfret frozen	Tunas frozen	Mackerels, frozen	Miscell- aneous	Total
	14	15	16	17	18	19	20	21	22	23
Andhra Pradesh	285	250	1570	-	1000	9965	18308	6630	70598	405540
Assam	-	-	-	-	-	-	-	-	-	638
Bihar	-	-	-	-	-	-	-	-	6917	13834
Chhattisgarh	-	-	-	-	-	-	-	-	-	470
Goa	2289	48	-	-	-	129	-	9252	3380	42674
Gujarat	-	-	-	-	-	-	-	-	55246	544004
Haryana	-	-	-	-	-	-	-	-	-	22229
Jammu & Kashmir	-	-	-	-	-	-	-	-	-	658
Karnataka	11830	27152	-	-	-	82	-	10180	56591	167234
Kerala	-	-	-	-	-	-	-	-	480469	680676
Maharashtra	-	-	-	-	-	-	-	-	N.A.	158066
Manipur	-	2	-	-	-	-	-	-	170	1420
Nagaland	-	-	-	-	-	-	-	-	175	907
Odisha	-	-	-	-	-	89	-	-	40	34407
Tamil Nadu	3227	-	-	-	-	-	-	-	17774	86585
Tripura	-	-	-	-	-	-	-	-	1724	1724
West Bengal	136	-	-	-	-	-	-	-	13370	68001
Andaman & Nicobar Islands	-	-	-	-	-	-	-	-	5334	12760
Daman & Diu	31	-	-	-	-	25	2	-	-	2503
Lakshadweep	-	-	-	-	-	-	-	-	4	79
Puducherry	-	-	-	102	-	-	-	-	-	5412
<b>India</b>	<b>17798</b>	<b>27452</b>	<b>1570</b>	<b>102</b>	<b>1000</b>	<b>10290</b>	<b>18310</b>	<b>26062</b>	<b>711792</b>	<b>2249821</b>

Note : -: Not available.

Source : Handbook on Fisheries Statistics 2014, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
(Website: <http://www.dahd.nic.in>)

**Table 3.21: Fish seed production over different plan periods in India**

(million fry)

Plan period	Year	Production
End of IV <sup>th</sup> Plan	1973-74	409
End of V <sup>th</sup> Plan	1978-79	912
End of VI <sup>th</sup> Plan	1984-85	9,639
End of VII <sup>th</sup> Plan	1989-90	9,691
Annual Plan	1990-91	10,332
	1991-92	12,203
VIII <sup>th</sup> Plan	1992-93	12,500
	1993-94	14,239
	1994-95	14,544
	1995-96	15,007
	1996-97	15,852
IX <sup>th</sup> Plan	1997-98	15,904
	1998-99	15,156
	1999-00	16,589
	2000-01	15,608
	2001-02	15,758
X <sup>th</sup> Plan	2002-03	16,333
	2003-04	19,231
	2004-05	20,791
	2005-06	21,988
	2006-07	23,648
XI <sup>th</sup> Plan	2007-08	24,144
	2008-09	32,177
	2009-10	29,313
	2010-11	34,111
	2011-12	36,566
XII <sup>th</sup> Plan	2012-13	34,922
	2013-14*	41,450
	2014-15*	43,267
	2015-16	N.A.
	2016-17*	87,201
	2017-18*	72,194

**Note** : 1. \*: Provisional, 2. N.A.: Not available.

**Source** : 1. *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)  
2. *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.22: Number of fishing crafts in maritime States/Union Territories  
(as on 20.03.2018)**

States/ Union Territories	(number)			
	Traditional Crafts (Non-Motorized)	Motorized Crafts	Mechanical Crafts	Total
Andhra Pradesh	15,864	21,575	2,071	39,510
Goa	284	1	2,487	2,772
Gujarat	76	11,385	16,375	27,836
Karnataka	8,999	8,447	4,438	21,884
Kerala	2,650	30,298	5,707	38,655
Maharashtra	7,430	N.A.	19,874	27,304
Odisha	14,760	9,451	1,884	26,095
Tamil Nadu	5,907	32,917	5,889	44,713
West Bengal	5,717	5,993	3,069	14,779
Andaman & Nicobar Islands	1,359	1,849	110	3,318
Daman & Diu	N.A.	304	1,829	2,133
Lakshadweep	354	1,342	32	1,728
Puducherry	1,788	1,813	1,054	4,655
<b>Total</b>	<b>65,188</b>	<b>125,375</b>	<b>64,819</b>	<b>255,382</b>

Note : N.A.: Not available.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.23: State-wise fish seed production**

States/ Union Territories	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15*	2015-16	2016-17*	2017-18*
<b>Andhra Pradesh</b>	851.90	860.14	860.14	982.05	1165.46	1899.47	1899.47	5228.47	6562.63	6718.98	N.A.	7923.30	4201.65
<b>Arunachal Pradesh</b>	25.45	30.00	26.50	27.00	29.00	27.20	2.90	4.10	9.64	9.84	N.A.	6.50	7.00
<b>Assam</b>	3207.99	3062.00	3206.00	3429.00	3326.00	4263.00	3624.00	4364.00	4546.00	4585.00	N.A.	6758.00	10524.00
<b>Bihar</b>	344.94	330.46	309.53	302.99	330.78	275.19	244.37	473.83	1872.48	505.74	N.A.	43.24	373.05
<b>Chhattisgarh</b>	505.54	591.68	649.67	675.00	762.59	839.69	893.59	1043.74	1220.00	1351.42	N.A.	1975.04	2318.60
<b>Goa</b>	6.95	0.67	0.67	0.67	0.67	0.05	0.55	2.30	0.03	1.40	N.A.	0.60	0.70
<b>Gujarat</b>	611.59	621.89	610.20	585.78	689.89	837.35	837.35	282.48	387.00	248.40	N.A.	552.93	185.23
<b>Haryana</b>	282.08	331.14	309.76	332.20	404.99	643.41	744.21	734.55	909.37	639.06	N.A.	704.60	4177.21
<b>Himachal Pradesh</b>	21.27	16.98	21.92	21.60	21.75	20.32	20.32	22.02	22.22	25.70	N.A.	62.50	4.70
<b>Jammu &amp; Kashmir</b>	17.07	17.30	17.12	18.12	20.10	26.00	26.00	34.50	34.95	40.05	N.A.	83.50	71.20
<b>Jharkhand</b>	17.27	28.71	28.71	77.11	540.50	630.70	649.70	931.00	1071.80	1108.46	N.A.	41501.08	10334.91
<b>Karnataka</b>	215.72	195.43	228.70	206.80	296.50	1158.41	1216.61	428.23	496.62	529.96	N.A.	499.88	248.11
<b>Kerala</b>	12.48	12.70	12.70	12.70	12.70	12.70	12.70	18.00	18.00	0.00	N.A.	177.09	131.290
<b>Madhya Pradesh</b>	438.62	485.87	496.58	5235.22	5489.62	619.87	1500.99	798.01	963.08	1001.88	N.A.	1111.20	11172.28
<b>Maharashtra</b>	85.40	549.73	200.61	149.43	188.90	190.89	1396.89	94.52	187.50	143.71	N.A.	189.55	6250.00
<b>Manipur</b>	123.00	129.00	125.00	125.00	127.00	134.00	134.00	139.00	157.00	170.00	N.A.	215.00	250.00
<b>Meghalaya</b>	0.77	0.77	0.93	1.13	1.21	2.96	2.96	2.18	3.14	58.43	N.A.	7.56	9.58
<b>Mizoram</b>	18.00	18.20	18.20	16.50	17.00	16.60	17.30	54.00	30.00	30.00	N.A.	31.00	205.00
<b>Nagaland</b>	43.00	48.00	48.00	48.50	48.10	47.50	49.50	48.00	48.50	47.70	N.A.	48.00	17.00
<b>Odisha</b>	321.40	546.72	640.00	2957.85	730.00	6087.04	6087.04	701.93	658.16	5557.63	N.A.	909.56	807.70
<b>Punjab</b>	139.03	153.38	145.58	256.08	174.82	168.04	164.63	187.08	222.54	229.74	N.A.	237.50	277.98

Animal Husbandry, Dairying and Fisheries

States/ Union Territories	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15*	2015-16	2016-17*	2017-18*
Rajasthan	299.00	342.00	350.38	350.38	349.57	455.26	449.69	1795.28	776.00	826.26	N.A.	1098.86	1065.30
Sikkim	2.50	2.50	3.00	3.20	3.80	3.00	3.00	2.10	2.05	2.95	N.A.	2.32	0.65
Tamil Nadu	529.28	529.28	529.28	529.28	529.28	291.82	431.84	188.20	2871.50	263.58	N.A.	573.80	2251.43
Telangana	-	-	-	-	-	-	-	-	-	3.30	N.A.	32.60	2038.26
Tripura	546.53	420.00	506.00	305.50	301.00	602.00	730.00	700.00	798.00	736.75	N.A.	313.70	0.00
Uttarakhand	31.69	28.21	37.42	38.32	34.47	100.44	100.16	42.98	44.43	48.57	N.A.	74.65	67.71
Uttar Pradesh	1085.75	1091.56	1182.99	1304.18	1147.48	1302.26	1476.40	1595.11	1637.76	1661.54	N.A.	2753.56	2712.87
West Bengal	12500.00	13200.00	13572.00	14181.00	12566.00	13453.00	13846.00	15002.00	15890.00	16717.00	N.A.	19284.00	12455.00
Andaman & Nicobar Islands	0.72	0.58	0.51	1.50	1.00	0.56	0.56	1.06	7.22	1.21	N.A.	12.82	14.69
Chandigarh	0.70	0.80	3.20	0.80	1.60	0.80	2.40	1.60	0.80	0.80	N.A.	0.80	0.80
Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N.A.	0.00	0.00
Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N.A.	0.00	0.00
Delhi	2.34	2.25	2.27	2.32	1.39	1.30	1.30	1.53	1.53	1.67	N.A.	16.30	20.00
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N.A.	0.00	0.00
Puducherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N.A.	0.00	0.00
<b>India</b>	<b>22287.98</b>	<b>23647.95</b>	<b>24143.57</b>	<b>32177.21</b>	<b>29313.17</b>	<b>34110.83</b>	<b>36566.43</b>	<b>34921.80</b>	<b>41449.95</b>	<b>43266.73</b>	<b>N.A.</b>	<b>87201.04</b>	<b>72193.91</b>

Note : 1. N.A.: Not available, 2. \*: Provisional.

Source : 1. *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

2. *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.24: Details of shrimp and scampi production during 2012-13**

(Area: ha, Production: Mt, Productivity: Mt/ha/Yr)

States	Area under culture			Production			Productivity		
	Shrimp*	Scampi**	Total (shrimp + scampi)	Shrimp*	Scampi**	Total (shrimp + scampi)	Shrimp*	Scampi**	Total (shrimp + scampi)
<b>Andhra Pradesh</b>	36123.00	280.00	36403.00	159083.00	174.00	159257.00	4.40	0.62	5.03
<b>Goa</b>	31.00	0.00	31.00	63.00	0.00	63.00	2.03	0.00	2.03
<b>Gujarat</b>	2359.00	0.00	2359.00	9393.00	0.00	9393.00	3.98	0.00	3.98
<b>Karnataka</b>	394.00	0.00	394.00	664.00	0.00	664.00	1.69	0.00	1.69
<b>Kerala</b>	12917.00	48.00	12965.00	5175.00	6.00	5181.00	0.40	0.13	0.53
<b>Maharashtra</b>	1486.00	49.00	1535.00	3513.00	60.00	3573.00	2.36	1.22	3.59
<b>Odisha</b>	6302.00	886.00	7188.00	14532.00	592.00	15124.00	2.31	0.67	2.97
<b>Tamil Nadu</b>	7804.00	136.00	7940.00	25815.00	54.00	25869.00	3.31	0.40	3.70
<b>West Bengal</b>	48410.00	1520.00	49930.00	52581.00	2446.00	55027.00	1.09	1.61	2.70
<b>Total</b>	<b>115826.00</b>	<b>2919.00</b>	<b>118745.00</b>	<b>270819.00</b>	<b>3332.00</b>	<b>274151.00</b>	<b>2.34</b>	<b>1.14</b>	<b>3.48</b>

**Note** : 1. \* : Production from Aquaculture Farms 2. \*\* : Production from Aquaculture Farms. This data provides production from monoculture farms only and does not include production from village ponds, reservoirs etc.

**Source** : *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)



**Table 3.25: State-wise fishermen population in 2003**

(hundred)

States/ Union Territories	Total number of members						Full time			Part time			Others				
	Male		Female		Children		Total		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Andhra Pradesh</b>	249386	250877	393102	893365	91038	26422	117460	124967	25768	150735	155208	149685	304893				
<b>Arunachal Pradesh</b>	1650	1376	1373	4399	N.A.	N.A.	N.A.	1099	843	1942	N.A.	N.A.	N.A.				
<b>Assam</b>	131312	97986	161082	390380	66120	39568	105688	42746	23676	66422	48814	12282	61096				
<b>Bihar</b>	1391166	1266997	2301353	4959516	25503	11576	37079	43347	14942	58289	32234	14468	46702				
<b>Chhattisgarh</b>	621607	529697	760064	1911368	4828	2805	7633	32905	13719	46624	18201	12206	30407				
<b>Goa</b>	5521	4863	3586	13970	1844	355	2199	1116	566	1682	923	1477	2400				
<b>Gujarat</b>	134475	129900	228880	493255	77653	6024	83677	26601	10383	36984	18479	33219	51698				
<b>Haryana</b>	5910	3322	7259	16491	2527	174	2701	1002	433	1435	108306	415	108721				
<b>Himachal Pradesh</b>	1537	1372	2713	5622	421	207	628	547	27	574	554	4	558				
<b>Jammu &amp; Kashmir</b>	9628	7593	13232	30453	2876	467	3343	1244	717	1961	3480	1732	5212				
<b>Jharkhand</b>	577908	571584	781428	1930920	4329	914	5243	17100	4341	21441	18362	3913	22275				
<b>Karnataka</b>	55809	52898	50245	158952	13640	770	14410	8669	1207	9876	40948	13805	54753				
<b>Kerala</b>	224007	317758	206072	747837	110953	3803	114756	26515	6213	32728	36599	39027	75628				
<b>Madhya Pradesh</b>	213888	200607	302479	716974	4699	751	5450	13743	4125	17868	8245	2776	11021				
<b>Maharashtra</b>	63354	46603	61873	171830	14587	5019	19606	38280	11397	49677	40029	9101	49130				
<b>Manipur</b>	25009	24091	21368	70468	2516	451	2967	2003	2090	4093	2225	2957	5182				
<b>Meghalaya</b>	525	504	1354	2383	2	N.A.	2	346	148	494	N.A.	2	2				
<b>Mizoram</b>	5498	5312	7097	17907	116	29	145	1150	201	1351	1163	440	1603				
<b>Nagaland</b>	5762	5519	3581	14862	43	N.A.	43	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.				

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States/ Union Territories	Total number of members			Full time			Part time			Others			
	Male	Female	Children	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Odisha	70971	48334	60721	180026	27331	7973	35304	26322	12499	38821	40784	20547	61331
Punjab	2150	1874	5061	9085	1528	28	1556	898	386	1284	3001	718	3719
Rajasthan	2638	1693	2985	7316	654	21	675	881	93	974	1060	124	1184
Sikkim	9893	8353	8568	26814	536	609	1145	87	207	294	182	N.A.	182
Tamil Nadu	171992	156107	148519	476618	63232	6111	69343	35280	7790	43070	50140	33071	83211
Tripura	15966	13177	17590	46733	2934	541	3475	145	5424	5569	6160	2488	8648
Uttar Pradesh	70373	48892	59799	179064	11316	3148	14464	12718	3100	15818	10571	6794	17365
Uttarakhand	32	23	35	90	43	9	52	109	73	182	103	23	126
West Bengal	587214	205198	119210	911622	267944	N.A.	267944	446517	N.A.	446517	364618	N.A.	364618
Andaman & Nicobar Islands	9859	7693	N.A.	17552	2630	N.A.	2630	7191	N.A.	7191	746	429	1175
Chandigarh	198	109	172	479	168	18	186	97	44	141	344	7	351
Dadra & Nagar Haveli	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Daman & Diu	7649	7756	10080	25485	4104	22	4126	895	481	1376	291	1341	1632
Delhi	485	475	1555	2515	253	N.A.	253	262	8	270	184	N.A.	184
Lakshadweep	10408	2621	N.A.	13029	4231	19	4250	2807	1003	3810	1448	N.A.	1448
Puducherry	12378	12799	12797	37974	4352	339	4691	2187	399	2586	3613	4416	8029
<b>Total</b>	4696158	4033963	5755233	14485354	814951	118173	933124	919776	152303	1072079	1017015	367467	1384484

Note : N.A.: Not available.

Source : 1. *Indian Livestock Census 2003*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.

(Website: <http://www.dahd.nic.in>)

2. *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.26: State-wise marine fisheries resources**

States/ Union Territories	Approx. length of coast line (kms)	Continental shelf (000' sqkms)	Number of landing centers	Number of fishing villages	No. of fishermen families	Fisher folk population
Andhra Pradesh	974	33	350	533	155062	517435
Goa	104	10	34	41	2986	12651
Gujarat	1600	184	107	280	67610	354992
Karnataka	300	27	115	162	32479	157989
Kerala	590	40	204	220	121637	563903
Maharashtra	720	112	173	526	87717	364899
Odisha	480	26	73	739	115228	517623
Tamil Nadu	1076	41	301	575	201855	795708
West Bengal*	158	17	66	171	81067	368816
Andaman & Nicobar Islands	1912	35	51	169	5944	26521
Daman & Diu	27	-	12	12	3163	15836
Lakshadweep	132	4	20	10	4163	27934
Puducherry	45	1	41	39	14347	20270
<b>Total</b>	<b>8118</b>	<b>530</b>	<b>1547</b>	<b>3477</b>	<b>893258</b>	<b>3774577</b>

Note : \*: Subsequent reference to villages actually means Gram Panchayat in West Bengal.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.27: State-wise brackish water area and productivity**

States/Union Territories	Total brackish water area (ha)	Area under culture through BFDA's (ha)	Productivity (kg/ha/annum)
Andhra Pradesh	60,000	846	680
Goa	Neg.	574	2000
Gujarat	1,00,000	968	1276
Karnataka	10,000	3022	1826
Kerala	2,40,000	4589	1700
Maharashtra	10,000	1539	600
Odisha	4,30,000	14670	1300
Tamil Nadu	60,000	7548	2000
West Bengal	2,10,000	5994	1106
Puducherry	Neg.	*	N.A.
Andaman & Nicobar Islands	1,20,000	N.A.	N.A.
<b>Total</b>	<b>12,40,000</b>	<b>39750</b>	<b>12488</b>

Note : 1. N.A.: Not available, 2. \*: No BFDA sanctioned, 3. Neg.: Negligible.

Source : *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.28: Fish processing industries**

Facilities	Number	Capacity
Preservation, processing including freezing plant	372	52.5 t/day*
Ice making plants	148	1800 t/day*
Cold storage	450	80000 t/day*
Fish meal plant	15	330 t/day*
Prawn peeling sheds	900 (Registered)	2684 t/day*

Note : \*: Workshop proceedings of NCAER, March 2003.

Source : 1. Central Institute of Agricultural Engineering, NabiBagh, Berasia Road, Bhopal.  
2. A profile of people – technological and policies and fisheries sector in India. (Workshop proceedings of NCAER, March 2003).

**Table 3.29: State-wise inland fishery resource**

(lakh ha)

States/ Union Territories	Rivers & Canals (kms)	Reservoirs	Tanks & ponds	Floodplain lakes & derelict water	Brackish water	Total water bodies
Andhra Pradesh	11514	2.34	5.17	N.A.	0.60	8.11
Arunachal Pradesh	2000	N.A.	2.76	0.42	N.A.	3.18
Assam	4820	0.02	0.23	1.10	N.A.	1.35
Bihar	3200	0.60	0.95	0.05	N.A.	1.60
Chhattisgarh	3573	0.84	0.63	N.A.	N.A.	1.47
Goa	250	0.03	0.03	N.A.	Neg.	0.06
Gujarat	3865	2.43	0.71	0.12	1.00	4.26
Haryana	5000	Neg.	0.10	0.10	N.A.	0.20
Himachal Pradesh	3000	0.42	0.01	N.A.	N.A.	0.43
Jammu & Kashmir	27781	0.07	0.17	0.06	N.A.	0.30
Jharkhand	4200	0.94	0.29	N.A.	N.A.	1.23
Karnataka	9000	4.40	2.90	N.A.	0.10	7.40
Kerala	3092	0.30	0.30	2.43	2.40	5.43
Madhya Pradesh	17088	2.27	0.60	N.A.	N.A.	2.87
Maharashtra	16000	2.99	0.72	N.A.	0.12	3.83
Manipur	3360	0.01	0.05	0.04	N.A.	0.10
Meghalaya	5600	0.08	0.02	Neg.	N.A.	0.10
Mizoram	1395	N.A.	0.02	N.A.	N.A.	0.02
Nagaland	1600	0.17	0.50	Neg.	N.A.	0.67
Odisha	4500	2.56	1.23	1.80	4.30	9.89
Punjab	15270	Neg.	0.07	N.A.	N.A.	0.07
Rajasthan	5290	1.20	1.80	N.A.	N.A.	3.00
Sikkim	900	N.A.	N.A.	0.03	N.A.	0.03
Tamil Nadu	7420	5.70	0.56	0.07	0.60	6.93
Tripura	1200	0.05	0.13	N.A.	N.A.	0.18
Uttarakhand	2686	0.20	0.01	0.00	N.A.	0.21
Uttar Pradesh	28500	1.38	1.61	1.33	N.A.	4.32
West Bengal	2526	0.17	2.76	0.42	2.10	5.45
Andaman & Nicobar Islands	N.A.	0.00	0.00	N.A.	0.33	0.34
Chandigarh	2	N.A.	Neg.	Neg.	N.A.	0.00
Dadra & Nagar Haveli	54	0.05	N.A.	N.A.	N.A.	0.05
Daman & Diu	12	N.A.	Neg.	N.A.	Neg.	0.00
Delhi	150	0.04	N.A.	N.A.	N.A.	0.04
Lakshadweep	N.A.	N.A.	N.A.	N.A.	N.A.	0.00
Puducherry	247	N.A.	Neg.	0.01	Neg.	0.01
<b>Total</b>	<b>195095</b>	<b>29.26</b>	<b>24.33</b>	<b>7.98</b>	<b>11.55</b>	<b>73.12</b>

Note : 1. N.A.: Not available, 2. Neg.: Negligible.

Source : *Basic Animal Husbandry & Fisheries Statistics 2018*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)

**Table 3.30: Outlays and expenditure for fishery development over different plan periods**

(₹ crore)

Plan	Outlay/ Expenditure	Central sector scheme	Centrally sponsored schemes	State schemes	Total
<b>First Plan (1951-56)</b>	Outlay	1.00	@	4.13	5.13
	Exp.	0.38	@	2.40	2.78
<b>Second Plan (1956-61)</b>	Outlay	3.73	@	8.53	12.26
	Exp.	1.80	@	7.26	9.06
<b>Third Plan (1961-66)</b>	Outlay	6.72	@	21.55	28.27
	Exp.	3.03	@	20.29	23.32
<b>Annual Plan (1966-69)</b>	Outlay	15.30	@	26.91	42.21
	Exp.	9.04	@	23.63	32.67
<b>Fourth Plan (1969-74)</b>	Outlay	28.00	6.00	48.68	82.68
	Exp.	8.11	5.17	40.83	54.11
<b>Fifth Plan (1974-79)</b>	Outlay	51.05	17.00	83.19	151.24
	Exp.	39.93	4.07	71.11	115.11
<b>Sixth Plan (1980-85)</b>	Outlay	137.10	36.62	197.42	371.14
	Exp.	75.54	28.80	182.61	286.95
<b>Seventh Plan (1985-90)</b>	Outlay	156.58	60.75	329.19	546.52
	Exp.	116.93	53.26	307.40	477.59
<b>Annual Plan (1990-92)</b>	Outlay	25.45	55.16	212.13	292.74
	Exp.	16.48	43.73	211.90	272.11
<b>Eighth Plan (1992-97)</b>	Outlay	139.00	300.00	766.39	1205.39
	Exp.	161.01	268.02	689.43	1118.46
<b>Ninth Plan (1997-02)</b>	Outlay	240.00	560.00	1269.78	2069.78
	Exp.	124.97	273.18	1016.26	1414.41
<b>Tenth Plan (2002-07)</b>	Outlay	417.36	388.50	1198.16	2004.02
	Exp.	223.25	397.17	1188.51	1808.93
<b>Eleventh Plan (2007-12)</b>	Outlay	1946.00	830.00	419.69	6945.06
	Exp.	635.92	576.31	2419.69	3631.92
<b>Twelfth Plan</b>	Outlay	2483.00	N.A.	N.A.	2483.00**
	Exp.*	————	616.46	————	N.A.

**Note :** 1. Figures for Seventh Plan include the figures for Fishery Survey of India and Trawler Development Fund which were transferred to Ministry of Food Processing Industries, 2. @: Figures given under Central Sector include those of Centrally Sponsored Schemes, 3. \*\*: Includes NFDB, Database, Welfare Schemes and Fisheries Institutes, 4. \*: Exp. Up to 2013-14, 5.N.A.: Not available.

**Source :** *Handbook on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://www.dahd.nic.in>)







भाग-IV  
बागवानी

SECTION-IV  
Horticulture







**Table 4.1: All India area, production and productivity of horticulture crops**

(Area: 000' ha, Production: 000't, Productivity: t/ha)

Year	Fruits			Vegetables			Flowers & Aromatics		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
2001-02	4010	43001	10.72	6156	88622	14.40	106	535	5.05
2002-03	3788	45203	11.93	6092	84815	13.92	70	735	10.50
2003-04	4661	45942	9.86	6082	88334	14.52	101	580	5.74
2004-05	5049	50867	10.07	6744	101246	15.01	118	659	5.58
2005-06	5324	55356	10.40	7213	111399	15.44	391	856	2.19
2006-07	5554	59563	10.72	7581	114993	15.17	468	1058	2.26
2007-08	5857	65587	11.20	7848	128449	16.37	563	1264	2.25
2008-09	6101	68466	11.22	7981	129077	16.17	597	1417	2.37
2009-10	6329	71516	11.30	7985	133738	16.75	692	1593	2.30
2010-11	6383	74878	11.73	8495	146554	17.25	701	1636	2.33
2011-12	6705	76424	11.40	8989	156325	17.39	760	2218	2.92
2012-13	6982	81285	11.64	9205	162187	17.62	790	2647	3.35
2013-14	7216	88977	12.33	9396	162897	17.34	748	3192	4.27
2014-15	6110	86602	14.17	9542	169478	17.76	908	3143	3.46
2015-16	6301	90183	14.31	10106	169064	16.73	912	3206	3.52
2016-17	6373	92918	14.58	10238	178172	17.40	970	3364	3.47
2017-18	6506	97358	14.96	10259	184394	17.97	1044	3651	3.49

Continued....

Year	Plantation crops			Spices			Total		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
2001-02	2984	9697	3.25	3220	3765	1.17	16592	145785	8.79
2002-03	2984	9697	3.25	3220	3765	1.17	16270	144380	8.87
2003-04	3102	13161	4.24	5155	5113	0.99	19208	153302	7.98
2004-05	3147	9835	3.13	3150	4001	1.27	18445	166939	9.05
2005-06	3283	11263	3.43	2366	3705	1.57	18707	182816	9.77
2006-07	3207	12007	3.74	2448	3953	1.61	19389	191813	9.89
2007-08	3190	11300	3.54	2617	4357	1.66	20207	211235	10.45
2008-09	3217	11336	3.52	2629	4145	1.58	20662	214716	10.39
2009-10	3265	11928	3.65	2464	4016	1.63	20876	223089	10.69
2010-11	3306	12007	3.63	2940	5350	1.82	21825	240531	11.02
2011-12	3577	16359	4.57	3212	5951	1.85	23243	257277	11.07
2012-13	3641	16985	4.66	3076	5744	1.87	23694	268848	11.35
2013-14	3675	16301	4.44	3163	5908	1.87	24198	277352	11.46
2014-15	3534	15575	4.41	3317	6108	1.84	23410	280986	12.00
2015-16	3680	16658	4.53	3474	6988	2.01	24472	286188	11.69
2016-17	3598	17972	4.99	3671	8122	2.21	24851	300643	12.10
2017-18	3744	18082	4.83	3878	8124	2.09	25431	311714	12.26

Source : 1. 2001-02 to 2010-11: *Indian Horticulture Database*, National Horticulture Board.  
 2. 2011-12 to 2017-18: *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

**Table 4.2: All India area and production of fruit crops**(Area: 000<sup>+</sup> ha, Production: 000<sup>+</sup>t)

Crop	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Almond	12.00	8.00	12.00	7.00	11.00	14.00
Aonla/ Gooseberry	88.00	972.00	93.00	1075.00	93.00	1075.00
Apple	277.00	2521.00	305.00	2265.00	301.00	2327.00
Banana	841.00	29130.00	860.00	30477.00	884.00	30808.00
Ber	44.00	425.00	50.00	545.00	50.00	513.00
<b>Citrus</b>						
(i) Lime/ Lemon	245.00	2438.00	248.00	2364.00	286.00	3148.00
(ii) Mandarin	397.00	4113.00	410.00	4438.00	428.00	5101.00
(iii) Sweet Orange (Mosambi)	244.00	3468.00	191.00	3209.00	185.00	3266.00
(iv) Others	138.00	1562.00	136.00	1408.00	103.00	1030.00
<b>Citrus total (i to iv)</b>	<b>1024.00</b>	<b>11581.00</b>	<b>985.00</b>	<b>11419.00</b>	<b>1003.00</b>	<b>12546.00</b>
Custard apple	37.00	298.00	44.00	383.00	46.00	401.00
Grapes	122.00	2590.00	137.00	2922.00	139.00	2920.00
Guava	255.00	4048.00	260.00	3826.00	265.00	4054.00
Jackfruit	151.00	1732.00	150.00	1694.00	185.00	1830.00
Kiwi	4.00	11.00	4.00	12.00	4.00	12.00
Litchi	90.00	559.00	93.00	568.00	92.00	686.00
Mango	2209.00	18643.00	2212.00	19506.00	2258.00	21822.00
Muskmelon	45.00	935.00	50.00	1097.00	54.00	1231.00
Papaya	132.00	5667.00	134.00	5940.00	138.00	5989.00
Passion fruit	13.00	78.00	13.00	72.00	14.00	82.00
Peach	18.00	107.00	18.00	106.00	19.00	114.00
Pear	40.00	323.00	44.00	346.00	44.00	318.00
Picanut	1.00	1.00	1.00	0.00	1.00	0.00
Pineapple	110.00	1924.00	111.00	1861.00	103.00	1706.00
Plum	22.00	82.00	24.00	81.00	23.00	89.00
Pomegranate	197.00	2306.00	216.00	2613.00	234.00	2845.00
Sapota	107.00	1294.00	99.00	1236.00	97.00	1176.00
Strawberry	1.00	5.00	1.00	4.00	1.00	5.00
Walnut	92.00	229.00	112.00	287.00	109.00	300.00
Watermelon	95.00	2325.00	91.00	2182.00	101.00	2520.00
Others	275.00	2386.00	252.00	2392.00	238.00	1977.00
<b>Total fruits</b>	<b>6301.00</b>	<b>90183.00</b>	<b>6373.00</b>	<b>92918.00</b>	<b>6506.00</b>	<b>97358.00</b>

**Source :** *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

**Table 4.3: All India area and production of vegetable crops**

(Area: 000' ha, Production: 000't)

Crops	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Beans	232.00	2334.00	198.00	2012.00	228.00	2277.00
Bittergourd	93.00	1046.00	95.00	1030.00	97.00	1137.00
Bottlegourd	149.00	2458.00	153.00	2529.00	157.00	2683.00
Brinjal	663.00	12515.00	733.00	12510.00	730.00	12801.00
Cabbage	394.00	8806.00	395.00	8807.00	399.00	9037.00
Capsicum	46.00	288.00	24.00	306.00	24.00	326.00
Carrot	82.00	1338.00	86.00	1350.00	97.00	1648.00
Cauliflower	426.00	8090.00	454.00	8557.00	453.00	8668.00
Cucumber	71.00	1202.00	74.00	1142.00	82.00	1260.00
Chillies (Green)	292.00	2955.00	316.00	3634.00	309.00	3592.00
Elephant Foot Yam	28.00	733.00	29.00	748.00	30.00	774.00
Mushroom	170.00	436.00	182.00	441.00	198.00	487.00
Okra/ Ladyfinger	511.00	5849.00	507.00	6003.00	509.00	6095.00
Onion	1320.00	20931.00	1306.00	22427.00	1285.00	23262.00
Parwal/ Pointed gourd	18.00	264.00	18.00	268.00	20.00	310.00
Peas	498.00	4811.00	530.00	5345.00	540.00	5422.00
Potato	2117.00	43417.00	2179.00	48605.00	2142.00	51310.00
Radish	199.00	2844.00	203.00	2898.00	209.00	3061.00
Pumpkin/ Kaddu	68.00	1509.00	74.00	1664.00	78.00	1714.00
Sweet Potato	126.00	1454.00	128.00	1460.00	131.00	1500.00
Tapioca	204.00	4344.00	199.00	4171.00	173.00	4950.00
Tomato	774.00	18732.00	797.00	20708.00	789.00	19759.00
Others	1625.00	22707.00	1558.00	21557.00	1580.00	22320.00
<b>Total vegetables</b>	<b>10106.00</b>	<b>169064.00</b>	<b>10238.00</b>	<b>178172.00</b>	<b>10259.00</b>	<b>184394.00</b>

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

**Table 4.4: State-wise area and production of fruit crops**

(Area: 000' ha, Production: 000't)

States/ Union Territories	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	577.03	10088.82	609.38	13612.92	650.52	15215.85
Arunachal Pradesh	66.21	306.27	48.71	124.38	48.13	125.70
Assam	145.71	2077.77	142.89	2024.84	147.26	2123.62
Bihar	306.18	4230.63	307.79	4234.62	296.65	5117.12
Chhattisgarh	209.87	2294.73	220.86	2480.40	229.67	2666.20
Gujarat	392.52	8477.17	411.23	8937.42	422.41	8996.02
Haryana	60.92	737.82	61.60	770.97	64.02	793.35
Himachal Pradesh	226.80	928.83	229.20	611.88	230.85	565.31
Jammu & Kashmir	286.23	2115.72	338.82	2241.06	327.43	2355.19
Jharkhand	96.54	961.19	100.79	1047.97	104.30	1081.69
Karnataka	415.37	7023.69	418.34	7218.38	431.64	7133.94
Kerala	243.15	2532.94	251.35	2509.13	309.45	2045.75
Madhya Pradesh	276.82	5783.06	351.36	6935.60	354.06	7416.91
Maharashtra	736.69	9749.80	705.12	10630.08	753.18	11728.66
Manipur	51.12	467.76	50.58	478.77	47.61	455.59
Meghalaya	36.59	395.40	37.37	426.86	32.81	316.51
Mizoram	55.01	330.28	62.56	339.05	63.19	340.51
Nagaland	37.05	374.13	39.19	388.49	39.50	380.52
Odisha	340.80	2386.94	340.97	2432.27	340.48	2402.30
Punjab	85.46	1790.94	86.66	1818.19	90.63	1908.85
Rajasthan	43.27	681.57	57.50	995.60	57.22	761.95
Sikkim	17.53	23.48	18.55	25.56	19.36	54.90
Tamil Nadu	274.85	6635.10	334.74	6181.77	291.37	5680.52
Telangana	331.49	4319.87	166.18	1200.30	167.13	1939.39
Tripura	75.74	854.05	57.84	559.92	53.75	547.52
Uttar Pradesh	468.89	10296.14	474.87	10302.76	476.64	10539.78
Uttarakhand	175.33	659.10	177.32	662.85	178.65	669.94
West Bengal	249.22	3516.71	253.02	3585.30	261.02	3850.56
Others	18.28	143.16	18.61	140.75	17.32	143.36
<b>Total</b>	<b>6300.67</b>	<b>90183.04</b>	<b>6373.39</b>	<b>92918.04</b>	<b>6506.23</b>	<b>97357.51</b>

Source: Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



**Table 4.5: State-wise area, production and productivity of Mango**

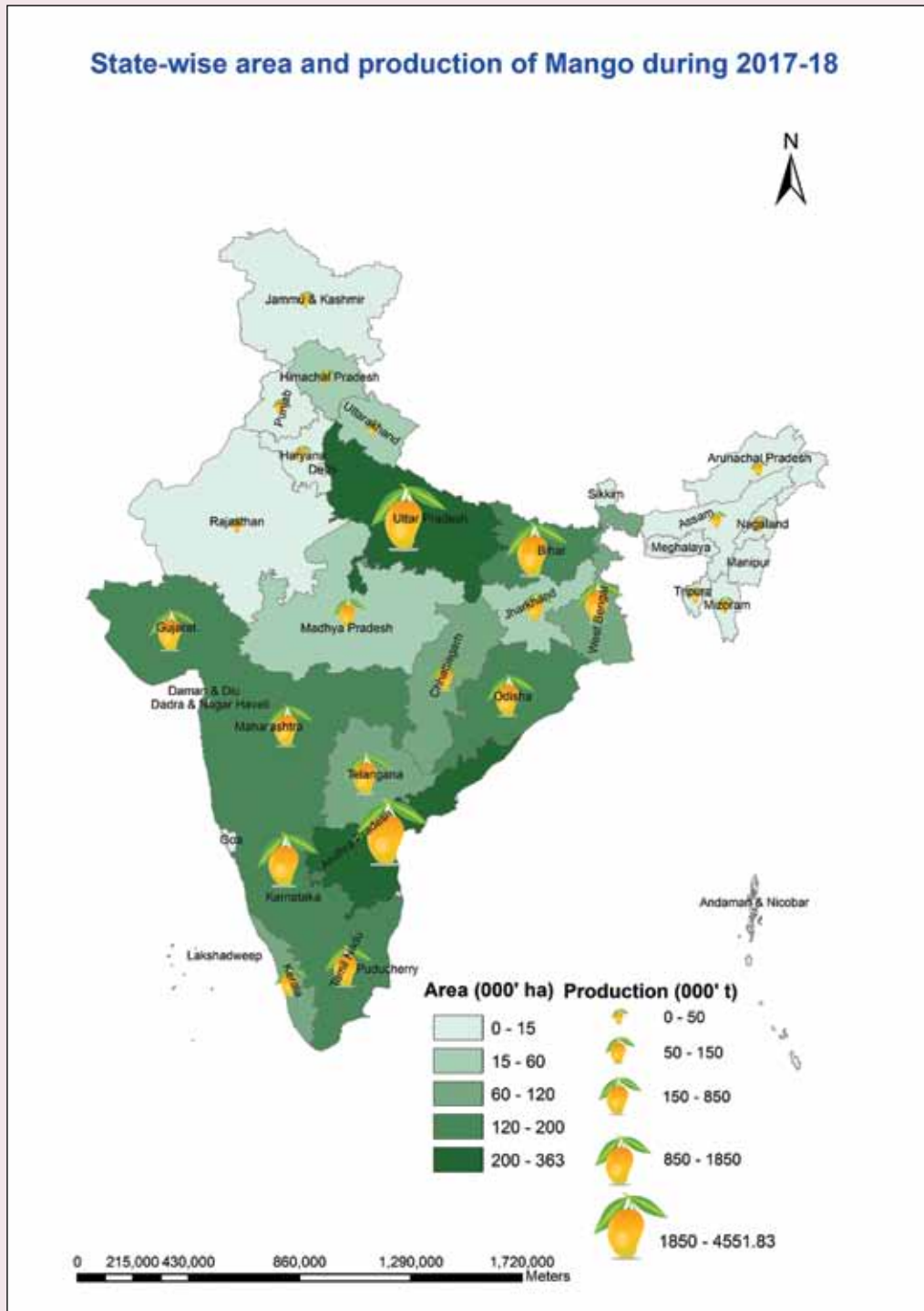
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
Andhra Pradesh	327.31	2803.66	8.57	336.96	4043.47	12.00	363.00	4373.61	12.05
Assam	4.62	46.15	9.99	4.66	47.15	10.12	4.68	48.44	10.34
Arunachal Pradesh	0.05	0.03	0.50	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Bihar	149.14	1464.93	9.82	149.96	1472.38	9.82	149.28	2443.47	16.37
Chhattisgarh	71.52	420.61	5.88	74.17	434.32	5.86	77.03	461.73	5.99
Gujarat	153.18	1241.59	8.11	161.27	1424.87	8.84	162.77	1207.78	7.42
Haryana	9.26	89.97	9.72	9.34	96.79	10.37	9.35	98.60	10.54
Himachal Pradesh	41.52	37.63	0.91	41.77	48.24	1.16	41.99	31.35	0.75
Jammu & Kashmir	12.67	23.74	1.87	12.74	24.15	1.90	12.96	30.35	2.34
Jharkhand	50.41	393.67	7.81	50.56	438.54	8.67	54.53	435.86	7.99
Karnataka	181.70	1725.67	9.50	180.60	1719.73	9.52	183.23	1760.60	9.61
Kerala	70.12	382.52	5.46	70.41	388.14	5.51	83.12	439.20	5.28
Madhya Pradesh	27.89	371.48	13.32	43.42	586.24	13.50	45.52	654.79	14.38
Maharashtra	162.08	463.17	2.86	156.84	603.83	3.85	166.76	791.36	4.75
Mizoram	0.87	4.18	4.80	0.89	4.18	4.70	0.91	4.19	4.60
Nagaland	0.57	3.74	6.61	0.64	4.23	6.60	0.64	4.24	6.61
Odisha	199.29	778.72	3.91	199.42	817.91	4.10	199.08	805.77	4.05
Punjab	6.74	113.50	16.83	6.75	113.69	16.85	6.90	116.52	16.90
Rajasthan	5.00	82.27	16.45	5.16	154.79	29.97	4.97	87.37	17.58
Tamil Nadu	125.98	975.11	7.74	176.42	1282.44	7.27	152.57	1234.00	8.09
Telangana	194.05	1778.32	9.16	111.65	482.46	4.32	115.99	1080.14	9.31
Tripura	11.75	59.06	5.02	10.64	57.03	5.36	10.33	54.93	5.32
Uttar Pradesh	263.28	4512.71	17.14	264.94	4341.00	16.38	265.62	4551.83	17.14
Uttarakhand	35.91	149.73	4.17	36.42	150.14	4.12	36.48	152.71	4.19
West Bengal	96.74	693.39	7.17	99.22	736.90	7.43	103.25	918.35	8.89
Others	6.91	27.00	3.91	7.40	33.58	4.54	7.17	35.14	4.90
<b>Total</b>	<b>2208.56</b>	<b>18642.53</b>	<b>8.44</b>	<b>2212.24</b>	<b>19506.20</b>	<b>8.82</b>	<b>2258.13</b>	<b>21822.32</b>	<b>9.66</b>

Note : N.A.: Not available.

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of Mango during 2017-18



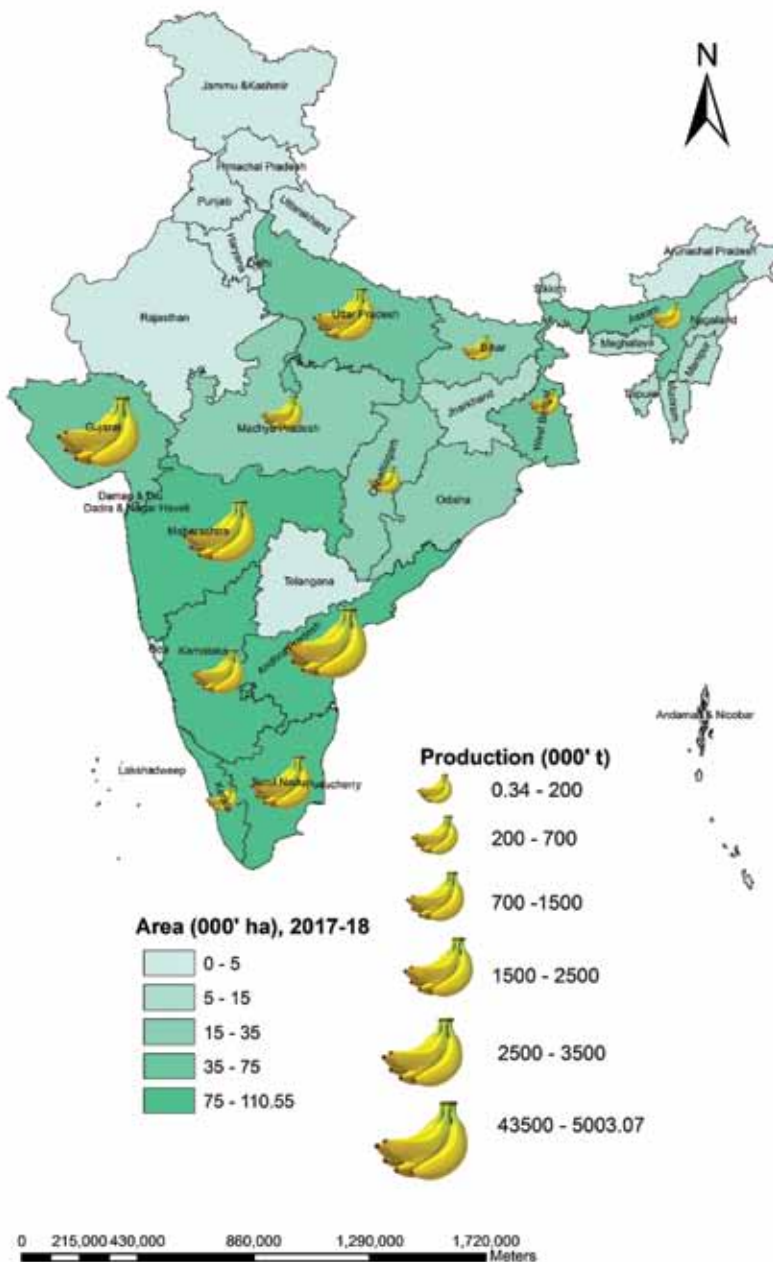
**Table 4.6: State-wise area, production and productivity of Banana**(Area: 000<sup>+</sup> ha, Production: 000<sup>t</sup>, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
Arunachal Pradesh	5.42	31.64	5.84	2.45	17.47	7.14	2.21	14.08	6.37
Andhra Pradesh	75.72	3570.62	47.16	88.17	4672.75	53.00	88.96	5003.07	56.24
Assam	51.10	882.71	17.27	49.27	854.85	17.35	53.08	913.27	17.20
Bihar	34.80	1535.30	44.12	35.07	1527.85	43.57	31.07	1396.39	44.94
Chhattisgarh	25.76	587.42	22.80	26.12	609.21	23.33	26.57	745.78	28.07
Gujarat	64.69	4185.52	64.70	66.31	4293.23	64.75	68.15	4472.32	65.63
Himachal Pradesh	0.09	0.42	4.80	0.08	0.35	4.18	0.08	0.35	4.25
Jharkhand	12.53	33.28	2.66	9.06	31.63	3.49	9.17	32.06	3.49
Karnataka	96.63	2370.95	24.54	99.46	2446.03	24.59	110.55	2328.90	21.07
Kerala	84.56	1292.41	15.28	84.98	1250.55	14.72	109.26	1119.16	10.24
Madhya Pradesh	28.35	1758.05	62.01	26.97	1876.45	69.58	26.38	1834.03	69.54
Maharashtra	69.55	3025.15	43.49	81.34	3888.90	47.81	80.88	4209.27	52.05
Meghalaya	7.11	88.71	12.47	7.24	94.32	13.03	7.37	96.90	13.15
Manipur	6.95	93.95	13.51	8.19	109.82	13.40	6.93	93.48	13.48
Mizoram	10.91	141.03	12.93	11.00	141.04	12.82	11.21	143.84	12.83
Nagaland	7.25	108.51	14.96	8.32	116.98	14.07	8.34	117.04	14.03
Odisha	24.47	462.71	18.91	24.46	466.44	19.07	24.20	449.82	18.59
Punjab	0.11	6.43	57.37	0.09	5.27	57.93	0.09	5.27	57.95
Rajasthan	0.03	0.41	11.91	0.04	0.35	9.58	0.03	0.68	20.61
Sikkim	1.15	3.56	3.09	1.21	3.87	3.20	1.28	3.71	2.90
Tamil Nadu	94.61	4331.65	45.78	94.98	3499.48	36.85	82.63	3205.04	38.79
Telangana	4.65	183.70	39.47	2.06	73.00	35.47	2.29	90.02	39.38
Tripura	14.62	153.62	10.51	10.80	115.28	10.67	10.29	109.40	10.63
Uttar Pradesh	67.00	3061.21	45.69	69.10	3160.82	45.74	69.38	3172.33	45.73
West Bengal	48.07	1172.34	24.39	48.07	1172.34	24.39	49.30	1200.00	24.34
Others	5.03	53.55	10.65	5.16	48.97	9.49	4.07	51.29	12.60
<b>Total</b>	<b>841.19</b>	<b>29134.82</b>	<b>34.64</b>	<b>859.97</b>	<b>30477.22</b>	<b>35.44</b>	<b>883.77</b>	<b>30807.50</b>	<b>34.86</b>

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



### State-wise area and production of Banana



**Table 4.7: State-wise area, production and productivity of Sweet orange**

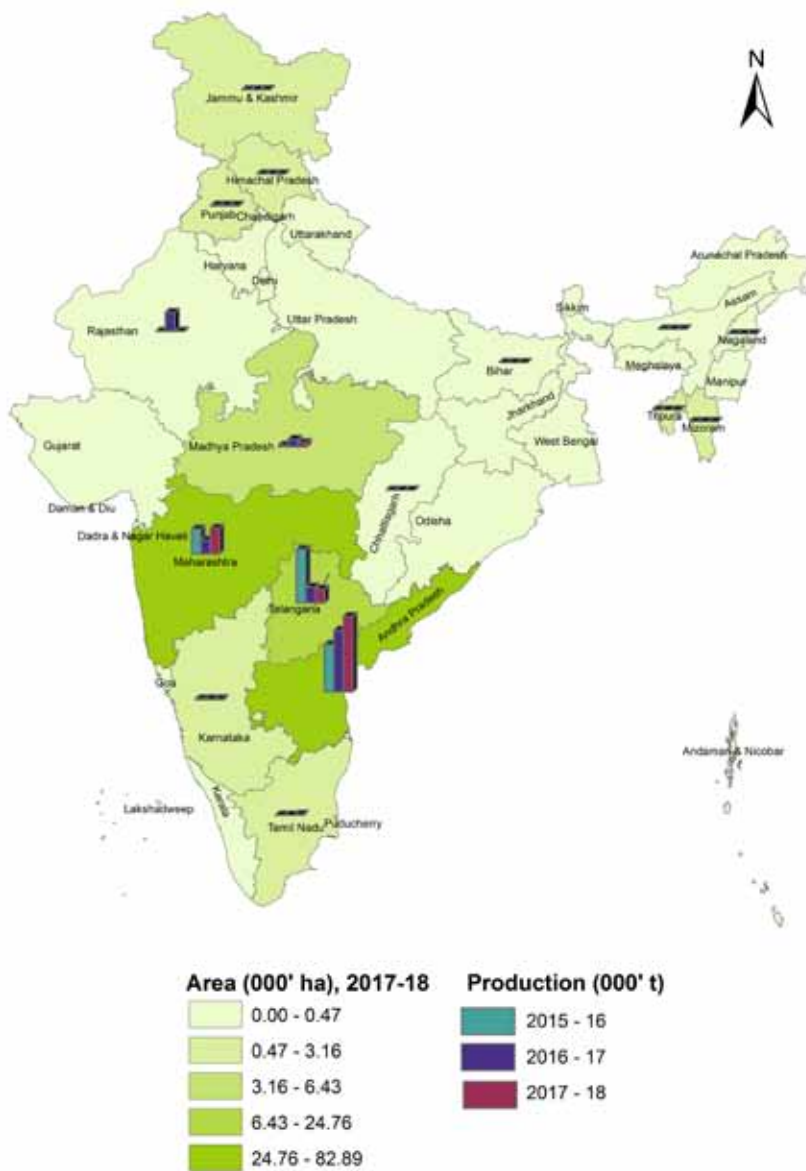
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	77.94	1265.16	16.23	81.95	1638.94	20.00	82.89	2003.11	24.17
Assam	0.46	4.76	10.28	0.14	1.89	14.00	0.14	1.98	14.12
Bihar	0.50	5.50	11.00	0.50	5.50	11.00	0.40	4.40	11.00
Chhatisgarh	0.41	2.19	5.38	0.42	2.25	5.34	0.47	2.37	5.09
Himachal Pradesh	1.69	2.22	1.31	1.75	2.78	1.59	1.81	2.77	1.53
Jammu & Kashmir	1.77	2.60	1.47	N.A.	N.A.	N.A.	3.16	5.72	1.81
Karnataka	1.70	27.43	16.10	1.73	25.65	14.80	1.52	25.77	16.95
Madhya Pradesh	3.04	43.48	14.29	12.20	200.73	16.46	6.43	111.72	17.39
Maharashtra	54.26	659.15	12.15	32.33	372.81	11.53	55.18	684.80	12.41
Mizoram	1.96	4.55	2.32	1.59	4.94	3.11	1.59	4.94	3.11
Nagaland	0.27	2.06	7.61	0.29	2.25	7.68	0.22	1.65	7.55
Punjab	2.72	22.42	8.24	2.81	23.25	8.27	3.00	25.09	8.35
Rajasthan	0.19	2.35	12.23	23.55	499.11	21.19	0.20	2.69	13.45
Tamil Nadu	0.13	2.20	17.31	0.11	2.34	22.24	1.67	17.53	10.49
Telangana	95.30	1420.30	14.90	30.53	423.73	13.88	24.76	368.60	14.89
Tripura	1.33	1.64	1.24	1.26	3.17	2.52	1.12	2.59	2.32
Others	0.08	0.13	1.58	0.08	0.10	1.19	0.08	0.11	1.43
<b>Total</b>	<b>243.76</b>	<b>3468.14</b>	<b>14.23</b>	<b>191.23</b>	<b>3209.40</b>	<b>16.78</b>	<b>184.62</b>	<b>3265.83</b>	<b>17.69</b>

Note : N.A.: Not available.

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of Sweet Orange



**Table 4.8: State-wise area, production and productivity of Apple**

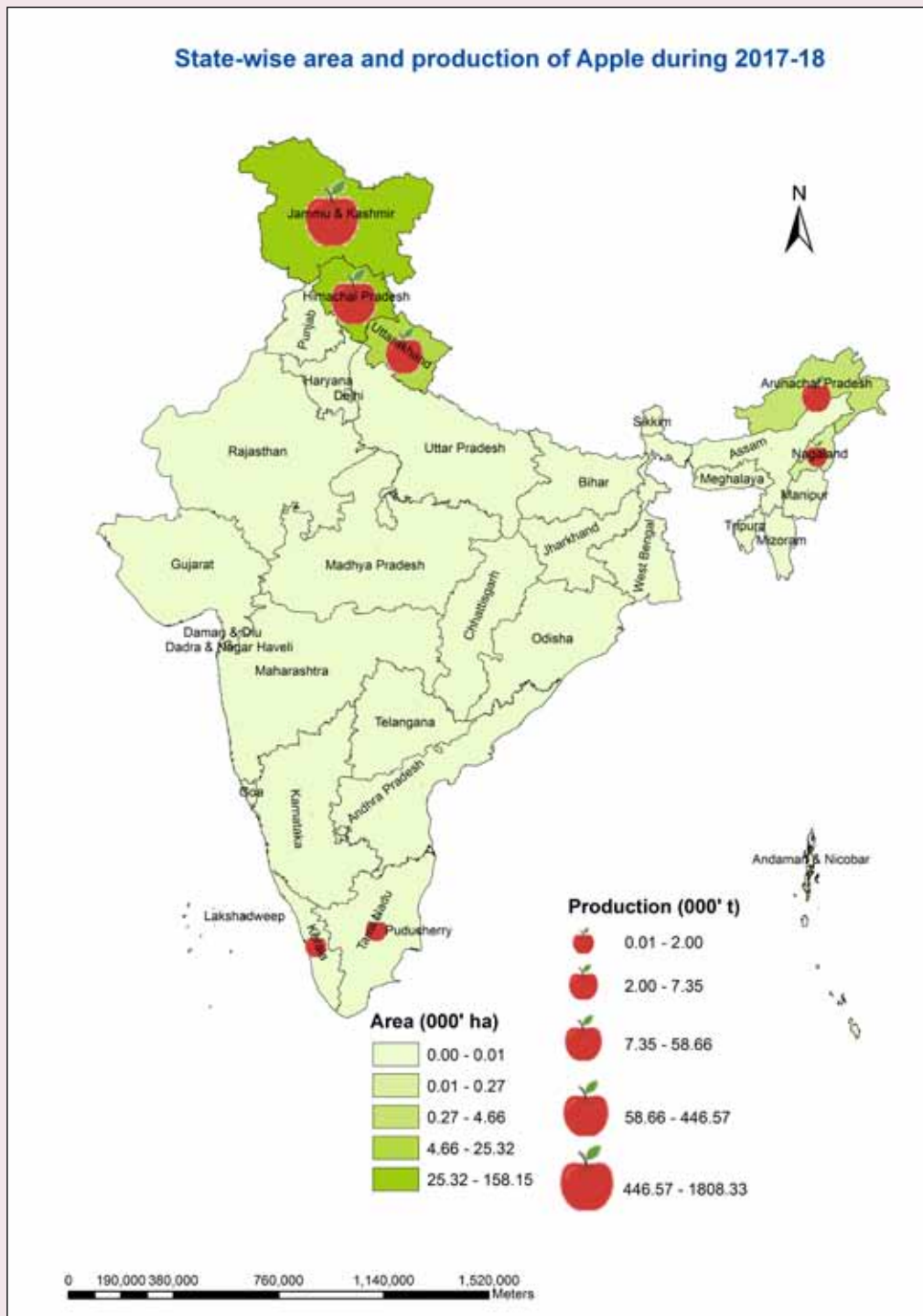
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
<b>Jammu &amp; Kashmir</b>	136.54	1672.72	12.25	162.97	1725.75	12.25	158.15	1808.33	11.43
<b>Himachal Pradesh</b>	110.68	777.13	7.02	111.90	468.13	4.45	112.63	446.57	3.96
<b>Uttarakhand</b>	24.98	61.94	2.48	25.20	62.06	2.70	25.32	58.66	2.32
<b>Arunachal Pradesh</b>	4.68	7.28	1.56	4.55	7.18	1.55	4.66	7.35	1.58
<b>Nagaland</b>	0.27	2.01	7.44	0.27	2.00	7.41	0.27	1.99	7.37
<b>Tamil Nadu</b>	0.00	0.02	N.A.	0.00	0.12	N.A.	0.00	0.01	N.A.
<b>Sikkim</b>	0.00	0.00	N.A.	N.A.	N.A.	0.60	0.01	0.00	N.A.
<b>Telangana</b>	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0.00	0.00	N.A.
<b>Kerala</b>	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	0.00	4.00	N.A.
<b>Total</b>	<b>277.16</b>	<b>2521.09</b>	<b>9.10</b>	<b>304.89</b>	<b>2265.25</b>	<b>8.08</b>	<b>301.04</b>	<b>2326.90</b>	<b>7.73</b>

Note : N.A.: Not available.

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagdefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagdefault/hortstat_glance.pdf))

### State-wise area and production of Apple during 2017-18



**Table 4.9: State-wise area, production and productivity of Papaya**

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
Andhra Pradesh	10.93	987.94	90.40	14.86	1485.50	100.00	18.01	1687.82	93.72
Arunachal Pradesh	0.06	0.19	3.07	0.20	0.80	4.05	0.23	0.73	3.18
Assam	7.22	145.48	20.15	6.92	141.75	20.48	7.21	147.40	20.44
Bihar	1.60	43.60	27.25	1.62	43.88	27.12	1.90	42.72	22.45
Chhattisgarh	13.72	341.93	24.92	14.35	380.17	26.49	14.40	381.42	26.48
Gujarat	20.17	1241.27	61.53	20.88	1289.30	61.75	20.31	1256.51	61.86
Himachal Pradesh	0.23	1.30	5.76	0.22	1.23	5.53	0.23	1.21	5.32
Jharkhand	1.78	106.69	59.80	2.53	109.88	43.43	2.66	116.41	43.73
Karnataka	7.39	507.56	68.64	7.93	531.94	67.08	8.75	593.69	67.84
Kerala	11.94	79.06	6.62	14.53	85.97	5.92	16.15	95.03	5.88
Madhya Pradesh	14.51	464.67	32.02	10.93	495.92	45.38	10.55	421.55	39.96
Maharashtra	10.30	316.83	30.75	11.02	344.12	31.23	10.28	408.30	39.71
Meghalaya	0.83	6.59	7.96	0.93	7.78	8.40	0.85	6.82	8.06
Mizoram	1.24	26.49	21.36	1.25	26.50	21.20	1.25	25.00	20.00
Nagaland	1.35	16.57	12.25	1.44	17.09	11.88	1.41	17.18	12.17
Odisha	3.03	70.18	23.15	3.06	71.32	23.31	3.05	70.29	23.05
Rajasthan	0.72	10.72	14.97	0.74	8.71	11.72	0.51	4.37	8.57
Sikkim	0.79	0.60	0.76	0.86	0.60	0.70	0.76	0.57	0.74
Tamil Nadu	1.86	428.01	229.74	1.90	364.88	192.15	1.53	141.58	92.83
Telangana	4.79	393.40	82.10	1.18	51.65	43.69	1.18	79.27	66.92
Tripura	3.81	37.93	9.95	2.82	28.78	10.20	2.61	26.35	10.08
Uttar Pradesh	1.78	85.47	48.10	1.93	93.06	48.14	2.01	96.83	48.08
West Bengal	11.96	350.77	29.34	12.17	357.65	29.40	12.38	365.95	29.56
Others	0.39	3.80	9.69	0.18	1.54	8.65	0.16	1.84	11.31
<b>Total</b>	<b>132.41</b>	<b>5667.06</b>	<b>42.80</b>	<b>134.44</b>	<b>5940.02</b>	<b>44.18</b>	<b>138.40</b>	<b>5988.83</b>	<b>43.27</b>

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



**Table 4.10: State-wise area and production of vegetables**

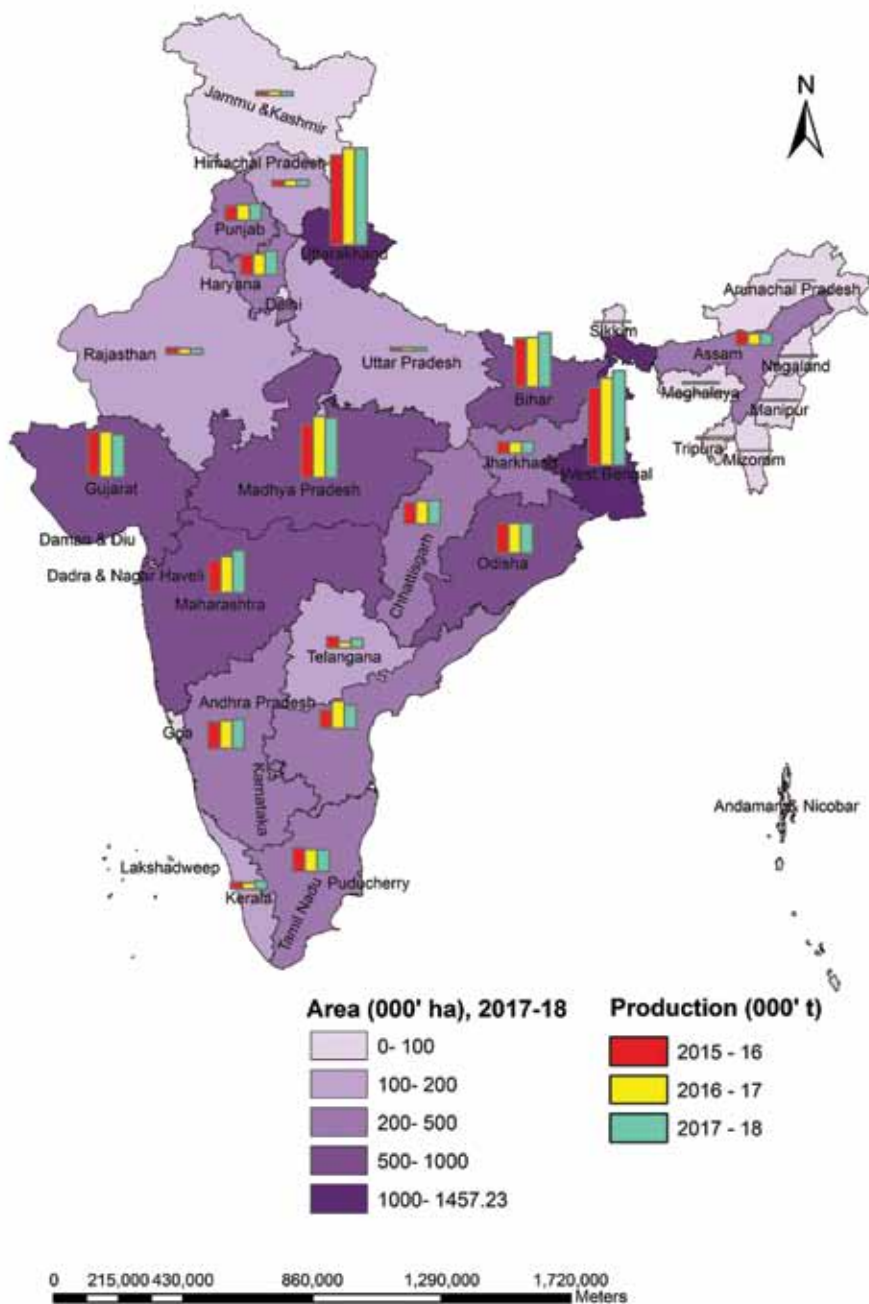
(Area: 000' ha, Production: 000' t)

States/ Union Territories	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	238.40	5442.77	221.43	8026.36	243.04	6908.28
Arunachal Pradesh	4.00	33.01	1.75	14.42	2.58	16.58
Assam	317.59	3821.71	300.75	3329.58	300.17	3292.88
Bihar	837.51	14400.12	841.91	14520.97	824.59	15863.21
Chhattisgarh	475.23	6318.41	489.23	6728.00	499.37	7003.25
Gujarat	695.84	13401.39	643.88	13161.25	613.13	12254.29
Haryana	410.30	6129.36	411.05	6180.43	447.00	7151.66
Himachal Pradesh	88.28	1715.16	93.12	1783.77	89.32	1811.78
Jammu & Kashmir	62.63	1386.37	58.65	1410.42	56.29	1226.02
Jharkhand	264.22	3373.82	293.53	3370.00	289.21	3475.20
Karnataka	460.35	7804.57	488.94	8167.16	483.20	8394.15
Kerala	144.99	2088.66	137.50	1921.45	110.79	2516.47
Madhya Pradesh	757.67	15568.26	920.55	17928.50	889.74	17545.48
Maharashtra	713.38	9452.07	712.68	10520.49	726.20	12306.72
Manipur	34.36	316.51	59.40	369.86	45.30	342.11
Meghalaya	47.50	494.88	49.50	523.42	49.11	519.67
Mizoram	45.21	179.02	37.02	179.88	36.25	171.01
Nagaland	43.53	494.61	47.17	564.62	46.21	561.61
Odisha	652.05	8755.51	639.42	8761.61	639.70	8766.82
Punjab	213.90	4301.63	232.44	4564.91	244.35	4919.71
Rajasthan	190.73	1986.73	166.67	1795.37	163.22	1673.99
Sikkim	20.25	106.94	25.54	190.72	38.42	229.10
Tamil Nadu	271.28	6976.15	239.29	6559.84	240.95	6396.01
Telangana	171.80	3195.44	124.94	1647.03	139.25	2753.80
Tripura	46.48	793.24	46.68	817.94	45.94	795.68
Uttar Pradesh	1379.11	26251.00	1439.70	28192.63	1457.23	28316.45
Uttarakhand	89.84	945.36	91.24	945.29	100.06	989.41
West Bengal	1391.42	22825.45	1386.97	25505.66	1400.26	27695.29
Others	38.44	505.81	37.00	490.83	38.24	497.66
<b>Total</b>	<b>10106.29</b>	<b>169063.93</b>	<b>10237.93</b>	<b>178172.41</b>	<b>10259.12</b>	<b>184394.28</b>

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



### State-wise area and production of vegetables



**Table 4.11: State-wise area, production and productivity of Potato**

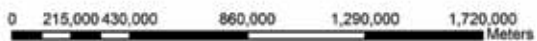
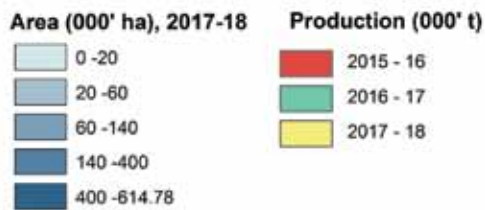
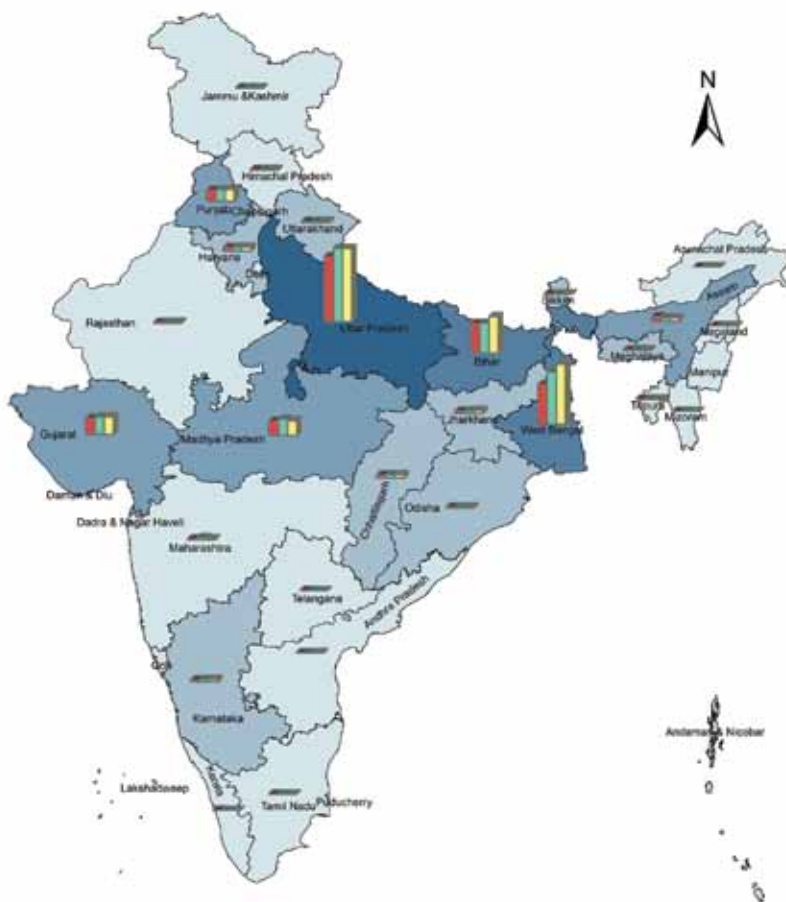
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
Andhra Pradesh	2.61	38.86	14.91	2.85	49.11	17.21	3.93	68.29	17.36
Arunachal Pradesh	0.76	5.65	7.44	N.A	N.A	N.A	0.00	0.00	N.A
Assam	104.83	1037.26	9.89	106.44	777.83	7.31	102.87	720.97	7.01
Bihar	319.13	6345.52	19.88	320.48	6377.71	19.90	304.78	7740.79	25.40
Chhattisgarh	41.95	644.83	15.37	44.08	678.57	15.39	44.87	694.61	15.48
Gujarat	112.40	3549.38	31.58	122.53	3797.82	31.00	133.29	3806.95	28.56
Haryana	34.27	853.81	24.91	34.53	896.95	25.98	34.72	897.58	25.85
Himachal Pradesh	18.02	183.25	10.17	21.08	202.44	9.60	15.88	198.66	12.51
Jammu & Kashmir	6.91	127.24	18.42	5.87	130.84	22.28	5.17	110.24	21.32
Jharkhand	44.93	627.01	13.95	52.73	668.66	12.68	48.21	690.23	14.32
Karnataka	33.15	455.45	13.74	32.36	507.64	15.69	35.53	509.48	14.34
Kerala	1.34	17.92	13.37	0.36	5.30	14.72	0.50	7.50	15.01
Madhya Pradesh	141.05	3161.00	22.41	162.27	3461.09	21.33	136.29	3144.64	23.07
Maharashtra	12.50	251.46	20.12	20.80	536.62	25.79	11.09	259.22	23.38
Meghalaya	18.56	183.82	9.90	18.90	193.68	10.25	18.92	187.95	9.93
Mizoram	0.13	1.44	11.08	0.10	1.00	10.00	0.09	0.93	10.33
Nagaland	4.67	60.94	13.05	4.91	65.59	13.35	4.92	65.02	13.23
Odisha	25.18	278.75	11.07	25.19	302.22	12.00	25.09	298.06	11.88
Punjab	92.36	2385.26	25.83	97.57	2423.00	24.83	98.52	2571.04	26.10
Rajasthan	14.32	229.83	16.05	14.55	234.55	16.12	13.82	278.52	20.15
Sikkim	10.94	53.55	4.89	10.94	53.51	4.89	19.14	89.91	4.70
Tamil Nadu	3.98	72.23	18.14	6.45	92.73	14.38	3.51	67.66	19.30
Telangana	4.29	71.63	16.69	3.23	32.78	10.15	3.35	42.44	12.66
Tripura	7.68	128.51	16.72	7.95	143.58	18.06	7.99	144.53	18.10
Uttarakhand	25.89	358.24	13.84	26.04	360.37	13.84	26.31	362.16	13.76
Uttar Pradesh	607.32	13851.76	22.81	614.35	15543.00	25.30	614.78	15555.53	25.30
West Bengal	427.00	8427.00	19.74	422.00	11052.60	26.19	427.50	12782.50	29.90
Others	0.74	15.45	20.85	0.70	15.40	22.13	0.67	14.61	21.84
<b>Total</b>	<b>2116.93</b>	<b>43417.05</b>	<b>20.51</b>	<b>2179.25</b>	<b>48604.57</b>	<b>22.30</b>	<b>2141.72</b>	<b>51310.01</b>	<b>23.96</b>

Note : N.A.: Not available.

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of Potato



**Table 4.12: State-wise area, production and productivity of Onion**

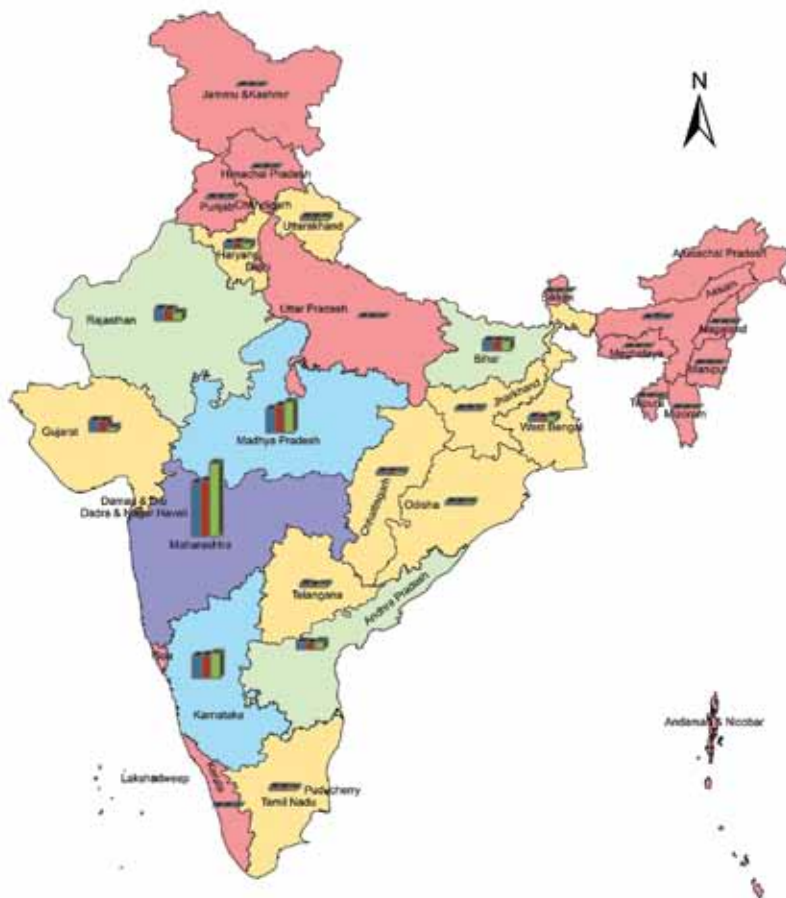
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	45.02	885.42	19.67	41.66	916.43	22.00	42.00	915.73	21.80
Assam	8.47	80.31	9.49	8.27	81.28	9.83	8.34	80.37	9.64
Bihar	54.03	1247.34	23.09	54.06	1248.96	23.10	53.77	1240.59	23.07
Chhattisgarh	23.49	375.99	16.01	25.55	422.05	16.52	25.54	421.21	16.49
Gujarat	53.20	1355.78	25.48	51.61	1290.17	25.00	22.49	546.20	24.29
Haryana	30.65	705.80	23.03	31.01	682.94	22.03	29.93	701.50	23.44
Himachal Pradesh	2.53	47.96	19.00	2.60	50.45	19.38	2.69	52.19	19.43
Jammu & Kashmir	2.85	65.27	22.94	2.90	69.16	23.82	3.10	57.96	18.73
Jharkhand	14.86	254.63	17.13	17.48	292.59	16.74	17.16	289.04	16.84
Karnataka	190.21	2695.99	14.17	217.82	3049.48	14.00	195.28	2986.59	15.29
Kerala	0.14	0.28	2.00	N.A	N.A	N.A	0.03	0.31	10.00
Madhya Pradesh	118.20	2848.00	24.09	150.83	3721.61	24.67	150.87	3701.01	24.53
Maharashtra	522.35	6529.34	12.50	481.05	6734.74	14.00	507.96	8854.09	17.43
Manipur	0.42	5.17	12.18	0.49	6.12	12.47	0.56	6.84	12.25
Meghalaya	0.52	4.60	8.82	0.55	4.94	8.96	0.56	5.06	9.05
Mizoram	2.22	8.43	3.80	2.21	8.44	3.82	2.09	7.93	3.79
Nagaland	0.68	7.14	10.56	0.72	7.29	10.14	0.70	7.20	10.22
Odisha	33.45	378.58	11.32	33.44	378.64	11.32	33.47	379.34	11.33
Punjab	8.50	193.71	22.79	8.85	202.55	22.88	9.36	214.55	22.91
Rajasthan	86.31	1435.11	16.63	62.50	1149.29	18.39	64.76	996.73	15.39
Sikkim	0.32	1.73	5.50	0.36	1.93	5.35	0.62	35.00	56.45
Tamil Nadu	36.73	380.95	10.37	35.58	750.67	21.10	28.36	301.14	10.62
Telangana	20.87	395.96	18.97	15.58	402.37	25.83	17.97	326.59	18.18
Tripura	0.23	1.38	6.11	0.47	3.24	6.95	0.16	1.05	6.46
Uttarakhand	4.07	41.59	10.23	4.12	41.77	10.15	4.30	44.09	10.26
Uttar Pradesh	24.96	422.75	16.94	26.08	426.98	16.37	26.85	439.64	16.37
West Bengal	33.98	544.55	16.03	29.00	465.45	16.05	35.20	633.60	18.00
Others	0.82	17.49	21.38	0.85	17.89	21.17	0.88	16.77	19.15
<b>Total</b>	<b>1320.04</b>	<b>20931.21</b>	<b>15.86</b>	<b>1305.62</b>	<b>22427.42</b>	<b>17.18</b>	<b>1284.99</b>	<b>23262.33</b>	<b>18.10</b>

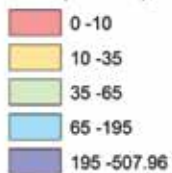
Note : N.A.: Not available.

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of Onion



**Area (000' ha), 2017-18**



**Production (000' t)**



0 215,000 430,000 860,000 1,290,000 1,720,000 Meters

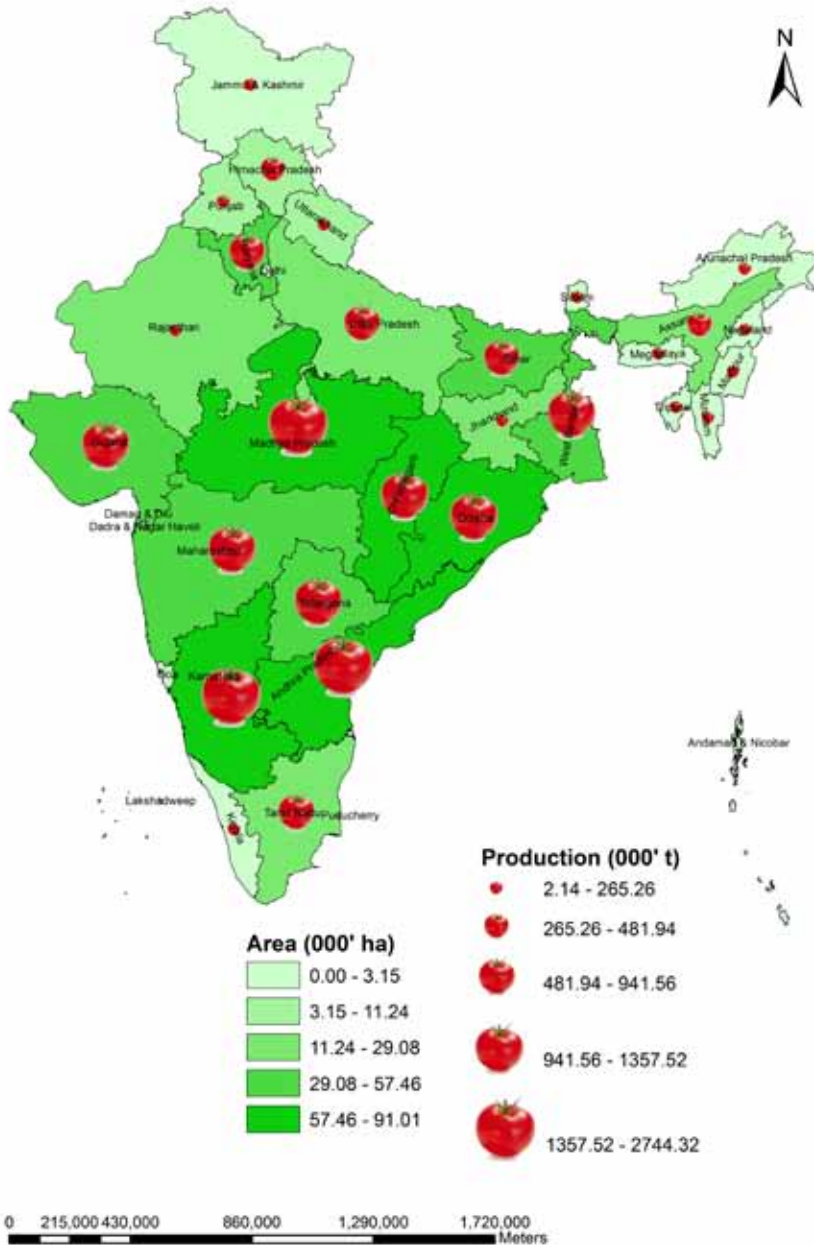
**Table 4.13: State-wise area, production and productivity of Tomato**

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Production	Producti- vity
Andhra Pradesh	59.08	2236.56	37.86	49.79	4481.01	90.00	61.67	2744.32	44.50
Arunachal Pradesh	0.23	3.32	14.11	0.23	2.11	9.10	0.25	2.15	8.64
Assam	17.66	445.02	25.19	18.18	393.60	21.65	18.28	396.24	21.67
Bihar	45.81	1001.01	21.85	46.21	1009.60	21.85	45.01	941.56	20.92
Chhattisgarh	54.81	908.98	16.55	62.33	1082.34	17.36	63.29	1087.33	17.18
Gujarat	46.40	1319.11	28.43	48.76	1411.85	28.96	46.61	1357.52	29.12
Haryana	29.03	675.38	23.27	31.82	643.59	20.23	34.99	753.72	21.54
Himachal Pradesh	11.04	485.54	43.99	11.06	473.28	42.78	11.24	481.94	42.88
Jammu & Kashmir	3.5	88.09	24.63	3.56	92.55	26.03	2.28	52.96	23.27
Jharkhand	18.16	230.19	12.68	19.75	231.46	11.72	20.11	265.26	13.19
Karnataka	60.98	2046.14	33.55	60.45	1916.86	31.71	64.25	2081.59	32.40
Kerala	3.12	58.80	18.85	0.27	3.49	12.96	0.64	12.61	19.80
Madhya Pradesh	73.70	2285.90	31.02	95.40	2719.57	28.51	84.53	2419.28	28.62
Maharashtra	44.24	976.58	22.07	50.71	1124.89	22.18	45.50	1086.56	23.88
Manipur	3.06	31.61	10.32	17.64	65.76	3.73	3.15	33.72	10.72
Meghalaya	2.15	34.02	15.85	2.16	34.50	16.00	2.20	35.51	16.15
Mizoram	1.09	10.20	9.36	1.29	12.85	9.96	1.47	11.87	8.06
Nagaland	2.87	20.10	7.01	3.10	22.16	7.15	3.12	22.47	7.20
Odisha	90.91	1290.99	14.20	90.99	1311.21	14.41	91.01	1312.07	14.42
Punjab	7.69	191.18	24.86	8.07	200.38	24.84	9.01	224.26	24.90
Rajasthan	20.51	83.29	4.06	20.37	90.52	4.44	18.12	88.73	4.90
Sikkim	0.55	4.25	7.72	0.53	4.08	7.73	0.98	8.03	8.19
Tamil Nadu	29.80	645.70	21.67	26.34	629.16	23.88	29.08	887.08	30.51
Telangana	57.97	1475.00	25.45	37.97	520.47	13.71	41.48	1171.50	28.24
Tripura	1.81	53.81	29.73	1.83	57.33	31.28	1.82	56.50	31.08
Uttar Pradesh	20.75	819.37	39.49	20.99	831.51	39.62	21.24	841.61	39.62
Uttarakhand	8.55	93.22	10.90	8.63	94.01	10.90	9.20	103.85	11.29
West Bengal	57.17	1204.43	21.07	57.35	1233.03	21.50	57.46	1265.25	22.02
Others	1.08	14.20	13.10	1.10	15.28	13.87	1.19	13.84	11.61
<b>Total</b>	<b>773.88</b>	<b>18731.97</b>	<b>24.21</b>	<b>796.86</b>	<b>20708.43</b>	<b>25.99</b>	<b>789.15</b>	<b>19759.32</b>	<b>25.04</b>

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of Tomato during 2017-18



**Table 4.14: State-wise area and production of flowers (loose)**

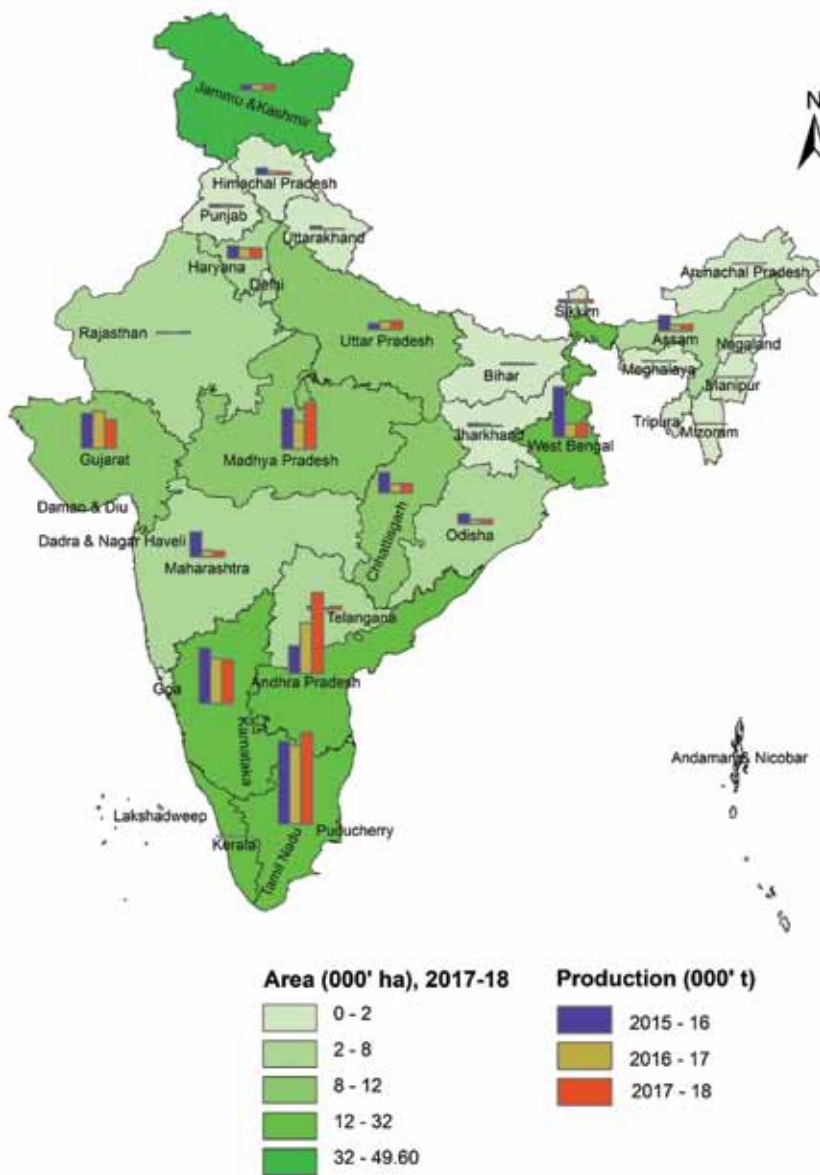
(Area: 000' ha, Production: 000' t)

States/ Union Territories	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	18.25	147.28	19.03	269.53	25.70	429.00
Arunachal Pradesh	0.02	0.08	0.02	0.01	0.00	0.00
Assam	5.05	80.27	5.03	33.76	5.10	33.90
Bihar	0.66	7.88	0.66	7.96	0.50	5.50
Chhattisgarh	11.43	106.17	11.92	48.38	13.20	47.50
Gujarat	19.50	184.16	20.64	195.98	20.40	152.20
Haryana	6.02	68.42	5.51	56.23	5.50	56.70
Himachal Pradesh	0.72	33.84	0.71	17.95	0.60	12.30
Jammu & Kashmir	49.09	29.80	49.58	29.70	49.60	29.70
Jharkhand	0.32	16.40	1.05	13.33	0.80	4.50
Karnataka	31.68	294.65	52.37	238.73	31.40	231.00
Kerala	12.88	0.61	16.05	0.03	38.20	0.10
Madhya Pradesh	18.42	216.00	17.67	146.76	19.80	245.50
Maharashtra	12.00	131.62	6.78	35.78	5.50	29.10
Manipur	0.17	0.21	0.08	0.05	0.20	0.50
Meghalaya	0.06	2.13	0.01	0.00	0.00	0.00
Mizoram	0.13	0.56	0.20	0.46	0.20	0.00
Nagaland	0.07	1.48	0.05	0.02	0.10	0.00
Odisha	6.56	54.20	6.57	24.82	6.60	24.90
Punjab	2.00	12.46	2.05	12.82	2.10	10.70
Rajasthan	3.33	5.85	2.71	4.03	3.50	7.10
Sikkim	0.24	16.59	0.24	16.50	0.20	16.50
Tamil Nadu	30.59	437.74	32.37	416.56	34.20	482.50
Telangana	3.71	17.35	2.95	10.06	3.70	17.90
Uttar Pradesh	17.20	34.31	21.00	45.97	21.20	46.40
Uttarakhand	1.54	15.27	1.40	2.07	1.50	2.50
West Bengal	25.63	266.73	26.04	71.27	26.80	74.90
Others	0.34	1.83	3.59	0.68	7.30	1.20
<b>Total</b>	<b>277.57</b>	<b>2183.91</b>	<b>306.28</b>	<b>1699.42</b>	<b>324.00</b>	<b>1962.00</b>

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



### State-wise area and production of flowers (loose)



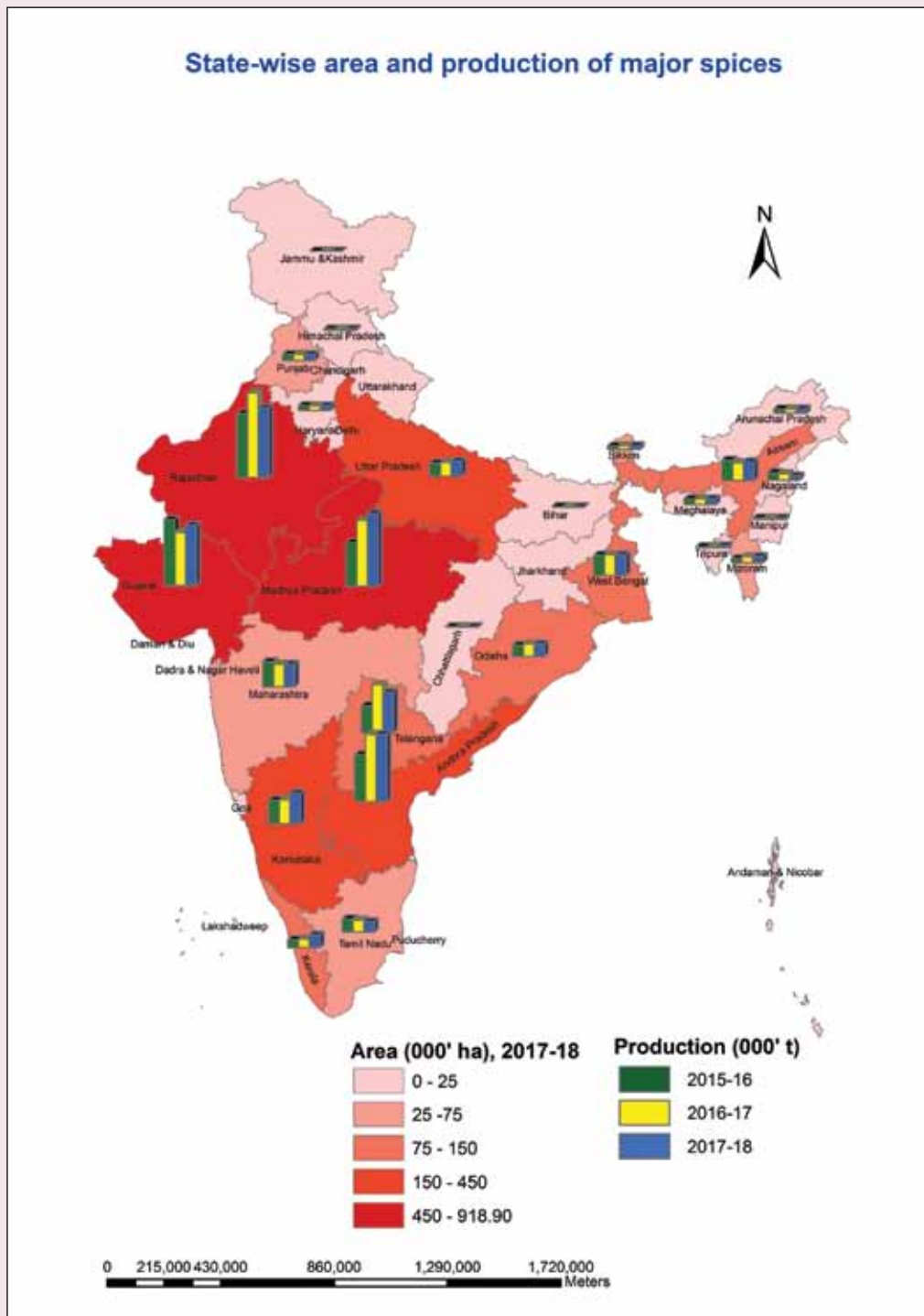
0 215,000 430,000 860,000 1,290,000 1,720,000 Meters

**Table 4.15: State-wise area and production of major spices in India**(Area: 000<sup>7</sup> ha, Production: 000<sup>7</sup> t)

States/ Union Territories	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	212.74	766.16	264.44	1099.76	246.40	1099.80
Arunachal Pradesh	11.44	68.72	11.44	68.72	11.40	68.70
Assam	100.53	333.69	119.99	291.30	101.60	302.00
Bihar	13.01	12.54	8.88	10.57	8.30	10.50
Chhattisgarh	11.75	11.85	11.85	11.79	11.40	9.00
Gujarat	508.74	1077.57	502.30	868.07	567.00	980.40
Haryana	16.13	82.82	17.05	77.80	17.10	77.80
Himachal Pradesh	7.90	24.93	7.71	22.78	8.60	24.90
Jammu & Kashmir	4.92	0.96	4.92	0.96	5.10	1.00
Karnataka	215.96	387.62	225.41	399.44	245.50	499.70
Kerala	166.82	128.40	168.99	142.01	167.70	204.70
Madhya Pradesh	366.04	710.90	524.59	1077.89	540.80	1191.80
Maharashtra	128.70	416.20	41.81	371.72	34.40	370.70
Manipur	10.47	24.14	10.47	23.14	10.50	23.10
Meghalaya	18.37	90.26	18.61	92.16	18.70	92.00
Mizoram	24.57	68.89	24.81	97.20	27.70	100.90
Nagaland	15.00	119.25	15.69	105.00	9.90	64.80
Odisha	123.32	181.50	146.64	201.96	146.60	202.00
Punjab	31.33	98.88	31.33	98.88	31.30	98.90
Rajasthan	1014.55	1056.17	1004.39	1391.80	918.90	1144.40
Sikkim	29.46	64.78	32.25	66.58	32.30	66.60
Tamil Nadu	113.11	212.51	108.14	195.32	57.00	171.00
Telangana	128.89	443.41	184.18	786.95	130.30	663.00
Tripura	5.69	18.04	5.69	18.04	6.60	32.40
Uttar Pradesh	58.59	217.67	60.57	227.36	386.90	248.70
Uttarakhand	14.55	36.89	14.58	36.59	14.60	36.60
West Bengal	118.25	329.90	119.64	334.42	119.60	334.40
Others	2.72	3.82	2.75	3.85	2.00	4.10
<b>Total</b>	<b>3473.53</b>	<b>6988.47</b>	<b>3671.09</b>	<b>8122.06</b>	<b>3877.90</b>	<b>8123.90</b>

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of major spices



**Table 4.16: State-wise area, production and productivity of plantation crops**

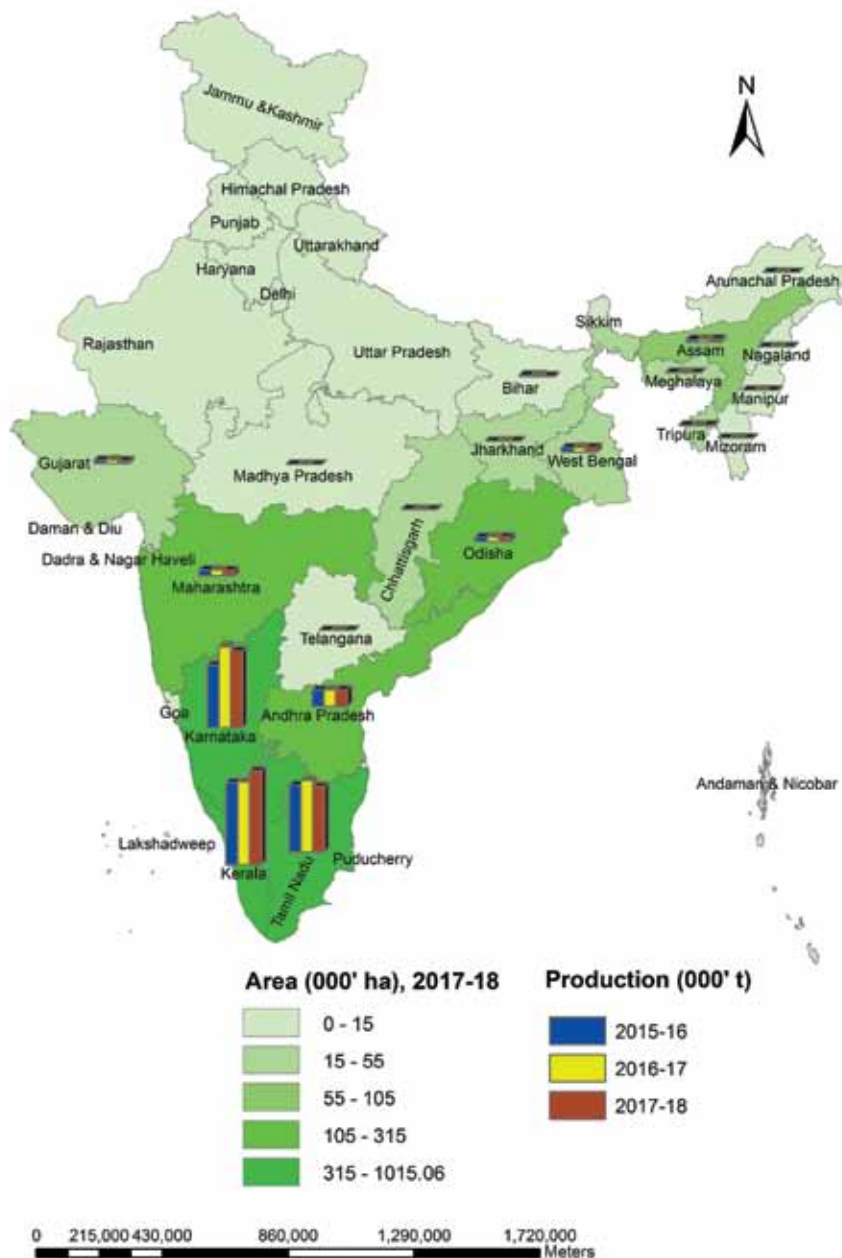
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2015-16			2016-17			2017-18		
	Area	Production	Producti- vity	Area	Production	Producti- vity	Area	Producti- on	Producti- vity
Andhra Pradesh	314.19	1086.72	3.46	325.50	1071.48	3.29	315.61	1090.74	3.46
Arunachal Pradesh	1.09	8.33	7.63	0.07	0.10	1.41	0.06	0.14	2.30
Assam	98.40	167.03	1.70	91.33	177.72	1.95	101.78	195.04	1.92
Bihar	14.90	97.30	6.53	14.90	97.30	6.53	11.35	52.88	4.66
Chhattisgarh	15.55	29.02	1.87	15.18	15.38	1.01	15.24	17.36	1.14
Gujarat	30.03	221.70	7.38	31.66	238.67	7.54	32.19	172.82	5.37
Jharkhand	14.83	5.00	0.34	14.83	5.83	0.39	14.83	6.13	0.41
Karnataka	901.57	4041.32	4.48	883.24	5194.39	5.88	915.78	4936.08	5.39
Kerala	973.07	5293.84	5.44	973.51	5350.29	5.50	1015.06	6054.79	5.96
Madhya Pradesh	0.00	0.00	N.A	2.29	3.52	1.54	0.00	0.00	N.A
Maharashtra	216.30	410.15	1.90	207.10	393.75	1.90	220.73	361.07	1.64
Manipur	0.90	0.32	0.36	0.90	0.32	0.36	0.90	0.32	0.36
Meghalaya	25.37	31.20	1.23	25.52	32.96	1.29	25.51	31.11	1.22
Mizoram	10.77	7.38	0.69	11.90	7.38	0.62	11.89	7.37	0.62
Nagaland	1.22	4.68	3.84	1.36	4.68	3.43	2.07	9.35	4.52
Odisha	233.82	306.50	1.31	234.23	329.54	1.41	244.90	334.25	1.36
Tamil Nadu	635.97	4316.41	6.79	638.62	4610.53	7.22	619.74	4234.92	6.83
Telangana	0.48	0.01	0.02	0.50	1.44	2.90	0.49	8.05	16.60
Tripura	16.15	33.23	2.06	13.56	35.60	2.63	14.81	45.88	3.10
West Bengal	52.39	291.77	5.57	52.54	294.13	5.60	53.16	296.26	5.57
Others	122.66	306.37	2.50	59.28	107.03	1.81	127.83	227.86	1.78
<b>Total</b>	<b>3679.67</b>	<b>16658.29</b>	<b>4.53</b>	<b>3598.00</b>	<b>17972.03</b>	<b>4.99</b>	<b>3743.91</b>	<b>18082.41</b>	<b>4.83</b>

Note : N.A.: Not available.

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of plantation crops



**Table 4.17: State-wise area and production of aromatics & medicinal plants**

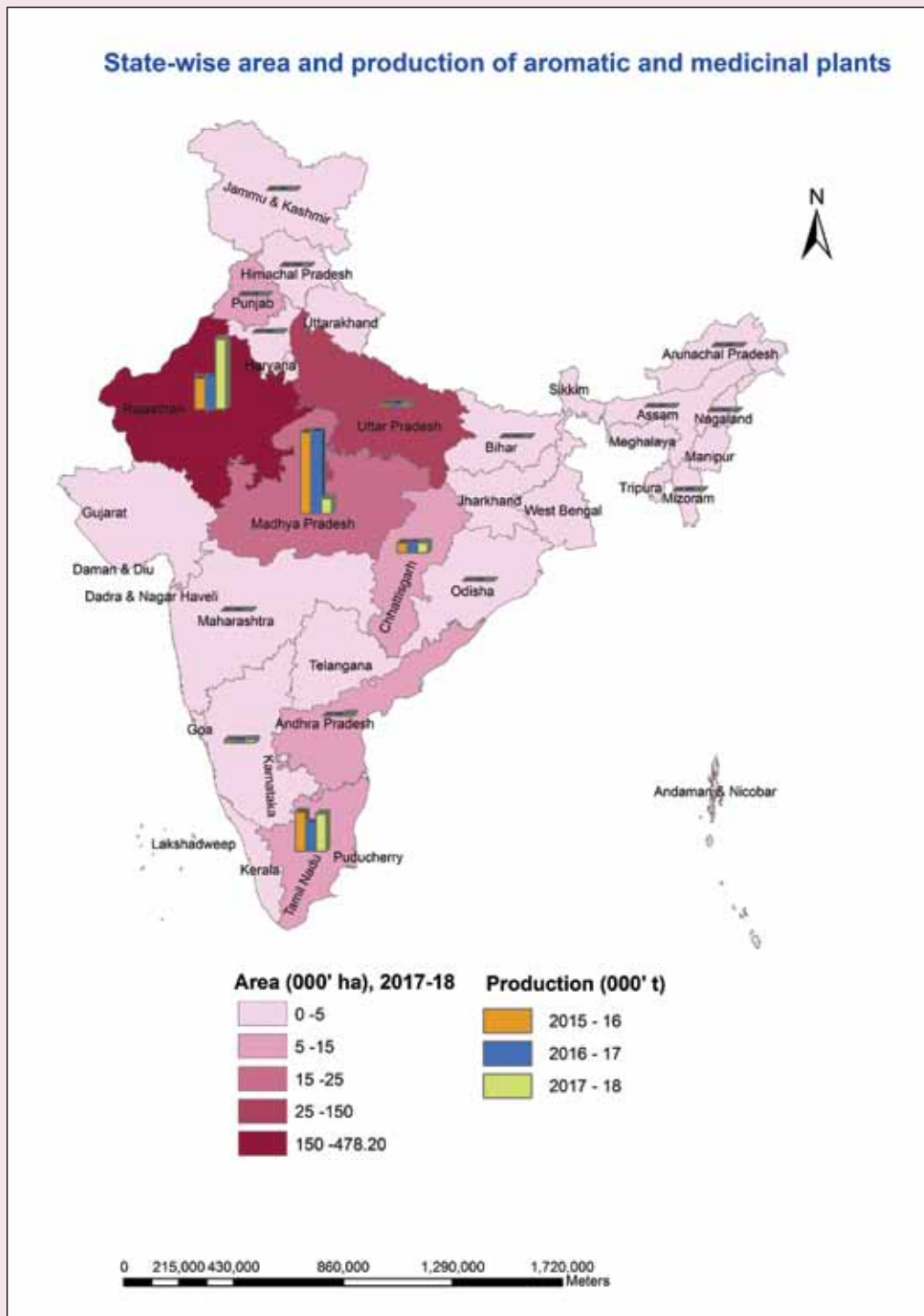
(Area: 000' ha, Production: 000' t)

States/ Union Territories	2015-16		2016-17		2017-18	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	1.18	0.83	2.47	1.18	6.60	9.90
Arunachal Pradesh	0.46	0.99	0.46	0.99	0.20	0.20
Assam	4.40	0.17	4.43	0.17	4.40	0.20
Bihar	4.40	0.60	4.50	0.60	4.10	1.20
Chhattisgarh	8.53	59.97	8.54	60.39	8.70	61.30
Haryana	0.29	1.06	0.02	0.33	0.50	3.20
Himachal Pradesh	1.11	0.90	1.12	0.91	1.10	0.90
Jammu & Kashmir	3.79	0.01	3.83	0.01	3.80	0.00
Karnataka	2.24	16.35	2.38	16.56	2.20	20.10
Kerala	0.01	0.00	0.01	0.00	0.00	0.00
Madhya Pradesh	72.18	497.10	72.90	502.07	45.30	91.60
Maharashtra	0.80	0.02	0.03	0.04	0.20	0.10
Manipur	N.A	N.A	N.A	N.A	0.20	0.40
Mizoram	1.75	0.69	0.93	0.90	0.80	0.80
Nagaland	0.11	0.47	0.11	0.49	0.10	0.50
Odisha	1.90	0.60	1.92	0.61	1.90	0.60
Punjab	12.46	2.36	12.52	2.43	13.00	2.60
Rajasthan	369.61	186.78	401.02	195.20	478.20	426.40
Tamil Nadu	15.01	240.11	11.92	175.15	13.70	229.10
Telangana	N.A	N.A	0.02	0.10	0.00	1.80
Uttar Pradesh	133.70	13.40	135.04	13.53	135.00	13.50
<b>Total</b>	<b>633.94</b>	<b>1022.50</b>	<b>664.16</b>	<b>971.65</b>	<b>720.30</b>	<b>866.40</b>

Note : N.A.: Not available.

Source : Horticultural Statistics at a Glance 2018, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

### State-wise area and production of aromatic and medicinal plants



**Table 4.18: Percent share of production of major horticulture crops**

Crops	Percent share of production				
	2013-14	2014-15	2015-16	2016-17	2017-18
<b>Fruits</b>	32.1	30.8	31.5	30.9	31.2
<b>Vegetables</b>	58.7	60.3	59.1	59.3	59.2
<b>Flowers &amp; Aromatics</b>	1.0	1.1	1.1	1.1	1.2
<b>Plantation crops</b>	5.9	5.5	5.8	6.0	5.8
<b>Spices</b>	2.1	2.2	2.4	2.7	2.6
<b>Total (Horticulture)</b>	100.0	100.0	100.0	100.0	100.0

Source : *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))

**Table 4.19: Percent share of major horticulture crops' export**

Produce / Products	Percent share of export					
	2012-13		2013-14		2014-15*	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Floriculture</b>	1.08	8.56	0.89	6.17	1.07	7.67
<b>Fresh Onions</b>	66.13	39.77	58.89	42.87	57.71	38.27
<b>Walnuts</b>	0.21	4.04	0.27	4.39	0.12	2.27
<b>Fresh Mango</b>	2.21	5.35	1.64	3.86	2.00	5.03
<b>Grapes</b>	6.85	25.47	7.65	22.54	5.00	18.08
<b>Fresh Apple</b>	0.94	1.04	1.43	1.17	0.95	0.88
<b>Fresh Banana</b>	0.00	0.00	1.38	2.08	2.95	4.03
<b>Oranges (Fresh/Dried)</b>	1.33	0.71	1.12	0.75	0.80	0.53
<b>Guavas (Fresh/Dried)</b>	0.05	0.07	0.04	0.06	0.04	0.06
<b>Litchi</b>	0.03	0.02	0.00	0.00	0.04	0.04
<b>Papaya (Fresh/Dried)</b>	0.65	0.67	0.39	0.47	0.54	0.64
<b>Pineapples (Fresh/Dried)</b>	0.11	0.17	0.14	0.20	0.17	0.28
<b>Fresh Sapota</b>	0.10	0.12	0.06	0.10	0.06	0.14
<b>Cabbage Lettuce (Fresh/Chilled)</b>	0.02	0.01	0.02	0.01	0.01	0.01
<b>Cauliflowers and Headed Broccoli (Fresh/Chilled)</b>	0.01	0.01	0.00	0.00	0.00	0.00
<b>Peas</b>	0.12	0.15	0.34	0.27	0.90	0.77
<b>Tomatoes (Fresh/Chilled)</b>	13.64	10.78	16.94	11.64	10.16	7.40
<b>Potato (Other than seeds)</b>	6.47	3.01	8.78	3.40	17.43	13.89
<b>Sweet Potato</b>	0.03	0.02	0.02	0.01	0.02	0.02
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Note : \*: 2<sup>nd</sup> Advance Estimate.

Source : *Horticultural Statistics at a Glance 2016*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))



**Table 4.20: Production of Horticulture vis-à-vis Foodgrains**

Year	Production (In Million Tonnes)	
	Total Horticulture	Total Food grains
2001-02	145.8	212.9
2002-03	144.4	174.8
2003-04	153.3	213.2
2004-05	166.9	198.4
2005-06	182.8	208.6
2006-07	191.8	217.3
2007-08	211.2	230.8
2008-09	214.7	234.5
2009-10	223.1	218.1
2010-11	240.5	244.5
2011-12	257.3	259.3
2012-13	268.8	257.1
2013-14	277.4	265.6
2014-15	281.0	252.0
2015-16	286.2	251.6
2016-17	300.6	275.1
2017-18	311.7	284.8

**Source :** *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: [agricoop.nic.in/imagedefault/hortstat\\_glance.pdf](http://agricoop.nic.in/imagedefault/hortstat_glance.pdf))





भाग-V  
उत्पादन एवं उत्पादकता

SECTION-V  
Production and Productivity



Table 5.1: Production and productivity in Indian agriculture during past 60 years

Crops	(Area: million ha, Production & Consumption: million t, Yield: kg/ha)															
	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18*		
All foodgrains	Area	115.58	124.32	126.67	127.84	121.05	126.67	124.75	120.78	123.04	124.30	123.22	129.23	127.56		
	Production	50.82	82.02	108.42	129.59	176.39	196.81	244.49	259.29	257.13	265.05	252.03	251.54	275.11	284.83	
Rice	Yield	522	710	872	1023	1380	1930	2078	2129	2120	2028	2041	2129	2233		
	Production	20.58	34.58	42.22	53.63	74.29	84.98	95.98	105.23	106.65	105.48	104.41	109.70	112.91		
Wheat	Yield	668	1013	1123	1336	1740	2239	2393	2461	2416	2391	2400	2494	2578		
	Production	6.46	11.00	23.83	36.31	55.14	69.68	86.87	93.51	95.85	86.53	92.29	98.51	99.70		
Coarse cereals	Yield	663	851	1307	1630	2281	2988	3177	3117	3145	2750	3034	3200	3371		
	Production	15.38	23.74	30.55	29.02	32.70	31.08	43.40	40.04	43.29	42.86	38.52	43.77	46.99		
Sugarcane	Yield	408	528	665	695	900	1027	1531	1617	1717	1703	1579	1750	1941		
	Production	57.05	110.00	126.37	154.25	241.05	295.96	342.38	341.20	352.14	362.33	348.45	306.07	376.90		
Pulses	Yield	33422	45549	48322	57844	65395	68577	70091	68254	70522	71512	70720	69001	79650		
	Production	8.41	12.70	11.82	10.63	14.26	11.08	18.24	17.09	18.34	17.15	16.32	23.13	25.23		
Oilseeds	Yield	441	539	524	473	578	544	691	789	764	728	655	786	841		
	Production	5.16	6.98	9.63	9.37	18.61	18.44	32.48	29.80	30.94	27.51	25.25	31.28	31.31		
Milk	Yield	481	507	579	532	771	810	1193	1133	1168	1075	968	1195	1270		
	Production	17.00	20.00	22.00	31.60	53.90	80.60	121.80	127.90	132.40	146.30	155.50	163.7	176.30		
Fish	Production	0.75	1.16	1.76	2.44	3.84	5.66	8.42	9.04	9.58	10.26	10.76	11.42	12.61 <sup>#</sup>		
Gross cropped area	Production	131.89	152.77	165.79	172.63	185.74	185.34	197.68 <sup>#</sup>	195.80 <sup>#</sup>	200.95 <sup>#</sup>	198.36 <sup>#</sup>	N.A.	N.A.	N.A.		
Gross irrigated area	Production	22.56	27.98	38.20	49.78	63.20	76.19	88.94 <sup>#</sup>	91.79 <sup>#</sup>	92.25 <sup>#</sup>	94.46 <sup>#</sup>	N.A.	N.A.	N.A.		
Fertiliser consumption	Production	0.07	0.29	2.18	5.52	12.55	16.70	28.12	27.79	24.48	25.58	26.75	25.95	26.59		

Note : 1. N.A.: Not available, 2. #: Provisional, 3. \*: 4<sup>th</sup> Advance estimates.

Source : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.daonet.nic.in>)

2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.daonet.nic.in>)

**Table 5.2: Season-wise normal estimates of area, production and yield of major crops**

(Area: million ha, Production: million t, Yield: kg/ha)

Crop	Area			Production			Yield		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
<b>Foodgrains</b>									
Rice	39.63	4.28	43.90	93.55	14.25	107.80	2361	3332	2455
Wheat	N.A.	30.56	30.56	N.A.	94.61	94.61	N.A.	3096	3096
Jowar	2.16	3.58	5.74	2.15	2.77	4.92	995	775	858
Bajra	7.44	N.A.	7.44	9.09	N.A.	9.09	1222	N.A.	1222
Ragi	1.15	N.A.	1.15	1.85	N.A.	1.85	1606	N.A.	1606
Maize	7.47	1.75	9.21	17.85	7.28	25.13	2391	4164	2727
Coarse Cereals	18.83	5.98	24.81	31.35	11.73	43.08	1665	1961	1736
<b>Total Cereals</b>	<b>58.46</b>	<b>40.82</b>	<b>99.28</b>	<b>124.90</b>	<b>120.59</b>	<b>245.49</b>	<b>2137</b>	<b>2954</b>	<b>2473</b>
Tur or Arhar	4.30	N.A.	4.30	3.54	N.A.	3.54	824	N.A.	824
Gram	N.A.	9.35	9.35	N.A.	8.93	8.93	N.A.	955	955
<b>Total Pulses</b>	<b>11.99</b>	<b>14.60</b>	<b>26.59</b>	<b>7.23</b>	<b>13.03</b>	<b>20.26</b>	<b>603</b>	<b>892</b>	<b>762</b>
<b>Total Foodgrains</b>	<b>70.45</b>	<b>55.42</b>	<b>125.86</b>	<b>132.13</b>	<b>133.62</b>	<b>265.75</b>	<b>1876</b>	<b>2411</b>	<b>2111</b>
<b>Oilseeds</b>									
Groundnut	4.24	0.78	5.02	6.60	1.51	8.11	1555	1950	1616
Rapeseed & Mustard	N.A.	6.05	6.05	N.A.	7.46	7.46	N.A.	1234	1234
Soybean	11.15	N.A.	11.15	10.98	N.A.	10.98	985	N.A.	985
Sunflower	0.19	0.29	0.48	0.12	0.22	0.34	618	766	708
Castor seed	0.97	N.A.	0.97	1.66	N.A.	1.66	1711	N.A.	1711
<b>Total Nine Oilseeds</b>	<b>18.53</b>	<b>7.56</b>	<b>26.08</b>	<b>20.22</b>	<b>9.43</b>	<b>29.65</b>	<b>1091</b>	<b>1249</b>	<b>1137</b>
<b>Others Cash Crops</b>									
Sugarcane	4.83	N.A.	4.83	349.78	N.A.	349.78	72388	N.A.	72388
Cotton@	12.10	N.A.	12.10	33.22	N.A.	33.22	467	N.A.	467
Jute & Mesta <sup>§</sup>	0.79	N.A.	0.79	10.87	N.A.	10.87	2486	N.A.	2486

**Note** : 1. @: Production in million bales of 170 kg each, 2. \$: Production in million bales of 180 kg each, 3. N.A.: Not available, 4. Normal estimates = Average of estimates from 2013-14 to 2017-18.

**Source** : Normal Estimates of Area, Production and Yield of Selected Principal Crop 2019, Agricultural Statistics Division, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dae.net.in>)

Table 5.3: Targets and achievements of production of major crops

Crop	XI <sup>th</sup> Plan		2013-14		2014-2015		2015-16		2016-17		2017-18*	
	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements
<b>Rice</b>	494.50	486.24	105.00	106.65	106.00	105.48	106.10	104.41	108.50	109.70	108.50	112.91
<b>Wheat</b>	399.00	421.80	92.50	95.85	94.00	86.53	94.75	92.29	96.50	98.51	97.50	99.70
<b>Coarse Cereals</b>	208.60	200.03	42.50	43.29	41.50	42.86	43.20	38.52	44.35	43.17	45.65	46.99
<b>Pulses</b>	81.00	79.32	19.00	19.25	19.50	17.15	20.05	16.35	20.75	23.13	22.90	25.33
<b>Foodgrains</b>	1183.10	1187.43	259.00	265.04	261.00	252.02	264.10	251.57	270.10	275.11	274.55	284.83
<b>Oilseeds</b>	160.15	144.85	31.00	32.75	33.00	27.51	33.00	25.25	35.00	31.28	35.50	31.31
<b>Sugarcane</b>	1655.00	1628.94	340.00	352.14	345.00	362.33	355.00	348.45	355.00	306.07	355.00	376.90
<b>Cotton<sup>#</sup></b>	134.00	140.38	35.00	35.90	35.00	34.80	35.15	30.01	36.00	32.58	35.50	34.89
<b>Jute &amp; Mesta<sup>@</sup></b>	57.00	55.42	12.00	11.69	11.20	11.13	11.70	10.52	11.70	10.96	11.70	10.14

Note : 1. \*: 4<sup>th</sup> Advance estimates, 2. #: Million Bales of 170 kg each, 3. @: Million Bales of 180 kg each.

Source : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.daonet.nic.in>)

2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.daonet.nic.in>)

**Table 5.4: All India estimates of yield of major crops**

Crop	(g/ha)												
	1950-51	1990-91	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18*		
Rice	6.68	17.40	19.01	22.39	23.93	24.61	24.16	23.91	24.00	24.94	25.78		
Wheat	6.63	22.81	27.08	29.88	31.77	31.17	31.45	27.50	30.34	32.00	33.71		
Jowar	3.53	8.14	7.64	9.49	9.57	8.50	9.57	8.84	6.97	8.12	9.98		
Bajra	2.88	6.58	6.88	10.79	11.71	11.98	11.84	12.55	11.32	13.05	12.37		
Maize	5.47	15.18	18.22	25.40	24.78	25.66	26.76	26.32	25.63	26.89	30.32		
Coarse Cereals	4.08	9.00	10.27	15.31	15.90	16.17	17.17	17.03	15.79	17.50	19.41		
Gram	4.82	7.12	7.44	8.95	9.28	10.36	9.60	8.89	8.40	9.74	10.63		
Tur or Arhar	7.88	6.73	6.18	6.55	6.62	7.76	8.13	7.29	6.46	9.13	9.60		
<b>Total Pulses</b>	<b>4.41</b>	<b>5.78</b>	<b>5.44</b>	<b>6.91</b>	<b>6.99</b>	<b>7.89</b>	<b>7.64</b>	<b>7.28</b>	<b>6.56</b>	<b>7.86</b>	<b>8.41</b>		
<b>Total Foodgrains</b>	<b>5.22</b>	<b>13.80</b>	<b>16.26</b>	<b>19.30</b>	<b>20.78</b>	<b>21.29</b>	<b>21.20</b>	<b>20.28</b>	<b>20.42</b>	<b>21.29</b>	<b>22.33</b>		
Sugarcane	334.22	653.95	685.78	700.91	703.17	682.54	705.22	715.12	707.95	690.01	796.50		
Groundnut	7.75	9.04	9.77	14.11	13.05	9.95	17.64	15.52	14.65	13.98	18.68		
Rapeseed & Mustard	3.68	9.04	9.36	11.85	11.45	12.62	11.85	10.83	11.83	13.04	13.97		
Soybean	4.26	10.15	8.23	13.27	12.07	13.53	10.12	9.51	7.38	11.77	10.49		
Sunflower	6.53	5.35	6.05	7.01	6.92	6.55	7.50	7.36	6.08	6.60	7.38		
<b>Total oilseeds</b>	<b>4.81</b>	<b>7.71</b>	<b>8.10</b>	<b>11.93</b>	<b>11.35</b>	<b>11.68</b>	<b>11.68</b>	<b>10.75</b>	<b>9.68</b>	<b>11.95</b>	<b>12.70</b>		
Cotton	0.88	2.25	1.90	4.99	4.91	4.86	5.10	4.62	4.15	5.12	4.77		
Tobacco	7.31	13.53	13.18	16.87	16.13	15.42	16.12	18.42	17.81	20.16	N.A.		

**Note** : 1. N.A.: Not available, 2. \*, 4<sup>th</sup> Advance Estimate.

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

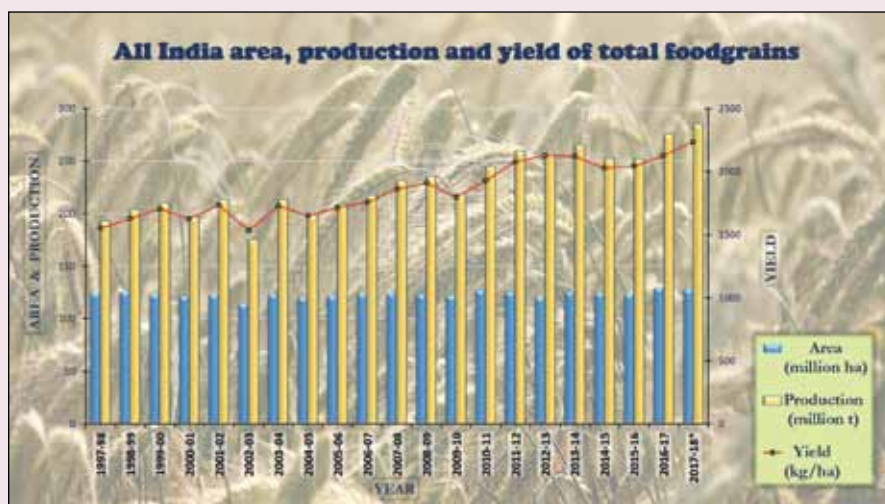


**Table 5.5: All India area, production and yield of total foodgrains**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	124.07	0.4	192.26	-3.6	1552	-3.8	40.8
1998-99	125.17	0.9	203.61	5.9	1627	4.8	42.4
1999-00	123.10	-1.7	209.80	3.0	1704	4.7	43.9
2000-01	121.05	-1.7	196.81	-6.2	1626	-4.6	43.4
2001-02	122.78	1.4	212.85	8.2	1734	6.6	43.0
2002-03	113.86	-7.3	174.77	-17.9	1535	-11.5	42.8
2003-04	123.45	8.4	213.19	22.0	1727	12.5	42.2
2004-05	120.08	-2.7	198.36	-7.0	1652	-4.3	44.2
2005-06	121.60	1.3	208.60	5.2	1715	3.8	45.5
2006-07	123.71	1.7	217.28	4.2	1756	2.4	46.3
2007-08	124.07	0.3	230.78	6.2	1860	5.9	46.8
2008-09	122.83	-1.0	234.47	1.6	1909	2.6	48.3
2009-10	121.33	-1.2	218.11	-7.0	1798	-5.8	47.8
2010-11	126.67	4.4	244.49	12.1	1930	7.3	47.8
2011-12	124.75	-1.5	259.29	6.1	2078	7.7	49.8
2012-13	120.78	-3.2	257.13	-0.8	2129	2.5	51.2
2013-14	125.04	3.5	265.04	3.1	2120	-0.4	51.9
2014-15	124.30	-0.6	252.02	-4.9	2028	-4.3	53.1
2015-16	123.22	-0.9	251.57	-0.2	2042	0.7	N.A.
2016-17	129.23	4.9	275.11	9.4	2129	4.3	N.A.
2017-18*	127.56	-1.3	284.83	3.5	2233	4.9	N.A.
2018-19 <sup>s</sup>			<b>256.53-298.19</b>				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. <sup>s</sup>: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

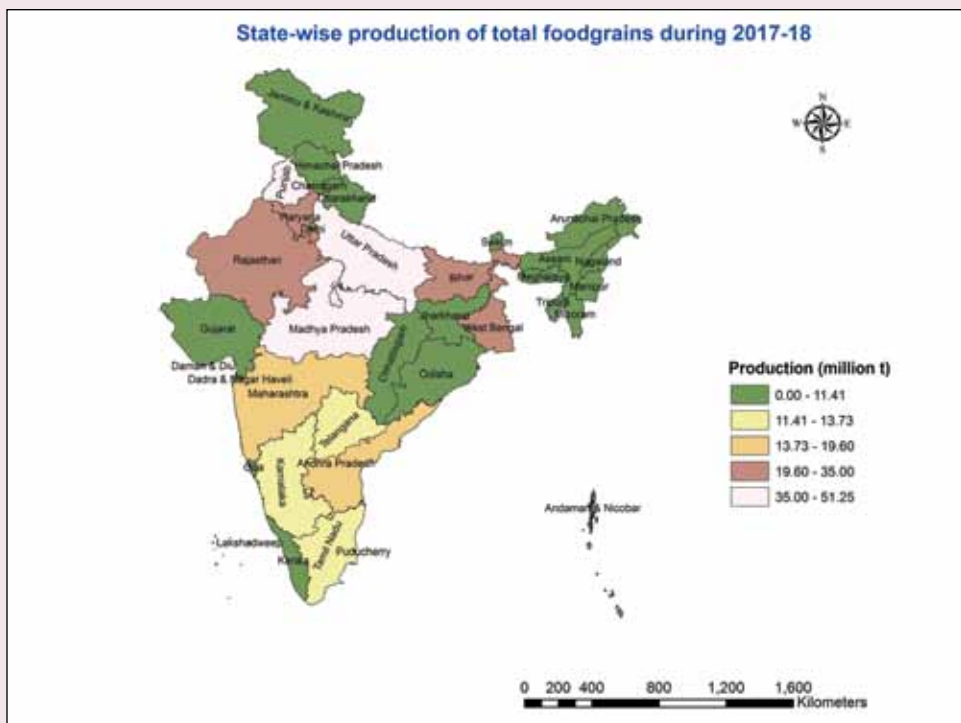
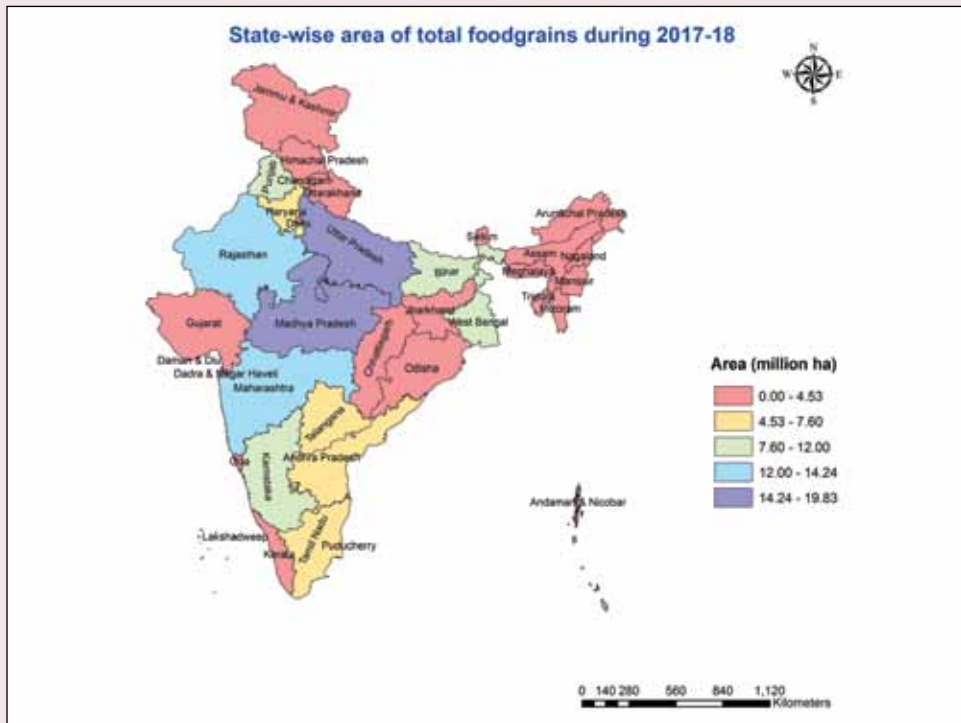


**Table 5.6: State-wise area, production and yield of total foodgrains during 2016-17 and 2017-18 along with coverage under irrigation**

State	2017-18 <sup>#</sup>					2016-17					Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Uttar Pradesh	19.83	15.54	51.25	17.8399	2585	20.16	15.6	49.9	18.14	2475	80.4
Madhya Pradesh	17.04	13.36	33.45	11.74	1963	17.07	13.21	33.22	12.08	1947	59.7
Punjab	6.73	5.27	31.71	11.13	4715	6.56	5.07	28.54	10.37	4353	99.0
Rajasthan	14.24	11.16	19.60	6.88	1377	14.24	11.02	19.35	7.03	1359	35.9
West Bengal	5.94	4.66	16.88	5.93	2839	6.26	4.85	17.15	6.23	2738	48.4
Haryana	4.53	3.55	16.57	5.82	3657	4.59	3.55	17.16	6.24	3736	92.7
Bihar	6.51	5.10	16.54	5.81	2542	6.68	5.17	16.53	6.01	2473	69.8
Maharashtra	10.90	8.55	13.73	4.82	1259	12.38	9.58	15.33	5.57	1239	18.0
Andhra Pradesh	4.14	3.25	12.16	4.27	2934	3.97	3.07	10.37	3.77	2611	66.5
Tamil Nadu	3.64	2.85	11.41	4.01	3138	2.95	2.28	4.14	1.51	1406	56.8
Karnataka	7.60	5.95	11.14	3.91	1466	7.35	5.69	9.79	3.56	1333	27.3
Telangana	3.25	2.55	9.41	3.30	2893	3.29	2.55	8.48	3.08	2576	64.3
Chhattisgarh	N.A.	N.A.	N.A.	N.A.	N.A.	5.05 <sup>#</sup>	3.95 <sup>#</sup>	9.23 <sup>#</sup>	3.35 <sup>#</sup>	1827 <sup>#</sup>	31.6
Odisha	N.A.	N.A.	N.A.	N.A.	N.A.	4.8 <sup>#</sup>	3.75 <sup>#</sup>	9.06 <sup>#</sup>	3.29 <sup>#</sup>	1887 <sup>#</sup>	29.0
Gujarat	N.A.	N.A.	N.A.	N.A.	N.A.	3.8 <sup>#</sup>	2.97 <sup>#</sup>	7.42 <sup>#</sup>	2.69 <sup>#</sup>	1953 <sup>#</sup>	45.4
Assam	N.A.	N.A.	N.A.	N.A.	N.A.	2.67 <sup>#</sup>	2.08 <sup>#</sup>	5.47 <sup>#</sup>	1.98 <sup>#</sup>	2049 <sup>#</sup>	10.4
Jharkhand	N.A.	N.A.	N.A.	N.A.	N.A.	2.89 <sup>#</sup>	2.25 <sup>#</sup>	5.37 <sup>#</sup>	1.95 <sup>#</sup>	1860 <sup>#</sup>	8.8
Uttarakhand	N.A.	N.A.	N.A.	N.A.	N.A.	0.88 <sup>#</sup>	0.69 <sup>#</sup>	1.87 <sup>#</sup>	0.68 <sup>#</sup>	2131 <sup>#</sup>	44.8
Others	23.22	18.20	40.98	14.39	@	3.64 <sup>#</sup>	2.67 <sup>#</sup>	6.73 <sup>#</sup>	8.04 <sup>#</sup>	@	-
All India	127.56	100.00	284.83	100.00	2233	129.23	100.00	275.11	100.00	2129	53.1

Note : 1. States have been arranged in descending order of percentage share of production during 2017-18, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out, 5. N.A.: Not available.

Source : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

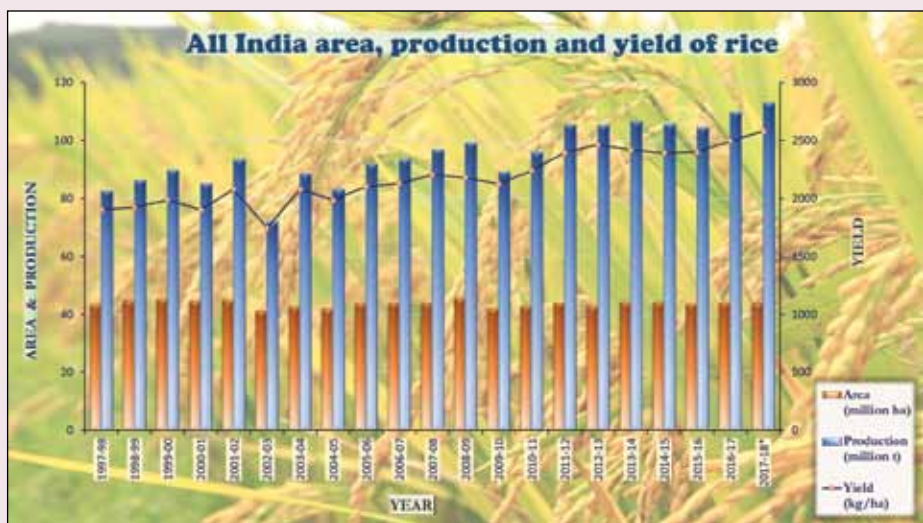


**Table 5.7: All India area, production and yield of Rice**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	43.45	0.1	82.53	1.0	1900	1.1	50.8
1998-99	44.80	3.1	86.08	4.3	1921	1.1	52.3
1999-00	45.16	0.8	89.68	4.2	1986	3.4	53.9
2000-01	44.71	-1.0	84.98	-5.2	1901	-4.3	53.6
2001-02	44.90	0.4	93.34	9.8	2079	9.4	53.2
2002-03	41.18	-8.3	71.82	-23.1	1744	-16.1	50.2
2003-04	42.59	3.4	88.53	23.3	2077	19.1	52.6
2004-05	41.91	-1.6	83.13	-6.1	1984	-4.5	54.7
2005-06	43.66	4.2	91.79	10.4	2102	5.9	56.0
2006-07	43.81	0.3	93.36	1.7	2131	1.4	56.7
2007-08	43.91	0.2	96.69	3.6	2202	3.3	56.9
2008-09	45.54	3.7	99.18	2.6	2178	-1.1	58.7
2009-10	41.92	-7.9	89.09	-10.2	2125	-2.4	58.0
2010-11	42.86	2.2	95.98	7.7	2239	5.4	58.6
2011-12	44.01	2.7	105.30	9.7	2393	6.9	58.7
2012-13	42.75	-2.9	105.23	-0.1	2461	2.8	58.5
2013-14	44.14	3.3	106.65	1.3	2416	-1.8	59.6
2014-15	44.11	-0.1	105.48	-1.1	2391	-1.0	60.1
2015-16	43.50	-1.4	104.41	-1.0	2400	0.4	N.A.
2016-17	43.99	1.1	109.70	5.1	2494	3.9	N.A.
2017-18*	43.79	-0.5	112.91	2.9	2578	3.4	N.A.
2018-19 <sup>§</sup>			<b>102.13-121.22</b>				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. §: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
 2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



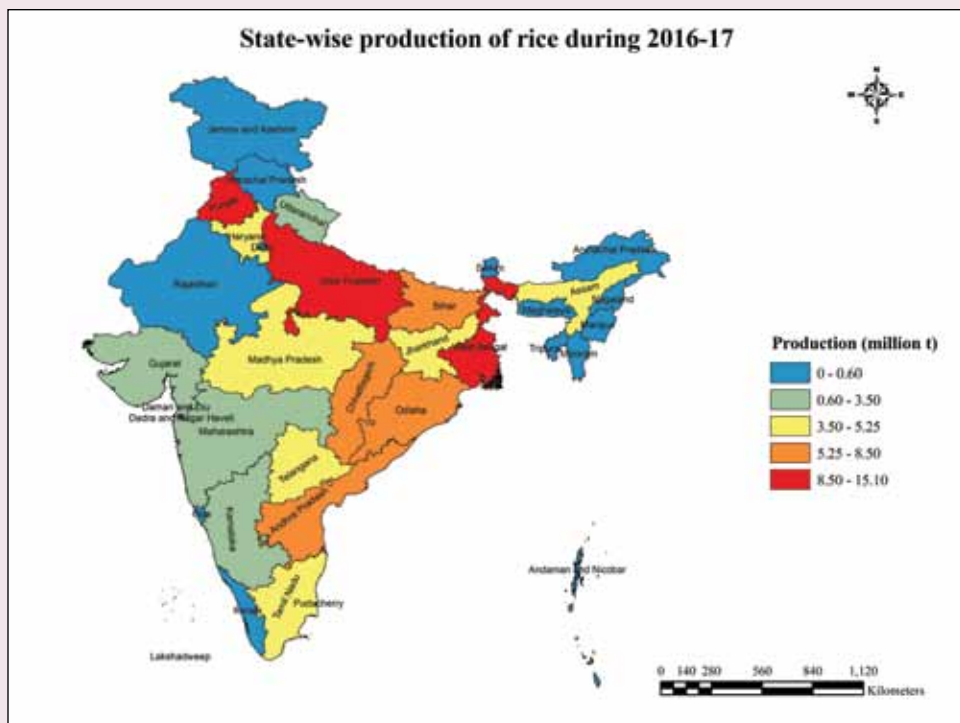
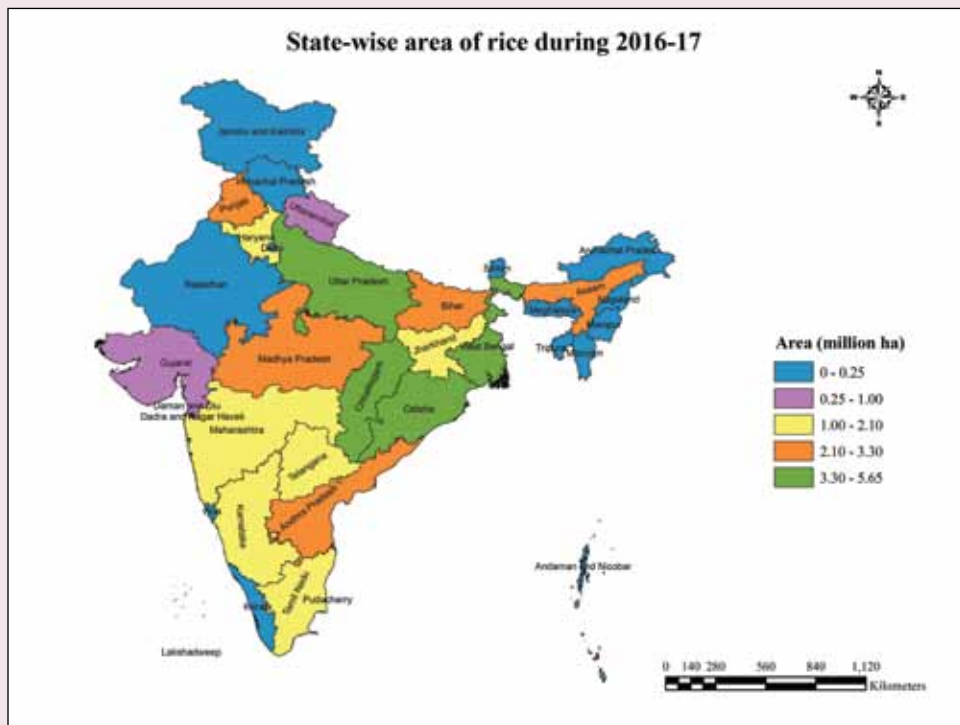
**Table 5.8: State-wise area, production and yield of Rice during 2015-16 and 2016-17 along with coverage under irrigation**

State	2016-17#				2015-16				Area under irrigation (%) 2014-15*		
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production		% to all India	Yield
West Bengal	5.15	11.91	15.09	13.70	2933	5.52	12.70	15.95	15.28	2888	46.9
Uttar Pradesh	5.65	13.07	12.95	11.76	2295	5.86	13.48	12.50	11.97	2133	86.7
Punjab	2.76	6.39	11.03	10.02	3998	2.98	6.84	11.82	11.32	3974	99.7
Odisha	3.88	8.98	8.38	7.61	2162	3.94	9.06	5.88	5.63	1491	33.3
Chattisgarh	3.83	8.87	8.05	7.31	2101	3.82	8.77	5.79	5.54	1517	35.7
Bihar	3.29	7.63	7.48	6.79	2270	3.23	7.43	6.80	6.52	2104	65.0
Andhra Pradesh	2.11	4.87	7.45	6.76	3539	2.16	4.97	7.49	7.17	3465	97.1
Assam	2.45	5.67	5.23	4.75	2134	2.49	5.71	5.13	4.91	2062	11.0
Telangana	1.68	3.89	5.17	4.70	3075	1.05	2.40	3.05	2.92	2913	98.1
Haryana	1.39	3.21	4.45	4.04	3213	1.35	3.11	4.15	3.97	3061	99.9
Madhya Pradesh	2.29	5.30	4.23	3.84	1847	2.02	4.65	3.55	3.40	1752	34.2
Tamil Nadu	1.44	3.34	4.04	3.67	2796	2.00	4.60	7.52	7.20	3758	94.4
Jharkhand	1.59	3.68	3.56	3.23	2238	1.59	3.65	2.88	2.76	1814	5.0
Maharashtra	1.63	3.76	3.35	3.04	2059	1.50	3.46	2.59	2.48	1725	26.1
Karnataka	1.01	2.33	2.54	2.30	2522	1.11	2.55	3.02	2.89	2722	76.0
Gujarat	0.84	1.94	1.93	1.75	2306	0.77	1.77	1.70	1.63	2205	61.5
Uttarakhand	0.26	0.60	0.63	0.57	2418	0.26	0.61	0.64	0.61	2420	70.0
Others	1.97	4.55	4.59	4.17	@	1.84	4.23	3.96	3.79	@	-
<b>All India</b>	<b>43.19</b>	<b>100.00</b>	<b>110.15</b>	<b>100.00</b>	<b>2550</b>	<b>43.50</b>	<b>100.00</b>	<b>104.41</b>	<b>100.00</b>	<b>2400</b>	<b>60.1</b>

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

## Production and productivity



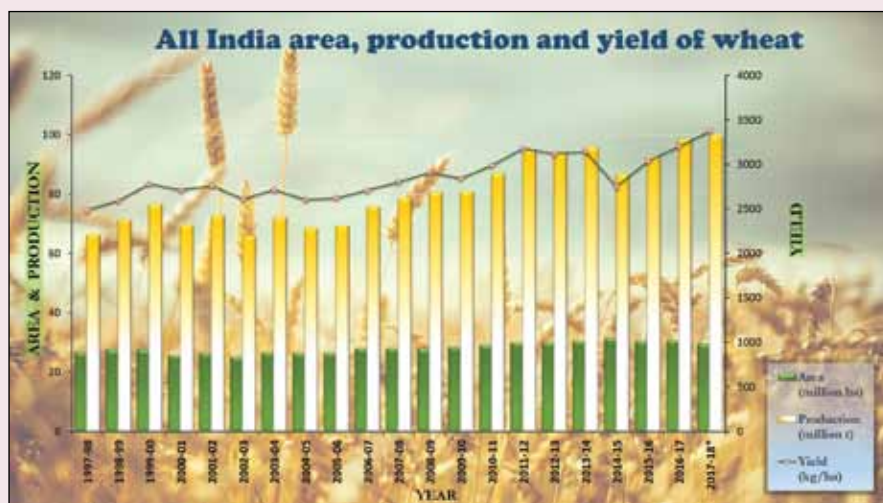


**Table 5.9: All India area, production and yield of Wheat**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	26.70	3.1	66.35	-4.3	2485	-7.2	85.8
1998-99	27.52	3.1	71.29	7.4	2590	4.2	85.8
1999-00	27.49	-0.1	76.37	7.1	2778	7.3	87.2
2000-01	25.73	-6.4	69.68	-8.8	2708	-2.5	88.1
2001-02	26.34	2.4	72.77	4.4	2762	2.0	87.4
2002-03	25.20	-4.3	65.76	-9.6	2610	-5.5	88.0
2003-04	26.60	5.6	72.16	9.7	2713	3.9	88.4
2004-05	26.38	-0.8	68.64	-4.9	2602	-4.1	89.9
2005-06	26.48	0.4	69.35	1.0	2619	0.7	90.6
2006-07	27.99	5.7	75.81	9.3	2708	3.4	90.9
2007-08	28.04	0.2	78.57	3.6	2802	3.5	91.3
2008-09	27.75	-1.0	80.68	2.7	2907	3.7	91.7
2009-10	28.46	2.6	80.80	0.1	2839	-2.3	91.8
2010-11	29.07	2.1	86.87	7.5	2988	5.2	92.2
2011-12	29.86	2.7	94.88	9.2	3177	6.3	93.0
2012-13	30.00	0.5	93.51	-1.4	3117	-1.9	93.5
2013-14	30.47	1.6	95.85	2.5	3146	0.9	93.6
2014-15	31.47	3.3	86.53	-9.7	2750	-12.6	94.2
2015-16	30.42	-3.3	92.29	6.7	3034	10.3	N.A.
2016-17	30.79	1.2	98.51	6.7	3200	5.5	N.A.
2017-18*	29.58	-3.9	99.70	1.2	3371	5.3	N.A.
2018-19 <sup>S</sup>			<b>94.06-107.44</b>				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. \$: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



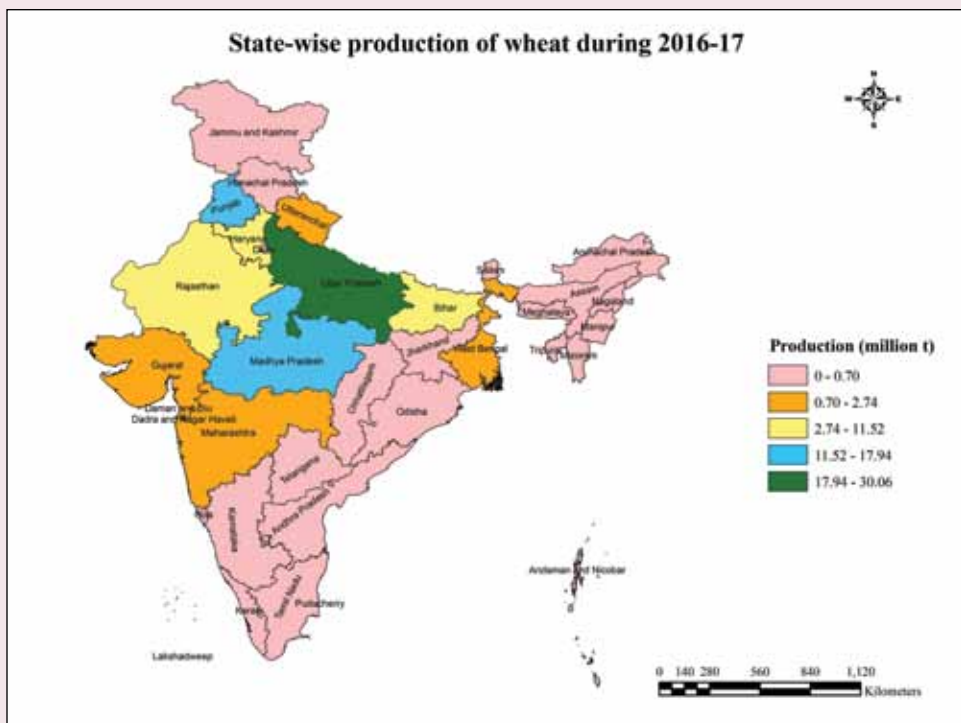
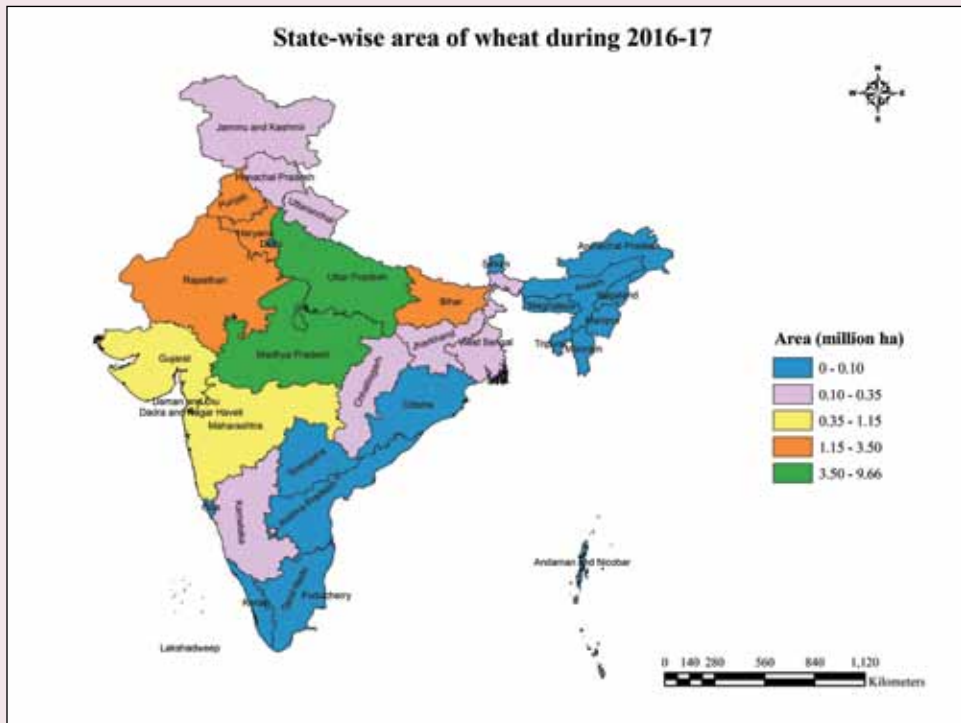
**Table 5.10: State-wise area, production and yield of Wheat during 2015-16 and 2016-17 along with coverage under irrigation**

State	2016-17 <sup>#</sup>					2015-16					Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Uttar Pradesh	9.66	31.56	30.06	30.55	3113	9.65	31.71	25.43	27.55	2636	98.8
Madhya Pradesh	6.03	19.70	17.94	18.23	2976	5.91	19.43	17.69	19.17	2993	93.4
Punjab	3.50	11.42	16.44	16.71	4704	3.51	11.53	16.08	17.42	4583	99.1
Haryana	2.55	8.34	11.52	11.71	4514	2.58	8.47	11.35	12.30	4407	99.5
Rajasthan	2.83	9.26	9.00	9.15	3175	3.11	10.22	9.87	10.70	3175	99.6
Bihar	2.10	6.85	5.09	5.17	2427	2.11	6.94	4.74	5.13	2244	94.9
Gujarat	1.00	3.26	2.74	2.79	2751	0.85	2.80	2.48	2.69	2919	90.8
Maharashtra	1.07	3.51	1.67	1.70	1558	0.91	2.99	0.98	1.06	1077	73.9
West Bengal	0.33	1.08	0.93	0.95	2818	0.34	1.12	0.96	1.04	2824	98.7
Uttarakhand	0.34	1.12	0.88	0.89	2564	0.34	1.12	0.77	0.84	2258	59.5
Himachal Pradesh	0.35	1.13	0.70	0.72	2033	0.34	1.12	0.67	0.72	1958	21.8
Jammu & Kashmir	0.29	0.96	0.47	0.48	1615	0.28	0.91	0.54	0.59	1947	28.5
Jharkhand	0.21	0.69	0.43	0.44	2027	0.16	0.51	0.29	0.31	1835	90.9
Karnataka	0.17	0.54	0.17	0.17	1018	0.17	0.57	0.16	0.17	897	60.9
Chhattisgarh	0.11	0.37	0.16	0.16	1391	0.11	0.11	0.14	0.15	1270	75.7
Assam	0.03	0.08	0.03	0.03	1192	0.02	0.07	0.03	0.04	1633	10.9
Telangana	0.01	0.02	0.01	0.01	1600	0.01	0.02	0.01	0.01	1700	99.2
Others	0.03	0.11	0.14	0.15	@	0.03	0.10	0.11	0.12	@	-
All India	<b>30.60</b>	<b>100.00</b>	<b>98.38</b>	<b>100.00</b>	<b>3216</b>	<b>30.42</b>	<b>99.75</b>	<b>92.29</b>	<b>100.00</b>	<b>3034</b>	<b>94.2</b>

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*, Provisional, 3. #, Fourth Advance Estimates, 4. @, Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



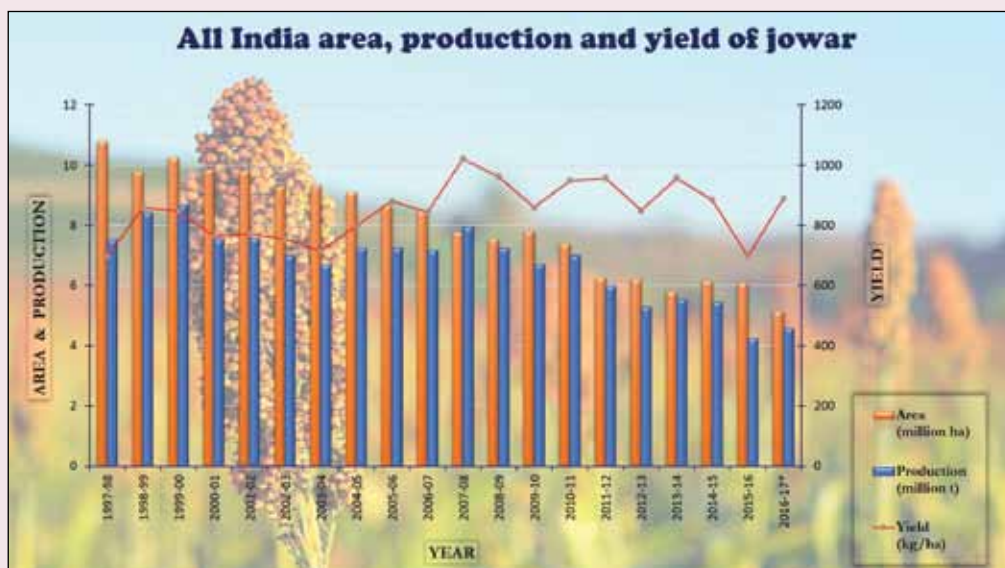


**Table 5.11: All India area, production and yield of Jowar**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	10.8	- 5.5	7.53	- 31.1	697	- 27.1	7.3
1998-99	9.8	-9.4	8.42	11.8	859	23.2	8.1
1999-00	10.25	4.7	8.68	3.1	847	-1.4	7.7
2000-01	9.86	-3.8	7.53	- 13.2	764	-9.8	7.9
2001-02	9.81	-0.6	7.56	0.4	771	0.9	8.3
2002-03	9.3	-5.1	7.01	- 7.3	754	-2.2	8.5
2003-04	9.33	0.3	6.68	- 4.7	716	-5.0	7.5
2004-05	9.08	-2.6	7.24	8.4	797	11.3	9.1
2005-06	8.23	-4.6	7.24	0.0	880	10.4	9.0
2006-07	8.47	-2.3	7.15	-1.2	844	-4.1	8.6
2007-08	7.77	-8.4	7.93	10.9	1021	21.0	8.5
2008-09	7.54	-3.0	7.25	-8.6	962	-5.8	8.9
2009-10	7.79	3.5	6.70	-7.6	860	-10.6	8.7
2010-11	7.38	-5.3	7.00	4.5	949	10.3	8.7
2011-12	6.25	-15.3	5.98	-14.6	957	0.8	9.7
2012-13	6.21	-0.6	5.28	-11.7	850	-11.2	9.7
2013-14	5.79	-6.8	5.54	4.9	957	12.6	9.6
2014-15	6.17	6.4	5.45	-1.6	884	-7.6	9.9
2015-16	6.08	-1.3	4.24	-22.2	697	-21.2	N.A.
2016-17*	5.63	-15.5	4.57	7.8	812	16.5	N.A.
2017-18 <sup>S</sup>			<b>2.18-7.24</b>				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. S: Projections are based on statistical models using past years data since 1950-51.

**Source** : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



**Table 5.12: State-wise area, production and yield of Jowar during 2015-16 and 2016-17 along with coverage under irrigation**

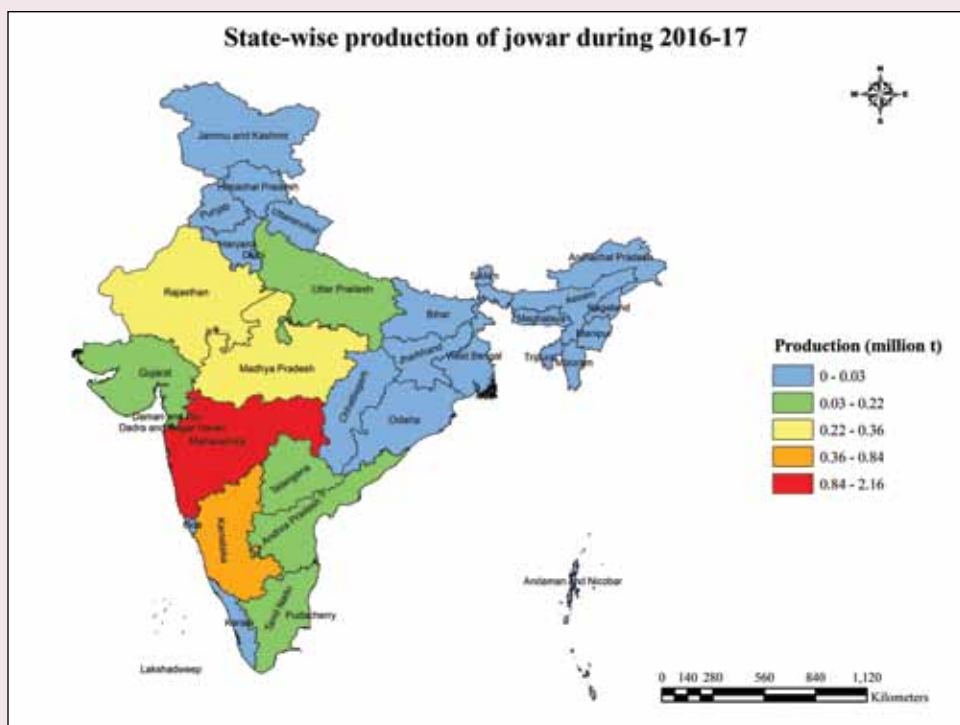
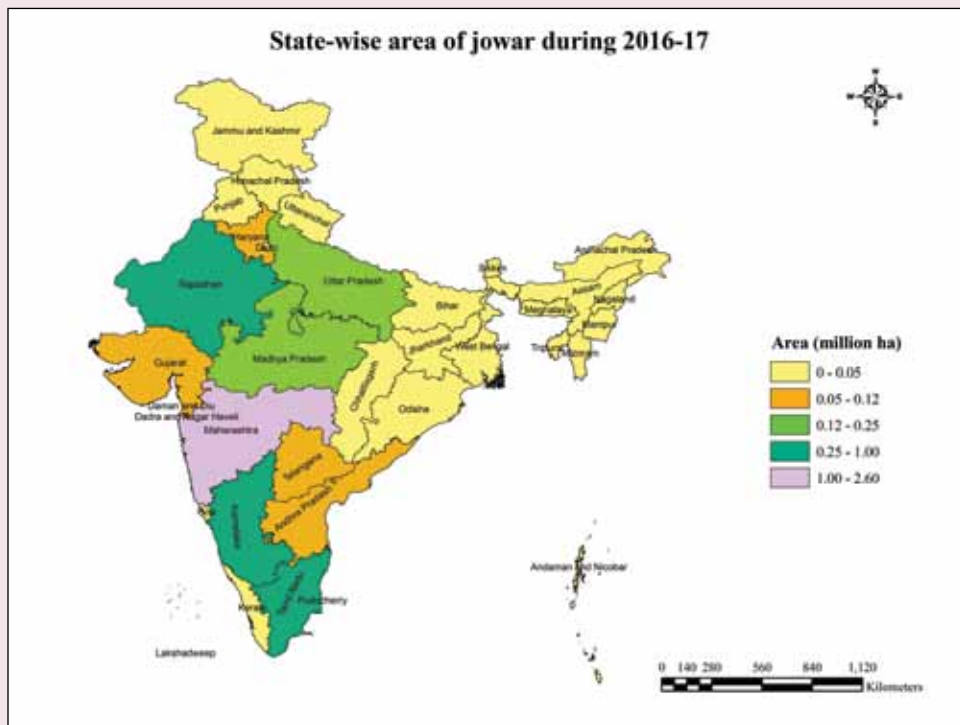
State	2016-17 <sup>#</sup>						2015-16				Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
	Maharashtra	2.59	50.25	2.16	47.29	837	3.22	52.95	1.35	31.91	
Karnataka	0.95	18.39	0.84	18.39	889	1.10	18.17	0.96	22.53	865	10.4
Madhya Pradesh	0.22	4.28	0.36	7.89	1641	0.21	3.37	0.40	9.44	1951	0.8
Rajasthan	0.58	11.26	0.35	7.64	603	0.63	10.39	0.34	8.12	545	0.1
Tamil Nadu	0.26	5.09	0.22	4.87	851	0.34	5.58	0.47	11.04	1380	13.8
Uttar Pradesh	0.18	3.56	0.18	4.00	1000	0.16	2.55	0.11	2.48	677	3.5
Andhra Pradesh	0.10	1.89	0.18	3.85	1814	0.17	2.86	0.36	8.42	2052	30.4
Gujarat	0.10	2.00	0.15	3.17	1408	0.10	1.69	0.14	3.26	1340	19.8
Telangana	0.09	1.75	0.09	1.86	944	0.08	1.25	0.08	1.79	1000	16.1
Haryana	0.06	1.21	0.03	0.73	532	0.05	0.87	0.03	0.66	528	80.0
Others	0.02	0.34	0.01	0.31	@	0.02	0.31	0.01	0.34	@	-
All India	5.14	100.00	4.57	100.00	889	6.08	100.00	4.24	100.00	697	9.9

(Area: million ha, Production: million t, Yield: kg/ha)

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

## Production and productivity

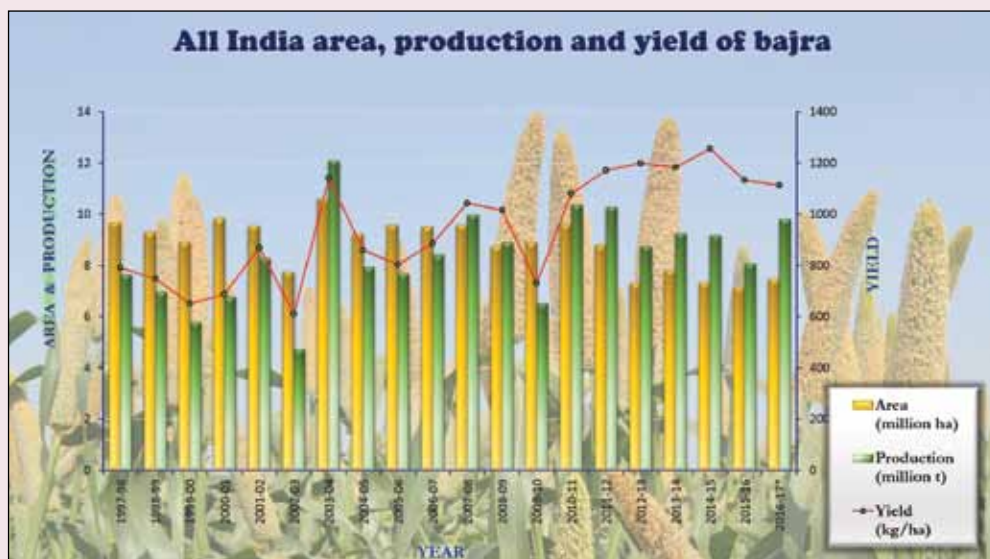


**Table 5.13: All India area, production and yield of Bajra**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	9.67	-3.1	7.64	-2.9	791	0.4	5.9
1998-99	9.30	-3.8	6.96	-8.9	748	-5.4	7.0
1999-00	8.90	-4.3	5.78	-17.0	650	-13.1	8.3
2000-01	9.83	10.4	6.76	17.0	688	5.8	8.0
2001-02	9.53	-3.1	8.28	22.5	869	26.3	6.3
2002-03	7.74	-18.8	4.72	-43.0	610	-29.8	9.0
2003-04	10.61	37.1	12.11	156.6	1141	87.0	6.3
2004-05	9.23	-13.0	7.93	-34.5	859	-24.7	8.2
2005-06	9.58	3.8	7.68	-3.2	802	-6.6	9.1
2006-07	9.51	-0.7	8.42	9.6	886	10.5	9.6
2007-08	9.57	0.6	9.97	18.4	1042	17.6	10.2
2008-09	8.75	-8.6	8.89	-10.8	1015	-2.6	9.3
2009-10	8.90	1.7	6.51	-26.8	731	-28.0	9.2
2010-11	9.61	8.0	10.37	59.3	1079	47.6	8.0
2011-12	8.78	-8.6	10.28	-0.9	1171	8.5	8.1
2012-13	7.30	-16.9	8.74	-15.0	1198	2.3	9.1
2013-14	7.81	7.0	9.25	5.8	1184	-1.2	9.1
2014-15	7.32	-6.3	9.18	-0.8	1255	6.0	9.5
2015-16	7.13	-2.6	8.07	-12.1	1132	-9.8	N.A.
2016-17*	7.47	4.8	9.80	21.4	1305	15.3	N.A.
2017-18 <sup>s</sup>			6.62-11.87				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4th Advance estimates, 4. \$: Projections are based on statistical models using past years data since 1950-51.

**Source** : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



**Table 5.14: State-wise area, production and yield of Bajra during 2015-16 and 2016-17 along with coverage under irrigation**

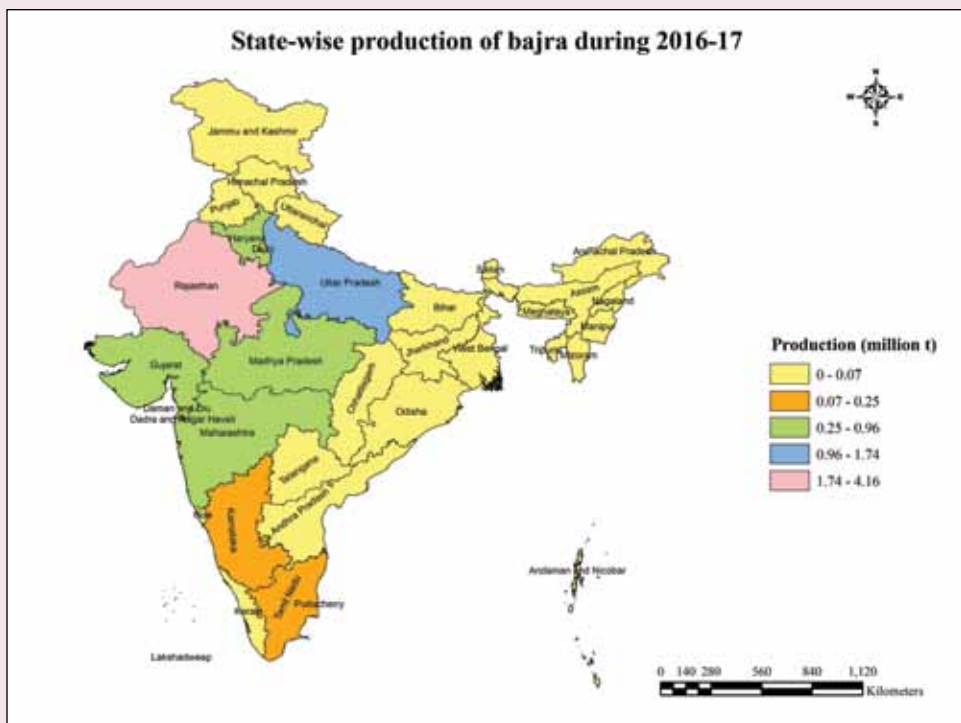
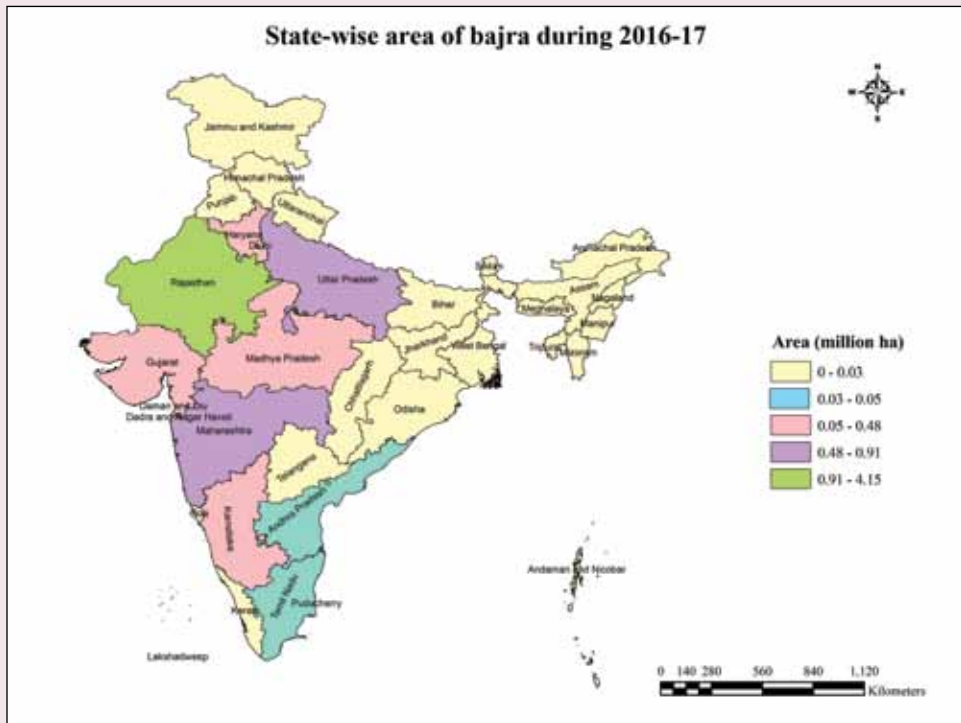
State	2016-17#						2015-16						Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield			
Rajasthan	4.15	55.54	4.16	42.41	1001	4.04	56.74	3.53	43.73	872	3.7		
Uttar Pradesh	0.91	12.14	1.74	17.72	1914	0.98	13.68	1.78	22.00	1821	12.4		
Haryana	0.48	6.40	0.96	9.84	2017	0.37	5.19	0.65	8.08	1762	41.6		
Gujarat	0.43	5.77	0.93	9.50	2160	0.39	5.51	0.79	9.76	2004	22.3		
Maharashtra	0.85	11.31	0.84	8.60	998	0.80	11.24	0.33	4.13	416	5.0		
Madhya Pradesh	0.28	3.75	0.68	6.95	2431	0.27	3.75	0.62	7.66	2315	0.1		
Karnataka	0.24	3.23	0.25	2.59	1054	0.17	2.33	0.15	1.80	875	11.2		
Tamil Nadu	0.05	0.73	0.12	1.24	2241	0.05	0.72	0.14	1.76	2747	15.6		
Andhra Pradesh	0.04	0.56	0.07	0.75	1738	0.04	0.51	0.07	0.81	1806	31.3		
Telangana	0.02	0.23	0.02	0.17	1000	0.01	0.08	0.01	0.06	833	81.3		
Jammu & Kashmir	0.02	0.21	0.01	0.10	629	0.01	0.13	0.01	0.07	590	4.1		
Others	0.01	0.14	0.01	0.13	@	0.01	0.13	0.01	0.14	@	-		
All India	7.47	100.00	9.80	100.00	1312	7.13	100.00	8.07	100.00	1132	9.5		

(Area: million ha, Production: million t, Yield: kg/ha)

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



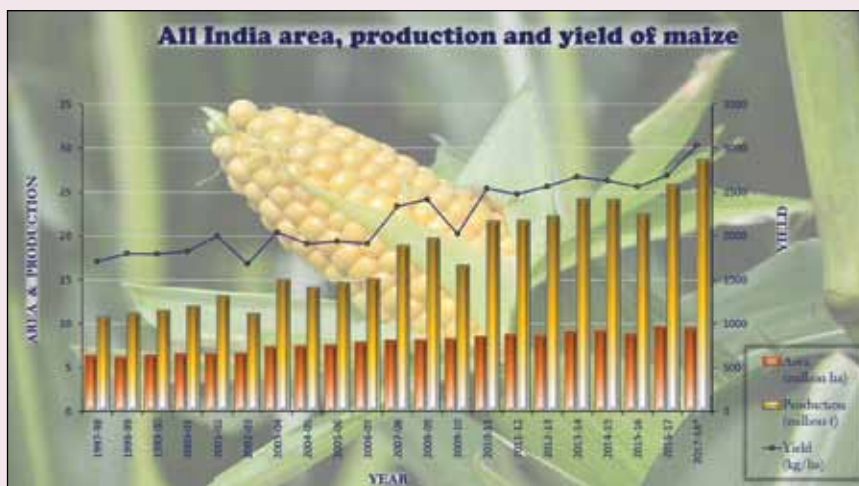


**Table 5.15: All India area, production and yield of Maize**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	6.32	1.0	10.82	0.5	1711	-0.5	20.6
1998-99	6.2	-1.9	11.15	3.0	1797	5.0	21.7
1999-00	6.42	3.5	11.51	3.2	1792	-0.3	22.9
2000-01	6.61	3.0	12.04	4.6	1822	1.7	22.4
2001-02	6.58	-0.5	13.16	9.3	2000	9.8	20.5
2002-03	6.63	0.8	11.15	-15.3	1681	-16.0	19.5
2003-04	7.34	10.7	14.98	34.3	2041	21.4	19.1
2004-05	7.43	1.2	14.17	-5.4	1907	-6.6	20.5
2005-06	7.59	2.2	14.71	3.8	1938	1.6	21.1
2006-07	7.9	4.1	15.10	2.7	1912	-1.3	21.5
2007-08	8.12	2.8	18.96	25.6	2335	22.1	23.5
2008-09	8.17	0.6	19.73	4.1	2414	3.4	25.2
2009-10	8.26	1.1	16.72	-15.3	2024	-16.2	23.8
2010-11	8.55	3.5	21.73	30.0	2542	25.6	24.3
2011-12	8.78	2.7	21.76	0.1	2478	-2.5	25.7
2012-13	8.67	-1.3	22.26	2.3	2566	3.6	25.9
2013-14	9.07	4.6	24.26	9.0	2676	4.3	27.2
2014-15	9.18	1.2	24.17	-0.4	2632	-1.6	26.6
2015-16	8.81	-4.0	22.57	-6.6	2563	-2.6	N.A.
2016-17	9.63	9.3	25.90	14.8	2689	4.9	N.A.
2017-18*	9.47	-1.7	28.72	10.9	3032	12.8	N.A.
2018-19§			24.95-30.05				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. §: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
 2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)





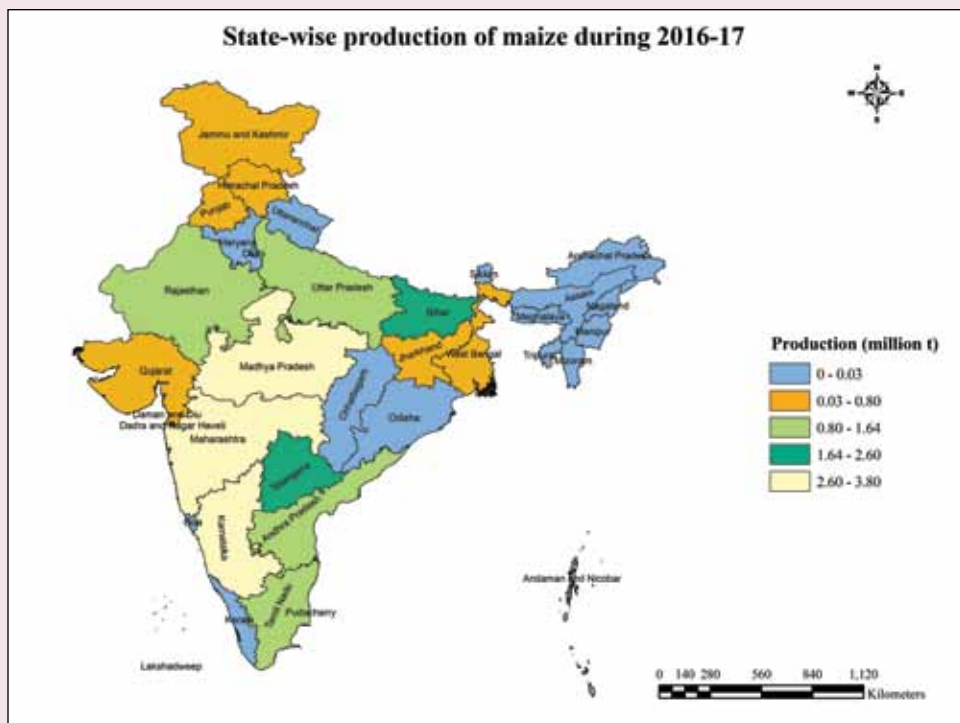
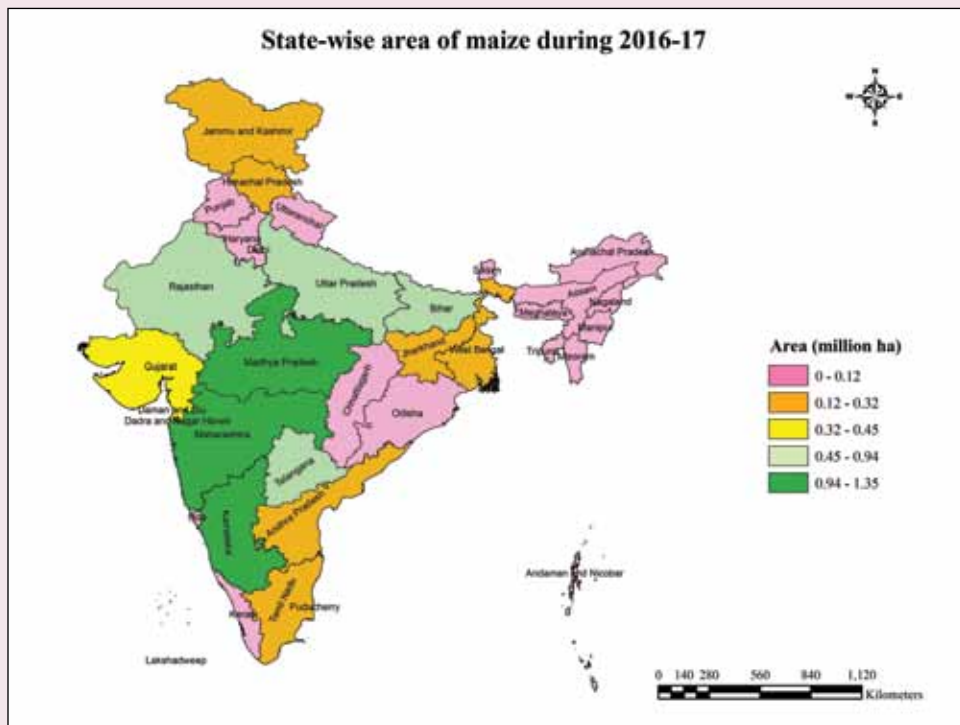
**Table 5.16: State-wise area, production and yield of Maize during 2015-16 and 2016-17 along with coverage under irrigation**

State	2016-17 <sup>#</sup>					2015-16					Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Maharashtra	1.25	12.72	3.80	14.46	3029	1.07	12.12	1.83	8.09	1712	12.7
Karnataka	1.35	13.73	3.26	12.42	2408	1.22	13.85	3.31	14.67	2713	34.4
Madhya Pradesh	1.28	13.02	3.17	12.06	2468	1.10	12.47	2.58	11.43	2350	3.5
Telangana	0.80	8.12	2.60	9.89	3241	0.57	6.51	1.75	7.76	3056	35.2
Bihar	0.70	7.11	2.55	9.69	3631	0.71	8.01	2.52	11.15	3571	64.3
Andhra Pradesh	0.25	2.55	1.64	6.26	6546	0.23	2.65	1.41	6.25	6056	76.2
Uttar Pradesh	0.83	8.39	1.56	5.95	1889	0.70	7.99	1.31	5.79	1855	45.3
Rajasthan	0.94	9.51	1.47	5.58	1564	0.87	9.91	1.16	5.16	1334	2.0
Tamil Nadu	0.32	3.25	1.25	4.76	3903	0.36	4.03	2.49	11.03	7010	48.8
Gujarat	0.45	4.56	0.80	3.05	1780	0.39	4.39	0.57	2.53	1478	12.5
Himachal Pradesh	0.29	2.98	0.78	2.99	2671	0.29	3.34	0.74	3.27	2507	10.5
West Bengal	0.16	1.64	0.71	2.69	4374	0.15	1.74	0.72	3.17	4654	43.4
Jharkhand	0.30	3.01	0.59	2.25	1992	0.29	3.28	0.38	1.71	1332	2.6
Jammu & Kashmir	0.30	3.03	0.49	1.86	1632	0.29	3.34	0.52	2.32	1782	9.4
Punjab	0.12	1.18	0.45	1.69	3836	0.12	1.31	0.42	1.88	3687	79.2
Others	0.51	5.21	1.16	4.41	@	0.45	5.06	0.85	3.79	@	-
All India	9.86	100.00	26.26	100.00	2664	8.81	100.00	22.57	100.00	2563	26.6

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

## Production and productivity

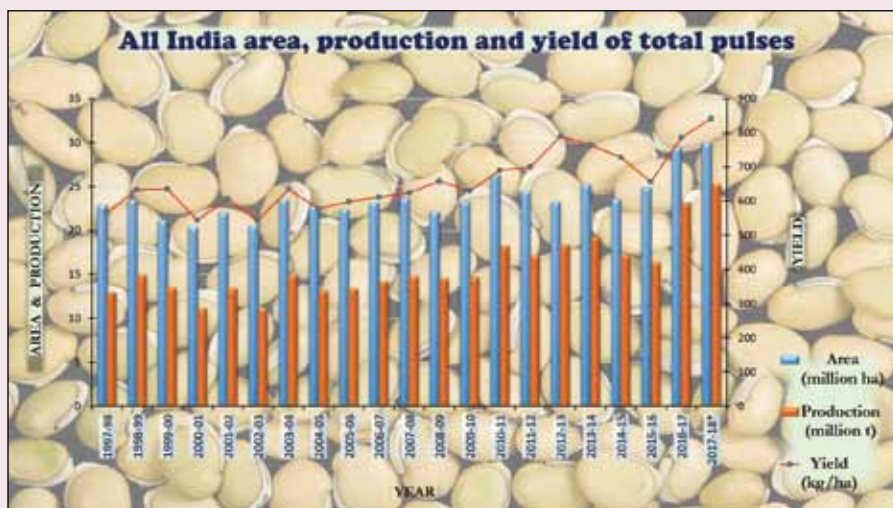


**Table 5.17: All India area, production and yield of total pulses**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	22.87	1.9	12.98	- 8.8	567	- 10.7	11.3
1998-99	23.50	2.8	14.91	14.9	634	11.8	12.1
1999-00	21.12	- 10.1	13.42	- 10.0	635	0.2	16.1
2000-01	20.35	- 3.6	11.08	- 17.4	544	- 14.3	12.5
2001-02	22.01	8.2	13.37	20.7	607	11.6	13.3
2002-03	20.50	- 6.9	11.13	- 16.8	543	- 10.5	14.4
2003-04	23.46	14.4	14.91	34.0	635	16.9	13.6
2004-05	22.76	- 3.0	13.13	- 11.9	577	- 9.1	14.0
2005-06	22.39	- 1.6	13.39	2.0	598	3.6	14.5
2006-07	23.19	3.6	14.20	6.0	612	2.3	15.4
2007-08	23.63	1.9	14.76	3.9	625	2.1	15.9
2008-09	22.09	- 6.5	14.57	-1.3	659	5.4	16.5
2009-10	23.28	5.4	14.66	0.6	630	-4.4	16.2
2010-11	26.40	13.4	18.24	24.4	691	9.7	14.9
2011-12	24.46	-7.3	17.09	-6.3	699	1.2	16.1
2012-13	23.26	-4.9	18.34	7.3	789	12.9	18.5
2013-14	25.21	8.5	19.25	5.0	764	-3.2	19.7
2014-15	23.55	-6.6	17.15	-10.9	728	-4.7	19.9
2015-16	24.91	5.8	16.35	-4.7	656	-9.9	N.A.
2016-17	29.45	18.2	23.13	41.5	786	19.8	N.A.
2017-18*	29.99	1.8	25.23	9.1	841	7.0	N.A.
2018-19 <sup>s</sup>			19.41-26.06				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. \$: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

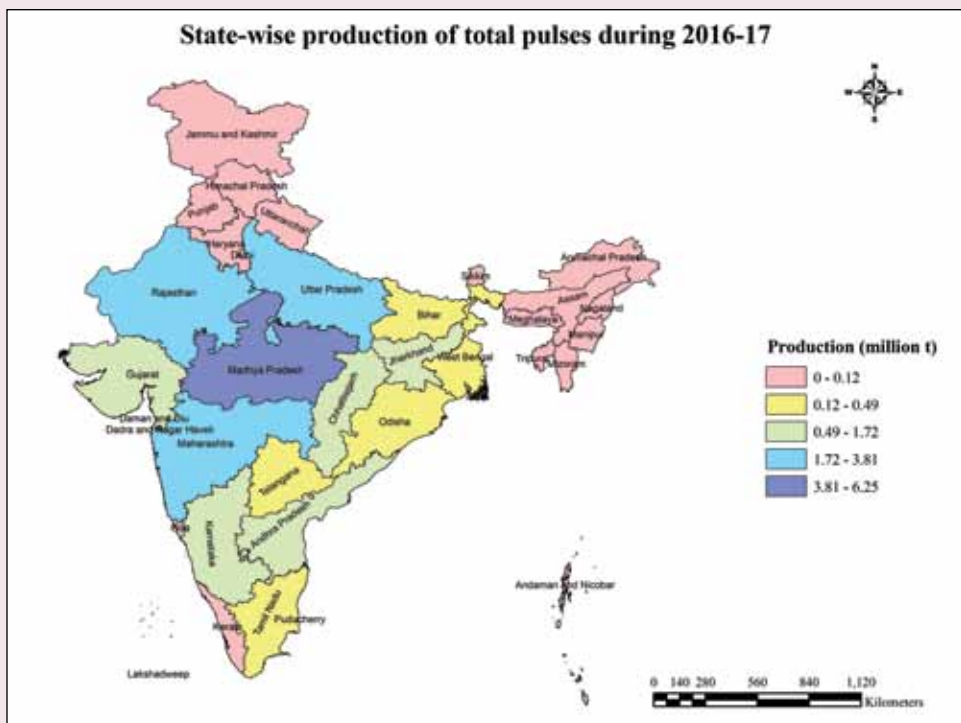
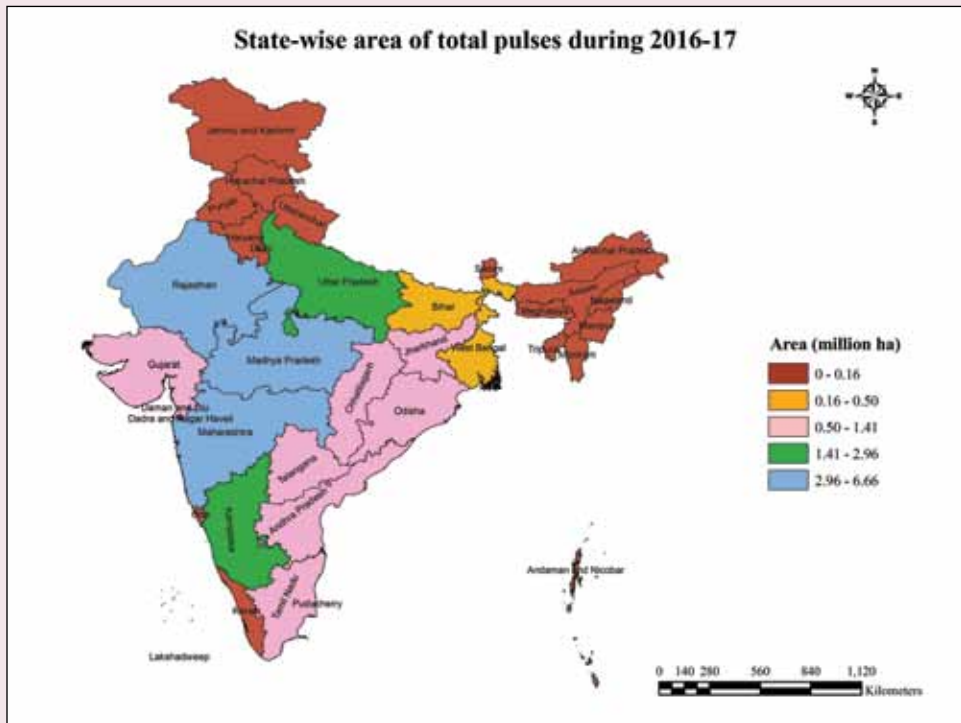


**Table 5.18: State-wise area, production and yield of total pulses during 2015-16 and 2016-17 along with coverage under irrigation**

State	2016-17 <sup>#</sup>					2015-16					Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Madhya Pradesh	6.66	22.62	6.25	27.23	938	5.88	23.58	5.30	32.43	902	42.8
Maharashtra	4.60	15.60	3.81	16.58	828	3.54	14.23	1.54	9.45	436	10.9
Rajasthan	5.12	17.37	3.06	13.32	598	3.87	15.52	1.99	12.17	515	20.7
Uttar Pradesh	2.52	8.57	2.19	9.52	866	1.88	7.55	1.16	7.12	619	27.4
Karnataka	2.96	10.03	1.72	7.47	580	2.82	11.33	1.14	6.97	403	8.6
Andhra Pradesh	1.41	4.80	0.97	4.23	687	1.45	5.82	1.23	7.52	848	2.0
Gujarat	0.94	3.20	0.82	3.56	868	0.58	2.34	0.54	3.33	931	13.1
Jharkhand	0.76	2.60	0.77	3.36	1009	0.60	2.39	0.53	3.22	886	3.9
Chhattisgarh	0.88	3.00	0.73	3.17	823	0.84	3.38	0.51	3.13	609	15.0
Telangana	0.69	2.34	0.49	2.11	703	0.47	1.89	0.24	1.47	508	5.1
Bihar	0.50	1.69	0.44	1.91	881	0.50	2.00	0.42	2.57	845	4.5
Tamil Nadu	0.81	2.77	0.44	1.91	539	0.88	3.53	0.55	3.39	631	10.9
Odisha	0.73	2.49	0.40	1.74	543	0.74	2.98	0.38	2.29	506	2.2
West Bengal	0.33	1.10	0.31	1.36	958	0.35	1.39	0.36	2.19	1039	15.0
Assam	0.16	0.54	0.12	0.52	748	0.14	0.57	0.11	0.66	757	1.7
Haryana	0.09	0.29	0.07	0.32	870	0.10	0.39	0.07	0.40	680	20.7
Others	0.30	1.01	0.38	1.68	@	0.28	1.11	0.27	1.68	@	-
<b>All India</b>	<b>29.46</b>	<b>100.00</b>	<b>22.95</b>	<b>100.00</b>	<b>779</b>	<b>24.91</b>	<b>100.00</b>	<b>16.35</b>	<b>100.00</b>	<b>656</b>	<b>19.9</b>

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

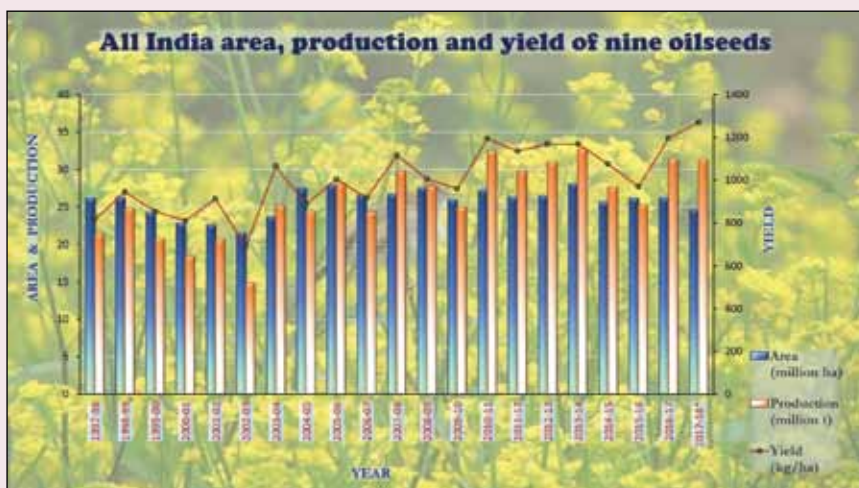


**Table 5.19: All India area, production and yield of nine oilseeds**

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1997-98	26.12	- 0.8	21.32	- 12.6	816	- 11.9	24.3
1998-99	26.23	0.4	24.75	16.1	944	15.7	23.2
1999-00	24.28	- 7.4	20.72	- 16.3	853	- 9.6	25.2
2000-01	22.77	- 6.2	18.44	- 11.0	810	- 5.0	23.0
2001-02	22.64	- 0.6	20.66	12.0	913	12.7	24.3
2002-03	21.49	- 5.1	14.84	- 28.2	691	- 24.3	22.7
2003-04	23.66	10.1	25.19	69.7	1064	54.0	24.5
2004-05	27.52	16.3	24.35	- 3.3	885	- 16.8	27.0
2005-06	27.86	1.2	27.98	14.9	1004	13.4	28.4
2006-07	26.51	-4.8	24.29	-13.2	916	-8.8	29.0
2007-08	26.69	0.7	29.76	22.5	1115	21.7	27.2
2008-09	27.56	3.3	27.72	-6.9	1006	-9.8	27.1
2009-10	25.96	-5.8	24.88	-10.2	959	-4.8	25.9
2010-11	27.22	4.9	32.48	30.5	1193	24.5	24.9
2011-12	26.31	-3.3	29.80	-8.3	1135	-4.9	27.5
2012-13	26.48	0.6	30.94	3.8	1168	3.1	28.2
2013-14	28.05	5.9	32.75	5.9	1168	0.0	27.3
2014-15	25.59	-8.8	27.51	-16.0	1075	-8.0	27.4
2015-16	26.09	2.0	25.25	-8.2	968	-10.0	N.A.
2016-17	26.18	0.3	31.28	23.9	1195	23.5	N.A.
2017-18*	24.65	-5.8	31.31	0.1	1270	6.3	N.A.
2018-19 <sup>s</sup>			<b>26.32-35.64</b>				

**Note** : 1. The yield rates given above have been worked out on the basis of production & area figures taken in '000 units, 2. N.A.: Not available, 3. \*: 4<sup>th</sup> Advance estimates, 4. \$: Projections are based on statistical models using past years data since 1950-51.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
 2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)





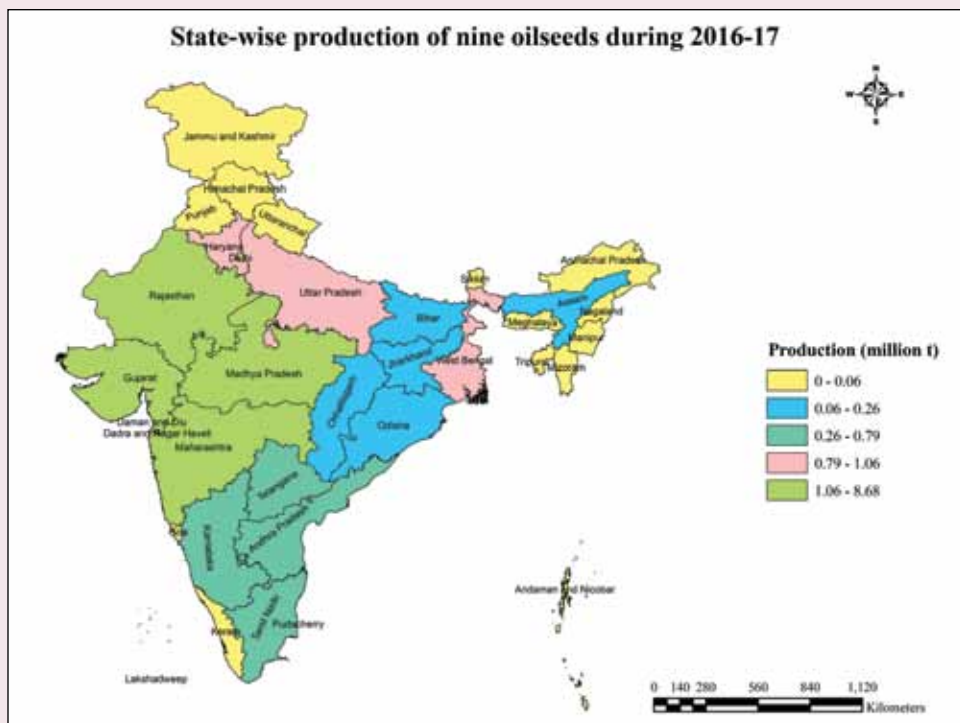
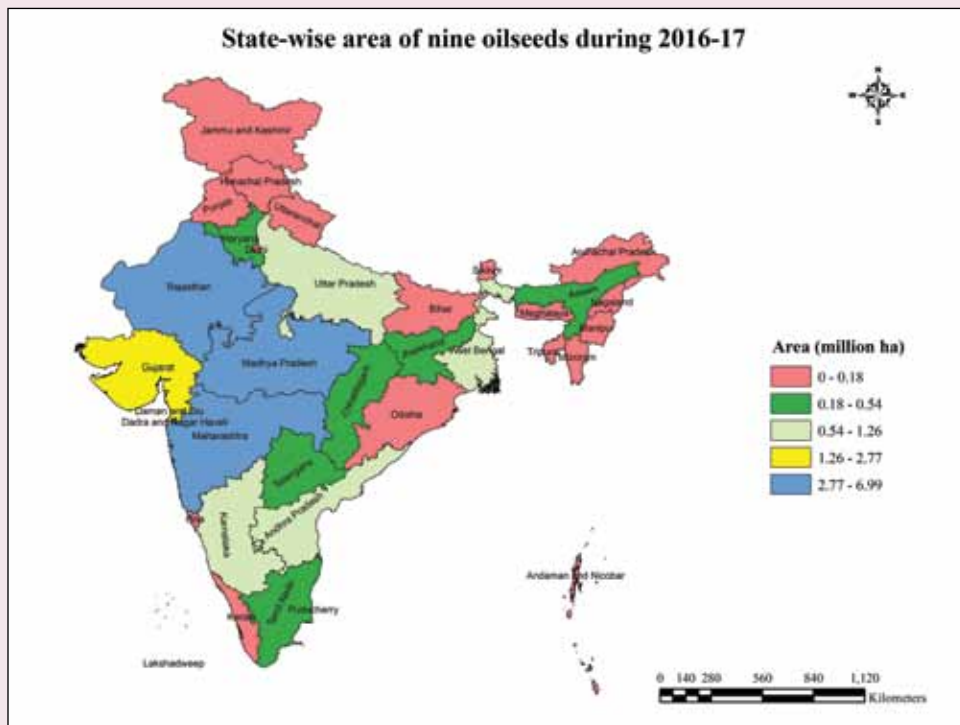
**Table 5.20: State-wise area, production and yield of nine oilseeds during 2015-16 and 2016-17 along with coverage under irrigation**

State	2016-17 <sup>#</sup>					2015-16					Area under irrigation (%) 2014-15*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Madhya Pradesh	6.99	26.65	8.68	27.05	1243	7.34	28.12	6.17	24.44	841	5.3
Rajasthan	4.55	17.38	6.31	19.67	1386	4.81	18.45	5.69	22.53	1182	63.8
Maharashtra	4.44	16.95	5.26	16.39	1185	4.20	16.11	2.44	9.65	579	3.2
Gujarat	2.77	10.57	4.78	14.90	1725	2.57	9.85	4.18	16.55	1627	29.8
Uttar Pradesh	1.26	4.80	1.06	3.31	845	1.29	4.95	0.86	3.41	670	42.5
West Bengal	0.79	3.03	0.92	2.88	1164	0.79	3.04	0.93	3.67	1168	79.1
Haryana	0.54	2.06	0.92	2.88	1712	0.52	2.00	0.83	3.27	1589	83.1
Karnataka	1.26	4.81	0.79	2.47	628	1.29	4.93	0.75	2.97	583	29.9
Andhra Pradesh	1.15	4.37	0.78	2.42	679	0.92	3.51	0.87	3.46	954	18.7
Telangana	0.52	2.00	0.71	2.20	1353	0.45	1.72	0.50	1.96	1102	40.5
Tamil Nadu	0.35	1.32	0.62	1.92	1787	0.41	1.56	0.93	3.69	2290	66.5
Jharkhand	0.35	1.34	0.26	0.81	737	0.26	0.99	0.18	0.70	681	23.2
Assam	0.31	1.18	0.21	0.66	685	0.31	1.19	0.22	0.85	694	2.5
Chhattisgarh	0.30	1.13	0.17	0.53	572	0.30	1.15	0.15	0.59	501	4.5
Bihar	0.12	0.45	0.13	0.41	1101	0.12	0.46	0.13	0.50	1059	57.2
Odisha	0.18	0.70	0.12	0.37	652	0.19	0.73	0.12	0.48	632	12.7
Punjab	0.04	0.16	0.06	0.18	1406	0.04	0.17	0.06	0.22	1318	86.8
Others	0.29	1.10	0.30	0.95	@	@	1.07	0.27	1.05	@	-
All India	<b>26.21</b>	<b>100.00</b>	<b>32.10</b>	<b>100.00</b>	<b>1225</b>	<b>26.09</b>	<b>100.00</b>	<b>25.25</b>	<b>100.00</b>	<b>968</b>	<b>27.4</b>

Note : 1. States have been arranged in descending order of percentage share of production during 2016-17, 2. \*: Provisional, 3. #: Fourth Advance Estimates, 4. @: Since area/production is low in individual states, yield rate is not worked out.

Source : *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

## Production and productivity





**Table 5.21: Production of oilseeds/oils and net domestic availability of edible oils**

(in lakh t)

Vegetable oils	2011-12		2012-13		2013-14		2014-15		2015-16		2016-17*		2017-18**	
	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils
<b>A. Primary source</b>														
Groundnut	69.64	16.02	46.95	10.80	97.14	22.34	74.02	17.02	67.33	15.27	74.62	17.16	91.79	20.82
Rapeseed/Mustard	66.04	20.47	80.29	24.89	78.77	24.42	62.82	19.47	67.97	21.08	79.17	24.74	83.22	25.81
Soybean	122.14	19.54	146.66	23.47	118.60	18.97	103.74	16.60	85.70	13.73	131.59	22.10	109.81	17.59
Sunflower	5.16	1.70	5.44	1.80	5.04	1.66	4.34	1.43	2.96	0.98	2.51	0.80	2.11	0.70
Sesamum	8.10	2.51	6.85	2.12	7.15	2.21	8.68	2.57	8.50	2.65	7.47	2.45	7.51	2.34
Nigerseed	0.98	0.29	1.02	0.31	0.98	0.29	0.76	0.23	0.74	0.21	0.85	0.24	0.74	0.21
Safflower	1.45	0.44	1.09	0.33	1.13	0.31	0.90	0.27	0.53	0.15	0.94	0.22	0.47	0.14
Castor	22.95	9.18	19.64	7.86	17.27	6.91	18.70	7.48	17.52	6.16	13.76	4.99	15.68	5.51
Linseed	1.52	0.46	1.49	0.45	1.41	0.41	1.55	0.47	1.25	0.32	1.84	0.39	1.75	0.44
<b>Sub Total</b>	<b>297.98</b>	<b>70.61</b>	<b>309.43</b>	<b>72.03</b>	<b>327.49</b>	<b>77.52</b>	<b>275.51</b>	<b>65.54</b>	<b>252.50</b>	<b>60.55</b>	<b>312.75</b>	<b>73.09</b>	<b>313.08</b>	<b>73.56</b>
<b>B. Secondary source</b>														
Coconut		4.00		3.90		5.30		4.80		4.32		5.20		6.01
Palm oil		-		-		-		-		1.98		2.30		2.20
Cotton seed		11.62		11.57		12.40		12.15		10.05		12.24		12.64
Rice bran		7.50		7.80		8.10		9.20		9.90		10.31		10.69
Solvent extracted oils		4.10		4.10		3.10		3.00		3.50		2.85		3.50
Tree & forest origin		1.20		1.20		1.20		1.60		1.50		1.50		1.50
<b>Sub Total</b>		<b>28.42</b>		<b>28.57</b>		<b>30.10</b>		<b>30.75</b>		<b>31.25</b>		<b>34.40</b>		<b>36.54</b>
<b>Total (A+B)</b>		<b>99.03</b>		<b>100.60</b>		<b>107.62</b>		<b>96.29</b>		<b>91.80</b>		<b>107.49</b>		<b>110.10</b>
<b>C. Less: Exports &amp; industrial use</b>		<b>9.46</b>		<b>8.41</b>		<b>7.10</b>		<b>5.94</b>		<b>5.50</b>		<b>6.50</b>		<b>6.30</b>
<b>D. Net domestic availability of edible oils</b>		<b>89.57</b>		<b>92.19</b>		<b>101.90</b>		<b>92.06</b>		<b>86.3</b>		<b>100.99</b>		<b>103.80</b>
<b>E. Import of edible oils*</b>		<b>99.43</b>		<b>106.05</b>		<b>109.76</b>		<b>138.53</b>		<b>148.50</b>		<b>153.17</b>		<b>119.44#</b>
<b>F. Total availability/consumption of edible oils</b>		<b>189.00</b>		<b>198.24</b>		<b>211.66</b>		<b>230.59</b>		<b>234.80</b>		<b>254.16</b>		<b>-</b>

Note : 1. \*: Based on Final Estimates released by Ministry of Agriculture & Farmers Welfare on 27.02.2018, 2. \*\*: Based on 4<sup>th</sup> advance estimates released by Ministry of Agriculture & Farmers Welfare on 28.08.2018, 3. †: Directorate General of Commercial Intelligence & Statistics (Department of Commerce), 4. #: Data for Nov 2017-Aug 2018.

Source : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 5.22: All India area, production and yield of commercial crops**

(Area: million ha, Production: million t, Yield: kg/ha)

Crops		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18*
<b>Groundnut</b>	Area	5.26	4.72	5.51	4.77	4.60	5.31*	N.A.
	Production	6.96	4.70	9.71	7.40	6.73	7.46	9.18
	Yield	1323	995	1764	1552	1465	1398	1868
<b>Rapeseed &amp; Mustard</b>	Area	5.89	6.36	6.65	5.80	5.75	6.02*	N.A.
	Production	6.60	8.03	7.88	6.28	6.80	7.92	8.32
	Yield	1121	1262	1185	1083	1183	1304	1397
<b>Sunflower</b>	Area	0.73	0.83	0.67	0.59	0.49	0.34*	N.A.
	Production	0.52	0.54	0.50	0.43	0.30	0.25	0.21
	Yield	712	655	750	736	608	660	738
<b>Soybean</b>	Area	10.11	10.84	11.72	10.91	11.60	11.32*	N.A.
	Production	12.21	14.67	11.86	10.37	8.57	13.16	10.98
	Yield	1208	1353	1012	951	738	1177	1049
<b>Nine oil seed</b>	Area	26.31	26.48	28.05	25.59	26.09	26.18	24.65
	Production	29.80	30.94	32.75	27.51	25.25	31.28	31.31
	Yield	1133	1168	1168	1075	968	1195	1270
<b>Cotton@</b>	Area	12.18	11.98	11.96	12.82	12.29	10.83	12.43
	Production	35.20	34.22	35.90	34.80	30.01	32.58	34.89
	Yield	491	486	510	462	415	512	477
<b>Jute &amp; Mesta**</b>	Area	0.90	0.86	0.84	0.81	0.78	0.76	0.74
	Production	11.40	10.93	11.68	11.13	10.52	10.96	10.14
	Yield	2283	2281	2512	2473	2421	2490*	N.A.
<b>Sugarcane</b>	Area	5.04	5.00	4.99	5.07	4.93	4.44	4.73
	Production	361.04	341.20	352.14	362.33	348.45	306.07	376.90
	Yield	71668	68254	70522	71512	70720	69001	79650
<b>Potato</b>	Area	1.91	1.99	1.97	2.08	2.12	2.18	2.15 <sup>#</sup>
	Production	41.48	45.34	41.56	48.01	43.42	48.60	48.53 <sup>#</sup>
	Yield	21753	22760	21060	23126	20509	22303	22558 <sup>#</sup>
<b>Onion</b>	Area	1.09	1.05	1.20	1.17	1.32	1.31	1.32 <sup>#</sup>
	Production	17.51	16.81	19.40	18.93	20.93	22.43	22.07 <sup>#</sup>
	Yield	16109	15989	16120	16111	15857	17178	16781 <sup>#</sup>
<b>Coconut</b>	Area	2.07	2.14	2.14	1.98	2.09	2.08	2.08 <sup>#</sup>
	Production	14.94	15.61	14.91	14.07	15.26	16.49	16.23 <sup>#</sup>
	Yield	7200	7300	7000	7164	7305	8109 <sup>#</sup>	N.A.
<b>Tobacco</b>	Area	0.47	0.43	0.46	0.46	0.45	N.A.	N.A.
	Production	0.75	0.66	0.74	0.84	0.80	N.A.	N.A.
	Yield	1613	1542	1612	1842	1781	2016	N.A.

**Note** : 1. #: 3<sup>rd</sup> Advance Estimate, 2. \*: 4<sup>th</sup> Advance estimates, 3. @: Production in million bales of 170 kg each, 4. \*\*: Production in million bales 180 kg each, 5. N.A.: Not available.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 5.23: Three largest producing States of important crops during 2017-18\***

(Production: million t)

Crops	States	Production	% Share of production to all India	Cumulative % share of production
<b>Foodgrains</b>				
<b>Rice</b>	West Bengal	14.97	13.26	13.26
	Punjab	13.38	11.85	25.11
	Uttar Pradesh	13.27	11.75	36.86
<b>Wheat</b>	Uttar Pradesh	31.88	31.98	31.98
	Punjab	17.85	17.90	49.88
	Madhya Pradesh	15.91	15.96	65.84
<b>Maize</b>	Karnataka	3.55	12.36	12.36
	Maharashtra	3.54	12.33	24.69
	Madhya Pradesh	3.54	12.32	37.01
<b>Total coarse cereals</b>	Rajasthan	6.57	13.99	13.99
	Karnataka	6.27	13.35	27.34
	Maharashtra	6.09	12.96	40.30
<b>Total pulses</b>	Madhya Pradesh	8.11	32.14	32.14
	Rajasthan	3.39	13.42	45.56
	Maharashtra	3.30	13.09	58.65
<b>Total foodgrains</b>	Uttar Pradesh	51.25	17.99	17.99
	Madhya Pradesh	33.45	11.74	29.73
	Punjab	31.71	11.13	40.86
<b>Oilseeds</b>				
<b>Groundnut</b>	Gujarat	3.94	42.88	42.88
	Rajasthan	1.26	13.72	56.60
	Andhra Pradesh	1.04	11.34	67.94
<b>Rapeseed &amp; Mustard</b>	Rajasthan	3.40	40.87	40.87
	Haryana	1.11	13.31	54.18
	Madhya Pradesh	0.98	11.73	65.91
<b>Soybean</b>	Madhya Pradesh	5.32	48.46	48.46
	Maharashtra	3.89	34.41	82.87
	Rajasthan	1.07	9.74	92.61
<b>Sunflower</b>	Karnataka	0.10	47.31	47.31
	Bihar	0.02	10.48	57.79
	Odisha	0.02	7.32	65.11
<b>Total oilseeds</b>	Madhya Pradesh	6.95	22.20	22.20
	Rajasthan	5.97	19.07	41.27
	Gujarat	5.86	18.71	59.98
<b>Other Cash Crops</b>				
<b>Sugarcane</b>	Uttar Pradesh	177.06	46.98	46.98
	Maharashtra	83.13	22.06	69.04
	Karnataka	28.26	7.50	76.54

## Production and productivity

Crops	States	Production	% Share of production to all India	Cumulative % share of production
Cotton @	Gujarat	12.64	36.22	36.22
	Maharashtra	6.55	18.76	54.98
	Telangana	4.76	13.63	68.61
Jute & Mesta \$	West Bengal	7.64	75.35	75.35
	Bihar	1.45	14.32	89.67
	Assam	0.84	8.26	97.93

**Note** : 1. @: Production in million bales of 170 kg each, 2. \$: Production in million bales of 180 kg each, 3. \*: 4<sup>th</sup> Advance estimates.

**Source** : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 5.24: Area, production and yield of principal condiments and spices**

(Area: '000 ha; Production: '000 t, Yield: kg/ha)

Crop		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18*
Pepper	Area	124.60	123.81	129.00	128.59	132.00	136.00
	Production	52.60	50.87	65.00	54.64	72.00	70.00
	Yield	422.00	411.00	504.00	425.00	545.00	515.00
Cardamom	Area	92.40	92.84	100.00	85.66	85.00	84.00
	Production	18.40	21.28	24.00	24.07	28.00	29.00
	Yield	199.00	229.00	240.00	281.00	329.00	345.00
Coriander	Area	543.20	447.13	553.00	581.60	674.00	664.00
	Production	523.90	313.65	462.00	584.98	883.00	861.00
	Yield	964.00	701.00	835.00	1006.00	1310.00	1297.00
Chillies (Dried)	Area	794.10	774.87	761.00	811.14	840.00	809.00
	Production	1304.40	1492.14	1605.00	1520.39	2096.00	2301.00
	Yield	1643.00	1926.00	2109.00	1874.00	2495.00	2844.00
Guar Seed	Area	5151.30	5958.70	5344.80	5603.40	N.A.	N.A.
	Production	2457.60	3585.30	3275.90	2824.80	N.A.	N.A.
	Yield	477.00	602.00	613.00	504.00	N.A.	N.A.
Turmeric	Area	194.20	232.67	184.00	185.90	222.00	223.00
	Production	971.10	1189.89	830.00	943.30	1056.00	1077.00
	Yield	5000.00	5114.00	4511.00	5074.00	4757.00	4830.00
Garlic	Area	247.52	230.59	262.00	280.95	321.00	303.00
	Production	1259.27	1251.88	1425.00	1617.34	1693.00	1721.00
	Yield	5088.00	5429.00	5439.00	5757.00	5274.00	5680.00
Ginger	Area	136.25	132.62	142.00	163.62	168.00	161.00
	Production	682.63	655.06	760.00	1109.18	1070.00	1048.00
	Yield	5010.00	4939.00	5352.00	6779.00	6369.00	6509.00

**Note** : 1. \*: 3<sup>rd</sup> Advance Estimate, 2. N.A.: Not available.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

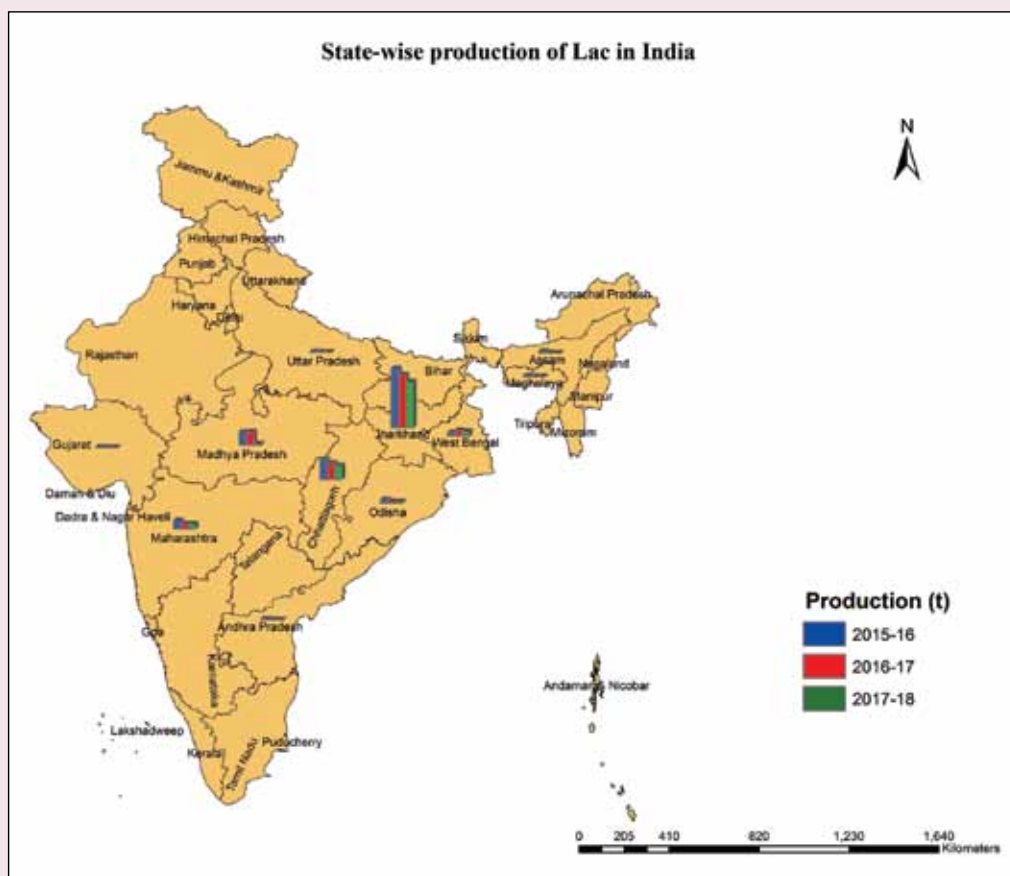
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

**Table 5.25: State-wise production of Lac in India**

(t)

States	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Andhra Pradesh	120	93	113	170	172	88	9
Assam	100	130	150	285	315	105	9
Chhattisgarh	3200	3260	3381	2336	3187	2693	2252
Gujarat	35	55	47	45	48	22	22
Jharkhand	10240	11020	12207	8630	9950	8926	7746
Madhya Pradesh	1300	2524	2497	2586	2222	2274	236
Maharashtra	950	1155	1182	1525	1465	875	865
Meghalaya	5	150	168	160	127	20	6
Odisha	350	310	673	715	623	354	280
Uttar Pradesh	200	100	90	75	55	15	12
West Bengal	1400	780	500	451	582	980	794
<b>Total</b>	<b>17900</b>	<b>19577</b>	<b>21008</b>	<b>16978</b>	<b>18746</b>	<b>16352</b>	<b>14230</b>

Source : Information received from ICAR-Indian Institute of Natural Resins & Gums, Namkum, Ranchi.



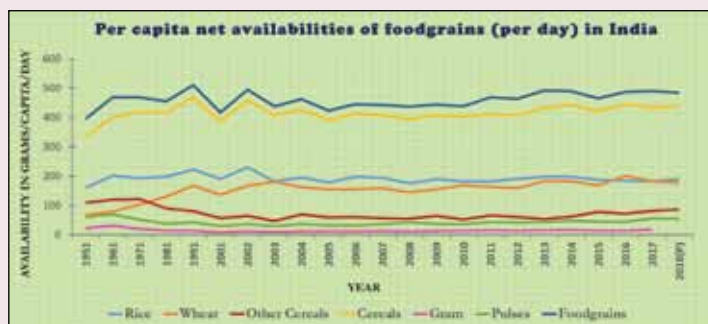
**Table 5.26: Per capita net availabilities of foodgrains (per day) in India**

(gram per day)

Year	Rice	Wheat	Other Cereals	Cereals	Gram	Pulses	Food-grains
1951	158.9	65.7	109.6	334.2	22.5	60.7	394.9
1961	201.1	79.1	119.5	399.7	30.2	69.0	468.7
1971	192.6	103.6	121.4	417.6	20.0	51.2	468.8
1981	197.8	129.6	89.9	417.3	13.4	37.5	454.8
1991	221.7	166.8	80.0	468.5	13.4	41.6	510.1
2001	190.5	135.8	56.2	386.2	8.0	30.0	416.2
2002	228.7	166.6	63.4	458.7	10.7	35.4	494.1
2003	181.4	180.4	46.7	408.5	8.5	29.1	437.6
2004	195.4	162.2	69.3	426.9	11.2	35.8	462.7
2005	177.3	154.3	59.4	390.9	10.6	31.5	422.4
2006	198.0	154.3	60.5	412.8	10.7	32.5	445.3
2007	194.0	157.8	55.5	407.4	11.9	35.5	442.8
2008	175.4	145.1	54.1	394.2	10.6	41.8	436.0
2009	188.4	154.7	63.9	407.0	12.9	37.0	444.0
2010	182.0	168.2	51.4	401.7	13.5	35.4	437.1
2011	181.6	163.6	65.5	410.7	14.5	43.0	468.2
2012	190.2	158.4	60.0	408.6	13.5	41.7	463.8
2013	197.4	183.1	52.7	433.2	15.3	43.3	491.9
2014	198.0	183.0	61.8	442.9	16.3	46.4	489.3
2015	186.0	168.0	77.7	421.4	14.0	43.8	465.1
2016	184.2	199.7	71.6	443.7	13.3	43.0	486.8
2017	183.0	182.7	80.6	434.0	17.3*	54.7	488.7
2018 <sup>(P)</sup>	<b>189.0</b>	<b>176.4</b>	<b>85.5</b>	<b>438.4</b>	<b>N.A.</b>	<b>54.5</b>	<b>484.3</b>

**Note :** 1. The net availability of foodgrains is estimated to be Gross Production (-) seed, feed & wastage (-) export (+) import (+/-) change in stocks, 2. The net availability of foodgrains divided by the population estimates for a particular year indicates per capita availability of foodgrains in terms of kg / year. Net availability, thus, worked out further divided by the number of days in a year i.e. 365 days, which is taken as net availability of foodgrains in terms of gram/day, 3. Figures in respect of per capita net availability given above are not strictly representative of actual level of consumption in the country especially as they do not take into account any change in stocks in possession of traders, producers and consumers, 4. Cereals include rice, wheat and other cereals, 5. Pulses include all kharif and rabi pulses, 6. Foodgrains includes rice, wheat, other cereals and all pulses, 7. P: Provisional figures based on 4<sup>th</sup> Advance Estimates of production for 2017-18, 8. \*: Provisional figure based on 4<sup>th</sup> Advance Estimate of production for 2016-17.

**Source :** 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Agricultural Statistics at a Glance 2017*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



**Table 5.27: Cost estimates of principle crops in India during 2015-16**

<b>Crop</b>	<b>State</b>	<b>Cost of Cultivation* (₹/ha)</b>	<b>Yield (q/ha)</b>
<b>Rice</b>	Andhra Pradesh	53108.28	58.63
	Punjab	41137.38	69.89
	Haryana	47710.75	52.27
<b>Wheat</b>	Punjab	29745.25	46.53
	Haryana	34837.64	43.09
	Rajasthan	38783.71	37.54
<b>Maize</b>	Tamil Nadu	65464.97	59.84
	Andhra Pradesh	43025.34	51.28
	Maharashtra	56845.46	43.00
<b>Jowar</b>	Madhya Pradesh	19969.54	21.40
	Andhra Pradesh	20671.52	19.65
	Tamil Nadu	21632.03	8.96
<b>Bajra</b>	Gujarat	37425.60	25.30
	Uttar Pradesh	23364.30	24.61
	Haryana	27556.91	16.37
<b>Barley</b>	Rajasthan	33862.12	36.58
	Uttar Pradesh	21656.58	24.20
<b>Ragi</b>	Uttarakhand	21668.30	18.78
	Karnataka	46934.09	16.89
<b>Arhar</b>	Maharashtra	56971.09	14.08
	Gujarat	34233.87	10.55
	Uttar Pradesh	25440.28	8.33
<b>Gram</b>	Bihar	21810.31	15.72
	Haryana	26386.24	14.23
	Madhya Pradesh	24722.97	11.65
<b>Urad</b>	Andhra Pradesh	17796.62	9.37
	Tamil Nadu	25288.85	5.83
	Madhya Pradesh	21321.76	5.25
<b>Moong</b>	Gujarat	22218.03	5.99
	Andhra Pradesh	20237.46	3.14
	Rajasthan	16780.67	3.99
<b>Lentil</b>	West Bengal	27090.87	11.36
	Madhya Pradesh	19785.25	10.11
	Bihar	17263.59	9.87
<b>Groundnut</b>	Rajasthan	38744.29	24.58
	Gujarat	58373.60	18.53
	Tamil Nadu	58151.57	18.32

## Production and productivity

Crop	State	Cost of Cultivation* (₹/ha)	Yield (q/ha)
<b>Rapeseed &amp; Mustard</b>	Madhya Pradesh	20473.19	16.00
	Haryana	26752.61	15.71
	Gujarat	29979.66	14.15
<b>Soybean</b>	Maharashtra	32327.60	8.96
	Andhra Pradesh	33059.09	7.07
	Rajasthan	23781.56	6.27
<b>Sunflower</b>	Andhra Pradesh	35749.51	9.44
	Karnataka	19978.33	3.91
<b>Safflower</b>	Maharashtra	16669.26	4.34
	Karnataka	11633.11	4.12
<b>Nigerseed</b>	Madhya Pradesh	16765.53	3.31
	Odisha	14153.49	2.32
<b>Sesamum</b>	West Bengal	26856.46	9.04
	Gujarat	26824.75	6.06
	Odisha	18624.57	5.09
<b>Sugarcane</b>	Tamil Nadu	138191.09	1025.52
	Maharashtra	143014.45	946.02
	Andhra Pradesh	120091.41	866.13
<b>Cotton</b>	Tamil Nadu	78018.51	24.68
	Gujarat	55081.77	18.24
	Maharashtra	57649.84	16.29
<b>Jute</b>	West Bengal	58133.31	25.24
	Assam	57666.80	19.22
	Odisha	52713.13	15.91
<b>Onion</b>	Maharashtra	114759.09	244.85
	Gujarat	101663.40	171.62
	Karnataka	43003.59	80.11
<b>Potato</b>	West Bengal	113603.08	244.92
	Bihar	62315.66	195.87
	Uttar Pradesh	71310.86	186.01

**Note :** 1. \*: Cost of Cultivation represents A2+FL cost, 2. Cost A2 includes all actual expenses in cash and kind incurred in production by owner and rent paid for leased-in land, 3. FL: Family Labour, is calculated on the basis of statutory wage rate or the actual market rate whichever is higher.

**Source :** *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)



**Table 5.28: Cost of cultivation of principal crops during 2015-16**

₹/ha)

Item	Paddy					
	A.P.	T. Nadu	U.P.	Punjab	M.P.	W.B.
<b>I Operational cost</b>	<b>52678.42</b>	<b>54944.90</b>	<b>40095.90</b>	<b>34807.69</b>	<b>30620.93</b>	<b>54122.24</b>
Human labour	26647.54	22775.60	19892.63	15528.77	13197.95	34388.01
Animal labour	499.46	162.72	994.10	41.82	4140.13	1778.04
Machine labour	9505.37	10617.25	4314.12	6020.04	4750.08	4219.90
Seed	2004.99	6968.77	3919.33	1838.03	2051.77	2055.04
Fertilisers and manure	8218.15	8451.78	4745.33	3648.39	3869.34	6102.57
Fertilisers	7289.75	6023.73	4636.31	3223.42	2715.34	4831.02
Manure	928.40	2428.05	109.02	424.97	1154.00	1271.55
Insecticide	3102.19	1558.70	300.38	4458.79	745.15	1500.40
Irrigation charges	1312.95	2977.63	5060.65	2399.72	1062.36	2941.82
Interest on working capital	1291.86	1425.03	869.09	857.24	636.67	1110.70
Miscellaneous	95.91	7.42	0.27	14.89	167.48	25.76
<b>II Fixed cost</b>	<b>29132.98</b>	<b>19727.12</b>	<b>19320.54</b>	<b>39814.01</b>	<b>12318.11</b>	<b>18113.20</b>
Rental value of owned land	26348.62	14564.96	12408.20	29900.67	8472.29	14692.45
Rent paid for leased in land	121.23	151.58	681.93	5993.03	-	554.08
Land revenue, cesses & taxes	2.35	7.00	2.84	-	3.40	65.09
Depreciation on implements & farm buildings	306.28	347.44	996.42	336.66	1063.90	971.48
Interest on fixed capital	2354.50	4656.14	5231.15	3583.65	2778.52	1829.50
<b>Total I+II</b>	<b>81811.40</b>	<b>74672.02</b>	<b>59416.44</b>	<b>74621.70</b>	<b>42939.04</b>	<b>72235.44</b>
<b>III (a) Yield and value</b>						
1) Yield (q/ha)	58.63	49.13	35.85	69.89	22.02	44.91
2) Value of the main-product	83826.49	71303.81	43843.74	10429.90	29846.95	54598.11
3) Value of the by-product	4693.94	4056.94	3439.20	592.68	4042.24	6948.85
<b>III (b) Material and labour inputs per hectare</b>						
1) Seeds (kg)	73.47	74.23	-	-	65.10	59.48
2) Fertilisers (kg of nutrients)	247.92	215.25	173.51	182.41	108.85	155.59
3) Manure (q)	16.82	27.93	1.69	23.03	8.20	20.37
4) Human labour (man-hours)	598.21	510.60	771.21	344.81	511.66	1024.66
5) Animal labour (pair-hours)	7.59	1.94	8.47	0.41	42.13	25.88

Continued...

Production and productivity

Item	Wheat					Jowar	
	Punjab	Rajasthan	M.P.	U.P.	Bihar	A.P.	Maha-rashtra
<b>I Operational cost</b>	<b>24832.93</b>	<b>37814.56</b>	<b>26334.34</b>	<b>33763.37</b>	<b>28471.30</b>	<b>19908.79</b>	<b>23499.28</b>
Human labour	5786.94	17972.52	8653.57	11664.40	10409.92	6818.77	12727.42
Animal labour	47.22	320.64	547.22	652.01	27.66	1306.87	3549.53
Machine labour	8365.19	5916.23	6696.62	6776.03	5936.40	6585.32	3669.52
Seed	2169.31	3542.34	2839.95	3330.46	3234.08	765.92	518.22
Fertilisers and manure	5391.61	3878.08	3023.46	4758.02	4195.12	2719.17	1844.69
Fertilisers	5383.96	3591.47	3023.04	4753.87	4124.60	2144.96	1766.86
Manure	7.65	286.61	0.42	4.15	70.52	574.21	77.83
Insecticides	1829.16	163.36	34.86	44.66	36.36	1149.88	1.92
Irrigation charges	545.04	5318.90	3732.18	5748.94	3945.94	56.16	641.79
Interest on working capital	660.96	701.53	621.27	788.84	685.82	506.70	518.51
Miscellaneous	37.50	0.96	185.21	0.01	-	-	27.68
<b>II Fixed cost</b>	<b>32152.31</b>	<b>18945.49</b>	<b>17983.25</b>	<b>22442.56</b>	<b>14453.85</b>	<b>15376.88</b>	<b>9385.55</b>
Rental value of owned land	23001.33	12578.23	13749.21	15268.61	11649.57	12237.28	4090.88
Rent paid for leased in land	4499.04	326.54	-	1408.24	-	-	-
Land revenue, cesses & taxes	-	28.81	4.47	3.67	69.64	0.47	22.97
Depreciation on implements & farm buildings	413.29	613.81	578.97	881.30	515.33	762.26	653.52
Interest on fixed capital	4238.65	5398.10	3650.60	4880.74	2219.31	2376.87	4618.18
<b>Total I+II</b>	<b>56985.24</b>	<b>56760.05</b>	<b>44317.59</b>	<b>56205.93</b>	<b>42925.15</b>	<b>35285.67</b>	<b>32884.83</b>
<b>III (a) Yield and value</b>							
1) Yield (q/ha)	46.53	37.54	30.60	31.99	26.77	19.65	8.00
2) Value of the main-product	70960.93	60600.82	46487.06	47768.58	38557.41	35181.46	14300.45
3) Value of the by-product	9243.12	15859.85	8509.78	11487.69	8916.21	5609.48	10239.95
<b>III (b) Material and labour inputs per ha</b>							
1) Seeds (kg)	107.66	153.88	115.43	145.40	117.73	11.84	10.77
2) Fertilisers (kg of nutrients)	244.73	140.50	116.27	176.06	141.79	59.83	54.72
3) Manure (q)	0.47	4.06	-	0.08	1.13	3.99	0.50
4) Human labour (man-hours)	122.78	467.17	285.05	414.98	399.41	190.39	415.23
5) Animal labour (pair-hours)	0.38	2.94	6.26	6.09	0.13	16.12	35.46

Continued...

Item	Bajra		Maize			Groundnut	
	Gujarat	Maharashtra	A.P.	Bihar	Rajasthan	A.P.	Gujarat
<b>I Operational cost</b>	<b>36750.78</b>	<b>32625.16</b>	<b>42634.46</b>	<b>29563.31</b>	<b>35922.62</b>	<b>41908.80</b>	<b>56707.44</b>
Human labour	17453.25	17532.31	18404.34	13420.44	23147.26	16312.32	21095.19
Animal labour	716.28	3446.61	3885.43	-	2416.65	1419.71	3500.59
Machine labour	4950.54	6243.22	5963.65	3857.67	4330.44	4089.51	6692.34
Seed	1944.69	998.77	4387.04	2195.27	1892.38	10773.83	10735.25
Fertilisers and manure	5118.64	1732.27	7527.63	4853.83	2644.04	6248.38	6822.04
Fertilisers	3317.13	1493.08	7174.50	3996.15	2395.36	4539.81	2759.52
Manure	1801.51	239.19	353.13	857.68	248.68	1708.57	4062.52
Insecticides	18.15	-	789.05	-	-	1019.07	3574.82
Irrigation charges	5710.20	2057.22	574.75	4599.1	1059.06	812.50	2807.99
Interest on working capital	839.03	608.70	1074.35	636.59	432.79	1069.89	1398.96
Miscellaneous	11731.03	6.06	28.22	-	-	163.59	80.26
<b>II Fixed cost</b>	<b>11731.03</b>	<b>9177.23</b>	<b>26970.74</b>	<b>13382.14</b>	<b>11466.73</b>	<b>20262.60</b>	<b>18559.31</b>
Rental value of owned land	9322.80	4185.50	23644.64	10867.34	5887.83	17126.77	13840.49
Rent paid for leased in land	563.71	-	-	-	38.86	795.68	1460.93
Land revenue, cesses & taxes	2.13	23.00	1.06	50.84	10.36	-	7.71
Depreciation on implements & farm buildings	108.98	730.99	389.82	638.54	570.84	231.34	197.52
Interest on fixed capital	1733.41	4237.84	2935.22	1825.42	4958.84	2108.81	3052.66
<b>Total I+II</b>	<b>48481.81</b>	<b>41802.39</b>	<b>69605.20</b>	<b>42945.45</b>	<b>47389.35</b>	<b>62171.40</b>	<b>75266.75</b>
<b>III (a) Yield and value</b>							
1) Yield (q/ha)	25.30	13.17	51.28	32.56	17.14	14.03	18.53
2) Value of the main-product	39250.41	21339.29	74210.58	40350.45	27600.40	59516.61	75831.31
3) Value of the by-product	20064.70	3768.69	4604.90	5321.70	7728.21	5668.62	17840.00
<b>III (b) Material and labour inputs per ha</b>							
1) Seeds (kg)	7.53	4.18	21.26	20.22	31.57	155.42	139.39
2) Fertilisers (kg of nutrients)	139.67	67.98	272.66	133.29	116.62	129.79	74.59
3) Manure (q)	12.24	1.20	6.77	14.74	1.99	13.63	36.31
4) Human labour (man-hours)	632.85	589.91	475.22	520.95	618.39	484.88	655.40
5) Animal labour (pair-hours)	7.52	35.13	38.43	-	35.40	20.32	35.31

Continued ...

Production and productivity

Item	Tur (Arhar)			Cotton		
	U.P.	Karnataka	Gujarat	Haryana	A.P.	Gujarat
<b>I Operational cost</b>	<b>23565.82</b>	<b>26490.32</b>	<b>31925.45</b>	<b>42392.66</b>	<b>52279.97</b>	<b>53472.88</b>
Human labour	14173.45	12847.56	17102.52	22814.67	26000.08	26691.10
Animal labour	2225.07	3425.00	2724.38	907.55	6778.89	1726.98
Machine labour	3477.09	3048.27	4736.46	4019.82	4076.82	5761.36
Seed	2214.36	1238.42	825.35	4221.40	4193.44	3365.75
Fertilisers and manure	15.18	4159.17	2589.96	3246.86	6860.45	7819.04
Fertilisers	15.18	2475.23	2052.24	3246.86	6251.83	5137.41
Manure	-	1683.94	537.72	-	608.62	2681.63
Insecticides	-	883.14	1864.90	2763.31	2806.99	3428.20
Irrigation charges	1025.55	283.33	1316.72	3637.59	187.10	3367.76
Interest on working capital	435.12	605.43	649.25	768.90	1362.25	1285.24
Miscellaneous	-	-	115.91	12.56	13.95	27.45
<b>II Fixed cost</b>	<b>28816.68</b>	<b>12040.74</b>	<b>16039.87</b>	<b>20641.70</b>	<b>21381.75</b>	<b>17775.46</b>
Rental value of owned land	21274.30	10133.55	10667.32	11697.56	18023.71	12072.81
Rent paid for leased in land	604.92	-	1991.02	-	38.33	1343.35
Land revenue, cesses & taxes	21.54	17.18	53.66	-	0.05	15.52
Depreciation on implements & farm buildings	1248.01	334.46	263.73	784.58	470.04	250.01
Interest on fixed capital	5667.91	1555.55	3064.14	8159.56	2849.62	4093.77
<b>Total I+II</b>	<b>52382.50</b>	<b>38531.06</b>	<b>47965.32</b>	<b>63034.36</b>	<b>73661.72</b>	<b>71248.34</b>
<b>III (a) Yield and value</b>						
1) Yield (q/ha)	8.33	5.19	10.55	8.39	14.52	18.24
2) Value of the main-product	57582.99	43134.42	74953.08	35645.98	60079.75	78491.98
3) Value of the by-product	9408.59	1322.82	1743.89	2448.13	38.62	1355.21
<b>III (b) Material and labour inputs per ha</b>						
1) Seeds (kg)	18.27	12.99	10.89	2.11	2.24	1.75
2) Fertilisers (kg of nutrients)	0.89	67.81	78.95	130.19	223.02	197.38
3) Manure (q)	-	8.49	5.78	-	12.42	25.30
4) Human labour (man-hours)	509.80	375.02	822.07	473.49	640.01	971.24
5) Animal labour (pair-hours)	15.03	58.64	27.29	6.99	45.19	16.93

Continued...

Item	Sugarcane			
	A.P.	Uttar Pradesh	Maharashtra	Tamil Nadu
<b>I Operational cost</b>	<b>117673.54</b>	<b>54664.46</b>	<b>141436.69</b>	<b>137266.26</b>
Human labour	80642.07	29820.23	60213.61	91502.56
Bullock labour	1497.18	342.97	5481.97	688.58
Machine labour	1706.12	2490.09	23202.29	3789.75
Seed	8745.85	8569.82	7544.21	9692.94
Fertilisers and manure	15187.93	5043.59	22271.40	15209.39
Fertilisers	14687.75	4207.96	18474.93	11154.39
Manure	500.18	835.63	3796.47	4055.00
Insecticides	1285.71	511.00	678.23	819.84
Irrigation charges	2635.67	5506.15	15222.94	8692.81
Interest on working capital	5973.01	2380.61	6822.04	6830.17
Miscellaneous	-	-	-	40.22
<b>II Fixed cost</b>	<b>68358.06</b>	<b>45670.24</b>	<b>48986.21</b>	<b>39673.04</b>
Rental value of owned land	62812.73	36679.10	32424.51	27926.99
Rent paid for leased in land	2015.27	290.92	-	138.55
Land revenue, cesses & taxes	-	13.41	346.17	12.51
Depreciation on implements & farm buildings	402.56	1890.49	1231.63	773.49
Interest on fixed capital	3127.50	6796.32	14983.90	10821.20
<b>Total I+II</b>	<b>186031.60</b>	<b>100334.70</b>	<b>190422.90</b>	<b>176939.30</b>
<b>III (a) Yield and value</b>				
1) Yield (q/ha)	866.13	542.88	946.02	1025.52
2) Value of the main-product	219530.90	151791.30	182952.60	252952.50
3) Value of the by-product	1130.39	7450.44	11555.53	3381.63
<b>III (b) Material and labour inputs per ha</b>				
1) Seeds (kg)	34.80	30.13	24.77	39.10
2) Fertilisers (kg of nutrients)	544.27	187.19	647.20	413.48
3) Manure (q)	16.09	13.31	22.12	60.06
4) Human labour (man-hours)	1767.18	1123.64	1886.59	1812.50
5) Animal labour (pair-hours)	22.13	2.87	44.08	12.96

Source : 1. *Fertiliser Statistics 2017-18*, The Fertiliser Association of India, New Delhi.  
2. *Reports of the Commission for Agricultural Costs and Prices 2017-18*, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**Table 5.29: Cropping pattern according to land utilization statistics during 2013-14 and 2014-15**

Crops		2013-14		2014-15 <sup>#</sup>	
		Area ('000 ha)	% share to total cropped area	Area ('000 ha)	% share to total cropped area
<b>I.</b>	<b>Food crops</b>	<b>138928</b>	<b>69.14</b>	<b>143983</b>	<b>72.59</b>
	<b>1. Total foodgrains</b>	<b>125113</b>	<b>62.26</b>	<b>123524</b>	<b>62.27</b>
	<b>(A) Cereals &amp; millets</b>	<b>101333</b>	<b>50.43</b>	<b>101817</b>	<b>51.33</b>
	Rice	44451	22.12	44238	22.30
	Jowar	5755	2.86	6242	3.15
	Bajra	8094	4.03	7849	3.96
	Maize	9020	4.49	8797	4.43
	Ragi	1211	0.60	1199	0.60
	Wheat	31385	15.62	32078	16.17
	Barley	687	0.34	727	0.37
	Other cereals & millets	731	0.36	687	0.35
	<b>(B) Pulses</b>	<b>23779</b>	<b>11.83</b>	<b>21707</b>	<b>10.94</b>
	Gram	9397	4.68	7652	3.86
	Tur (Arhar)	3527	1.76	3398	1.71
	Other pulses	10855	5.40	10657	5.37
	<b>2. Sugar</b>	<b>5572</b>	<b>2.77</b>	<b>5609</b>	<b>2.83</b>
	Sugarcane	5526	2.75	5565	2.81
	Others	46	0.02	45	0.02
	<b>3. Condiments &amp; spices</b>	<b>3306</b>	<b>1.65</b>	<b>3458</b>	<b>1.74</b>
	Pepper (Black)	122	0.06	129	0.06
	Chillies	696	0.35	701	0.35
	Ginger	119	0.06	134	0.07
	Turmeric	185	0.09	176	0.09
	Cardamom	88	0.04	88	0.04
	Betel nuts	455	0.23	467	0.24
	Others	1640	0.82	1763	0.89
	<b>4. Total fruits &amp; vegetables</b>	<b>9546</b>	<b>4.75</b>	<b>9768</b>	<b>4.92</b>
	<b>(i) Total fruits</b>	<b>4154</b>	<b>2.07</b>	<b>4192</b>	<b>2.11</b>
	<b>(A) Fresh fruits</b>	<b>3629</b>	<b>1.81</b>	<b>3678</b>	<b>1.85</b>
	Mangoes	1374	0.68	1384	0.70
	Citrus fruits	465	0.23	468	0.24
	Banana	571	0.28	578	0.29
	Grapes	114	0.06	120	0.06
	Pome fruits	94	0.05	91	0.05
	Papaya	59	0.03	61	0.03
	Apple	68	0.03	68	0.03
	Others	884	0.44	907	0.46
	<b>(B) Dry fruits</b>	<b>524</b>	<b>0.26</b>	<b>514</b>	<b>0.26</b>
	Cashew nut	509	0.25	499	0.25
	Others	15	0.01	15	0.01
	<b>(ii) Vegetables</b>	<b>5646</b>	<b>2.81</b>	<b>5787</b>	<b>2.92</b>
	Potato	1692	0.84	1771	0.89
	Tapioca	173	0.09	186	0.09

Crops	2013-14		2014-15 <sup>#</sup>	
	Area ('000 ha)	% share to total cropped area	Area ('000 ha)	% share to total cropped area
Sweet potato	55	0.03	52	0.03
Onion	597	0.30	663	0.33
Others	3128	1.56	3115	1.57
<b>5. Other food crops</b>	<b>203</b>	<b>0.10</b>	<b>233</b>	<b>0.12</b>
<b>II. Non-food crops</b>	<b>56957</b>	<b>28.34</b>	<b>55556</b>	<b>28.01</b>
<b>1. Oilseeds</b>	<b>30107</b>	<b>14.98</b>	<b>28424</b>	<b>14.33</b>
Groundnut	5430	2.70	5104	2.57
Castor seed	988	0.49	1079	0.54
Sesamum (Til)	1685	0.84	1851	0.93
Rapeseed & Mustard	6055	3.01	5405	2.72
Linseed	228	0.11	209	0.11
Coconut	1895	0.94	1890	0.95
Nigerseed	271	0.13	222	0.11
Safflower	234	0.12	205	0.10
Soybean	12007	5.98	11492	5.79
Sunflower	772	0.38	682	0.34
Others	541	0.27	285	0.14
<b>2. Fibres</b>	<b>12797</b>	<b>6.37</b>	<b>13527</b>	<b>6.82</b>
Cotton	11907	5.93	12660	6.38
Jute	758	0.38	748	0.38
Mesta	70	0.03	71	0.04
Sunhemp	19	0.01	17	0.01
Others	43	0.02	32	0.02
<b>3. Dyes &amp; tanning material</b>	<b>50</b>	<b>0.02</b>	<b>54</b>	<b>0.03</b>
Indigo	3	0.001	3	0.001
Others	47	0.02	52	0.03
<b>4. Drugs, narcotics &amp; plantation crops</b>	<b>2895</b>	<b>1.44</b>	<b>3130</b>	<b>1.58</b>
Opium	6	0.003	6	0.003
Tobacco	457	0.23	468	0.24
Cinchona	9	0.004	9	0.004
Indian hemp	1	Neg.	0.2	Neg.
Tea	664	0.33	668	0.34
Coffee	354	0.18	357	0.18
Rubber	683	0.34	686	0.35
Others	721	0.36	936	0.47
<b>5. Fodder crops</b>	<b>9831</b>	<b>4.89</b>	<b>9137</b>	<b>4.61</b>
<b>6. Green manure crops</b>	<b>309</b>	<b>0.15</b>	<b>385</b>	<b>0.19</b>
<b>7. Other non-food crops</b>	<b>968</b>	<b>0.48</b>	<b>898</b>	<b>0.45</b>
<b>Total area sown under all crops (I+II)</b>	<b>200950</b>	<b>100.00</b>	<b>198360</b>	<b>100.00</b>

Note : #: Provisional.

Source : Fertiliser Statistics 2017-18, The Fertiliser Association of India, New Delhi.

**Table 5.30: Minimum support prices of various agricultural commodities**  
(As on 26 November 2018)

(₹/q)

Commodity	Variety	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Increase in MSP 2018-19 over 2017-18 (#)
<b>Kharif Crops</b>								
Paddy	Common	1310	1360	1410	1470	1550	1750	200(12.9)
	Grade 'A'	1345	1400	1450	1510	1590	1770	180(11.3)
Jowar	Hybrid	1500	1530	1570	1625	1700	2430	730(42.9)
	Maldandi	1520	1550	1590	1650	1725	2450	725(42.3)
Bajra		1250	1250	1275	1330	1425	1950	525(36.9)
Maize		1310	1310	1325	1365	1425	1700	275(19.3)
Ragi		1500	1550	1650	1725	1900	2897	997(52.5)
Arhar (Tur)		4300	4350	4625 <sup>^</sup>	5050 <sup>^^</sup>	5450 <sup>^</sup>	5675	225(4.1)
Moong		4500	4600	4850 <sup>^</sup>	5225 <sup>^^</sup>	5575 <sup>^</sup>	6975	1400(25.1)
Urad		4300	4350	4625 <sup>^</sup>	5000 <sup>^^</sup>	5400 <sup>^</sup>	5600	200(3.7)
Cotton	Medium staple	3700	3750	3800	3860	4020	5150	1130(28.1)
	Long staple	4000	4050	4100	4160	4320	5450	1130(26.2)
Groundnut in shell		4000	4000	4030	4220*	4450 <sup>^</sup>	4890	440(9.9)
Sunflower Seed		3700	3750	3800	3950*	4100*	5388	1288(31.4)
Soybean		2560	2560	2600	2775*	3050 <sup>^</sup>	3399	349(11.5)
Sesamum		4500	4600	4700	5000 <sup>^</sup>	5300*	6249	949(17.9)
Nigerseed		3500	3600	3650	3825*	4050*	5877	1827(45.1)
<b>Rabi Crops</b>								
Wheat		1400	1450	1525	1625	1735	1840	105(6.1)
Barley		1100	1150	1225	1325	1410	1440	30(2.1)
Gram		3100	3175	3500**	4000 <sup>^</sup>	4400 <sup>@</sup>	4620	220(5)
Masur (Lentil)		2950	3075	3400**	3950 <sup>@</sup>	4250*	4475	225(5.3)
Rapeseed/Mustard		3050	3100	3350	3700*	4000*	4200	200(5)
Safflower		3000	3050	3300	3700*	4100*	4945	845(20.6)
Toria		3020	3020	3290	3560	3900	4190	290(7.4)
<b>Other Crops</b>								
Copra (Calendar year)	Milling	5250	5250	5550	5950	6500	7511	1011(15.6)
	Ball	5500	5500	5830	6240	6785	7750	965(14.2)
De-husked Coconut (Calendar year)		1425	1425	1500	1600	1760	2030	270(15.3)
Jute		2300	2400	2700	3200	3500	3700	200(5.7)
Sugarcane <sup>§</sup>		210	220	230	230	255	275	20(7.8)

**Note** : 1. \$: Fair and remunerative price, 2. \*: Including Bonus of ₹ 100 per quintal, 3. \*\*: Including Bonus of ₹ 75 per quintal, 4. ^: Including Bonus of ₹ 200 per quintal, 5. ^^: Including Bonus of ₹ 425 per quintal, 6. @: Including Bonus of ₹ 150 per quintal, 7. #: Figures in parenthesis indicate percentage increase.

**Source** : 1. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)  
2. *Minimum Support Prices* released by Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.










भाग-VI  
कृषि अभियांत्रिकी एवं उत्पाद प्रबंधन






SECTION-VI  
Agricultural Engineering and  
Produce Management














**Table 6.1: Improved selected farm implements and machines**





S. No.	OPERATION-WISE EQUIPMENT	
<b>AGRICULTURAL MECHANIZATION</b>		
1.	<p><b>Inclined Plate Planter</b>  <b>Suitability:</b> It is suitable for precision planting of single seed of crops like mustard, sorghum, soybean, cotton seed, pigeon pea, maize, groundnut, okra etc. at predetermined spacing.</p> <p><b>No. of rows</b> : 2-6 adjustable  <b>Row spacing</b> : 250 mm &amp; above</p>	
2.	<p><b>Tractor Drawn Pneumatic Planter</b>  <b>Suitability:</b> To plant single seed at predetermined seed to seed and row to row spacing. Suitable for mustard, sorghum, soybean, cotton, pigeon pea, groundnut, okra etc.</p> <p><b>Field Capacity</b> : 0.5-1.0 ha/h  <b>Power Source</b> : Tractor (35-45 hp)</p>	
3.	<p><b>Plastic Mulch Laying Machine</b>  <b>Suitability:</b> For laying plastic film for mulching &amp; moisture conservation, raising soil temperature for better germination of seed and weed control.</p> <p><b>Capacity</b> : 0.12-0.18 ha/h  <b>Power Source</b> : Tractor (35 hp or above)</p>	
4.	<p><b>Rotary Assisted Broad Bed Former-cum-seeder</b>  <b>Suitability:</b> For seeding of soybean and wheat crops on raised bed. Provision has been made for attachment of rotavator for formation of fresh bed or sowing with reshaping of bed with bed shaper only.</p> <p><b>Field Capacity</b> : 0.35 ha/h - 0.56 ha/h  <b>Power Source</b> : Tractor 50 hp</p>	
5.	<p><b>Sugarcane Bud Chipping Machine</b>                      It is used for extracting the buds from sugarcane. These buds can be used for preparation of bud-chip nursery for planting sugarcane crop. One operator can chip about 1000 sugarcane bud chips per hour.</p>	





S. No.	OPERATION-WISE EQUIPMENT	
6.	<p><b>Vegetable Transplanter</b>  <b>Use :</b> Planting of Chilly, Brinjal, Tomato etc.  <b>Work capacity &amp; description and cost planting capacity :</b> 0.12 ha/h  <b>Required power :</b> 35 hp Tractor  <b>Required man-power :</b> 2 (one labour for each row)  <b>Required seedling tray no. :</b> 2 Kinds of seedling  : Seedling without soil</p>	
7.	<p><b>Self Propelled Multipurpose Hydraulic System for Orchard Operations</b>  Self-propelled hydraulic multipurpose system for medium height fruit trees facilitates orchard management operations like harvesting, pruning, spraying and other canopy management practices in fruit trees such as mango, citrus and sapota. These operations are otherwise difficult, labour intensive and cumbersome.</p>	
8.	<p><b>Arecanut Sheath Shredder</b>  It shreds arecanut leaf sheath into size of 5-8mm without dust. The shredder is power operated with 3 hp electric motor and gives capacity of 100 kg/hr.</p> <ul style="list-style-type: none"> <li>• The output size of arecanut sheath shred is 5 to 8 mm, free from dust.</li> <li>• It can shred arecanut leaf sheath of different moisture content.</li> </ul>	
9.	<p><b>Power Operated Ribbonner for Jute</b>  It is for removal of jute fibre from green jute stick i.e. freshly harvested jute crop, without retting of jute sticks. This machine is operated by four persons at a time.</p> <ul style="list-style-type: none"> <li>• The machine gives output of 100 kg of fibre per hour with 88-90 % ribbon recovery.</li> <li>• Reduces water requirement for retting by 20-25 times.</li> <li>• Retting time is also reduced to 7-8 days only as against 15-20 days with traditional method.</li> </ul>	
10.	<p><b>Millet Thresher</b>  Suitable for threshing of several minor millets like finger millet, barnyard millet, proso millet, kodo millet, foxtell millet (kodo, kutki, ragi etc.). Can also be used for dehulling of barnyard, kodo and proso millets.</p> <p><b>Capacity :</b> 80-120 kg/h crops  <b>Cost of Operation :</b> Rs. 0.20/kg grain efficiency more than 98%.</p>	







S. No.	OPERATION-WISE EQUIPMENT	
11.	<p><b>Laser Guided Land Leveller</b> It is used for levelling the field. There is a control unit which guides the machine through a receiver mounted on machine itself. It saves the irrigation by 20-25%.</p>	
12.	<p><b>Tractor Operated Zero Till Drill</b> Tractor operated zero till drill is used for drilling wheat immediately after the harvest of rice to take advantage of residual moisture, thereby ensuring timeliness for the rabi crop. It forms a thin slit with the help of the inverted 'T' type furrow opener to conserve moisture. Initial land preparation is also avoided.</p>	
13.	<p><b>Tractor Operated Raised Bed Planter</b> Two raised beds can be made using this machine on which planting is also carried out simultaneously. Fertilizer drilling can also be accomplished on the raised beds. It has a field capacity of 0.4 ha/h. Raised bed cultivation saves water and gives about 15% higher yield.</p>	
14.	<p><b>Tractor Operated Aero Blast Sprayer</b> Aero blast sprayer has a tank of 400 l capacity and high pressure pumps and a blower operated by pto delivering high volume of spray in orchards to cover the entire canopy.</p>	 <p style="text-align: center; color: blue;">Tractor Operated Orchard Sprayer</p>
15.	<p><b>Tractor Operated Peg Type Puddler</b> It consists of rectangular frame, pegs and three point hitch system. The square pegs mounted on three bars are uniformly staggered to partial helical configuration for better dispersion of soil. The puddler is operated in 50-100 mm of standing water. As the puddler moves, the pegs tear the soil, uproot the weeds, disperse the soil in water and level the field.</p> <p><b>Working width</b> : 2000 mm <b>Draft</b> : 1000 N</p>	

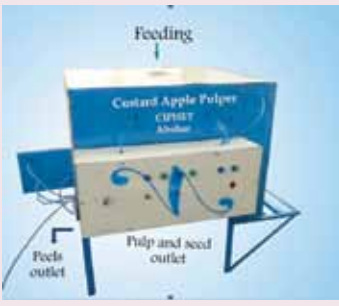



S. No.	OPERATION-WISE EQUIPMENT	
16.	<p><b>Self Propelled Vertical Conveyor Reaper (walk behind type)</b>                      The self-propelled vertical conveyor reaper, also known as walk behind type harvester, consists of 6 hp diesel engine, crop row dividers, star wheels, standard cutter bar having 76.2 mm pitch of knife sections, vertical conveyor belts with lugs, steel lugged wheels, power transmission system and operating controls. The engine power is transmitted to cutter bar and conveyor belts through belt and pulleys. The effective cutter bar width is about 1 m.</p> <p><b>Weight</b> : 245 kg  <b>Power source</b> : 6 hp diesel engine</p>	
17.	<p><b>Tractor Operated Straw Reaper-cum-Trailer</b>                      This design has the provision of trolley over the straw reaper for collecting the straw. It harvests straw of combine harvested wheat field, gathers shattered ear heads as uncut plants from the field, threshes straw into fine quality bhusa and separates collected grains. Simultaneously it blows bhusa (fine straw) in the in-built overhead trailer. Thus the work of harvesting, threshing, loading and unloading is done with only one tractor while in the existing system additional tractor and trailer is required to collect the straw.</p> <p><b>Power Source</b> : 35 hp tractor or above  <b>Length of cutter bar</b> : 1830 mm  <b>Height of cut</b> : 60 mm  <b>Number of blowe</b> : 1-2  <b>Fuel consumption</b> : 5.6 l/h</p>	
<b>AGRICULTURAL PRODUCE &amp; PROCESSING</b>		
18.	<p><b>Pedal Operated Potato Peeler</b>                      The pedal operated potato peeler is developed for small entrepreneurs where electricity is not available. The perforated stainless steel drums during rotation remove skin of potatoes as in manual peeler.                      Its capacity is 188 kg/h with 0.53 man-h/q requirement and 30/- operating cost. The peeling efficiency is 77%.</p>	
19.	<p><b>Pedal Operated Potato Slicer</b>                      The pedal operated potato slicer is suitable for small entrepreneurs where electricity is not available. It consists of main frame, feeding unit, stainless steel blade etc.</p>	




S. No.	OPERATION-WISE EQUIPMENT	
20.	<p><b>Cottage Scale Soy Paneer Plant</b></p> <p>It is a cottage level plant to produce milk and paneer. It consists of steam generation unit, grinder cum cooker, milk filtration unit and paneer pressing device. The soysplits are grinded at 80 OC in air free surroundings to produce paneer. Its capacity is 300 kg milk and 50 kg paneer per day.</p>	
21.	<p><b>CIAE-Millet Mill</b></p> <p>Developed for dehusking of all minor millets. The capacity of the machine is 100-110 kg/h of millet grains at 10-12 % moisture content.</p> <ul style="list-style-type: none"> <li>• Power requirement: One hp single phase electric motor.</li> <li>• It has provisions to adjust the clearance between the dehusking surfaces to suit the different sizes of minor millets.</li> <li>• Working principle: Gentle abrasion/attrition &amp; (aerodynamic) cyclone separator.</li> </ul>	
22.	<p><b>Fruit Grader</b></p> <p>CIAE-Fruit Grader is suitable for all round fruits/vegetables like tomato, guava, amla, apple, citrus, onion, etc.</p> <ul style="list-style-type: none"> <li>• Capacity of grading is 1.2 to 1.5 tonnes per hour.</li> <li>• Power requirement – 0.5 hp single phase. The Grader is light in weight (Approx. 138 kg).</li> <li>• Cost of operation is Rs. 51 per tonne assuming 4 hour operation per day.</li> </ul>	
23.	<p><b>Aloevera Gel Extractor</b></p> <p>The continuous feed aloevera whole gel extraction unit peels both top and bottom rinds in a single pass with the help of pair of stainless steel blades.</p> <ul style="list-style-type: none"> <li>• There is a set of stainless steel rods, which are provided at the outlet, for the aloevera gel to be separated from the peeled upper and lower rind.</li> <li>• The whole gel is directly collected in the food grade container, which is partially filled with clean water. The top and the bottom leaves are collected separately.</li> <li>• The equipment is unique in design and very useful in separating the aloevera gel with ease with minimal quantity of aloin.</li> </ul>	





S. No.	OPERATION-WISE EQUIPMENT	
24.	<p><b>Various Soy-products</b></p> <ul style="list-style-type: none"> <li>• Soy milk</li> <li>• Soy flour (full fat, medium fat, defatted)</li> <li>• Tofu (soy paneer)</li> <li>• Traditional foods</li> <li>• Dairy analogs</li> <li>• Okara based products</li> </ul>	
25.	<p><b>CIAE Nutri-bar: A Healthy Snack</b></p> <p>It substantially contributes to our daily requirement of energy, protein and minerals and also provides added advantages of phenolics and antioxidants. This snack can be used to satisfy “between the meals” hunger and also act as “quick bite” during travel.</p> <p>High in energy and proteins, good source of minerals, phenolics and antioxidants, high satiety value, healthy substitute to sweet and savory snacks.</p>	
<b>AGRICULTURAL ENERGY &amp; POWER</b>		
26.	<p><b>Biomass Gasification &amp; Electricity Generation Plant</b></p> <ul style="list-style-type: none"> <li>• The agro waste crop residues are converted into briquette suited for gasifier.</li> <li>• The agro waste briquettes are converted into fuel gas. These fuel gases are used in gas engine for generation of electricity.</li> <li>• The electricity generation is environmental friendly as no extra carbon dioxide is introduced into the atmosphere as compared to fossil fuelled combustion systems. 1 kWh of electricity energy can be produced from 1.2 kg of biomass using developed technology.</li> </ul>	
<b>IRRIGATION &amp; DRAINAGE ENGINEERING</b>		
27.	<p><b>Mole Plough</b></p> <p>This Plough can be used for making moles at 600 mm depth to drain temporarily water logged vertisols. The plough can be attached to a 3-point linkage of a tractor (75 hp or more) and about 600 mm depth from the surface drains are to be constructed.</p>	





S. No.	OPERATION-WISE EQUIPMENT	
<b>AGRO PROCESSING MACHINERY</b>		
28.	<p><b>Manually Operated Banana Comb Cutter</b> Banana-Comb/hand Cutter maintains smooth cutting curve of banana-Comb/hand, with no fruit damage during cutting (as in case of knife or sickle cutting, some banana-finger getting damaged). This tool is suitable for all sizes of banana bunch stems.</p>	
29.	<p><b>Pomegranate Aril Separator</b> This is extremely useful for small scale fruit juice processors and fruit juice vendors for easy, hygienic and fast separation of arils. About 40-45% arils are already separated in the process of irregular breaking due to shearing action on the inner sheath and outer peel.</p>	
<b>POWER OPERATED PROCESSING MACHINES</b>		
30.	<p><b>Automatic Litchi Peeler</b> Litchi is non-climacteric fruit that possesses poor shelf life and therefore needs processing to enhance shelf life.</p> <p><b>Capacity</b> : 120 kg/h <b>Peeling efficiency</b> : 96 % <b>Pulp loss</b> : 4 %</p>	
31.	<p><b>Pomegranate Aril Extractor</b> This is used for Pomegranate arils which are not consumed mostly because of the cumbersome process of removing arils from peel. The separated arils can be further processed for juice, dried arils, jellies etc.</p> <p><b>Aril extraction capacity</b> : 5.0 quintal /h <b>Aril extraction efficiency</b> : 90-94% <b>Mechanical damage</b> : 2-4% to arils</p>	

S. No.	OPERATION-WISE EQUIPMENT	
32.	<p><b>Custard Apple Pulper</b> Custard apple is an underutilized crop due to lack of handling and processing machineries. For food processing industries, this machine would help them to develop new products out of custard apple and get good market value.</p> <p><b>Capacity</b> : 120 kg/h <b>Peeling efficiency</b> : 94 % <b>Pulp loss</b> : 6 %</p>	
33.	<p><b>Cryogenic Spice Grinding System</b> Cryogenic spice grinder is a system for grinding of spices at ultra low temperature, thereby maintaining their flavour and medicinal properties. This is Cyclone system for collection of different grades of ground spice powder with capacity of 30–50 kg/h depending on type of spice with 185 litre (self pressurised) liquid nitrogen cylinder capacity.</p> <p><b>Capacity</b> : 30–50 kg/h</p>	
34.	<p><b>Makhana Popping Machine</b> This machine has advantages such as mechanized process, reduces time of processing, reduces the drudgery of the labourers, production of high amount of grade I kernel, high throughput, decortication and energy saving.</p> <p><b>Capacity</b> : 35-40 kg/h <b>Decortication efficiency</b> : 95 % <b>Popping efficiency</b> : 92-94 %</p>	
35.	<p><b>Potato Peeler</b> For processing of potatoes in any form, removal of peel is an important unit operation. Hence, a power operated batch type potato peeler was developed which is suitable for small scale processor of potato chips and other products.</p> <p><b>Capacity</b> : 400 kg/h <b>Peeling efficiency</b> : 99.5 % <b>Peel loss</b> : 0.5 %</p>	

S. No.	OPERATION-WISE EQUIPMENT	
<b>MACHINERIES USED IN THE POST-HARVEST PROCESSING OF COTTON</b>		
<p>36.</p>	<p><b>Cotton Pre-Cleaner</b> Useful to remove the trash from the seed cotton before ginning to get improved ginning performance and obtain better quality lint.</p> <p><b>Capacity</b> : 3500 – 6000 kg/h <b>Power requirement</b> : 2.98 – 5.59kW <b>Cleaning efficiency</b> : 40 – 50%</p>	
<p>37.</p>	<p><b>Lilliput Gin</b> A portable ginning machine useful to breeders, seed companies, traders, marketing agencies and farmers etc. for ginning small seed cotton (kapas) samples and ascertain the ginning percentage as well as assess fibre quality.</p> <p><b>Power requirement</b> : 0.75 kW (single phase) <b>Capacity</b> : 5 kg seed cotton/h</p>	
<p>38.</p>	<p><b>CIRCOT Miniature Spinning System</b> Useful for assessment of spinning quality of small cotton fibre samples and for the preparation of fibre sliver and yarn samples. The system consists of four table model microprocessor controlled machines (units) viz., Miniature Carding Machine, Miniature Draw frame, Miniature Sliver to Yarn Spinner and Rotor OE Spinner.</p> <p><b>Output capacity</b> : 100 g/h (cotton sample) <b>Power requirement</b> : Single phase, 0.6 kW</p>	

S. No.	OPERATION-WISE EQUIPMENT	
39.	<p><b>Axial Flow Cotton Pre-Cleaner</b> Useful for on-farm cleaning of seed cotton by farmers and traders. It removes small trash particles, kawadi, sand and dust.</p> <p><b>Power requirement</b> : 1.86 <b>Output capacity</b> : 650 kg seed cotton/h <b>Cleaning efficiency</b> : 30 - 40%</p>	
40.	<p><b>CIRCOT Minicard for Sliver Production (Village Level)</b> This machine is suitable for making sliver from cotton that can be used in cottage industries.</p> <p><b>Power requirement</b> : 1.12 kW <b>Capacity</b> : 2 kg/h of sliver</p>	
41.	<p><b>Stick Removal Machine for Mechanically Harvested Cotton</b> This machine is used to remove the large sized vegetative trash (sticks) from mechanically harvested cotton.</p> <p><b>Power requirement</b> : 3.73 kW and 0.74 kW <b>Output capacity</b> : 750-800 kg seed cotton/h <b>Stick removal efficiency</b> : 80-85%</p>	
42.	<p><b>Saw Band Cleaner for Cleaning of Machine Harvested Cotton</b> Machine is used to remove fine trash, burrs etc. from mechanically harvested seed cotton.</p> <p><b>Power requirement</b> : 3.73 kW and 0.74 kW for feed roller <b>Output capacity</b> : 800-850 kg seed cotton/h <b>Fine trash removal efficiency</b> : 25-30%</p>	

S. No.	OPERATION-WISE EQUIPMENT	
43.	<p><b>On Board Pre-cleaner for Cleaning Mechanically Stripped Cotton</b>                      Machine is used for on-farm cleaning of trash, burrs, bracts etc., from cotton harvested by machine stripper.</p> <p><b>Cleaning efficiency</b> : 48-50%  <b>Capacity</b> : 900-1000 kg/h  <b>Power Requirement</b> : 3 kW</p>	
44.	<p><b>Lint Opener</b>                      Used for preparing the cotton samples for testing of micronaire value on High Volume Instrument.</p> <p><b>Capacity</b> : 30 samples of 100 g each per hour  <b>Power Requirement</b> : 2.5 kW</p>	

- Source** :
1. Equipment from 1-27, ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.
  2. Equipment from 28-35, ICAR- Central Institute of Post-Harvest Engineering & Technology, Ludhiana, Punjab.
  3. Equipment from 36-44, ICAR- Central Institute for Research on Cotton Technology, Adenwala Road, Matunga, Mumbai 400 019.

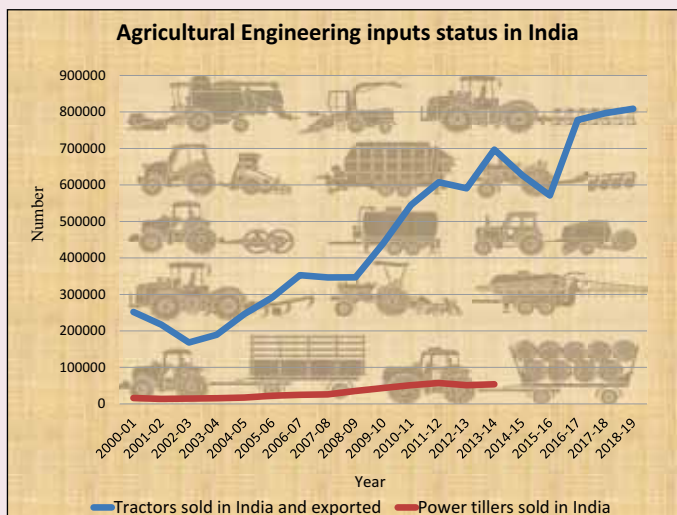
**Table 6.2: Agricultural Engineering inputs status in India**

(Number)

Year	Tractors sold and exported	Power tillers sold	Villages electrified	Cumulative irrigation pump sets energized
2000-01	251939	16018	508071	12823480
2001-02	217456	13563	508863	13141378
2002-03	168182	14613	492325	13792473
2003-04	189518	15665	495031	14115441
2004-05	246469	17481	498877	14446461
2005-06	291680	22303	471360	14843804
2006-07	352827	24791	487351	15368577
2007-08	346501	26135	487347	15674673
2008-09	347010	35331	492831	15963476
2009-10	440331	43464	497950	16193521
2010-11	545109	51414	537947	17167631
2011-12	607658	57232	557439	18178136
2012-13	590672	51237	561751	19014881
2013-14	696828	53927	572466	19156212
2014-15	626839	N.A.	577698	19912081
2015-16	571249	N.A.	586065	20434180
2016-17	777914	N.A.	592080	20645608
2017-18	796873	N.A.	592829	21198411
2018-19	808825	N.A.	597443*	N.A.

**Note :** 1. N.A.: Not available, 2. \* as on 30.4.2018.

- Source :**
1. Tractor Manufacturers Association, New Delhi data.
  2. Power Tiller Manufacturers Association.
  3. [www.indiastat.com/table/power/26/villageelectrification](http://www.indiastat.com/table/power/26/villageelectrification) accessed on 26.4.2018
  4. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.





**Table 6.3: Production and sale of tractors in India**

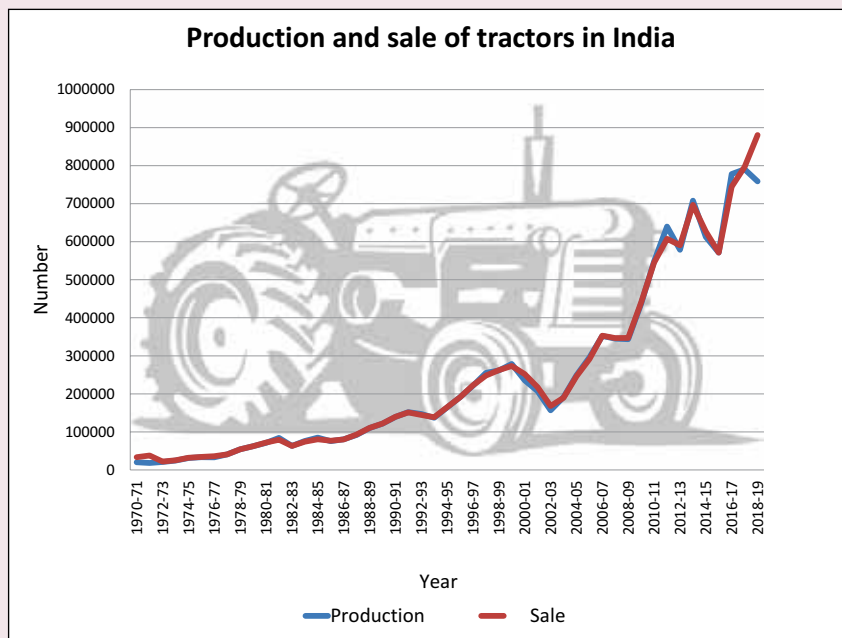
(Number)

Year	Tractors number	
	Production	Sale
1970-71	20099	33399
1971-72	18100	37839
1972-73	20802	21802
1973-74	24425	25425
1974-75	31088	31881
1975-76	33252	34352
1976-77	33146	36066
1977-78	40946	40946
1978-79	54322	54322
1979-80	62275	62275
1980-81	71024	72012
1981-82	84137	79467
1982-83	63054	63073
1983-84	76173	74318
1984-85	85005	80317
1985-86	75550	76886
1986-87	80369	80164
1987-88	92092	93157
1988-89	109987	110323
1989-90	121624	122098
1990-91	139233	139828
1991-92	151759	151121
1992-93	147016	144337
1993-94	136971	138753
1994-95	164029	164770
1995-96	191311	191329
1996-97	221689	222684
1997-98	255327	248141
1998-99	261609	262169
1999-00	278556	273182
2000-01	235602	251939
2001-02	207252	217456
2002-03	156613	168182
2003-04	191633	189518
2004-05	249077	246469
2005-06	296080	291680

## Agricultural Engineering and Produce Management

2006-07	352368	352827
2007-08	345172	346501
2008-09	343520	347010
2009-10	436947	440331
2010-11	548397	545109
2011-12	639896	607658
2012-13	578690	590672
2013-14	707898	696828
2014-15	612994	626839
2015-16	571565	571249
2016-17	777914	744536
2017-18	790673	796873
2018-19	758929	880472

**Source** : 1. Tractor Manufacturers Association, New Delhi data.  
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.





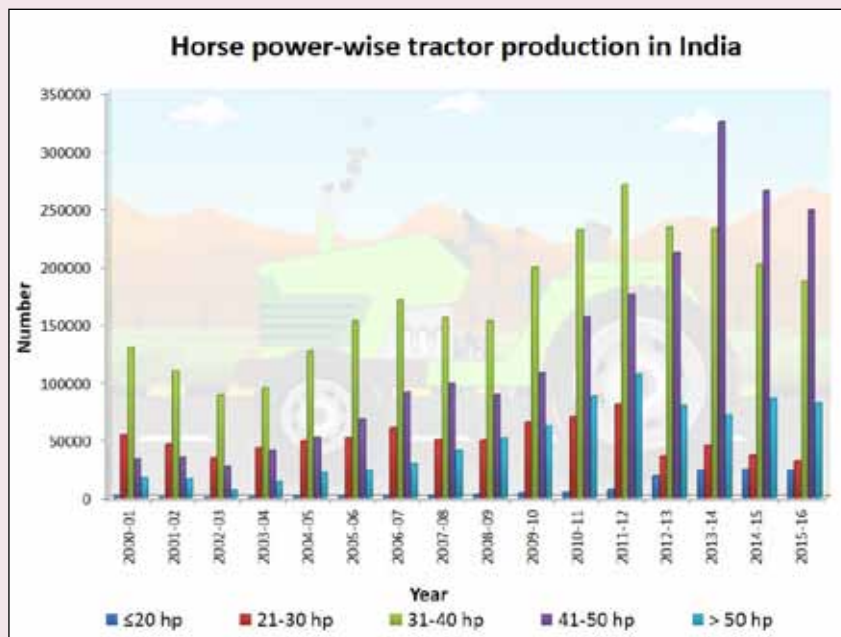
**Table 6.4: Horse power-wise tractor production in India**

(Number)

Year	≤20 hp	21-30 hp	31-40 hp	41-50 hp	> 50 hp	Total
2000-01	1251	54293	129654	33169	17235	235602
2001-02	380	46164	109416	35084	16208	207252
2002-03	216	34626	88090	26902	6779	156613
2003-04	518	42959	94450	40421	13285	191633
2004-05	975	48760	125993	51893	21456	249077
2005-06	1190	51392	152660	67506	23332	296080
2006-07	1537	60014	170417	91223	29177	352368
2007-08	1755	49720	155004	98291	40402	345172
2008-09	2451	49086	152558	88596	50829	343520
2009-10	3752	65098	198781	107373	61943	436947
2010-11	4602	69435	231488	155558	87314	548397
2011-12	7219	80417	270340	175482	106438	639896
2012-13	18728	35803	233697	211126	79336	578690
2013-14	23344	45159	232683	324085	71530	696801
2014-15	24521	36752	201130	264962	85629	612994
2015-16	23436	31369	186869	248093	81798	571565

**Note** : hp: Horse Power

**Source** : 1. Tractor Manufacturers Association, New Delhi data.  
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.



**Table 6.5: State-wise annual sale of tractors**

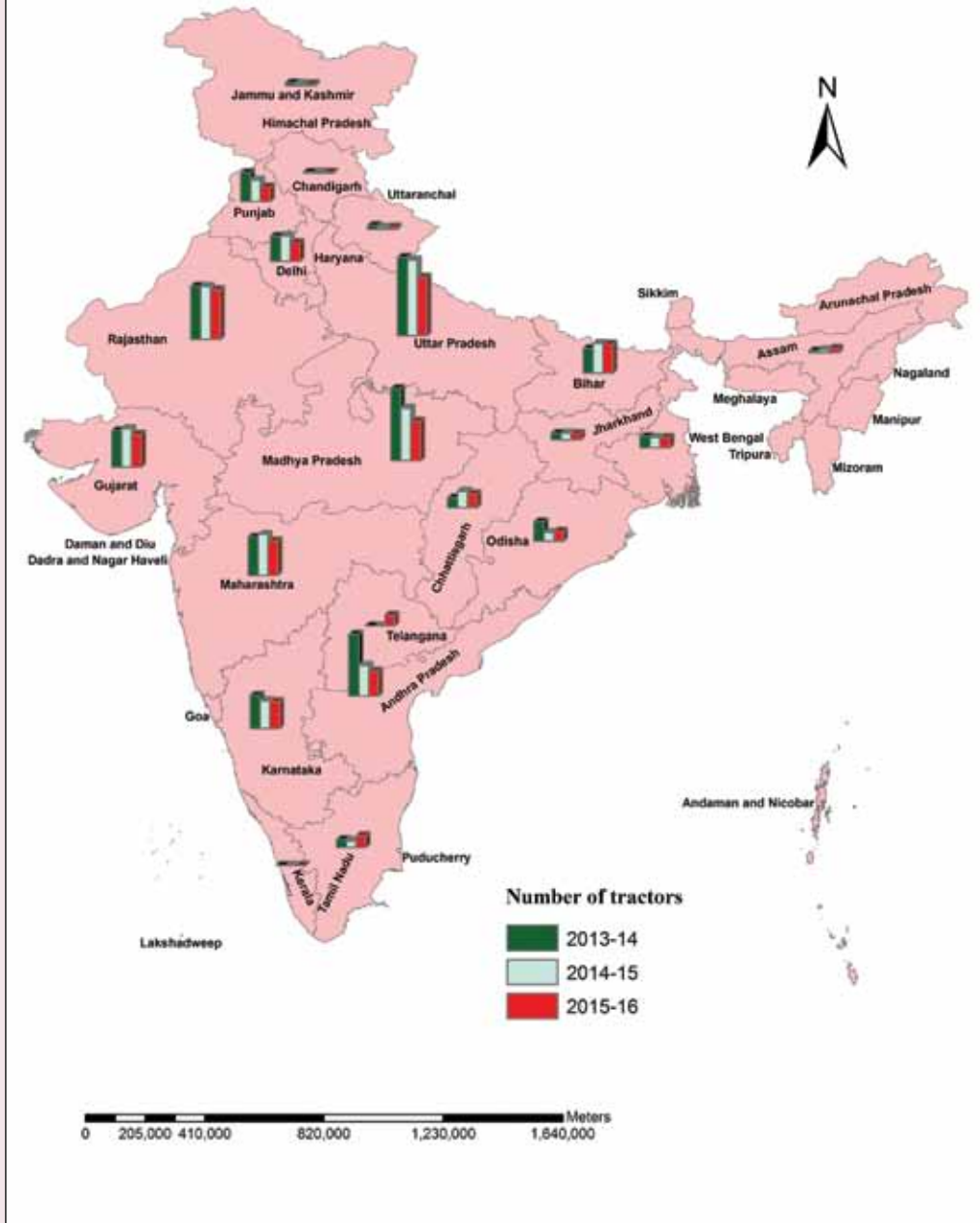
State	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
<b>Andhra Pradesh</b>	17520	12203	11263	10626	16615	22448	35613	43758	38417	34730	35173	53175	63275	74920	37028	30243
<b>Assam</b>	540	571	499	493	385	771	1120	1296	1588	3583	2430	2057	2099	2408	3557	5669
<b>Bihar</b>	17344	14028	13115	12235	14636	9946	11824	13104	17572	29050	26621	25987	28260	30187	36090	35402
<b>Chhatisgarh</b>	N.A.	4939	7129	6570	8790	10192	N.A.	N.A.	N.A.	N.A.	11134	9254	9221	12139	20011	16861
<b>Gujarat</b>	11546	13700	8434	10086	17078	23100	29651	25255	20179	24323	44099	41958	30765	44163	46411	39792
<b>Haryana</b>	16560	13697	11504	11688	12408	14709	20385	23627	22573	28671	28403	31533	23741	30599	30626	22685
<b>Himachal Pradesh</b>	395	577	652	521	512	738	1117	891	907	1201	1404	1398	1255	1530	1519	1354
<b>Jharkhand</b>	N.A.	2349	2961	2897	3643	5676	N.A.	N.A.	N.A.	N.A.	6524	6697	6756	8349	8169	8118
<b>Jammu &amp; Kashmir</b>	850	1071	1271	1506	1135	1296	1178	1328	1115	1608	2128	2618	3577	3794	2601	2324
<b>Karnataka</b>	11261	8984	6512	8595	15560	25316	22455	17230	13835	23849	27244	29162	34861	40437	33758	32804
<b>Kerala</b>	669	348	135	148	125	765	1848	493	374	582	671	631	570	385	268	332
<b>Madhya Pradesh</b>	21901	29818	24344	29568	33733	23828	19378	18242	24306	33342	48435	50597	70822	87831	63744	48375
<b>Maharashtra</b>	14420	8586	4867	7112	11545	17173	26070	29815	25610	34186	40951	56664	43245	46669	49839	42125
<b>Odisha</b>	4970	2622	3076	2933	4957	6683	7214	4993	5099	7909	12861	13277	15831	24277	10878	12668
<b>Punjab</b>	20879	19626	15484	13906	11715	12052	16201	18062	20027	28608	24122	26040	27900	35290	26074	17829
<b>Rajasthan</b>	14692	16228	10914	18241	23830	27949	34583	29456	25763	31822	53604	57191	44221	65405	64565	61193
<b>Tamil Nadu</b>	9931	6053	4896	6487	12470	18294	21880	16894	14609	15768	20638	26298	18448	9865	8072	14667
<b>Telangana</b>	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	13153
<b>Uttarakhand</b>	N.A.	1345	2861	2479	1869	2321	N.A.	N.A.	N.A.	N.A.	3893	5377	4600	4969	2205	2769
<b>Uttar Pradesh</b>	65253	48165	39724	38842	46326	44307	48184	39682	51513	73686	76981	82613	84559	95653	92219	71527
<b>West Bengal</b>	3385	2510	2169	2001	3085	4337	5595	5354	6096	9186	13045	12187	12752	13756	12751	12934
<b>Others</b>	7449	7263	12798	12100	1340	2418	1768	1522	1983	2315	1876	2172	876	1220	1078	945
<b>Export</b>	N.A.	N.A.	N.A.	N.A.	20076	28097	33766	43553	41142	37622	62872	70772	62890	62677	75376	77485
<b>Total</b>	<b>239565</b>	<b>214683</b>	<b>184608</b>	<b>203601</b>	<b>261833</b>	<b>302436</b>	<b>339830</b>	<b>334555</b>	<b>332708</b>	<b>422041</b>	<b>545109</b>	<b>607658</b>	<b>590524</b>	<b>696523</b>	<b>626839</b>	<b>571249</b>

Note : N.A.: Not available.

Source : 1. Tractor Manufacturers Association, New Delhi data.

2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

State-wise annual sale of tractors during 2013-14, 2014-15 and 2015-16



**Table 6.6: Cumulative deployment of various renewable energy systems/ devices in India (as on 31.3.2018)**

Sector	Cumulative Achievements
<b>I. Grid-Interactive Power (Capacity in MW)</b>	
Wind Power	34046.00
Small Hydro Power	4485.80
Bio Power (Biomass & Gasification and Bagasse Cogeneration)	8700.80
Waste to Power	138.30
Solar Power- roof top	1063.63
Solar Power- Ground mounted	20587.83
<b>Total</b>	<b>69022.36</b>
<b>II. Off-Grid/ Captive Power (Capacity in MW eq.)</b>	
Waste to Energy	172.15
Biomass(non-bagasse) Cogeneration	662.61
Biomass Gasifiers	163.37
Aero-Genrators/Hybrid systems	3.29
SPV Systems	671.41
Water mills/micro hydel	18.81
<b>Total</b>	<b>1672.83</b>
<b>III. Other Renewable Energy Systems</b>	
Family Biogas Plants (numbers in lakhs)	49.82

**Note** : eq.: equivalent,

**Source** : 1. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Table 6.7: Pump set energisation up to October, 2017**

(Number)

Sl. No.	States/UTs	Cumulative
<b>States</b>		
1	Andhra Pradesh	1320480
2	Arunachal Pradesh	0
3	Assam	3675
4	Bihar	285501
5	Chhattisgarh	376450
6	Goa	8499
7	Gujarat	2085531
8	Haryana	614970
9	Himachal Pradesh	29377
10	Jammu and Kashmir	9714
11	Jharkhand	9453
12	Karnataka	2399439
13	Kerala	514896
14	Madhya Pradesh	1424192
15	Maharashtra	4306381
16	Manipur	108
17	Meghalaya	24
18	Mizoram	0
19	Nagaland	194
20	Odisha	78200
21	Punjab	1268252
22	Rajasthan	1329639
23	Sikkim	0
24	Tamil Nadu	2086842
25	Telangana	1806569
26	Tripura	5746
27	Uttar Pradesh	996031
28	Uttarakhand	28054
29	West Bengal	290395
	<b>Total</b>	<b>21278612</b>
<b>Union Territories*</b>		
1	Andaman & Nicobar Island	0
2	Chandigarh	421
3	Delhi	30575
4	Dadra & Nagar Haveli	953
5	Daman & Diu	1243
6	Lakshadweep	0
7	Puducherry	9225
	<b>Total</b>	<b>42417</b>
	<b>Grand Total</b>	<b>21321029</b>

**Note** : 1. \*: Included in lump sum potential in terms of electric pump sets for UTs. i.e. 50000, 2. Some of the states data is based on old data as they are not furnishing regularly.

**Source** : 1. <https://www.indiastat.com/table/power/26/pumpsettubewellsenergisation> accessed on 26.04.2018.  
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Table 6.8: State-wise and source-wise installed capacity of grid interactive renewable power (31.03.2017 and 31.03.2018)**

States/UTs	Biomass Power		Waste to Energy		Wind Power		Small Hydro Power		Solar Power		Total		Growth Rate* (2015-17 to 2016-18)
	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	
Andhra Pradesh	378.20	477.18	58.16	23.16	3618.85	4074.35	241.98	162.11	1867.23	2641.76	6164.42	7378.56	19.70
Arunachal Pradesh	-	-	-	-	-	-	104.61	107.10	0.27	5.39	104.87	112.49	7.27
Assam	-	-	-	-	-	-	34.11	34.11	11.78	12.70	45.89	46.81	2.00
Bihar	113.00	121.20	-	-	-	-	70.70	70.70	108.52	142.45	292.22	334.35	14.42
Chhattisgarh	228.00	230.50	-	-	-	-	76.00	76.00	128.86	231.35	432.86	537.85	24.25
Goa	-	-	-	-	-	-	0.05	0.05	0.71	0.91	0.76	0.96	26.32
Gujarat	65.30	77.30	-	-	5340.62	5852.67	16.60	28.60	1249.37	1647.55	6671.89	7606.12	14.00
Haryana	96.40	205.66	-	-	-	-	73.50	73.50	81.40	216.85	251.30	496.01	97.38
Himachal Pradesh	-	7.20	-	-	-	-	831.81	858.61	0.73	3.36	832.54	869.17	4.40
Jammu & Kashmir	-	-	-	-	-	-	158.03	179.03	1.36	9.85	159.39	188.88	18.50
Jharkhand	-	4.30	-	-	-	-	4.05	4.05	23.27	32.07	27.32	40.42	47.95
Karnataka	1452.00	1798.80	1.00	1.00	3751.40	4672.30	1225.73	1230.73	1027.84	5230.40	7457.97	12933.23	73.41
Kerala	-	0.72	-	-	51.50	52.50	213.02	222.02	74.20	138.49	338.72	413.73	22.15
Madhya Pradesh	93.00	105.35	3.90	15.40	2497.79	2519.89	86.16	95.91	857.04	1531.81	3537.89	4268.36	20.65
Maharashtra	2065.00	2186.40	12.72	12.59	4771.33	4788.13	346.18	373.57	452.37	1419.18	7647.60	8779.87	14.81
Manipur	-	-	-	-	-	-	5.45	5.45	0.03	2.17	5.48	7.62	39.05
Meghalaya	-	13.80	-	-	-	-	31.03	31.03	0.01	0.06	31.04	44.89	44.62
Mizoram	-	-	-	-	-	-	41.47	36.47	0.10	0.20	41.57	36.67	-11.79
Nagaland	-	-	-	-	-	-	30.67	30.67	0.50	1.00	31.17	31.67	1.60
Odisha	50.40	59.22	-	-	-	-	64.63	64.63	79.42	117.75	194.45	241.60	24.25

States/ UTs	Biomass Power		Waste to Energy		Wind Power		Small Hydro Power		Solar Power		Total		Growth Rate* (2015-17 to 2016-18)	
	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18	31.03.17	31.10.18		
Punjab	179.00	317.10	9.25	9.25	-	-	-	170.90	173.55	793.95	905.62	1153.10	1405.52	21.89
Rajasthan	119.30	121.30	-	-	4281.72	4299.72	-	23.85	23.85	1812.93	3079.99	6237.80	7524.86	20.63
Sikkim	-	-	-	-	-	-	-	52.11	52.11	0.00	0.01	52.11	52.12	0.02
Tamil Nadu	878.00	954.55	8.05	6.40	7861.46	8594.39	-	123.05	123.05	1691.83	2220.95	10562.39	11899.34	12.66
Telangana	158.10	159.10	-	18.50	100.80	128.10	-	-	90.87	1286.98	3405.13	1545.88	3801.70	145.92
Tripura	-	-	-	-	-	-	-	16.01	16.01	5.09	5.09	21.10	21.10	0.00
Uttar Pradesh	1933.00	2117.51	5.00	-	-	-	-	25.10	25.10	336.73	805.15	2299.83	2947.76	28.17
Uttarakhand	73.00	130.50	-	-	-	-	-	209.32	214.32	233.49	302.99	515.81	647.81	25.59
West Bengal	300.00	319.92	-	-	-	-	-	98.50	98.50	26.14	37.97	424.64	456.39	7.48
Andaman & Nicobar	-	-	-	-	-	-	-	5.25	5.25	6.56	6.56	11.81	11.81	0.00
Chandigarh	-	-	-	-	-	-	-	-	-	17.32	30.35	17.32	30.35	75.23
Dadar & Nagar Haveli	-	-	-	-	-	-	-	-	-	2.97	5.46	2.97	5.46	83.84
Daman & Diu	-	-	-	-	-	-	-	-	-	10.46	13.01	10.46	13.01	24.38
Delhi	-	-	16.00	52.00	-	-	-	-	-	40.27	106.56	56.27	158.56	181.78
Lakshadweep	-	-	-	-	-	-	-	-	-	0.71	0.75	0.71	0.75	5.63
Puducherry	-	-	-	-	-	-	-	-	-	0.08	1.71	0.08	1.71	2037.50
Others	-	-	-	-	4.30	4.30	-	-	-	58.31	0.00	62.61	4.30	-93.13
All India Total	8181.70	9407.61	114.08	138.30	32279.77	34986.35	4379.86	4506.95	12288.83	24312.60	57244.23	73351.81	28.14	
Distribution (%)	14.29	12.83	0.20	0.19	56.39	47.70	7.65	6.14	21.47	33.15	100.00	100.00		

Note : 1. -; Not available, 2. Bagasse Cogeneration available for 2018-19, 3. The potential of Solar Power (100 GW) is estimated at 30-50 MW/Sq.cm. of open, shadow free area, 4. Solar potential As per NISE.

Source : 1. Energy Statistics 2019, Ministry of New and Renewable Energy, Govt. of India, New Delhi.

2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Table 6.9: Installation of off-grid/decentralised renewable energy systems/devices (as on 31.03.2018)**

State/UT	Biogas Plants (No. lakh)	SPV Pumps (Nos.)	Solar Photovoltaic (SPV Systems)				Aerogen/Aerogen systems (KW)	Biomass Gasifiers (KW)	Waste to Energy (MW)
			SLS (Nos.)	HLS (Nos.)	SL (Nos.)	PP (KWP)			
Andhra Pradesh	5.49	33226	8992	22972	51360	3815.60	272.50	22.91	23.88
Arunachal Pradesh	0.03	22	5008	35065	18551	963.20	6.80	0.00	-
Assam	1.28	45	9441	46879	213364	1605.00	6.00	2.93	-
Bihar	1.30	2107	27270	12303	797775	4361.60	0.00	5.93	1.00
Chhattisgarh	0.54	41964	2042	7754	3311	30230.90	0.00	1.21	0.33
Goa	0.04	15	707	393	1093	32.72	193.80	0.00	-
Gujarat	4.33	11522	2004	9253	31603	13576.60	20.00	20.08	15.66
Haryana	0.62	1293	22018	56727	93853	2321.25	10.00	4.46	4.46
Himachal Pradesh	0.48	6	78000	22592	33909	1905.50	0.00	0.00	1.00
Jammu & Kashmir	0.03	39	14156	144316	51224	8129.85	95.60	0.20	-
Jharkhand	0.07	3857	9856	9450	597184	3769.90	0.00	0.50	-
Karnataka	4.90	5695	2694	52638	7781	7754.01	39.20	6.30	10.05
Kerala	1.49	818	1735	41912	54367	15825.39	8.00	0.00	0.23
Madhya Pradesh	3.64	12903	10833	7920	529101	3654.00	24.00	9.86	0.72
Maharashtra	8.99	3315	10420	3497	239297	3857.70	1779.50	7.15	27.71
Manipur	0.02	40	11205	24583	9058	1580.50	140.00	0.00	-
Meghalaya	0.10	19	4900	7844	24875	1084.50	201.50	0.25	-
Mizoram	0.05	37	5325	12060	10512	2955.60	21.20	0.00	-
Nagaland	0.08	3	6235	1045	6766	1506.00	20.00	0.00	-
Odisha	2.70	8937	14181	5274	99843	567.52	13.10	0.27	-



State/UT	Biogas Plants (No. lakh)	SPV Pumps (Nos.)	Solar Photovoltaic (SPV Systems)				Aerogen/Aerogen systems (KW)		Biomass Gasifiers (KW)	Waste to Energy (MW)
			SLS (Nos.)	HLS (Nos.)	SL (Nos.)	PP (KWP)				
Punjab	1.77	1857	42758	8626	17495	2066.00	50.00	0.00	7.40	
Rajasthan	0.71	42581	6852	187968	225851	10850.00	14.00	2.63	3.91	
Sikkim	0.09	0	504	15059	23300	850.00	15.50	0.00	-	
Tamil Nadu	2.23	4459	39413	289333	16818	12752.60	256.70	14.86	15.96	
Telangana	0.24	424	1029	0	0	7450.00	0.00	0.00	3.50	
Tripura	0.04	151	1199	32723	64282	867.00	2.00	0.00	-	
Uttar Pradesh	4.41	14696	255783	235909	523306	10638.31	0.00	31.85	49.81	
Uttarakhand	0.21	26	22119	91595	93927	2935.53	24.00	2.15	8.49	
West Bengal	3.67	653	8726	145332	17662	1730.00	74.00	29.82	1.17	
Andaman & Nicobar	0.00	5	390	468	6296	167.00	0.00	0.00	-	
Chandigarh	0.00	12	898	275	1675	730.00	0.00	0.00	-	
Dadar & Nagar Haveli	0.00	0	0	0	0	0.00	0.00	0.00	-	
Daman & Diu	0.00	0	0	0	0	0.00	0.00	0.00	-	
Delhi	0.01	90	301	0	4807	1269.00	0.00	0.00	-	
Lakshadweep	0.00	0	2465	600	5289	2190.00	0.00	0.00	-	
Puducherry	0.01	21	417	25	1637	121.00	5.00	0.00	-	
Others*	0.02	4621	9150	140273	125797	23885.00	0.00	0.00	-	
<b>Total</b>	<b>49.57</b>	<b>195459</b>	<b>639026</b>	<b>1672663</b>	<b>4002969</b>	<b>187998.77</b>	<b>3292.40</b>	<b>163.37</b>	<b>175.28</b>	

Note : 1. \*: Others include installations through NGOs/IREDA in different states, 2. SLS = Street Lighting System, 3. HLS = Home Lighting System, 4. SL = Solar Lantern, 5. PP = Power Plants, 6. SPV = Solar Photovoltaic, 7. SHP = Small Hydro Power, 8. MW = Mega Watt, 9. KWP = Kilowatt peak, 10. -: Not available.

Source : 1. Energy Statistics 2019, Ministry of New and Renewable Energy, Govt. of India, New Delhi.  
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Table 6.10: Source-wise and state-wise estimated potential of renewable power in India (as on 31.03.2018)**

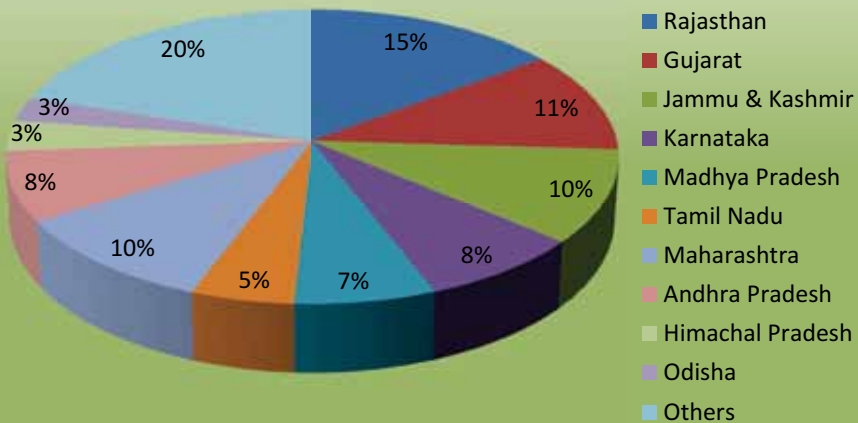
(MW)

State/UT	Wind Power	Small Hydro Power	Biomass Power	Cogeneration bagasse	Waste to Energy	Solar energy	Total	
	@ 100 m						Estimated Potential	Distribution (%)
Andhra Pradesh	44229	978	578	300	123	38440	84648	7.72
Arunachal Pradesh	-	1341	8	-	-	8650	10000	0.91
Assam	-	239	212	-	8	13760	14218	1.30
Bihar	-	223	619	300	73	11200	12415	1.13
Chhattisgarh	77	1107	236	-	24	18270	19714	1.80
Goa	1	7	26	-	-	880	913	0.08
Gujarat	84431	202	1221	350	112	35770	122086	11.14
Haryana	-	110	1333	350	24	4560	6377	0.58
Himachal Pradesh	-	2398	142	-	2	33840	36382	3.32
Jammu & Kashmir	-	1431	43	-	-	111050	112523	10.27
Jharkhand	-	209	90	-	10	18180	18489	1.69
Karnataka	55857	4141	1131	450	-	24700	86279	7.87
Kerala	1700	704	1044	-	36	6110	9595	0.88
Madhya Pradesh	10484	820	1364	-	78	61660	74406	6.79
Maharashtra	45394	794	1887	1250	287	64320	113933	10.39
Manipur	-	109	13	-	2	10630	10755	0.98
Meghalaya	-	230	11	-	2	5860	6103	0.56
Mizoram	-	169	1	-	2	9090	9261	0.84
Nagaland	-	197	10	-	-	7290	7497	0.68
Odisha	3093	295	246	-	22	25780	29437	2.69
Punjab	-	441	3172	300	45	2810	6768	0.62
Rajasthan	18770	57	1039	-	62	142310	162238	14.80
Sikkim	-	267	2	-	-	4940	5209	0.48
Tamil Nadu	33800	660	1070	450	151	17670	53800	4.91
Telangana	4244	-	-	-	-	20410	24654	2.25
Tripura	-	47	3	-	2	2080	2131	0.19
Uttar Pradesh	-	461	1617	1250	176	22830	26333	2.40
Uttarakhand	-	1708	24	-	5	16800	18537	1.69
West Bengal	2	396	396	-	148	6260	7202	0.66
Andaman & Nicobar	8	8	-	-	-	0	16	0.00
Chandigarh	-	-	-	-	6	0	6	0.00
Dadar & Nagar Haveli	-	-	-	-	-	0	0	0.00
Daman & Diu	-	-	-	-	-	0	0	0.00
Delhi	-	-	-	-	131	2050	2181	0.20
Lakshadweep	8	-	-	-	-	0	8	0.00
Puducherry	153	-	-	-	3	0	156	0.01
Others*	-	-	-	-	1022	790	1812	0.17
<b>All India Total</b>	<b>302251</b>	<b>19749</b>	<b>17536</b>	<b>5000</b>	<b>2554</b>	<b>748990</b>	<b>1096081</b>	<b>100.00</b>
<b>Distribution (%)</b>	<b>27.58</b>	<b>1.80</b>	<b>1.60</b>	<b>0.46</b>	<b>0.23</b>	<b>68.33</b>	<b>100.00</b>	

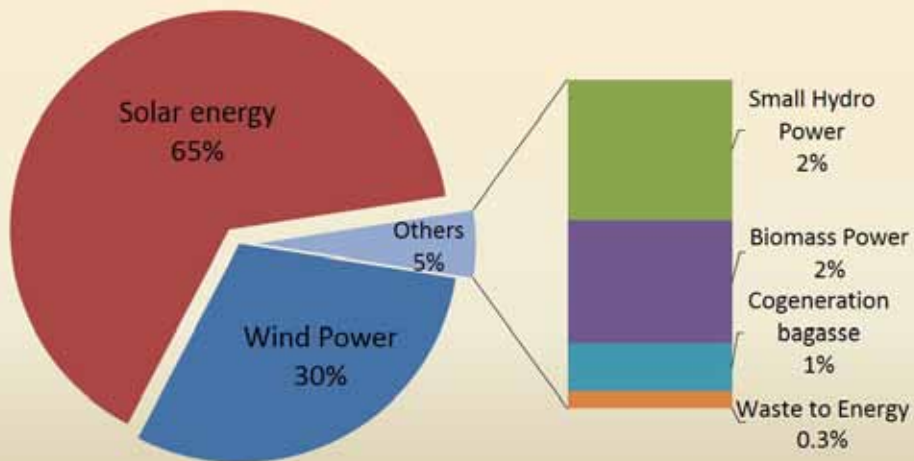
Note : 1. \*: Industrial waste, 2. -: Not available

Source : 1. Ministry of New and Renewable Energy, Govt. of India, New Delhi.  
 2. Energy Statistics 2019, Ministry of New and Renewable Energy, Govt. of India, New Delhi.  
 3. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Percentage distribution of state-wise estimated potential of renewable power in India as on 31.03.18**



**Percentage distribution of source-wise estimated potential of renewable power in India as on 31.03.18**



**Table 6.11: Consumption of electricity by various sectors in India**(in Giga Watt Hour) = (10<sup>6</sup> x Kilo Watt Hour)

Year	Industry	Agriculture	Domestic	Commercial	Traction & Railways	Others	Total Electricity Consumed
2006-07	171,293	99,023	111,002	40,220	10,800	23,411	455,749
2007-08	189,424	104,182	120,918	46,685	11,108	29,660	501,977
2008-09	209,474	109,610	131,720	54,189	11,425	37,577	553,995
2009-10	236,752	120,209	146,080	60,600	12,408	36,595	612,645
2010-11	272,589	131,967	169,326	67,289	14,003	39,218	694,392
2011-12	352,291	140,960	171,104	65,381	14,206	41,252	785,194
2012-13	365,989	147,462	183,700	72,794	14,100	40,256	824,301
2013-14	384,418	152,744	199,842	74,247	15,540	47,418	874,209
2014-15	418,346	168,913	217,405	78,391	16,177	49,289	948,522
2015-16	423,523	173,185	238,876	86,037	16,594	62,976	1001,191
2016-17	440,206	191,151	255,826	89,825	15,683	68,493	1061,183
2017-18*	468,825	204,293	273,550	96,141	14,356	73,079	1130,244
<b>Distribution (%)</b>	<b>41.48</b>	<b>18.08</b>	<b>24.20</b>	<b>8.51</b>	<b>1.27</b>	<b>6.47</b>	<b>100.00</b>
<b>Growth rate of 2017-18 over 2016-17 (%)</b>	<b>6.50</b>	<b>6.88</b>	<b>6.93</b>	<b>7.03</b>	<b>-8.46</b>	<b>6.70</b>	<b>6.51</b>
<b>CAGR 2008-09 to 2017-18(%)</b>	<b>8.39</b>	<b>6.42</b>	<b>7.58</b>	<b>5.90</b>	<b>2.31</b>	<b>6.88</b>	<b>7.39</b>

Note : \*: Provisional.

Source : 1. Central Electricity Authority.  
2. Energy Statistics 2019, Ministry of New and Renewable Energy, Govt. of India, New Delhi.  
3. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**Table 6.12: State-wise processing of Lac in India**

(t)

State	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18@
West Bengal	5962	4404	6810	7343	9308	4710	5524
Chhattisgarh	5435	5630	6900	4770	3815	5270	3618
Jharkhand	3370	3580	6865	4920	3650	4594	4091
Maharashtra	1000	900	1500	1950	1430	1776	1685
Madhya Pradesh	125	80	74	150	200	380	720
Others	-	-	-	-	383	248	518
<b>Total</b>	<b>15892</b>	<b>14594</b>	<b>22149</b>	<b>19292</b>	<b>18786</b>	<b>16978</b>	<b>16156</b>

Note : 1. \*: Includes the quantity of imported and carry over Lac in India, 2. @: 2<sup>nd</sup> Advance Estimates, 3. -: Not available.

Source : Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

**Table 6.13: Power from renewable sources of energy in India during 2017-18**

Sector	Cumulative Achievements
<b>I. Grid-Interactive Power (Capacity in MW)</b>	
Wind Power	34046.00
Solar Power- roof top	1063.63
Solar Power- Ground mounted	20587.83
Small Hydro Power	4485.80
Bio-Power (Biomass & Gasification and Bagasse Cogeneration)	8700.80
Waste to Power	138.30
<b>Total</b>	<b>69022.36</b>
<b>II. Off-Grid/ Captive Power (Capacity in MW eq.)</b>	
Waste to Energy	172.15
Biomass (non-bagasse) Cogeneration	662.61
Biomass Gasifiers	163.37
Aero-Generators/Hybrid systems	3.29
SPV Systems	671.41
Water mills/micro hydel	18.81
<b>Total</b>	<b>1672.83</b>
<b>III. Other Renewable Energy Systems</b>	
Family Biogas Plants (in Lakhs)	49.82

**Note** : eq.: equivalent

**Source** : 1. <http://mnre.gov.in/mission-and-vision-2/achievements>.

2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

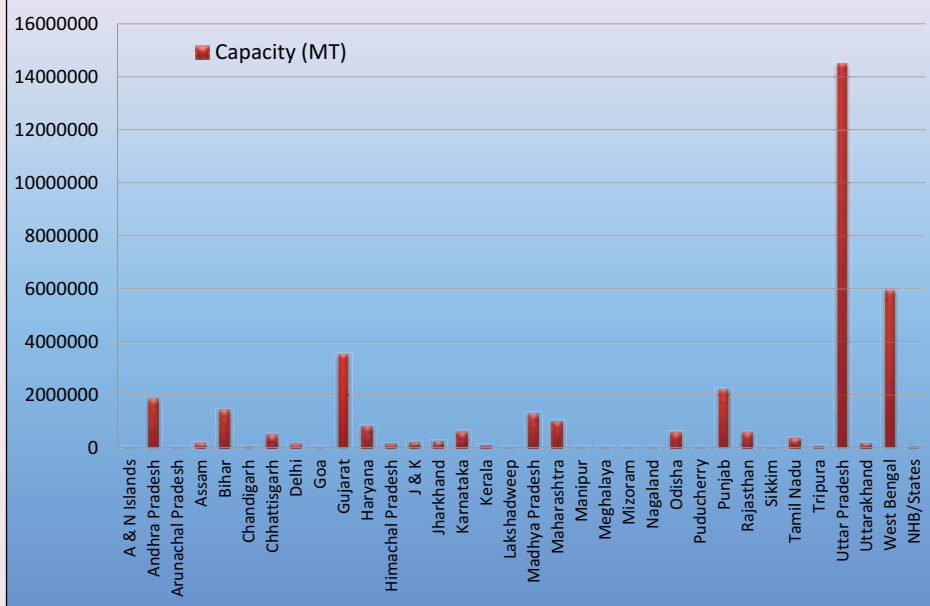
**Table 6.14: State-wise number of cold storages and capacity in India  
(as on 31.03.2018)**

(MW)

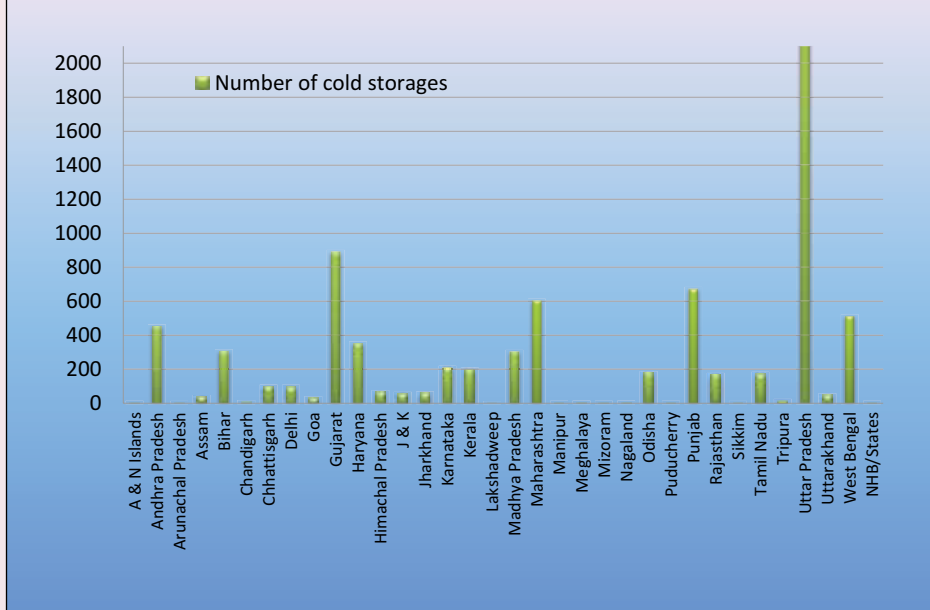
States/UTs	Number of cold storages	Capacity (MT)
Andaman and Nicobar Islands	3	810
Andhra Pradesh and Telangana	452	1836366
Arunachal Pradesh	2	6000
Assam	37	163258
Bihar	306	1415595
Chandigarh	7	12462
Chhattisgarh	98	484331
Delhi	97	129857
Goa	29	7705
Gujarat	890	3515976
Haryana	352	791780
Himachal Pradesh	65	125967
Jammu and Kashmir	55	182527
Jharkhand	58	236680
Karnataka	209	602457
Kerala	199	81705
Lakshadweep	1	15
Madhya Pradesh	302	1281411
Maharashtra	603	979607
Manipur	3	7100
Meghalaya	4	8200
Mizoram	3	3971
Nagaland	4	7350
Odisha	177	566321
Puducherry	3	85
Punjab	672	2201386
Rajasthan	167	561293
Sikkim	2	2100
Tamil Nadu	173	347583
Tripura	14	45477
Uttar Pradesh	2368	14500773
Uttarakhand	47	162821
West Bengal	511	5940511
NHB/States	3	20195
<b>India</b>	<b>7916</b>	<b>36229675</b>

Source : 1. <https://www.indiastat.com/table/agriculture/2/coldstorages> accessed on 06.05.2019.  
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

**State-wise capacity of cold storages in India as on 31.03.2018**



**State-wise number of cold storages in India as on 31.03.2018**



**Table 6.15: Horse power-wise models of tractors and power tillers available in India (as on 31.03.2016)**

S.No.	Tractor company/model	Horse power (hp)
<b>1.0</b>	<b>New Holland Tractors, Gautam Budh Nagar, Uttar Pradesh</b>	
1.1	Tractor Model-3030 NX	35
1.2	Tractor Model-3037 NX	39
1.3	Tractor Model-3230 NX	45
1.4	Tractor Model-3600 NX	50
1.5	Tractor Model-3630 NX	55
1.6	Tractor Model-5500	55
1.7	Tractor Model-7500	75
1.8	3032	35
1.9	3510	35
1.10	4010	39
1.11	4510	42
1.12	4710	47
1.13	3630 TX Super	50
1.14	3630 TX Turbo Super	55
1.15	6500 Turbo Super	65
1.16	7500 Turbo Super	75
1.17	TD 5.90	90
<b>2.0</b>	<b>Tractors &amp; Farm Equipment Ltd. (Massey Ferguson), Chennai, Tamil Nadu</b>	
2.1	MF1035 DI (Mahashakti)	39
2.2	MF241 (Mahashakti PM)	42
2.3	MF245 DI	50
2.4	MF5245 Planetary drive	50
2.5	MF9500	58
2.6	MF245DI Mahashakti	47
2.7	MF 9000 Planetary plus	50
2.8	MF 7250 DI Planetary plus	42
2.9	MF1035 DI (Shakti)	35
2.10	MF1035 DI	35
2.11	MF1030 DI (Mahashakti)	30
2.12	TAFE 1002 4WD	100
2.13	TAFE 9502 4WD	90
2.14	TAFE 8502 DI 2WD	81-85
2.15	TAFE 8502 DI 4WD	81-85
2.16	TAFE 5900 DI 2WD	56-60
2.17	TAFE 5450 DI	51-55



S.No.	Tractor company/model	Horse power (hp)
2.18	TAFE 45 DI	45
2.19	TAFE2 41 DI	41
2.20	TAFE 35 DI	35
2.21	TAFE 30 DI Orchard Plus	30
<b>3.0</b>	<b>Mahindra Gujarat Tractors, Vadodara, Gujarat</b>	
3.1	NBP Series 245 DI	27
3.2	Mahindra Yuvraj 215 NXT	15
3.3	255 DI Power Plus	25
3.4	Mahindra Yuvo 265 Di	32
3.5	Mahindra Yuvo 275 Di	35
3.6	Mahindra Yuvo 415 Di	40
3.7	Mahindra 265 DI Power Plus	35
3.8	Mahindra 275 DI Eco	35
3.9	Mahindra 275 DI TU	39
3.10	Mahindra 295 DI	39
3.11	Mahindra 415 DI	40
3.12	Mahindra Yuvo 475 DI	42
3.13	Mahindra Yuvo 575 DI	45
3.14	Mahindra 475 DI	
3.15	Mahindra 575 DI	
3.16	Mahindra 595 DI	
3.17	Arjun Novo 605 DI-I	57
3.18	Arjun Novo 605 DI-PS	52
3.19	Arjun International	
3.20	Arjun Novo 605 DI-PS	
3.21	Arjun Novo 4WD	57
3.22	ARJUN 555 DI	
<b>4.0</b>	<b>Escort Tractors, Faridabad, Haryana</b>	
4.1	Farmtrac 30 HERO	30
4.2	Farmtrac Champion	39
4.3	Farmtrac 45	45
4.4	Farmtrac 60	50
4.5	Farmtrac 60 DX	60
4.6	Farmtrac 60 DT	
4.7	Farmtrac 65 EPI	55
4.8	Farmtrac 70	60
4.9	Farmtrac 70DT	
4.10	Farmtrac 40	42

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S.No.	Tractor company/model	Horse power (hp)
4.11	Farmtrac 6050	50
4.12	Farmtrac 6055	55
4.13	Powertrac 434	34
4.14	Powertrac 439	39
4.15	Powertrac 445	
4.16	Powertrac 455	55
4.17	Powertrac 434	36
4.18	Powertrac 4455	55
<b>5.0</b>	<b>Eicher Tractors, Mandideep, Madhya Pradesh</b>	
5.1	Eicher 241 XTRAC	24
5.2	Eicher 242 XTRAC	24
5.3	Eicher 312 SUPER DI	30
5.4	Eicher 333 SUPER DI	35
5.5	Eicher 368 SUPER DI	35
5.6	Eicher 380 SUPER DI	35
5.7	Eicher 480 SUPER DI	45
5.8	Eicher 485 SUPER DI	41.1
5.9	Eicher 5560 SUPER DI	24
5.10	Eicher 5150	50
5.11	Eicher 364'	35
<b>6.0</b>	<b>HMT Tractors, Panchkula, Haryana</b>	
6.1	HMT 2522 Orchard Special (OS)	25
6.2	HMT Tractor 2522 FX	25
6.3	HMT Tractor 3522 FX	39
6.4	HMT Tractor 3522 DX	39
6.5	HMT Tractor 3522 CS	39
6.6	HMT Tractor 4022	40
6.7	HMT Tractor 4922	50
6.8	HMT Tractor 4922 DX	50
6.9	HMT Tractor 6522	60
6.10	HMT Tractor 7511	75
6.11	HMT Tractor 4511	45
6.12	HMT Tractor 5022	50
6.13	HMT Tractor 5911	59
<b>7.0</b>	<b>John Deere (India) Tractors, Pune, Maharashtra</b>	
7.1	5038 D	38
7.2	5310	55
7.3	5036 C	35

S.No.	Tractor company/model	Horse power (hp)
7.4	5039 C	39
7.5	5041 C	41
7.6	5042 C	42
7.7	5039 D	39
7.8	5042 D	42
7.9	5045 D	45
7.10	5050 D	50
7.11	5050 E	50
7.12	5055 E	55
7.13	5060 E	60
7.14	5065 E	65
<b>8.0</b>	<b>Punjab Tractors Limited (Swaraj), SAS Nagar, Punjab</b>	
8.1	Swaraj Tractors 735FE	39
8.2	Swaraj Tractors 855FE	55
8.3	Swaraj Tractors 744FE	48
8.4	Swaraj Tractors 735FE(old)	39
8.5	Swaraj Tractors 834FE	34
8.6	Swaraj Tractors 724FE	26.5
8.7	Swaraj Tractors 722 Super	24.5
8.8	Swaraj Tractors 841 XM	41
8.9	Swaraj Tractors 843 XM	43
<b>9.0</b>	<b>Sonalika International Tractors, Hoshiarpur, Punjab</b>	
9.1	Sonalika Tractors DI-60	60
9.2	Sonalika Tractors DI-730 II	30
9.3	Sonalika Tractors DI-750 II	50
9.4	Sonalika Tractors DI-75 4WD	75
9.5	Sonalika Tractors DI-740III	40
9.6	Sonalika Tractor DI-60 Senior	60
9.7	Sonalika Tractor DI-60 4WD	60
9.8	Sonalika Tractor DI-35	35
9.9	Sonalika Tractor DI-745III	45
9.10	Baagban	30
9.11	DI 734(S1)	34
9.12	DI 734 S3	35
9.13	DI 35 S3	39
9.14	DI 740 III S3	45
9.15	DI 740 S3 Super	41.63
9.16	Sonalika Tractors DI-750 III	55

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S.No.	Tractor company/model	Horse power (hp)
9.17	DI 745 III PP	45-50
9.18	DI 42RX	45
9.19	DI 47RX	50
9.20	DI 750III RX	55
9.21	DI 35 Rx	39
9.22	DI 745 III Rx PP	45-50
9.23	Worldtrac 75 RX 2W / 4W	75
9.24	Worldtrac 90 RX 2W / 4W	90
<b>10.0</b>	<b>Force Tractors, Pune, Maharashtra</b>	
10.1	OX 25 (FS)	27
10.2	OX 25 (Orchard)	27
10.3	Balwan 330	30
10.4	Balwan 400	35
10.5	Balwan 450	42
10.6	Balwan 500	50
10.7	Balwan 550	51
<b>11.0</b>	<b>Indo-Farm Tractors &amp; Motors Ltd., Solan, Himachal Pradesh</b>	
11.1	Indo Farm 2030DI	30
11.2	Indo Farm 2035DI	35
11.3	Indo Farm 1026	26
11.4	Indo Farm 2042 DI	45
11.5	Indo Farm 3035 DI	38
11.6	Indo Farm 3040 DI	45
11.7	Indo Farm 3048 DI	50
11.8	Indo Farm 3055 NV	55
11.9	Indo Farm 3055 DI	60
11.10	Indo Farm 3065 DI	65
11.11	Indo Farm 4175 DI	75
11.12	Indo Farm 4175 DI	75
11.13	Indo Farm 4190 DI	90
11.14	Indo Farm 4190 DI	90
<b>12.0</b>	<b>Captain Tractors Pvt. Ltd., Rajkot, Gujarat</b>	
12.1	120 DI	15
12.2	120 DI 4WD	15
12.3	200 DI	20
12.4	200 DI 4WD	20
12.5	250 DI	25
12.6	250 DI 4WD	25

S.No.	Tractor company/model	Horse power (hp)
<b>13.0</b>	<b>VST Tillers Tractors Ltd, Bangalore, Karnataka</b>	
<b>14.0</b>	<b>PREET Tractors, Nabha, Punjab</b>	
14.1	PREET 4549	45
14.2	PREET 6549	65
14.3	PREET 7549	75
14.4	PREET 9049	90
<b>15.0</b>	<b>SAS Motors Ltd, New Delhi</b>	
15.1	Angad 240-DI	22
<b>16.0</b>	<b>Action Construction Equipment (Tractors Division), Faridabad, Haryana</b>	
16.1	ACE350	
16.2	ACE450	
<b>17.0</b>	<b>Amar Tractors, Ludhiana, Punjab</b>	
17.1	Amar 240DI	
<b>18.0</b>	<b>Jayant Agro Industries, Rajkot, Gujarat</b>	
18.1	Mini Tractor	12
<b>19.0</b>	<b>Standards Combines (Tractor Division), Barnala, Punjab</b>	
19.1	Standard 335	35
19.2	Standard 345	45
19.3	Standard 450	50
19.4	Standard 460	60
19.5	Standard 475	75
19.6	Standard 355	51
19.7	Standard 490	90
<b>20.0</b>	<b>Zimidara Tractors Pvt Ltd., Barnala, Punjab</b>	
20.1	Bharat Track 3035	35
20.2	Bharat Track 3045	45
<b>21.0</b>	<b>Farmer Tractor, Rajkot, Gujarat</b>	
21.1	Mini Tractor	
<b>22.0</b>	<b>Field Marshal, Rajkot, Gujarat</b>	
22.1	Mini Tractor	
<b>23.0</b>	<b>Green Field Agro Equipment, Thane, Maharashtra (Samson)</b>	
23.1	Mini Tractor	
<b>24.0</b>	<b>SAME Deutz-Fahr India (P) Ltd.</b>	
24.1	Agrolux 50 2WD	45
24.2	Agrolux 60	55
24.3	Agrolux 70	73
24.4	Agromaxx 55	50
24.5	Agromaxx 60	55

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S.No.	Tractor company/model	Horse power (hp)
24.6	Agrolux 80 Profiline	80
<b>Power Tiller company (Manufacturers and Suppliers)</b>		
1.0	Anusham Farm Machinery & Power Equipments Private Ltd., Erode, Tamil Nadu	8-15
2.0	Bengal Tools Ltd., Kolkata, West Bengal	
3.0	Ganga Motors (Farm Equipment Division), Kolkata, West Bengal	
4.0	Greeves Cotton Ltd., Mumbai, Maharashtra	
5.0	Indtec Elektro Control, Hoshiarpur, Punjab	
6.0	Jayessar Equipment Pvt. Ltd., Coimbatore, Tamil Nadu	
7.0	Kavi Agro Industry, Trichy, Tamil Nadu	
8.0	Kerala Agro Machinery Corporation Athani, Ernakulam, Kerala	
9.0	National Engineering Co Pvt. Ltd., Chennai, Tamil Nadu	
10.0	Ratnam Engineers, Rajahmundry Andhra Pradesh	
11.0	Green Field Agro Equipment, Thane, Maharashtra (Samson)	
12.0	Sarachi Agricultural Equipment Ltd., Kolkata, West Bengal	
13.0	Soharr India Agro Division, Shivamogga, Karnataka	
14.0	Southern Agro Engine Pvt. Ltd., Chennai, Tamil Nadu	
15.0	Sunmoon Sleeves Pvt. Ltd., Aurangabad, Maharashtra	
16.0	Varsha Associates, Chitradurga, Karnataka	8-15
17.0	VST Tillers Tractors Ltd., Bangalore, Karnataka	
18.0	Vijay Engineering & Machinery, Kolhapur, Maharashtra	

- Source :**
1. Internet sites of respective tractor manufacturers.
  2. Directory of tractor, power tiller, combines and farm machinery manufacturers in India, AICRP on FIM, ICAR-CIAE, Bhopal.
  3. Souvenir XLII ISAE annual convention & symposium February 1-3, 2008.
  4. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.



भाग-VII  
निर्यात एवं आयात

SECTION-VII  
Export and Import







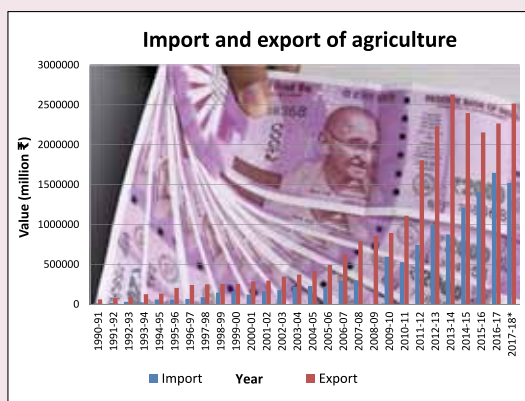
**Table 7.1: Total agriculture vis-a-vis total national import/export**

(million ₹)

Year	Import			Export		
	Agriculture	Total (National)	% Agriculture to total (National)	Agriculture	Total (National)	% Agriculture to total (National)
	Value	Value		Value	Value	
1995-96	58901.00	1226781.40	4.80	203977.40	1063533.50	19.18
1996-97	66126.00	1389198.80	4.76	241612.90	1188173.20	20.33
1997-98	87841.90	1541762.90	5.70	248324.50	1301006.40	19.09
1998-99	145664.80	1783316.90	8.17	255106.40	1397517.70	18.25
1999-00	160667.30	2155285.30	7.45	253136.60	1590952.00	15.91
2000-01	120862.30	2283066.40	5.29	286573.70	2013564.50	14.23
2001-02	162566.10	2451997.20	6.63	297286.10	2090179.70	14.22
2002-03	176088.30	2972058.70	5.92	346539.40	2551372.80	13.58
2003-04	219726.80	3591076.60	6.12	372665.20	2933667.50	12.70
2004-05	228118.40	5010645.40	4.55	416026.50	3753395.30	11.08
2005-06	214992.20	6604089.00	3.26	492169.60	4564178.60	10.78
2006-07	296378.60	8405063.10	3.53	624114.20	5717792.80	10.92
2007-08	299062.40	10123117.00	2.95	790397.20	6558635.20	12.05
2008-09	371830.40	13744355.50	2.71	855516.70	8407550.60	10.18
2009-10	595283.70	13637355.50	4.37	893415.00	8455336.40	10.57
2010-11	526528.80	16834669.60	3.13	1110189.90	11429219.20	9.71
2011-12	742845.80	23454632.40	3.17	1805286.00	14659593.90	12.31
2012-13	993386.60	26691619.60	3.72	2236182.40	16343188.40	13.68
2013-14	874656.60	27154339.10	3.22	2627789.60	19050110.90	13.79
2014-15	1213190.20	27370865.80	4.43	2396810.40	18964454.70	12.64
2015-16	1402892.20	24902980.80	5.63	2153965.50	17163780.50	12.55
2016-17	1647268.30	25776753.70	6.39	2266519.10	18494335.50	12.26
2017-18*	1520952.00	30010334.30	5.07	2515639.40	19565145.30	12.86

Note : \*: Provisional.

- Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
 2. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in>)



**Table 7.2: Quantity and value of export of major commodities in agriculture**

(Quantity: MT, Value: ₹ Lakh)

Product	2015-16		2016-17		2017-18	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Floriculture</b>						
Floriculture	22691.65	48341.34	22020.33	54670.73	20703.46	50731.24
Fruits & vegetables seeds	13104.26	52919.98	11288.62	52275.17	14463.13	67089.55
<b>Total</b>	<b>35795.91</b>	<b>101261.32</b>	<b>33308.95</b>	<b>106945.9</b>	<b>35166.59</b>	<b>117820.79</b>
<b>Fresh fruits and vegetables</b>						
Fresh onions	1382959.54	309720.85	2415739.06	310606.44	1588985.72	308882.22
Other fresh vegetables	707518.25	200843.83	980977.94	258950.82	735198.84	184878.16
Walnuts	3289.53	11788.50	2188.65	5518.06	3595.69	12721.07
Fresh Mangoes	36779.26	32063.90	52761.00	44366.00	49180.48	38234.01
Fresh grapes	132647.60	136225.55	198471.30	178171.38	188221.18	189994.86
Other fresh fruits	362954.05	156728.72	394315.39	162964.15	320900.88	144285.32
Others (Betel Leaves & Nuts)	10716.65	15966.29	14389.09	19016.09	13185.92	13752.28
<b>Total</b>	<b>2636864.88</b>	<b>863337.64</b>	<b>4058842.43</b>	<b>979592.94</b>	<b>2899268.71</b>	<b>892747.92</b>
<b>Processed fruits and vegetables</b>						
Cucumber and Gherkins (Prepd.&Presvd)	202954.44	99917.20	179660.96	93619.23	220939.20	128522.29
Dried & preserved vegetables	177332.52	199455.91	210582.41	228003.71	226483.90	221158.88
Mango Pulp	128866.01	79618.09	130886.07	84601.79	110923.73	67392.14
Other processed fruits & vegetables	275584.02	229729.53	300006.44	249270.25	317353.16	264784.10
Pulses	256051.91	165809.29	136968.03	127879.42	180193.86	147325.81
<b>Total</b>	<b>1040788.90</b>	<b>774530.02</b>	<b>958103.91</b>	<b>783374.40</b>	<b>1055893.85</b>	<b>829183.22</b>
<b>Animal products</b>						
Buffalo meat	1314533.59	2668807.86	1323576.11	2616148.67	1350563.48	2603382.90
Sheep/Goat meat	21635.69	83389.82	22008.58	86974.13	21906.51	83574.62
Other meat	0.00	0.00	12.07	20.65	1044.43	1642.72
Processed meat	279.42	616.48	140.90	457.83	269.66	991.12

Product	2015-16		2016-17		2017-18	
	Quantity	Value	Quantity	Value	Quantity	Value
Animal casings	206.36	1702.45	173.24	1383.69	12424.66	32744.37
Poultry products	659304.15	76871.61	448724.73	53043.94	453966.53	55215.70
Dairy products	33442.52	75551.32	39166.98	90572.80	48039.40	119618.75
Casein	5897.99	21594.03	6129.89	23765.83	2670.47	10468.19
Natural honey	38177.04	70587.11	45055.45	55779.04	51547.31	65357.61
Albumin (eggs & milk)	1934.12	14982.69	1703.32	8781.67	2081.99	8372.26
<b>Total</b>	<b>2075410.88</b>	<b>3014103.37</b>	<b>1886691.27</b>	<b>2936928.25</b>	<b>1944514.44</b>	<b>2981368.24</b>
<b>Other processed foods</b>						
Groundnuts	542726.41	407563.27	725704.34	544433.45	504019.20	338629.85
Guargum	325250.71	323387.42	419948.19	310662.03	494101.27	416955.96
Jaggery & Confectionery	292841.25	129027.36	297680.57	146794.26	252142.85	138034.56
Cocoa Products	32652.56	126760.66	25649.50	108677.27	29582.58	114437.33
Cereal Preparations	316533.44	335811.08	339923.14	356554.69	353237.23	355986.68
Milled Products	431464.50	110273.42	255803.64	81354.01	270377.30	87659.08
Alcoholic Beverages	238672.05	200638.91	230827.23	199135.24	241235.47	210587.37
Miscellaneous Preparations	355786.36	259869.28	282577.03	256579.94	322890.18	285302.72
<b>Total</b>	<b>2535927.28</b>	<b>1893331.40</b>	<b>2578113.64</b>	<b>2004190.89</b>	<b>2467586.08</b>	<b>1947593.55</b>
<b>Cereals</b>						
Basmati Rice	4045822.29	2271859.66	3985195.60	2151290.92	4056758.62	2687016.95
Non Basmati Rice	6464569.77	1548339.32	6770804.28	1692987.72	8648488.58	2296782.13
Wheat	666668.95	106177.28	265606.06	44785.02	322790.14	62437.16
Maize	697947.17	116201.04	566352.23	103013.40	705513.84	122846.00
Other Cereals	269974.46	54048.71	168435.54	39563.56	157618.04	37369.71
<b>Total</b>	<b>12144982.64</b>	<b>4096626.01</b>	<b>11756393.71</b>	<b>4031640.62</b>	<b>13891169.22</b>	<b>5206451.95</b>
<b>Grand Total</b>	<b>20469770.49</b>	<b>10743189.76</b>	<b>21271453.91</b>	<b>10842673.00</b>	<b>22293598.89</b>	<b>11975165.67</b>

Source : DGCIS Annual Data. (<http://www.apeda.gov.in/apedawebsite/index.asp>)

**Table 7.3: Quantity and value of import of major commodities in agriculture**

(Quantity: MT, Value: ₹ Lakh)

Product	2015-16		2016-17		2017-18	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Floriculture</b>						
Floriculture	4768.81	11440.01	5550.08	13381.00	6241.10	13646.06
Fruits & vegetables seeds	14328.07	70303.49	14073.87	65333.20	16051.46	76825.79
<b>Total</b>	<b>19096.88</b>	<b>81743.50</b>	<b>19623.95</b>	<b>78714.20</b>	<b>22292.56</b>	<b>90471.85</b>
<b>Fresh fruits and vegetables</b>						
Fresh onions	87323.61	20112.70	86.83	21.33	6592.59	1187.54
Other fresh vegetables	10097.70	1676.57	8442.66	1069.16	9014.51	1377.18
Walnuts	5543.83	11026.52	13033.23	24039.78	19573.76	35943.10
Fresh Mangoes	0.95	0.60	5.04	4.65	12.14	18.49
Fresh grapes	5217.36	8449.20	4428.36	7004.17	5626.96	7352.65
Other fresh fruits	629816.44	361517.35	834811.68	474888.77	753595.63	449702.16
Others (Betel Leaves & Nuts)	67849.14	103361.68	30260.50	48570.59	19185.59	42930.99
<b>Total</b>	<b>805849.03</b>	<b>506144.62</b>	<b>891068.30</b>	<b>555598.45</b>	<b>813601.18</b>	<b>538512.11</b>
<b>Processed fruits and vegetables</b>						
Cucumber and Gherkins (prepd. & presvd)	22.46	24.16	59.78	94.21	434.33	271.04
Processed Vegetables	16844.84	13263.04	14615.13	12889.63	17152.55	15788.77
Mango Pulp	19.22	20.98	0.00	0.00	0.00	0.00
Processed Fruits, Juices & Nuts	53784.24	87940.13	56147.63	88452.43	73470.72	137202.72
Pulses	5878397.52	2596394.64	6661329.15	2875096.45	5676278.29	1905265.11
<b>Total</b>	<b>5949068.28</b>	<b>2697642.95</b>	<b>6732151.69</b>	<b>2976532.72</b>	<b>5767335.89</b>	<b>2058527.64</b>
<b>Animal products</b>						
Sheep/Goat Meat	57.35	479.67	122.92	850.20	216.29	1335.82
Other Meat	499.89	1718.24	593.46	1899.45	783.73	2779.70
Processed Meat	72.10	275.38	132.47	446.69	94.74	322.47
Poultry Products	869.27	2641.89	721.37	2956.93	572.11	2687.14

Product	2015-16		2016-17		2017-18	
	Quantity	Value	Quantity	Value	Quantity	Value
Dairy Products	16986.74	32230.14	16305.78	23020.25	22683.19	28208.78
Casein	823.66	3920.04	434.19	1710.98	305.53	1329.35
Natural Honey	423.01	934.44	161.70	752.28	404.92	1720.66
Albumin ( Eggs & Milk)	2207.73	9064.91	4332.74	14701.76	4977.40	21968.48
<b>Total</b>	<b>21939.75</b>	<b>51264.71</b>	<b>22804.63</b>	<b>46338.54</b>	<b>30037.91</b>	<b>60352.40</b>
<b>Other processed foods</b>						
Groundnuts	106.43	31.32	325.05	139.28	1719.40	1304.06
Guargum	634.63	1392.88	182.05	240.68	431.71	329.77
Jaggery & Confectionery	72927.53	53927.00	64086.73	56065.05	82663.92	68271.69
Cocoa Products	56424.69	139890.92	63613.17	154230.78	71257.55	147309.76
Cereal Preparations	61392.61	57259.63	67030.69	58453.19	71097.54	65967.82
Milled Products	4393.66	2139.56	3555.95	1621.80	3275.70	1302.29
Alcoholic Beverages	283096.37	280673.76	433798.28	347631.46	563713.41	387585.62
Miscellaneous Preparations	186123.68	182459.66	229557.04	212571.50	131055.23	148208.72
<b>Total</b>	<b>665099.60</b>	<b>717774.73</b>	<b>862148.96</b>	<b>830953.74</b>	<b>925214.46</b>	<b>820279.73</b>
<b>Cereals</b>						
Non Basmati Rice	1020.13	591.18	1141.36	725.44	2123.98	1218.36
Wheat	516166.56	87000.32	5749431.07	850904.90	1649724.88	235784.15
Maize	181763.94	29177.20	83216.79	16245.75	30696.54	10205.93
Other Cereals	24381.72	5253.92	228152.50	33072.36	234434.44	33184.51
<b>Total</b>	<b>723332.35</b>	<b>122022.62</b>	<b>6061941.72</b>	<b>900948.45</b>	<b>1916979.84</b>	<b>280392.95</b>
<b>Grand Total</b>	<b>8184385.89</b>	<b>4176593.13</b>	<b>14589739.25</b>	<b>5389086.10</b>	<b>9475461.84</b>	<b>3848536.68</b>

Source : DGCIS Annual Data. (<http://www.apeda.gov.in/apedawebsite/index.asp>)

Table 7.4: Value of export and import of selected commodities in agriculture

Product description	Value of export				Value of import				(million ₹)
	2015-16	2016-17	2017-18	2018-19*	2015-16	2016-17	2017-18	2018-19*	
Fish and crustaceans molluscs and other aquatic invertebrates	293789.15	368978.94	441757.63	404721.08	4415.19	3952.36	5834.07	6690.21	
Products of animal origin not elsewhere specified or included	6025.14	5357.70	7840.31	8430.85	2511.27	2700.69	3123.69	2836.10	
Live trees & other plants; bulbs; roots and the like; cut flowers and ornamental foliage	4834.13	5467.07	5073.16	5200.32	1144.00	1338.10	1364.61	1611.75	
Edible vegetables & certain roots and tubers	82675.29	86798.29	84177.04	78584.34	264092.94	288129.70	191381.76	74017.52	
Edible fruits & nuts; peel or citrus fruit or melons	104037.58	116005.57	119729.27	93645.50	198839.91	203989.87	219113.32	237891.25	
Coffee tea mate & spices	193265.57	213444.48	213437.81	194939.12	50568.18	50821.42	54784.20	45543.58	
Cereals	409662.63	403165.07	525371.24	496631.93	12254.13	90110.47	28066.62	3695.42	
Products of milling industry malt; starches; inulin; wheat gluten	19550.43	14611.62	15947.09	20510.34	3726.25	4021.33	4967.64	4773.10	
Oilseeds & olea. fruits; misc. grains; seeds and fruit; industrial or medicinal plants; straw and fodder	109677.77	121458.67	106213.85	102457.69	21434.05	25556.27	23019.91	35797.95	
Lac gums resins & other veg. saps and extracts	56719.05	56601.86	65687.41	66588.00	13344.60	14658.71	15872.18	16416.43	
Vegetable plaiting materials veg. products not elsewhere specified or included	4342.61	4547.11	3435.34	3398.28	1897.82	2524.38	2371.98	3212.80	
Animal or vegetable fats & oils and their cleavage products; pre edible fats; animal or vegetable wax	57418.15	59835.66	81469.07	69517.87	689271.40	733980.21	754019.83	629797.00	
Prep. of meat of fish or of crustaceans molluscs or other aquatic invertebrates	13874.48	21271.46	27228.08	27349.96	186.10	193.14	303.04	348.61	
Sugars & sugar confectionery	116077.76	101191.83	65652.45	95375.60	45625.22	74175.61	67691.70	37747.54	
Cocoa & cocoa preparations	12676.07	10867.73	11443.46	12541.29	13989.09	15422.76	14730.98	17182.83	
Preparations of cereals flour starch or milk; pastrycooks products	33135.92	34811.69	34699.43	33858.59	3873.87	3690.01	4340.55	6103.49	
Preparations of vegetables fruit nuts or other parts of plants	32009.49	33102.62	37693.78	36945.52	5137.12	5494.49	6595.16	7546.82	
Misc. edible preparations	37265.93	42123.07	46797.02	48240.69	9008.19	10007.39	12451.12	14069.84	

Product description	Value of export				Value of import			
	2015-16	2016-17	2017-18	2018-19*	2015-16	2016-17	2017-18	2018-19*
Beverages spirits & vinegar	20976.13	20921.77	22341.18	20415.07	36670.63	45128.02	46527.78	49600.11
Residues & waste from food industries; prepared animal fodder	52366.23	74572.71	94057.05	116831.39	24999.86	33165.29	35581.13	39443.81
Tobacco & mfd. tobacco substitutes	64523.59	64239.70	60217.10	61987.85	3312.16	3057.55	2553.99	3369.80
Fertilizers	6733.67	4655.41	6851.58	9474.93	459731.06	287541.87	301081.73	430578.33
Tanning or dyeing extracts; tannins and their derivatives pigments and other colouring matter; paints and var; putty and other mastics; inks	161651.38	171894.22	189507.95	208252.42	104668.43	111858.24	129952.48	141027.73
Essential oils & resinsoids cosmetics perfumery or toilet preparations	97326.38	105865.60	120658.75	127473.84	42272.24	45767.67	55820.95	71742.95
Rubber and articles thereof	155011.69	167181.79	190912.33	201967.93	190646.79	195006.72	223552.61	240376.94
Wood & articles of wood charcoal	29119.37	26977.51	25895.01	29350.16	155023.40	134033.17	153319.50	141860.82
Cork & articles of cork	130.64	161.11	182.36	240.76	347.31	329.49	397.96	515.01
Manufactures of plaiting materials basket ware and wickerwork	493.55	661.35	1581.20	2465.16	143.73	144.89	178.20	257.03
Pulp of wood or other fibrous cellulosic material; waste and scrap of paper or paperboard	739.30	480.33	75.38	230.42	106988.51	110876.20	135922.54	168085.66
Paper & paperboard articles of paper pulp of paper or of paperboar	74937.36	78558.21	92202.25	124995.45	162045.73	181610.19	195117.70	199648.40
<b>Total</b>	<b>2251046.44</b>	<b>2415810.09</b>	<b>2698135.55</b>	<b>2702622.35</b>	<b>2628169.16</b>	<b>2679286.19</b>	<b>2690038.89</b>	<b>2631788.79</b>

Note : \*: data is for the period of April to February.

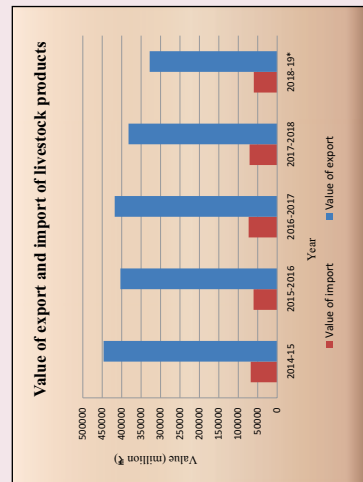
Source : Department of Commerce, Ministry of Commerce & Industry, Govt. of India. (<http://www.commerce.nic.in/eidb/ecom.asp>)

Table 7.5: Value of export and import of livestock products

Livestock Products	Value of export										Value of import				
	2014-15	2015-16	2016-17	2017-18	2018-19*	2014-15	2015-16	2016-17	2017-18	2018-19*	2014-15	2015-16	2016-17	2017-18	2018-19*
Livestock	777.53	4662.74	5273.99	4114.80	2365.79	739.80	612.30	620.31	565.54	607.05					
Meat and edible meat offal	301865	276039	270609	269215	237949.90	196.62	127.64	209.88	299.88	283.95					
Dairy produce birds' eggs natural honey edible prod. of animal origin not elsewhere spec. or included	23135.81	21457.87	19635.27	23637.61	31910.99	3051.94	3404.52	2438.26	3028.79	2058.43					
Raw hide & skins (other than furskins) & Leather	81410.44	68527.86	59474.52	56366.86	46855.93	44823.92	43111.66	39677.05	37255.56						
Wool fine or coarse animal hair horsehair yarn and woven fabric	10835.93	11660.14	10758.97	10597.64	12238.51	24455.66	23687.89	22239.57	25141.25						
<b>All groups (total)</b>	<b>418024.99</b>	<b>382347.81</b>	<b>365751.36</b>	<b>363931.91</b>	<b>331321.11</b>	<b>73267.94</b>	<b>70944.01</b>	<b>65852.33</b>	<b>65810.83</b>	<b>65346.24</b>					

Note : 1. \*. data is for the period of April to February.

Source : 1. *Basic Animal Husbandry Statistics 2015*, Department of Animal Husbandry Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
2. Department of Commerce Ministry of Commerce & Industry Govt. of India. (<http://www.commerce.nic.in/eidb/ecom.asp>)





**Table 7.6: Month-wise total imports of fruits and nuts by India**( $\text{₹}$  Crore)

Year	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
1992-93	-	-	-	-	-	-	-	2166	2038	2044	1291	976
1993-94	1029	1415	1344	687	758	1315	2925	2662	2870	2286	1687	1979
1994-95	1541	1348	1028	1351	1413	2858	2416	2499	3082	4792	2933	2855
1995-96	1713	2206	2216	1952	1847	1744	2899	4381	2928	3848	3167	1445
1996-97	1874	1989	1617	2114	2796	3899	4904	5049	4800	5489	41.24	64.78
1997-98	27.35	24.44	29.10	23.35	18.61	32.76	46.78	42.90	53.03	60.50	60.43	21.93
1998-99	37.74	33.23	30.79	43.06	54.53	58.35	57.20	59.57	66.23	82.82	64.25	45.11
1999-00	28.71	39.15	35.52	30.41	39.50	50.54	79.93	45.88	49.86	41.01	23.76	38.31
2000-01	68.24	64.65	42.53	27.84	42.71	71.86	106.80	113.18	119.07	60.19	49.81	36.84
2001-02	43.02	46.41	41.62	31.36	54.36	30.03	73.14	113.40	79.95	70.23	50.92	65.46
2002-03	34.21	59.06	42.52	33.64	26.24	41.10	91.30	45.03	86.39	79.98	32.92	63.37
2003-04	55.60	57.30	56.34	32.65	32.64	67.38	91.68	70.47	72.28	48.93	63.80	56.07
2004-05	41.27	63.51	44.32	29.74	61.27	68.28	170.43	181.23	119.49	98.16	83.52	100.62
2005-06	73.19	74.95	72.46	74.80	79.94	129.39	265.08	178.63	123.67	100.58	100.20	107.92
2006-07	124.09	160.34	113.99	91.90	100.58	153.74	268.68	186.00	184.48	213.43	148.64	161.20
2007-08	117.68	138.15	114.51	70.25	129.14	157.65	296.43	211.49	156.45	175.80	147.60	142.44
2008-09	134.32	205.33	119.85	142.99	136.38	262.36	316.24	247.66	251.18	186.33	177.13	193.84
2009-10	214.06	199.38	227.22	127.47	216.65	314.55	249.78	265.01	323.51	233.32	244.58	227.51
2010-11	244.62	330.90	187.94	164.57	183.70	334.95	473.23	334.28	335.84	241.65	284.42	311.18
2011-12	253.91	315.35	353.99	310.93	350.47	292.17	456.33	518.24	390.33	420.56	392.82	466.93
2012-13	452.81	546.19	494.43	325.17	216.63	237.24	426.33	459.30	473.07	595.47	463.54	558.11
2013-14	589.00	505.23	547.76	-	-	-	-	-	-	-	-	-

**Note** : 1. Nov. 1992-93 to Jan. 1996-97 figures are in ₹ in Lakh, 2. - : Negligible or Not available.

**Source** : Website: <http://www.indiastat.com>



**Table 7.7: Quantity and value of export of principal agricultural commodities including marine products**

(Quantity: 000't, Value: million ₹)

Items	2014-15		2015-16		2016-17		2017-18*	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Tea	234.39	41712.5	245.70	47190.00	243.43	49056.40	272.89	53966.50
Coffee	463.55	49732.5	255.74	51254.50	288.61	56464.30	317.83	62453.60
Tobacco unmanufactured	219.57	41627.1	215.32	43734.50	204.45	42498.50	185.36	38281.30
Tobacco manufactured	N.A.	17058.8	N.A.	20789.10	N.A.	21741.20	N.A.	21935.80
Spices	939.01	148477.40	831.68	166301.40	1014.45	191112.50	1096.32	200849.10
Cashew	134.57	55658.50	103.13	5027.99	91.79	5278.61	90.06	5945.28
Cashew Shell Liquid	10.94	558.10	11.68	575.90	11.40	439.90	8.33	326.30
Sesamum and Niger seeds	393.82	48267.30	342.58	31355.80	321.40	28130.60	346.07	30607.90
Other oil seeds	247.54	11353.60	204.62	9644.70	193.27	8465.80	295.10	11263.20
Vegetable oils	423.72	5801.30	30.60	522.94	60.47	779.97	37.06	566.04
Oil meals	3904.59	81291.80	2056.36	35995.60	2632.26	54101.00	3570.78	70431.50
Castor oil	566.46	47104.20	586.78	46161.00	599.20	45215.10	697.09	67300.00
Shellac	5.24	2674.70	6.39	2033.10	6.06	2255.30	6.53	2851.80
Sugar and molasses	2202.80	55218.40	4663.02	104813.60	2934.68	89744.80	1881.90	53230.50
Fruits & vegetables seeds	12.50	4270.40	13.10	5291.90	11.29	5227.50	14.47	6709.10
Processed fruits and juices	588.38	36268.60	532.29	37670.80	533.15	39210.80	573.28	41691.30
Misc. processed items	N.A.	27724.40	N.A.	29078.50	N.A.	30537.90	N.A.	35489.50
Meat & meat prep.	1527.53	301275.60	1336.45	275281.40	1345.74	270360.10	1373.77	268956.90
Floriculture products	22.95	4608.00	22.69	4834.10	22.02	5467.10	20.70	5073.20
Marine products	1231.81	336883.80	978.04	31219.48	1185.27	39593.78	1432.46	47646.41
Cotton raw and waste	1142.53	116426.40	1347.07	128211.30	996.09	109073.20	1101.47	122000.50
<b>Total (Agri.)</b>	<b>N.A.</b>	<b>2396810.40</b>	<b>N.A.</b>	<b>2153963.20</b>	<b>N.A.</b>	<b>2266519.10</b>	<b>N.A.</b>	<b>2515639.40</b>
<b>Total export</b>	<b>N.A.</b>	<b>18964455.00</b>	<b>N.A.</b>	<b>17163844.00</b>	<b>N.A.</b>	<b>18494335.50</b>	<b>N.A.</b>	<b>19565145.30</b>
<b>% share of agricultural exports</b>	<b>N.A.</b>	<b>12.64</b>	<b>N.A.</b>	<b>125.50</b>	<b>N.A.</b>	<b>122.60</b>	<b>N.A.</b>	<b>128.60</b>

Note : 1. \*: Provisional, 2. N.A.: Not available.

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
 2. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in>)

**Table 7.8: Quantity and value of import of principal agricultural commodities including marine products**

(Quantity: 000' t , Value: million ₹)

Items	2014-15		2015-16		2016-17		2017-18*	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Tea	28.39	3886.60	23.72	3774.70	24.89	3383.50	24.94	3569.90
Coffee	74.88	9304.70	65.61	8018.30	78.04	9268.10	77.22	9965.00
Tobacco unmanufactured	1.93	981.70	2.88	1373.00	1.97	772.10	1.54	694.70
Tobacco manufactured	N.A.	2002.80	N.A.	1939.20	N.A.	2285.40	N.A.	1859.20
Spices	163.09	43932.50	197.06	53999.50	242.29	57602.50	222.33	63852.60
Milk & cream	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Cashew nut	933.19	65997.40	961.67	87012.80	774.51	90270.90	654.02	91343.30
Cashew Shelled	1.72	100.30	1.86	56.00	1.69	36.70	2.09	56.60
Sesame Seeds	34.77	3799.90	23.60	1796.60	69.03	4421.50	26.27	1767.70
Niger Seeds	0.70	37.30	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Oil seeds	51.56	1632.90	62.51	2186.20	116.64	3923.60	127.35	3645.90
Veg. oils fixed (Edible)	12731.60	648896.00	15643.74	686766.20	14007.39	730389.80	15361.02	749959.10
Oil Meals	165.10	2726.50	256.55	4299.10	550.43	9745.90	485.96	7466.70
Castor Oil	0.05	18.10	0.03	11.00	0.11	15.00	0.04	25.40
Shellac	1.77	595.40	0.71	194.80	0.46	134.30	0.47	183.80
Sugar	1538.64	36682.10	1943.13	40378.60	2146.15	68686.10	2402.98	60358.40
Mollasses	60.28	301.40	17.27	75.00	13.84	90.40	72.85	692.90
Fruits & vegetable seeds	14.01	6115.30	14.33	7030.30	14.07	6533.30	16.05	7682.60
Marine Product	27.72	4539.00	50.35	6397.70	52.02	6333.90	44.71	7933.00
Veg. and animal fats	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Total Agri. Imports</b>	<b>N.A.</b>	<b>1213190.20</b>	<b>N.A.</b>	<b>1402892.20</b>	<b>N.A.</b>	<b>1647268.30</b>	<b>N.A.</b>	<b>1520952.00</b>
<b>Total imports</b>	<b>N.A.</b>	<b>27370865.80</b>	<b>N.A.</b>	<b>24903055.40</b>	<b>N.A.</b>	<b>25776753.70</b>	<b>N.A.</b>	<b>30010334.30</b>
<b>Agri. imports as % of all imports</b>	<b>N.A.</b>	<b>4.43</b>	<b>N.A.</b>	<b>5.63</b>	<b>N.A.</b>	<b>63.90</b>	<b>N.A.</b>	<b>5.07</b>

Note : 1. \*: Provisional, 2. N.A.: Not available.

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
2. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<https://eands.dacnet.nic.in>)

**Table 7.9: Trend in exports of marine products**

(Quantity: t, Unit value: ₹/t, Value: million ₹)

Year	Quantity	Value	Unit value	Unit value index	Annual growth rate (%)	
					Quantity	Value
1974-75	45099	684.10	15168.85	608.77	-13.73	-23.57
1975-76	54463	1245.30	22865.06	917.64	20.76	82.03
1976-77	66750	1891.20	28332.58	1137.06	22.56	51.87
1977-78	56967	1801.20	31618.31	1268.93	-14.66	-4.76
1978-79	86894	2346.20	27000.71	1083.61	52.53	30.26
1979-80	86401	2488.20	28798.28	1155.75	-0.57	6.05
1980-81	75591	2348.40	31067.19	1246.81	-12.51	-5.62
1981-82	70105	2860.10	40797.38	1637.31	-7.26	21.79
1982-83	78175	3613.60	46224.50	1855.11	11.51	26.35
1983-84	92187	3730.20	40463.41	1623.90	17.92	3.23
1984-85	86187	3842.90	44587.93	1789.43	-6.51	3.02
1985-86	83651	3980.00	47578.63	1909.46	-2.94	3.57
1986-87	85843	4606.70	53664.25	2153.69	2.62	15.75
1987-88	97179	5312.00	54662.02	2193.73	13.21	15.31
1988-89	99777	5978.50	59918.62	2404.69	2.67	12.55
1989-90	110843	6349.90	57287.33	2299.09	11.09	6.21
1990-91	137667	8560.00	62179.03	2495.41	24.20	34.81
1991-92	169875	13116.00	77209.71	3098.63	23.40	53.22
1992-93	206673	17137.00	82918.43	3327.74	21.66	30.66
1993-94	242505	24610.00	101482.44	4072.76	17.34	43.61
1994-95	307337	35753.00	116331.58	4668.70	26.73	45.28
1995-96	296277	34501.00	116448.46	4673.39	-3.60	-3.50
1996-97	378198	40776.00	107816.54	4326.96	27.65	18.19
1997-98	385818	46497.00	120515.37	4836.60	2.01	14.03
1998-99	302934	46268.70	152735.25	6129.67	-21.48	-0.49
1999-00	343031	51166.70	149160.57	5986.21	13.24	10.59
2000-01	440473	64438.90	146294.78	5871.20	28.41	25.94
2001-02	424470	59570.50	140340.90	5632.25	-3.63	-7.56
2002-03	467297	68813.10	147257.74	5909.84	10.09	15.52
2003-04	412017	60919.50	147856.76	5933.88	-11.83	-11.47
2004-05	461329	66465.50	144073.97	5782.07	11.97	9.10
2005-06	512163	72457.30	141473.12	5677.69	11.02	9.01
2006-07	612643	83635.20	136515.39	5478.72	19.62	15.43
2007-08	541701	76209.30	140685.18	5646.07	-11.58	-8.88
2008-09	602834	86079.50	142791.38	5730.60	11.29	12.95
2009-10	678436	100485.30	148113.16	5944.17	12.54	16.74
2010-11	813091	129014.60	158671.78	6367.92	19.85	28.39
2011-12	862021	165972.30	192538.58	7727.08	6.02	28.65
2012-13	928215	188562.60	203145.39	8152.76	7.68	13.61
2013-14	983756	302132.60	307121.48	12325.60	5.98	60.23
2014-15	1051243	334416.10	318114.90	N.A.	6.86	10.69
2015-16	945892	304208.30	321610.00	N.A.	-10.02	-9.03
2016-17	1134948	378709.00	333679.60	N.A.	19.99	24.49
2017-18	1377244	451068.90	327515.60	N.A.	21.35	19.11

Note : N.A.: Not available.

- Source : 1. *Hand Book on Fisheries Statistics 2014*, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
2. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=122960>  
3. [http://mpeda.gov.in/MPEDA/marine\\_products\\_exports.php#](http://mpeda.gov.in/MPEDA/marine_products_exports.php#)

**Table 7.10: Quantity of marine products exported and foreign exchange earned**

(Quantity: 000't, Value: million ₹)

Year	Quantity	Value	Annual growth rate (%)	
			Quantity	Value
1992-93	210.79	17431.50	10.83	20.82
1993-94	257.98	25518.90	22.39	46.40
1994-95	320.91	35366.40	24.39	38.59
1995-96	327.37	33811.30	2.01	-4.40
1996-97	394.55	40076.30	20.52	18.53
1997-98	398.20	44867.60	0.93	11.96
1998-99	311.26	43685.50	-21.83	-2.63
1999-00	390.74	51245.60	25.53	17.31
2000-01	502.60	63672.90	28.63	24.25
2001-02	468.03	58983.40	-6.88	-7.36
2002-03	527.87	69280.50	12.79	17.46
2003-04	409.49	61056.30	-22.43	-11.87
2004-05	483.52	64692.20	18.10	5.96
2005-06	554.20	70359.10	14.60	8.76
2006-07	611.55	80010.40	10.35	13.71
2007-08	490.06	69266.70	-19.87	-13.43
2008-09	464.90	70663.70	-5.13	2.02
2009-10	678.44	100485.30	45.93	42.20
2010-11	813.09	129014.70	19.85	28.39
2011-12	862.02	165972.30	6.02	28.65
2012-13	928.22	188562.60	7.68	13.61
2013-14	983.76	302132.60	5.98	60.23
2014-15	1051.24	334416.06	6.86	10.69
2015-16	945.89	304208.30	-10.02	-9.03
2016-17	1134.95	378709.00	19.99	24.49
2017-18	1377.24	451068.90	21.35	19.11

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
2. [http://commerce.nic.in/pressrelease/pressrelease\\_detail.asp](http://commerce.nic.in/pressrelease/pressrelease_detail.asp)  
3. [http://mpeda.gov.in/MPEDA/marine\\_products\\_exports.php#](http://mpeda.gov.in/MPEDA/marine_products_exports.php#)  
4. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=122960>

Export & Import

**Table 7.11: Quantity and value of export and import of natural resins and gums**

(Quantity: t, Value: Lakh ₹)

S. No.	Name of product	Export						Import					
		2015-16		2016-17		2017-18		2015-16		2016-17		2017-18	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
<b>A. Natural resins</b>													
1.	Copal	0.00	0.00	2	1.08	12.18	7.18	2078.20	1115.79	1838.03	1322.93	2028.61	1622.40
2.	Dammar batu	2.84	6.58	5.8	11.57	35.44	33.33	16525.84	5674.14	14521.98	5156.79	20227.26	9144.44
3.	Mastic gum	7668.42	24755.18	142.64	179.71	0.00	0.00	N.A.	N.A.	43098.06	39591.01	2.20	11.59
4.	Gum rosin	0.38	2.59	7241.00	20690.00	288.42	294.26	4.40	23.25	N.A.	N.A.	46703.63	40835.86
5.	Lac	204.33	303.30	0.14	0.12	6889.48	22590.00	41962.57	44297.13	3.75	20.32	300.00	2500.00
6.	Other resins	344.96	360.93	169.4	191.55	285.66	188.46	106.03	315.77	117.44	148.7	544.17	875.67
	<b>Total</b>	<b>8220.93</b>	<b>25428.57</b>	<b>7560.98</b>	<b>21074.03</b>	<b>7511.18</b>	<b>23113.23</b>	<b>60677.03</b>	<b>51426.08</b>	<b>59579.26</b>	<b>46239.75</b>	<b>69805.87</b>	<b>54989.96</b>
<b>B. Gums</b>													
1.	Gum arabic	4136.56	3281.17	0.35	4.94	1814.55	1158.70	31916.79	20496.96	N.A.	N.A.	32075.52	16968.84
2.	Asian gum	440.86	1730.61	395.07	1350.28	498.36	1825.37	29.89	15.34	25.66	12.87	36.23	102.47
3.	African gum	0.60	1.11	5450.32	2848.47	0.77	4.30	0.00	0.00	46242.34	28064.71	0.00	0.00
4.	Karaya gum Indian tragacanth	230.79	771.62	41177.93	27294.55	313.40	815.76	771.56	637.97	N.A.	N.A.	2299.98	1990.76
5.	Tragacanth (Adraanth)	0.36	1.26	276888.84	246336.16	20.86	87.40	0.02	1.52	66.85	219.73	0.39	13.23
6.	Guar gum refined split	45667.65	40311.47	186.9	630.1	44740.39	37909.24	32.93	206.08	912.55	784.23	0.00	0.00
7.	Guar gum treated and pulverized	211009.53	260841.87	1.2	9.82	321923.78	333624.91	600.20	1177.43	10	0.29	95.21	254.87
8.	Xanthum gum	4.70	22.87	2.6	9.17	3.27	13.08	24.25	48.78	56.88	80.4	41.81	59.53
9.	Other natural gums	1639.90	5033.62	2302.64	394.38	1917.26	1789.23	303.77	549.50	648.85	1321.07	622.42	1887.25
	<b>Total</b>	<b>263130.94</b>	<b>311995.60</b>	<b>326405.85</b>	<b>278483.49</b>	<b>371232.64</b>	<b>377227.99</b>	<b>33679.40</b>	<b>23133.58</b>	<b>47963.13</b>	<b>30483.3</b>	<b>35171.56</b>	<b>21276.95</b>
<b>C. Gum resins</b>													
1.	Asafoetida	885.43	4625.51	1190.32	5738.40	1120.20	5299.77	1199.12	52742.14	1322.70	58347.01	1417.34	69958.85
2.	Myrrh	0.61	10.22	0.51	8.49	1.44	4.32	71.16	359.87	77.93	374.45	42.06	328.89

S. No.	Name of product	Export						Import					
		2015-16		2016-17		2017-18		2015-16		2016-17		2017-18	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
3.	Olibanum or Frankincense	102.79	143.79	74.56	164.94	59.98	162.58	74.46	480.00	60.6	416.45	139.98	465.58
4.	Other gum resins	121.51	1792.28	145.85	1949.18	54.33	688.91	686.46	1027.69	761.02	1304.93	822.75	1858.47
	<b>Total</b>	<b>1110.34</b>	<b>6571.80</b>	<b>1411.24</b>	<b>7861.01</b>	<b>1235.95</b>	<b>6155.58</b>	<b>2031.19</b>	<b>54609.70</b>	<b>2222.25</b>	<b>60442.84</b>	<b>2422.13</b>	<b>72611.79</b>
	<b>Grand Total</b>	<b>272462.21</b>	<b>343995.98</b>	<b>335378.07</b>	<b>307418.53</b>	<b>379979.77</b>	<b>406496.80</b>	<b>96387.62</b>	<b>129169.37</b>	<b>109764.64</b>	<b>137165.89</b>	<b>107399.56</b>	<b>148878.70</b>

Note : 1. The quantity and value of export of lac for the year 2011-12 are 6858.21 t and Rs 36461.30 lakh respectively, 2. N.A.: Not available.

Source : 1. Directorate General of Commercial Intelligence & Statistics, Kolkata.

2. Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

**Table 7.12: Quantity and value of export and import of Lac and its value added products**

(Quantity: t, Value: Lakh ₹)

Year	Grade	Export										Total	Import Lac
		Shellac & button lac	Seedlac	Dewaxed shellac	Alenritic Acid	Bleached lac	Gasket shellac	Shellac wax	Other				
2011-12	Quantity	4479.31	1657.09	293.64	64.00	310.06	5.18	47.86	0.002	6858.21	N.A.		
	Value	21565.47	7737.20	2031.08	1118.13	2454.52	7.43	290.35	0.06	36461.30	N.A.		
2012-13	Quantity	2865.40	769.39	227.77	162.40	164.22	5.18	43.17	123.81	4361.30	N.A.		
	Value	23744.40	8422.49	3066.53	10068.10	2082.03	9.20	557.53	77.33	48027.60	N.A.		
2013-14	Quantity	3738.61	3709.35	211.04	162.01	258.29	0.00	17.80	56.00	8153.10	N.A.		
	Value	22556.46	19803.33	1930.74	10054.42	2311.04	0.00	183.61	14.03	56853.63	N.A.		
2014-15	Quantity	3261.44	2690.29	183.02	181.12	142.89	N.A.	15.20	95.22	6569.17	367.02		
	Value	14650.36	8770.25	1250.94	5909.11	1048.13	N.A.	116.28	504.52	32249.58	447.39		
2015-16	Quantity	3798.80	3091.06	150.57	168.50	225.34	6.48	14.20	213.49	7668.42	100.71		
	Value	11619.82	6225.18	775.23	3669.51	1275.90	16.50	64.21	1108.83	24755.18	92.31		
2016-17	Quantity	3273.16	3151.45	274.81	151.76	385.06	N.A.	4.49	0.05	7240.78	309.00		
	Value	8556.63	6109.3	1268.07	2658.47	2068.67	N.A.	28.7	0.08	20689.92	767.63		
2017-18	Quantity	3315.99	2925.65	185.23	157.23	291.07	3.46	10.88	0.00	6889.48	300.00		
	Value	9573.36	6961.16	985.45	3216.44	1700.17	10.047	90.71	0.00	22590.00	2500.00		

Note : N.A.: Not available.

Source : 1. Directorate General of Commercial Intelligence & Statistics, Kolkata. ([www.dgeiskol.in](http://www.dgeiskol.in))

2. Shellac and Forest Products Export Promotion Council, Kolkata.

3. Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

Table 7.13: Production, import and consumption of fertilizers

Year	1980-81	1990-91	2000-01	2007-08	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
(000' t)												
<b>Nitrogenous fertilizers</b>												
Production	2164	6993	10961	10900	12156	12259	12194	12378	12394	13416	13354	13386
Imports	1510	414	154	3677	4492	5240	4690	3808	4766	5068	3388	3588
Consumption	3678	7997	10920	14419	16558	17300	16821	16750	16945	17372	16735	16958
<b>Phosphatic fertilizers</b>												
Production	842	2052	3743	3807	4223	4368	3830	3960	4121	4394	4595	4723
Imports	452	1016	396	1253	3802	4427	2778	1590	1832	2888	2129	2047
Consumption	1214	3221	4215	5515	8050	7914	6653	5633	6098	6979	6705	6854
<b>Potassic fertilizers</b>												
Production	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Imports	797	1328	1541	2653	4069	3335	1230	1333	2537	2053	2318	2895
Consumption	624	1328	1568	2636	3514	2576	2062	2099	2532	2402	2508	2779
<b>All fertilizers (NPK)</b>												
Production	3006	9045	14704	14707	16380	16627	16024	16338	16515	17810	17949	18109
Imports	2759	2758	2091	7583	12363	13002	8698	6731	9135	10009	7835	8530
Consumption	5516	12546	16703	22570	28122	27790	25536	24482	25576	26753	25949	26591
C & F Values of Urea Imports (₹ Crore)	N.A.	1335.82	N.A.	N.A.	8348.89	15442.02	15980.22	14987.95	12035.26	13984.93	7024.32	8350.94**

Note : 1. Figures relate to imports made on government account only, 2. The imports made after decanalization of phosphatic fertilizers (w.e.f. 17 september 1992) and potassic fertilizers w.e.f. 17 June 1993) include the quantities imported by private parties also, 3. N.A.: Not available, 4. # : There was no import of Urea in 2000-01 in Government account, 5.\*\* Exchange rate taken as 1 USD = ₹ 64.45.

Source : 1. *Agricultural Statistics at a Glance 2017*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (<http://eands.dacnet.nic.in>)  
2. *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare Govt. of India. (<http://eands.dacnet.nic.in>)



**Table 7.14: Import of fertilizer materials**

(Quantity: 000't)

Year	Ammonium sulphate (20.6% N)	Urea (46%N)	CAN (26%N)	DAP (18-46-0)	TSP (0-46-0)	MOP (60% K <sub>2</sub> O)	SOP (50% K <sub>2</sub> O)
1998-99	97.0	556.0	-	2091.1 44.0 <sup>S</sup>	-	2579.8	20.5
1999-00	79.0	553.0	-	3268.0 56.0 <sup>S</sup>	-	2946.1	12.5
2000-01	-	-	-	861.0 78.1 <sup>S</sup>	-	2646.0	12.8
2001-02	-	220.0	-	932.7 125.2 <sup>S</sup>	-	2810.2	22.2
2002-03	-	119.4**	-	383.2 99.9 <sup>S</sup>	-	2603.2	13.0
2003-04	-	143.1**	-	734.1 65.0 <sup>S</sup>	-	2579.3	10.5
2004-05	-	641.0	-	643.6 21.6 <sup>S</sup>	-	3409.5	25.2
2005-06	-	2056.8	-	2437.7 45.0 <sup>S</sup>	-	4577.5	35.1
2006-07	24.8	4718.8	-	2875.4 97.2 <sup>S</sup>	-	3448.4	13.1
2007-08	-	6928.0	5.0	2723.6 266.0 <sup>S</sup>	-	4420.8	31.6
2008-09	23.0	5667.0	2.5	6191.7 266.9 <sup>S</sup>	173.1	5671.7	27.3
2009-10	35.6	5210.0	11.5	5888.9 193.4 <sup>S</sup>	87.0	5286.5	37.1
2010-11	26.0	6610.0	-	7411.0 188.0 <sup>S</sup>	98.0	6357.0	36.0
2011-12	36.0	7834.0	-	6905.2 493.7 <sup>S</sup>	159.7	3984.6	54.0
2012-13	1.4	8044.0	-	5702.3 152.2 <sup>S</sup>	-	2496.1	29.5
2013-14	2.9	7088.0	-	3261.1 38.6 <sup>S</sup>	-	3180.0	57.5
2014-15	155.3	8749.0	-	3853.0 136.0 <sup>S</sup>	-	4197.0	78.0
2015-16	50.9	8474.0	-	6008.0 22.0 <sup>S</sup>	-	3243.0	45.4
2016-17	114.6	5481.0	-	4385.0 (-) <sup>S</sup>	-	3736.0	46.0
2017-18*	137.9	5975.0	-	4217.0 (-) <sup>S</sup>	-	4736.0	68.1

**Note** : 1. S: Mono ammonium phosphate (11-52-0), 2. \*: Provisional, 3. \*\*: Used for manufacture of Complex Fertilizers, 4. CAN: Calcium ammonium nitrate, 5. DAP: Diammonium Phosphate, 6. TSP: Triple Superphosphate, 7. MOP: Muriate of Potash, 8. SOP: Sulfate of Potash, 9. -: Not available.

**Source** : *Fertilizer Statistics 2017-2018*, The Fertilizer Association of India, New Delhi.





भाग-VIII  
विश्व कृषि में भारत का स्थान

SECTION-VIII  
India's Position in World Agriculture





**Table 8.1: India's position in world agriculture in 2016**

Item	India	World	India's		Next to
			% Share	Rank	
<b>1. Area (million ha)</b>					
Total area	328.73	13490.08	2.44	VII	Russian Federation, Canada, USA, China, Brazil, Australia
Land area	297.32	13008.76	2.29	VII	Russian Federation, China, USA, Canada, Brazil, Australia
Arable land	156.46	1423.79	10.99	I	
<b>2. Population (million)</b>					
Total	1324.17	7466.96	17.73	II	China
Rural	867.27	3370.78	25.73	I	
<b>3. Crop production (million t)</b>					
<b>(A) Total Cereals</b>					
Wheat	297.85	2909.20	10.24	III	China, USA
Rice (Paddy)	92.29	749.01	12.32	II	China
	163.70	756.16	21.65	II	China
<b>(B) Total Pulses</b>					
	18.15	83.46	21.75	I	
<b>(C) Oilseeds</b>					
Groundnut (in shell)	7.46	44.91	16.62	II	China
Rapeseed	6.80	68.09	9.98	III	Canada, China
<b>(D) Fruits &amp; Vegetables</b>					
Vegetables & Melons	123.63	1229.51	10.06	II	China
Fruits Excluding Melons	88.47	710.50	12.45	II	China
Banana	29.14	112.60	25.88	I	
Potatoes	43.42	374.25	11.60	II	China
Onion (Dry)	20.93	94.94	22.05	II	China
<b>(E) Commercial crops</b>					
Sugarcane	348.45	1861.18	18.72	II	Brazil
Tea	1.25	5.91	21.14	II	China
Coffee (green)	0.35	9.32	3.73	VII	Brazil, Vietnam, Colombia, Indonesia, Ethiopia, Honduras
Jute	1.90	3.31	57.31	I	
Cotton (lint)	6.05	24.77	24.43	II	China
Tobacco	0.78	6.40	12.23	II	China
Unmanufactured					
<b>4. Livestock (million heads)</b>					
Cattle	186.04	1488.96	12.49	II	Brazil
Buffaloes	112.57	199.39	56.46	I	
Sheep	64.30	1188.47	5.41	III	China, Australia
Goats	134.13	1025.64	13.08	II	China
Chicken	775.29	22562.53	3.44	VI	China, Indonesia, USA, Brazil, Iran (Islamic Republic of)
<b>5. Animal products (million t)</b>					
Total Milk	165.33	809.80	20.42	I	
Total Eggs (Primary)	4.56	85.84	5.31	III	China, USA
Total Meat	7.20	330.50	2.18	VI	China, USA, Brazil, Russian Federation, Germany

Source : *Pocket Book of Agricultural Statistics 2018*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: <http://eands.dacnet.nic.in>)

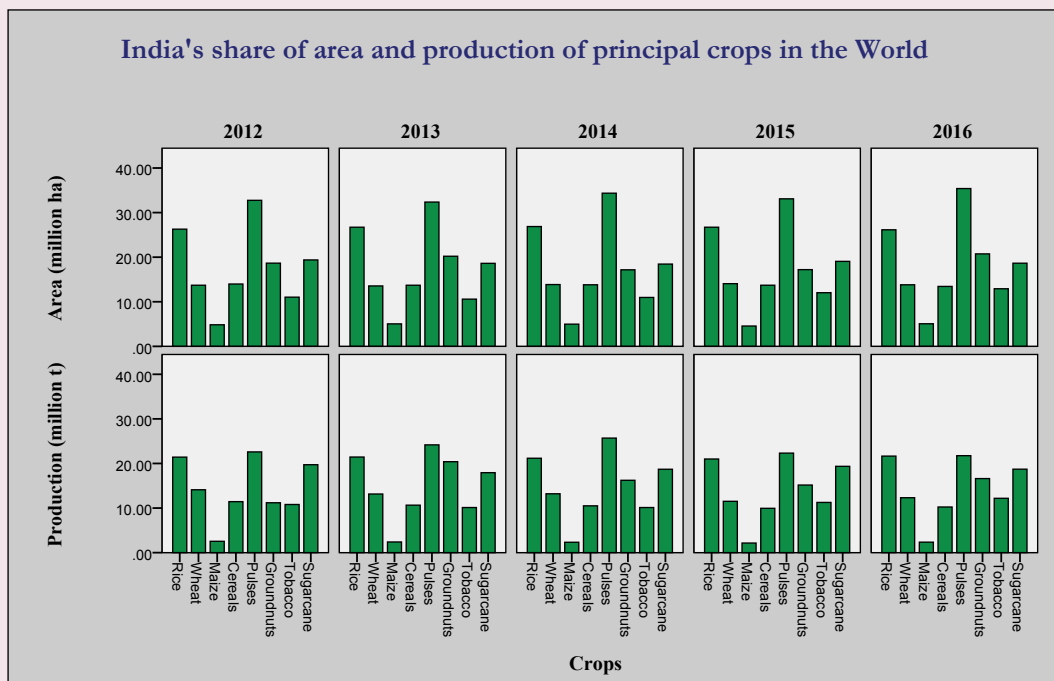
**Table 8.2: Area and production of principal crops in the World and India's share**

(Area: in million ha, Production: in million t)

Crop	Area					Production				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b>Rice</b>	162.65 (26.28)	165.22 (26.72)	164.14 (26.87)	162.38 (26.72)	165.22 (26.14)	736.60 (21.42)	742.50 (21.44)	742.44 (21.17)	745.34 (21.00)	756.16 (21.65)
<b>Wheat</b>	217.79 (13.71)	218.88 (13.55)	219.87 (13.86)	223.88 (14.06)	220.25 (13.81)	672.69 (14.10)	710.95 (13.15)	726.30 (13.20)	751.86 (11.51)	749.01 (12.32)
<b>Maize</b>	179.79 (4.84)	186.96 (5.04)	185.81 (4.98)	190.44 (4.56)	195.36 (5.07)	875.04 (2.54)	1016.21 (2.39)	1039.27 (2.33)	1052.10 (2.15)	1100.23 (2.35)
<b>Total cereals</b>	708.17 (13.98)	724.18 (13.71)	724.01 (13.81)	725.88 (13.71)	733.34 (13.44)	2563.27 (11.44)	2769.56 (10.65)	2818.11 (10.50)	2859.07 (9.94)	2909.20 (10.24)
<b>Total pulses</b>	79.41 (32.75)	80.06 (32.36)	82.64 (34.35)	81.72 (33.09)	87.16 (35.39)	74.49 (22.59)	78.36 (24.17)	77.98 (25.69)	77.56 (22.32)	83.46 (21.75)
<b>Groundnut in shell</b>	25.56 (18.66)	27.26 (20.21)	27.31 (17.17)	26.49 (17.21)	27.96 (20.74)	42.01 (11.19)	46.42 (20.40)	45.60 (16.23)	44.38 (15.16)	44.91 (16.61)
<b>Tobacco unmanufactured</b>	4.17 (11.03)	4.25 (10.59)	4.01 (10.97)	3.74 (12.03)	3.56 (12.92)	7.59 (10.8)	7.61 (10.12)	7.31 (10.12)	6.84 (11.26)	6.40 (12.19)
<b>Sugarcane</b>	26.01 (19.38)	26.85 (18.62)	27.05 (18.45)	26.60 (19.06)	26.54 (18.65)	1830.75 (19.72)	1901.55 (17.94)	1883.00 (18.70)	1871.97 (19.36)	1861.18 (18.72)

**Note** : Figures in parenthesis denote India's share to World area and production of principal crops.

**Source** : FAOSTAT website as on 21.06.2019.



**Table 8.3: Rank of India in World production and consumption of fertilizer nutrients in 2016**

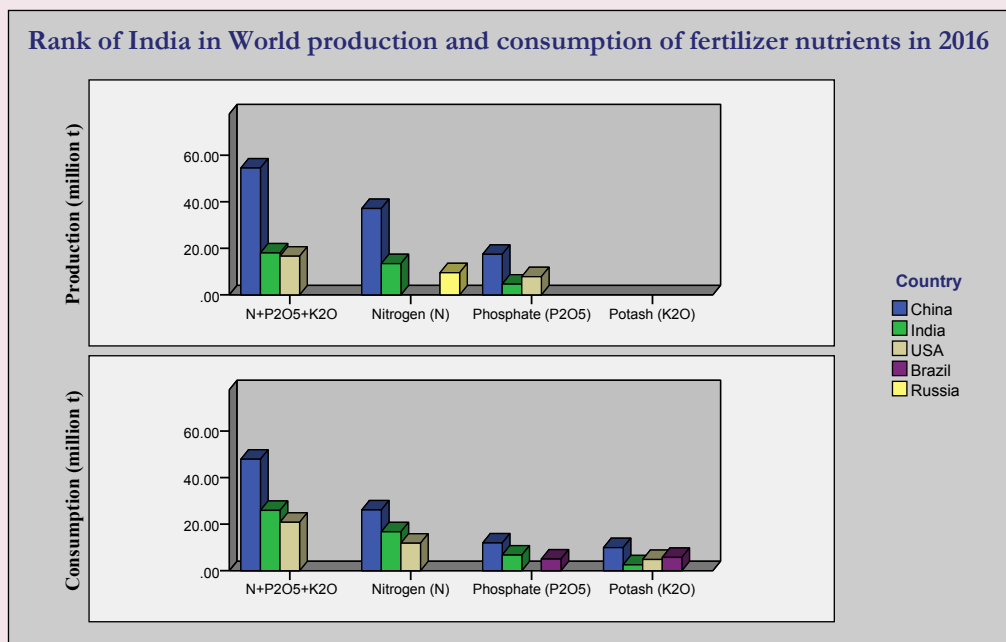
(Production & Consumption in million t)

Fertilizer	Country	Production	India's Rank in World	Country	Consumption	India's Rank in World
Nitrogen (N)	World	122.7	II	World	105.4	II
	China	37.1		China	26.1	
	<b>India</b>	<b>13.4</b>		<b>India</b>	<b>16.7</b>	
	Russian Fed.	9.5		USA	11.8	
Phosphate (P <sub>2</sub> O <sub>5</sub> )	World	50.8	III	World	44.6	II
	China	17.4		China	11.9	
	USA	7.8		<b>India</b>	<b>6.7</b>	
	<b>India</b>	<b>4.6</b>		Brazil	5.0	
Potash (K <sub>2</sub> O)	<b>India</b>	-	*	World	35.7	IV
				China	9.9	
				Brazil	5.7	
				USA	4.8	
				<b>India</b>	<b>2.5</b>	
N+P <sub>2</sub> O <sub>5</sub> +K <sub>2</sub> O	World	173.5 <sup>s</sup>	II	World	185.7	II
	China	54.5 <sup>s</sup>		China	47.9	
	<b>India</b>	<b>18.0<sup>s</sup></b>		<b>India</b>	<b>25.9</b>	
	USA	16.6 <sup>s</sup>		USA	20.8	

**Note** : 1. \*: There is no known source of K<sub>2</sub>O in India, 2. P<sub>2</sub>O<sub>5</sub> includes ground rock phosphate, 3. \$: N+P<sub>2</sub>O<sub>5</sub>.

**Source** : *Fertilizer Statistics 2017-18*, The Fertilizer Association of India, New Delhi.

**Rank of India in World production and consumption of fertilizer nutrients in 2016**



**Table 8.4: Fertilizer consumption per hectare of agricultural land in selected countries in 2015 and 2016**

(kg)

Continent/Country	2015				2016			
	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total
<b>Africa</b>								
Egypt	321.7	46.7	16.9	385.2	351.0	57.0	18.9	427.0
Morocco	7.4	7.2	1.2	15.9	6.2	4.9	1.2	12.3
South Africa	3.7	2.7	1.4	7.8	3.4	2.4	1.3	7.1
<b>North America</b>								
Canada	40.5	16.4	6.0	62.8	38.7	15.5	6.7	60.9
USA	30.0	10.6	11.8	52.4	29.0	10.4	11.8	51.3
<b>Latin America and the Caribbean</b>								
Brazil	12.4	15.5	18.2	46.1	15.4	17.5	20.2	53.1
Chile	12.4	7.9	6.1	26.4	12.6	7.9	6.2	26.7
Mexico	12.9	3.3	2.5	18.7	14.8	3.6	2.6	21.0
<b>Asia</b>								
Bangladesh	137.2	70.5	49.7	257.4	131.5	68.2	51.0	250.7
China	52.5	22.9	18.9	94.4	49.4	22.5	18.7	90.5
<b>India</b>	<b>96.7</b>	<b>38.8</b>	<b>13.4</b>	<b>148.9</b>	<b>93.1</b>	<b>37.3</b>	<b>14.0</b>	<b>144.4</b>
	<b>(87.6)</b>	<b>(35.2)</b>	<b>(12.1)</b>	<b>(134.9)</b>	<b>(84.4)</b>	<b>(33.8)</b>	<b>(12.6)</b>	<b>(130.8)</b>
Indonesia	49.7	25.3	28.7	103.7	52.5	25.8	28.1	106.3
Japan	79.9	76.8	69.0	225.6	85.1	76.0	69.3	230.4
Korea Rep.	152.9	63.2	63.7	279.8	154.9	62.1	64.5	281.5
Malaysia	52.3	37.2	130.7	220.2	58.4	36.9	129.7	225.0
Nepal	25.9	7.2	0.7	33.9	3.6	0.2	-	3.8
Pakistan	73.8	27.8	0.6	102.2	101.2	34.4	1.1	136.8
Sri Lanka	88.4	25.3	38.6	152.3	55.0	11.5	18.8	85.2
Thailand	56.1	19.6	24.7	100.4	55.4	20.0	24.4	99.8
Turkey	38.6	15.2	3.4	57.2	49.5	20.7	3.1	73.2
Vietnam	141.1	68.4	43.3	252.8	120.0	61.3	48.5	229.9
<b>Europe</b>								
Belarus	55.1	15.7	61.1	132.0	52.0	14.9	47.9	114.8
Denmark	82.0	12.5	24.9	119.3	86.5	13.1	25.0	124.5
France	77.0	14.9	12.9	104.8	78.0	12.5	13.6	104.1
Germany	102.2	13.4	23.8	139.5	99.6	13.9	25.8	139.3
Netherlands	108.3	8.2	13.6	130.1	111.6	10.0	15.6	137.2
Poland	72.6	22.7	36.7	131.9	76.2	23.5	38.8	138.5
Russian Fed.	8.3	3.0	1.7	13.0	9.3	3.4	1.6	14.3
Spain	37.1	14.6	14.0	65.7	38.8	16.4	14.8	70.1
United Kingdom	59.6	11.4	15.8	87.1	60.8	11.3	16.3	88.4
Ukraine	30.5	6.2	6.4	43.0	33.7	8.0	7.1	48.7
<b>Oceania</b>								
Australia	3.7	2.6	0.7	7.0	4.1	2.4	0.7	7.2
New Zealand	39.4	29.4	12.1	80.8	41.6	29.4	13.8	84.8
<b>World</b>	<b>21.5</b>	<b>9.0</b>	<b>7.2</b>	<b>37.6</b>	<b>21.6</b>	<b>9.2</b>	<b>7.3</b>	<b>38.1</b>

**Note** : Figures in parenthesis indicate fertilizer consumption per hectare of gross cropped area. Data for gross cropped area pertains to 2014-15.

**Source** : *Fertilizer Statistics 2017-18*, The Fertilizer Association of India, New Delhi.



**Table 8.5: Fertilizer consumption and yield of principal crops in selected countries in 2016 (Provisional)**

(kg)

Continent/ Country	Fertilizer consumption (N+P <sub>2</sub> O <sub>5</sub> +K <sub>2</sub> O)			Yield per ha <sup>@</sup>			
	Per ha of		Per capita of agricultural population <sup>5</sup>	Paddy	Wheat	Maize	Potato
	Agriculture land	Arable land & land under permanent crop					
<b>Africa</b>							
Egypt	427.0	427.0	70.9	9367	6575	7390	27244
Morocco	12.3	39.2	46.3	7088	1132	928	29337
South Africa	7.1	53.2	144.3	2721	3756	3996	36099
<b>North America</b>							
Canada	60.9	78.9	6167.0	-	3292	9372	12629
USA	51.3	134.4	4127.0	8112	3539	10960	49020
<b>Latin America and the Caribbean</b>							
Brazil	53.1	172.1	736.4	5464	3155	4288	29662
Chile	26.7	243.7	186.2	6556	6071	11544	21801
Mexico	21.0	88.7	111.7	6135	5339	3718	27926
<b>Asia</b>							
Bangladesh	250.7	268.2	34.5	4619	3030	7301	19916
China	90.5	354.1	57.6	6937	5409	5948	17043
<b>India</b>	<b>144.4</b>	<b>153.1</b> <b>(130.8)</b>	<b>43.6</b>	<b>3695</b>	<b>3093</b>	<b>2575</b>	<b>20549</b>
Indonesia	106.3	131.8	68.2	5415	-	5371	18255
Japan	230.4	230.4	407.6	5439	3688	2634	31195
Rep. of Korea	281.5	291.2	231.7	7223	3067	5054	26272
Malaysia	225.0	232.7	583.8	3181	-	6460	-
Nepal	3.8	6.8	0.6	3154	2329	2503	14030
Pakistan	136.8	158.3	67.5	3765	2844	4595	22446
Sri Lanka	85.2	101.5	25.8	3916	-	3865	15698
Thailand	99.8	103.6	78.7	2912	997	4229	16382
Turkey	73.2	118.4	197.3	7927	2707	9418	32825
Vietnam	229.9	242.7	50.3	5581	-	4553	14274
<b>Europe</b>							
Belarus	114.8	169.1	1199.3	-	3294	5961	20471
Denmark	124.5	136.4	2367.2	-	7207	7684	42479
France	104.1	154.5	2458.8	4750	5304	8158	39005
Germany	139.3	193.9	1879.7	-	7641	9651	44421
Netherlands	137.2	231.1	620.7	-	7983	10048	41996
Poland	138.5	177.8	360.7	-	4542	7294	28472
Russian Fed.	14.3	25.0	278.0	5303	2684	5513	15318
Spain	70.1	108.1	942.2	7828	3096	11559	32723
UK	88.4	252.4	1690.2	-	7890	-	38655
Ukraine	48.7	60.1	403.3	5392	4206	6602	16583
<b>Oceania</b>							
Australia	7.2	57.3	3058.1	10289	1974	7508	40410
New Zealand	84.8	1400.9	2689.3	-	9197	11689	48988
<b>World</b>	<b>38.1</b>	<b>116.8</b>	<b>70.9</b>	<b>4637</b>	<b>3405</b>	<b>5640</b>	<b>19579</b>

**Note** : 1. \$: Based on agricultural population 2011, 2. @: Yield figures have been rounded, 3. Figure in parenthesis denotes fertilizer consumption per hectare of gross cropped area. Data for gross cropped area pertains to 2014-15, 4. Arable land is the land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years) whereas Agricultural land is the sum of areas under Arable land, Permanent crops and Permanent pastures.

**Source** : Fertilizer Statistics 2017-18, The Fertilizer Association of India, New Delhi.

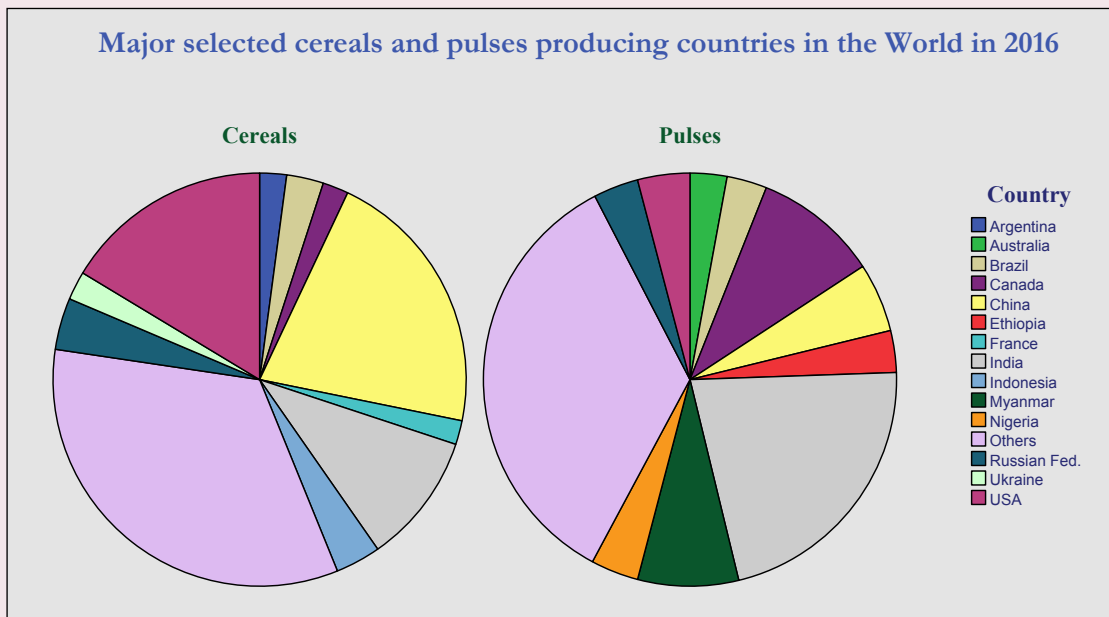
**Table 8.6: Major cereals and pulses producing countries in the World in 2016**

(Area: million ha, Production: million t, Yield: t/ha)

Country	Cereals			Country	Pulses		
	Area	Production	Yield		Area	Production	Yield
<b>China</b>	103.04	616.25	5.98	<b>India</b>	<b>30.85</b>	<b>18.15</b>	<b>0.59</b>
<b>USA</b>	58.44	475.96	8.14	<b>Canada</b>	4.04	8.13	2.01
<b>India</b>	<b>98.59</b>	<b>297.85</b>	<b>3.02</b>	<b>Myanmar</b>	4.36	6.58	1.51
<b>Russian Fed.</b>	44.42	117.74	2.65	<b>China</b>	2.61	4.51	1.73
<b>Indonesia</b>	19.60	102.93	5.25	<b>USA</b>	1.68	3.41	2.03
<b>Brazil</b>	20.12	84.13	4.18	<b>Nigeria</b>	3.73	3.12	0.84
<b>Ukraine</b>	14.02	65.22	4.65	<b>Russian Fed.</b>	1.68	2.94	1.75
<b>Argentina</b>	11.75	61.15	5.20	<b>Ethiopia</b>	1.51	2.73	1.81
<b>Canada</b>	14.14	58.79	4.16	<b>Brazil</b>	2.60	2.62	1.01
<b>France</b>	9.61	54.65	5.69	<b>Australia</b>	2.02	2.41	1.20
<b>Others</b>	339.62	974.53	2.87	<b>Others</b>	32.08	28.84	0.90
<b>World</b>	<b>733.34</b>	<b>2909.20</b>	<b>3.97</b>	<b>World</b>	<b>87.16</b>	<b>83.46</b>	<b>0.96</b>

Source : FAOSTAT website as on 18.06.2019.

**Major selected cereals and pulses producing countries in the World in 2016**

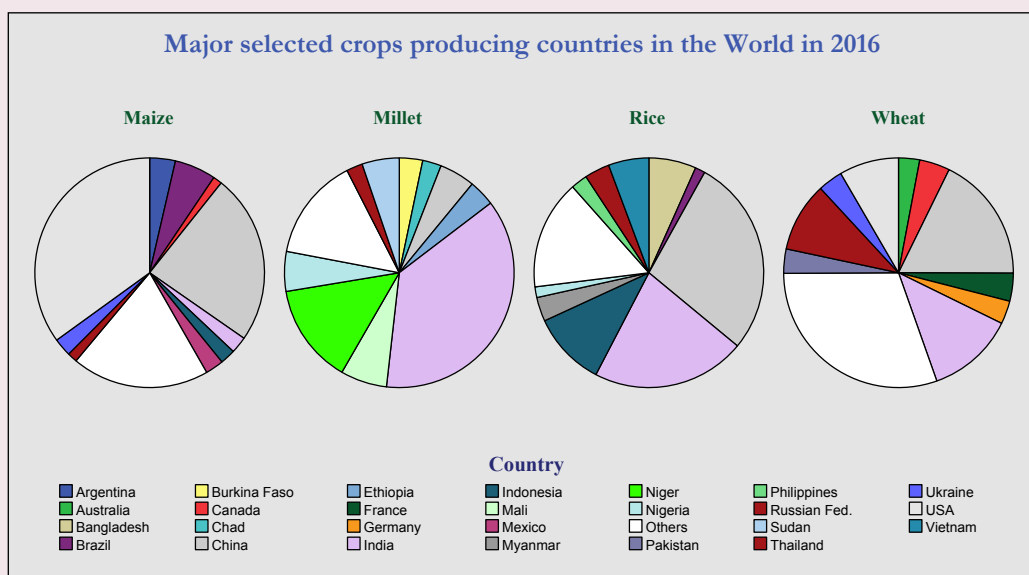


**Table 8.7: Major selected crops producing countries in the World in 2016**

(Area: million ha, Production: million t, Yield: t/ha)

Country	Rice			Country	Wheat		
	Area	Production	Yield		Area	Production	Yield
China	30.75	211.09	6.87	China	24.70	133.27	5.40
<b>India</b>	<b>43.19</b>	<b>163.70</b>	<b>3.79</b>	<b>India</b>	<b>30.42</b>	<b>92.29</b>	<b>3.03</b>
Indonesia	15.16	79.36	5.24	Russian Fed.	27.31	73.29	2.68
Bangladesh	11.00	50.45	4.59	USA	17.75	62.83	3.54
Vietnam	7.73	43.11	5.57	Canada	9.26	32.14	3.47
Thailand	9.34	26.65	2.85	France	5.56	29.50	5.30
Myanmar	6.72	25.67	3.82	Ukraine	6.21	26.10	4.21
Philippines	4.56	17.63	3.87	Pakistan	9.22	25.63	2.78
Nigeria	5.61	11.35	2.02	Germany	3.20	24.46	7.64
Brazil	1.94	10.62	5.46	Australia	11.28	22.27	1.97
Others	29.22	116.52	3.99	Others	75.34	227.21	3.02
<b>World</b>	<b>165.22</b>	<b>756.16</b>	<b>4.58</b>	<b>World</b>	<b>220.25</b>	<b>749.01</b>	<b>3.40</b>

Country	Maize			Country	Millet		
	Area	Production	Yield		Area	Production	Yield
USA	35.11	384.78	10.96	India	<b>8.84</b>	<b>10.28</b>	<b>1.16</b>
China	44.18	263.61	5.97	Niger	7.23	3.89	0.54
Brazil	14.96	64.14	4.29	Mali	2.04	1.81	0.89
Argentina	5.35	39.79	7.44	Nigeria	1.83	1.55	0.85
Mexico	7.60	28.25	3.72	Sudan	3.01	1.45	0.48
Ukraine	4.25	28.07	6.60	China	0.60	1.39	2.34
<b>India</b>	<b>9.90</b>	<b>25.90</b>	<b>2.62</b>	Ethiopia	0.46	1.02	2.23
Indonesia	4.44	23.58	5.31	Burkina Faso	1.19	0.91	0.76
Russian Fed.	2.78	15.31	5.51	Chad	1.22	0.73	0.59
Canada	1.32	13.89	10.54	Russian Fed.	0.41	0.63	1.54
Others	65.48	212.90	3.25	Others	4.75	4.01	0.84
<b>World</b>	<b>195.36</b>	<b>1100.23</b>	<b>5.63</b>	<b>World</b>	<b>31.57</b>	<b>27.66</b>	<b>0.88</b>



## India's Position in World Agriculture

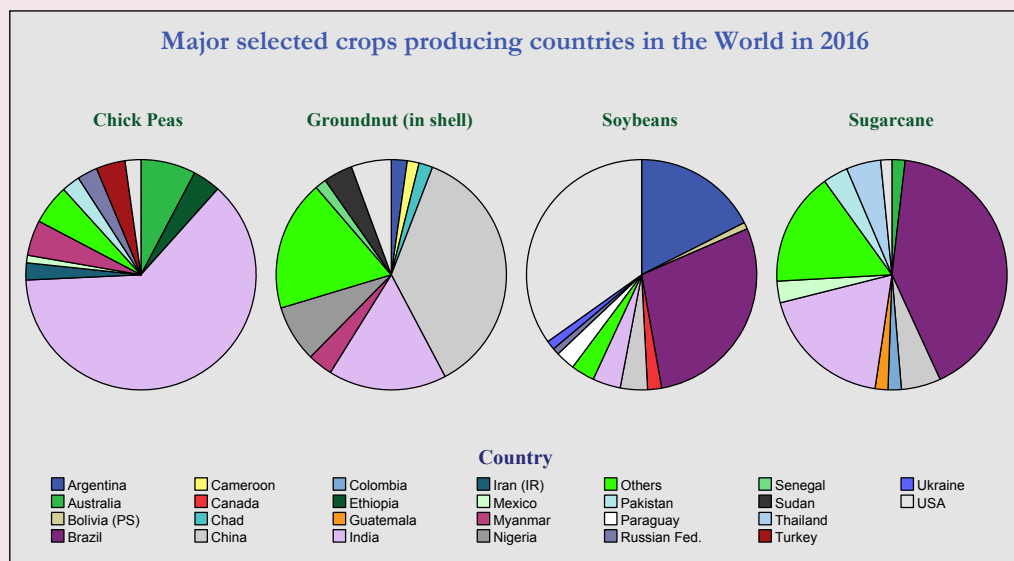
(Area: million ha, Production: million t, Yield: t/ha)

Country	Sugarcane			Country	Chick Peas		
	Area	Production	Yield		Area	Production	Yield
Brazil	10.22	768.56	75.18	India	8.40	7.06	0.84
India	4.95	348.45	70.39	Australia	0.68	0.87	1.29
China	1.40	103.22	73.62	Myanmar	0.36	0.56	1.54
Thailand	1.41	90.09	63.95	Turkey	0.35	0.46	1.29
Pakistan	1.13	65.45	57.88	Ethiopia	0.23	0.44	1.97
Mexico	0.78	56.45	72.27	Russian Fed.	0.36	0.32	0.89
Colombia	0.40	34.76	86.40	Pakistan	0.94	0.29	0.30
Australia	0.45	34.40	76.93	Iran (IR)#	0.50	0.27	0.54
Guatemala	0.26	33.53	129.05	USA	0.13	0.25	1.91
USA	0.37	29.25	80.03	Mexico	0.07	0.12	1.83
Others	5.17	297.02	57.48	Others	0.64	0.63	0.99
World	26.54	1861.18	70.13	World	12.65	11.27	0.89

Country	Soybeans			Country	Groundnut (in shell)		
	Area	Production	Yield		Area	Production	Yield
USA	33.47	116.92	3.49	China	4.45	16.36	3.68
Brazil	33.18	96.39	2.90	India	5.80	7.46	1.29
Argentina	19.50	58.80	3.01	Nigeria	2.68	3.58	1.34
India	11.50	13.16	1.14	USA	0.62	2.53	4.07
China	7.09	12.79	1.80	Sudan	2.32	1.83	0.79
Paraguay	3.37	9.16	2.72	Myanmar	0.99	1.57	1.59
Canada	2.19	6.60	3.01	Argentina	0.34	1.00	2.93
Ukraine	1.86	4.28	2.30	Chad	0.79	0.87	1.10
Bolivia (PS)*	1.34	3.20	2.40	Cameroon	0.45	0.75	1.65
Russian Fed.	2.12	3.14	1.48	Senegal	0.88	0.72	0.82
Others	6.23	11.07	1.78	Others	8.63	8.24	0.95
World	121.85	335.51	2.75	World	27.96	44.91	1.61

Note : 1. \*: Bolivia (Plurinational State of), 2. #: Iran (Islamic Republic of).

Source : FAOSTAT website as on 18.06.2019.

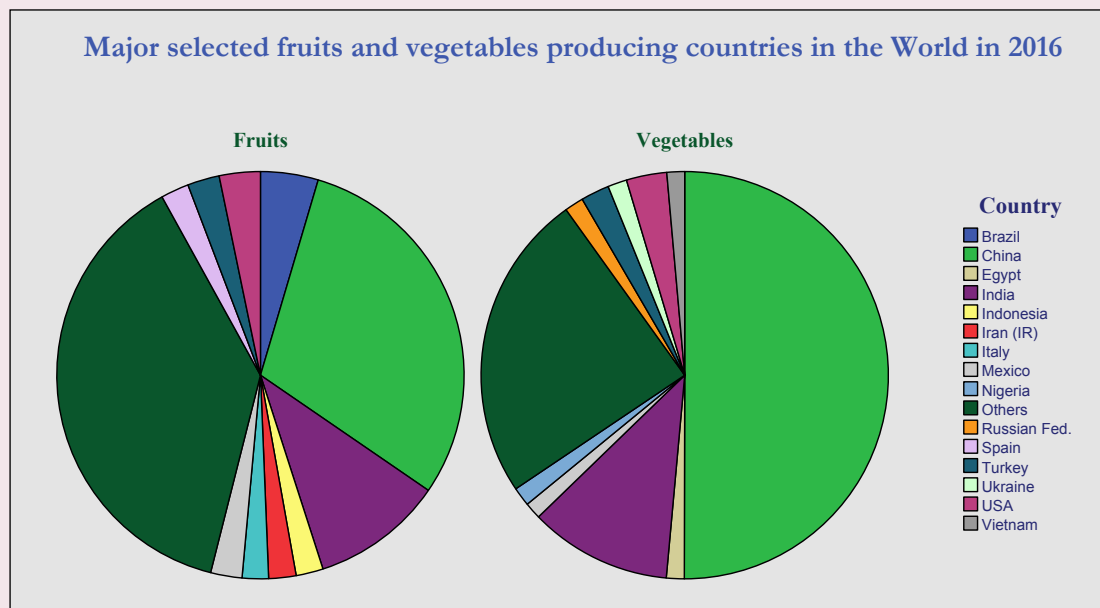


**Table 8.8: Major fruits and vegetables producing countries in the World in 2016**

(Area: million ha, Production: million t, Yield: t/ha)

Country	Fruits			Country	Vegetables		
	Area	Production	Yield		Area	Production	Yield
China	16.28	257.72	15.83	China	23.44	540.69	23.07
India	<b>6.98</b>	<b>89.92</b>	<b>12.88</b>	India	<b>8.38</b>	<b>122.18</b>	<b>14.59</b>
Brazil	2.29	39.35	17.18	USA	0.99	34.68	35.04
USA	1.19	27.99	23.61	Turkey	0.75	24.42	32.43
Turkey	1.39	21.78	15.63	Ukraine	0.73	16.40	22.42
Mexico	1.42	21.42	15.14	Russian Fed.	0.68	16.29	24.03
Spain	1.57	19.21	12.21	Nigeria	3.70	16.20	4.38
Iran (IR)	1.37	18.64	13.58	Egypt	0.64	15.29	24.01
Indonesia	0.75	18.53	24.72	Vietnam	0.95	15.20	15.93
Italy	1.13	17.93	15.80	Mexico	0.71	14.32	20.08
Others	30.84	326.83	10.60	Others	16.73	265.02	15.84
<b>World</b>	<b>65.22</b>	<b>859.32</b>	<b>13.18</b>	<b>World</b>	<b>57.69</b>	<b>1080.69</b>	<b>18.73</b>

Source : FAOSTAT website as on 18.06.2019.

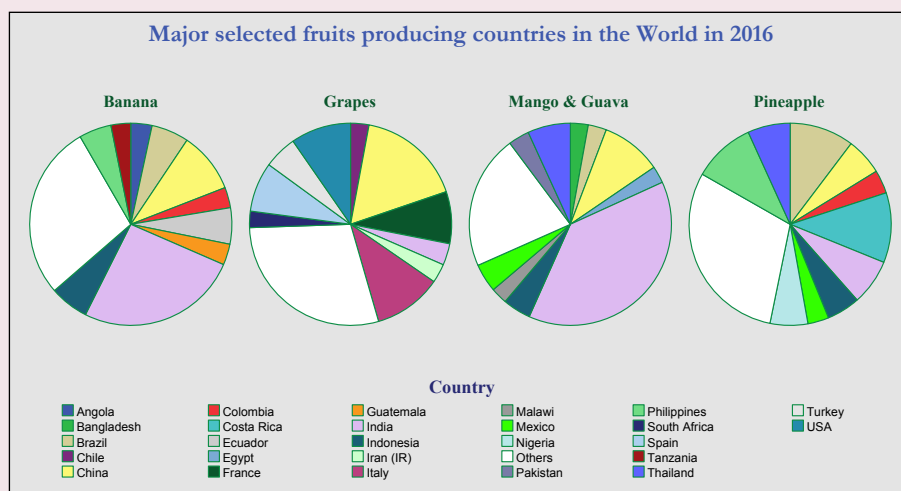


**Table 8.9: Major selected fruits producing countries in the World in 2016**

(Area: million ha, Production: million t, Yield: t /ha)

Country	Banana			Country	Grapes		
	Area	Production	Yield		Area	Production	Yield
<b>India</b>	<b>0.84</b>	<b>29.14</b>	<b>34.64</b>	<b>China</b>	0.76	12.63	16.63
<b>China</b>	0.41	10.94	26.45	<b>Italy</b>	0.67	8.20	12.28
<b>Indonesia</b>	0.12	7.01	59.89	<b>USA</b>	0.41	7.23	17.63
<b>Brazil</b>	0.47	6.74	14.37	<b>France</b>	0.76	6.25	8.25
<b>Ecuador</b>	0.18	6.53	36.21	<b>Spain</b>	0.94	5.95	6.33
<b>Philippines</b>	0.36	5.83	16.36	<b>Turkey</b>	0.44	4.00	9.19
<b>Angola</b>	0.13	3.82	29.29	<b>India</b>	<b>0.12</b>	<b>2.59</b>	<b>21.23</b>
<b>Guatemala</b>	0.08	3.78	48.27	<b>Iran (IR)<sup>s</sup></b>	0.19	2.28	12.30
<b>Colombia</b>	0.13	3.69	29.28	<b>Chile</b>	0.21	2.20	10.28
<b>Tanzania*</b>	0.46	3.56	7.73	<b>South Africa</b>	0.12	1.97	16.32
<b>Others</b>	2.20	31.57	14.33	<b>Others</b>	2.38	21.71	9.13
<b>World</b>	<b>5.38</b>	<b>112.60</b>	<b>20.94</b>	<b>World</b>	<b>6.99</b>	<b>74.99</b>	<b>10.73</b>

Country	Pineapple			Country	Mango & Guava		
	Area	Production	Yield		Area	Production	Yield
<b>Costa Rica</b>	0.04	2.93	68.15	<b>India</b>	<b>2.21</b>	<b>18.64</b>	<b>8.44</b>
<b>Brazil</b>	0.07	2.70	39.12	<b>China</b>	0.58	4.70	8.12
<b>Philippines</b>	0.07	2.61	40.05	<b>Thailand</b>	0.40	3.31	8.29
<b>India</b>	<b>0.11</b>	<b>1.92</b>	<b>17.49</b>	<b>Mexico</b>	0.21	2.20	10.64
<b>Thailand</b>	0.07	1.78	24.29	<b>Indonesia</b>	0.17	2.18	12.89
<b>Nigeria</b>	0.19	1.58	8.17	<b>Pakistan</b>	0.17	1.63	9.69
<b>China</b>	0.07	1.55	23.29	<b>Brazil</b>	0.08	1.42	17.95
<b>Indonesia</b>	0.01	1.40	116.35	<b>Bangladesh</b>	0.15	1.38	8.99
<b>Colombia</b>	0.02	0.98	41.84	<b>Egypt</b>	0.11	1.31	11.65
<b>Mexico</b>	0.02	0.88	44.94	<b>Malawi</b>	0.07	1.28	18.34
<b>Others</b>	0.38	7.87	20.94	<b>Others</b>	1.43	10.39	7.29
<b>World</b>	<b>1.05</b>	<b>26.20</b>	<b>24.93</b>	<b>World</b>	<b>5.57</b>	<b>48.44</b>	<b>8.69</b>



## India's Position in World Agriculture

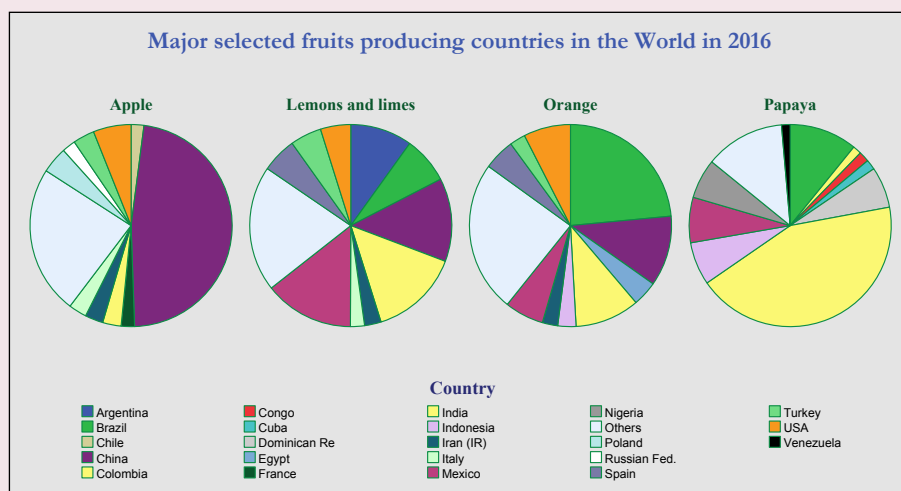
(Area: million ha, Production: million t, Yield: t/ha)

Country	Apple			Country	Orange		
	Area	Production	Yield		Area	Production	Yield
China	2.38	40.39	16.97	Brazil	0.66	17.26	26.19
USA	0.13	5.16	39.35	China	0.51	8.28	16.32
Poland	0.18	3.60	20.34	India	<b>0.64</b>	<b>7.58</b>	<b>11.83</b>
Turkey	0.17	2.93	16.87	USA	0.22	5.52	24.75
India	<b>0.28</b>	<b>2.52</b>	<b>9.10</b>	Mexico	0.31	4.60	14.63
Iran (IR) <sup>s</sup>	0.15	2.47	16.29	Spain	0.14	3.67	25.84
Italy	0.06	2.46	43.72	Egypt	0.12	2.94	25.25
Russian Fed.	0.21	1.84	8.60	Indonesia	0.06	2.14	38.51
France	0.05	1.82	36.68	Turkey	0.05	1.85	35.11
Chile	0.04	1.74	48.34	Iran (IR) <sup>s</sup>	0.09	1.81	21.12
Others	1.52	20.27	13.35	Others	1.16	17.77	15.35
<b>World</b>	<b>5.16</b>	<b>85.20</b>	<b>16.50</b>	<b>World</b>	<b>3.96</b>	<b>73.43</b>	<b>18.57</b>

Country	Papaya			Country	Lemons and limes		
	Area	Production	Yield		Area	Production	Yield
India	<b>0.132</b>	<b>5.67</b>	<b>42.93</b>	India	<b>0.25</b>	<b>2.44</b>	<b>9.95</b>
Brazil	0.030	1.42	46.89	Mexico	0.16	2.43	14.86
Mexico	0.017	0.95	56.59	China	0.10	2.26	22.34
Indonesia	0.010	0.90	90.44	Argentina	0.05	1.68	32.32
Dominican Republic	0.003	0.86	287.83	Brazil	0.05	1.27	26.68
Nigeria	0.097	0.83	8.60	Spain	0.04	0.95	23.22
Congo <sup>@</sup>	0.013	0.22	16.92	Turkey	0.03	0.85	28.32
Cuba	0.008	0.21	27.95	USA	0.02	0.82	37.18
Colombia	0.006	0.18	29.65	Iran (IR) <sup>s</sup>	0.03	0.45	15.79
Venezuela <sup>#</sup>	0.009	0.18	19.10	Italy	0.03	0.38	14.98
Others	0.116	1.67	14.36	Others	0.30	3.41	11.45
<b>World</b>	<b>0.441</b>	<b>13.10</b>	<b>29.69</b>	<b>World</b>	<b>1.05</b>	<b>16.94</b>	<b>16.07</b>

Note : 1. \*: United Republic of Tanzania, 2. @: Democratic Republic of the Congo, 3. #: Venezuela (Bolivarian Republic of), 4. \$: Iran (Islamic Republic of).

Source : FAOSTAT website as on 18.06.2019.

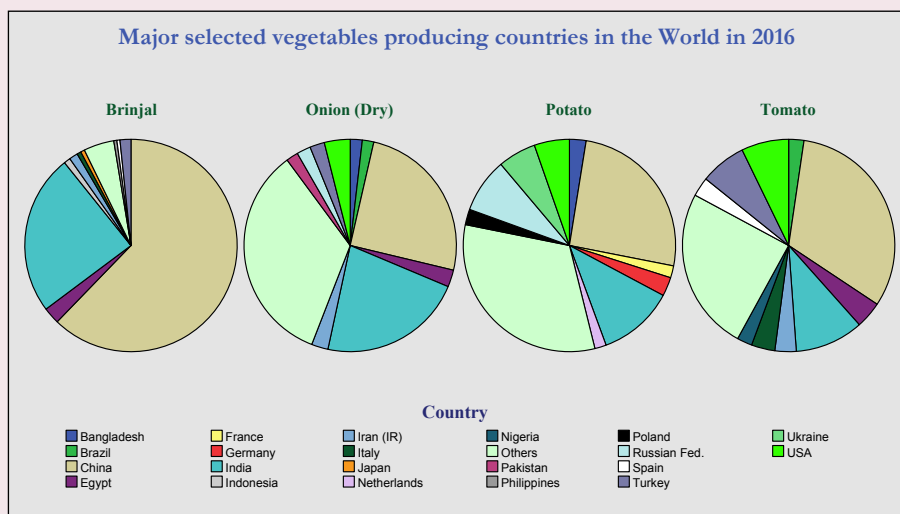


**Table 8.10: Major selected vegetables producing countries in the World in 2016**

(Area: million ha, Production: million t, Yield: t/ha)

Country	Potato			Country	Tomato		
	Area	Production	Yield		Area	Production	Yield
China	5.54	95.65	17.26	China	1.02	57.46	56.59
<b>India</b>	<b>2.12</b>	<b>43.42</b>	<b>20.51</b>	<b>India</b>	<b>0.77</b>	<b>18.73</b>	<b>24.20</b>
Russian Fed.	2.03	31.11	15.32	USA	0.14	12.94	90.94
Ukraine	1.31	21.75	16.58	Turkey	0.19	12.60	66.62
USA	0.41	20.02	48.59	Egypt	0.18	7.32	39.58
Germany	0.24	10.77	44.42	Italy	0.10	6.44	61.94
Bangladesh	0.48	9.47	19.93	Iran (IR) <sup>s</sup>	0.15	5.83	39.06
Poland	0.31	8.87	28.63	Spain	0.06	5.23	83.45
France	0.18	6.83	39.01	Brazil	0.06	4.17	65.14
Netherlands	0.16	6.53	42.00	Nigeria	0.62	4.13	6.67
Others	6.30	119.82	19.01	Others	1.54	44.66	28.99
<b>World</b>	<b>19.08</b>	<b>374.25</b>	<b>19.62</b>	<b>World</b>	<b>4.85</b>	<b>179.51</b>	<b>37.05</b>

Country	Onion (Dry)			Country	Brinjal		
	Area	Production	Yield		Area	Production	Yield
China	1.09	23.89	21.99	China	0.78	31.86	40.75
<b>India</b>	<b>1.32</b>	<b>20.93</b>	<b>15.86</b>	<b>India</b>	<b>0.66</b>	<b>12.52</b>	<b>18.88</b>
USA	0.05	3.73	67.89	Egypt	0.05	1.3	26.86
Egypt	0.07	2.46	35.41	Turkey	0.02	0.85	34.48
Iran (IR) <sup>s</sup>	0.06	2.40	38.53	Iran (IR)	0.02	0.67	30.83
Turkey	0.07	2.12	31.38	Indonesia	0.04	0.51	11.37
Russian Fed.	0.09	2.02	22.85	Italy	0.01	0.32	31.66
Pakistan	0.14	1.74	12.78	Japan	0.01	0.31	32.97
Bangladesh	0.18	1.74	9.78	Spain	0	0.24	64.65
Brazil	0.06	1.66	28.84	Philippines	0.02	0.24	11.2
Others	1.97	32.26	16.41	Others	0.18	2.37	13.17
<b>World</b>	<b>5.09</b>	<b>94.94</b>	<b>18.67</b>	<b>World</b>	<b>1.79</b>	<b>51.19</b>	<b>28.63</b>





## India's Position in World Agriculture

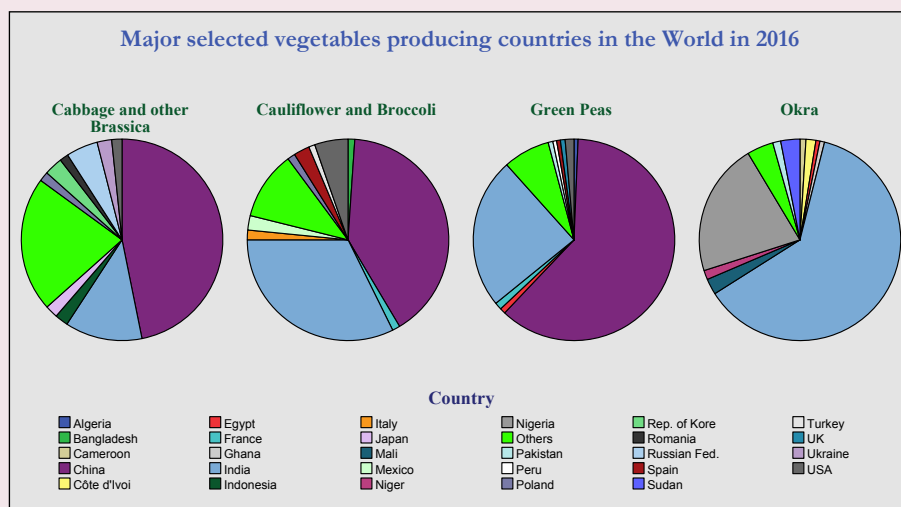
(Area: million ha, Production: million t, Yield: t/ha)

Country	Cabbage and other Brassica			Country	Cauliflower and Broccoli		
	Area	Production	Yield		Area	Production	Yield
China	0.98	33.28	33.90	China	0.51	10.11	19.77
<b>India</b>	<b>0.39</b>	<b>8.81</b>	<b>22.35</b>	<b>India</b>	<b>0.43</b>	<b>8.09</b>	<b>18.99</b>
Russian Fed.	0.11	3.62	32.11	USA	0.07	1.34	19.40
Rep. of Korea	0.03	2.10	67.84	Spain	0.03	0.64	18.53
Ukraine	0.07	1.66	24.95	Mexico	0.04	0.58	16.40
Indonesia	0.07	1.51	21.04	Italy	0.02	0.39	23.88
Japan	0.03	1.45	41.79	Poland	0.01	0.31	22.34
USA	0.02	1.17	48.22	France	0.02	0.31	15.82
Poland	0.02	1.09	45.31	Bangladesh	0.02	0.27	13.89
Romania	0.05	0.99	21.44	Turkey	0.01	0.25	22.58
Others	0.70	15.39	21.89	Others	0.18	2.75	15.07
<b>World</b>	<b>2.49</b>	<b>71.07</b>	<b>28.54</b>	<b>World</b>	<b>1.34</b>	<b>25.06</b>	<b>18.70</b>

Country	Okra			Country	Green Peas		
	Area	Production	Yield		Area	Production	Yield
<b>India</b>	<b>0.51</b>	<b>5.85</b>	<b>11.45</b>	China	1.52	12.20	8.00
Nigeria	1.50	2.01	1.34	<b>India</b>	<b>0.50</b>	<b>4.81</b>	<b>9.66</b>
Sudan	0.03	0.29	10.74	USA	0.06	0.28	4.97
Mali	0.02	0.24	11.22	France	0.04	0.23	6.53
Côte d'Ivoire	0.06	0.15	2.76	Egypt	0.02	0.18	10.43
Niger	0.17	0.14	0.78	UK	0.04	0.15	4.32
Pakistan	0.02	0.12	7.57	Pakistan	0.02	0.15	6.34
Cameroon	0.03	0.09	2.72	Algeria	0.03	0.13	3.92
Ghana	0.00	0.07	21.00	Peru	0.03	0.12	3.54
Egypt	0.00	0.06	11.94	Spain	0.02	0.12	7.48
Others	0.06	0.40	6.73	Others	0.32	1.49	4.68
<b>World</b>	<b>2.41</b>	<b>9.41</b>	<b>3.91</b>	<b>World</b>	<b>2.59</b>	<b>19.86</b>	<b>7.66</b>

Note : \$: Iran (Islamic Republic of).

Source : FAOSTAT website as on 18.06.2019.



**Table 8.11: Yield per hectare of different crops in selected countries in 2016**

Country	Rice	Wheat	Maize	Total cereals	Total pulses	Potato	Soybean	Sugarcane
Algeria	17.34	11.83	45.12	19.82	7.41	304.43	N.A.	N.A.
Argentina	67.63	28.62	74.43	52.04	10.65	321.97	30.15	503.82
Australia	102.89	19.74	75.08	20.75	11.97	404.10	21.34	769.29
Austria	N.A.	62.53	111.63	72.45	24.06	361.56	30.65	N.A.
Bangladesh	45.86	30.31	73.01	46.01	10.17	199.25	18.33	427.79
Belgium	N.A.	67.87	92.67	69.85	37.80	381.63	N.A.	N.A.
Brazil	54.64	31.55	42.88	41.81	10.08	296.62	29.05	751.81
Bulgaria	54.03	47.48	54.70	48.18	20.69	151.84	12.92	N.A.
Canada	N.A.	34.70	105.40	41.59	20.11	126.68	30.11	N.A.
Chile	65.56	60.71	115.44	68.58	17.82	218.01	N.A.	N.A.
China, mainland	68.66	53.97	59.67	59.81	17.32	172.56	18.03	736.20
Colombia	53.63	15.94	30.74	43.42	11.00	188.92	27.67	863.99
Cuba	36.71	N.A.	23.73	29.39	11.14	217.27	N.A.	429.32
Denmark	N.A.	72.07	76.84	62.22	35.35	424.79	N.A.	N.A.
Egypt	93.35	66.31	76.07	72.49	28.62	259.94	33.54	1136.10
France	47.50	53.04	81.58	56.87	24.38	390.05	24.85	N.A.
Germany	N.A.	76.41	96.51	71.82	32.26	444.21	25.63	N.A.
<b>India</b>	<b>37.90</b>	<b>30.34</b>	<b>26.16</b>	<b>30.21</b>	<b>5.89</b>	<b>205.09</b>	<b>11.44</b>	<b>703.94</b>
Indonesia	52.36	N.A.	53.06	52.52	11.24	182.55	14.91	509.00
Iran (IR)	49.01	24.61	73.84	26.53	8.11	314.05	26.59	835.10
Italy	68.25	42.03	103.52	56.02	19.54	284.37	37.54	N.A.
Japan	67.99	36.88	26.39	60.83	11.98	284.85	15.87	687.34
Lao People's Dem. Rep.	42.63	N.A.	59.96	46.27	10.67	322.25	15.85	558.04
Mexico	61.35	53.39	37.18	37.49	8.16	279.26	18.33	722.70
Morocco	70.88	11.32	9.28	9.36	5.46	293.37	10.00	408.76

Country	Rice	Wheat	Maize	Total cereals	Total pulses	Potato	Soybean	Sugarcane
Myanmar	38.18	11.86	37.51	36.07	15.08	151.72	10.43	637.77
Nepal	31.54	23.29	25.03	26.05	11.28	140.30	12.33	537.09
Netherlands	N.A.	79.83	100.48	77.77	40.63	419.96	N.A.	N.A.
New Zealand	N.A.	91.97	116.89	83.84	31.68	490.87	N.A.	N.A.
Pakistan	37.72	27.79	45.50	30.21	4.16	224.16	4.77	578.79
Peru	75.45	15.03	32.48	41.88	11.97	145.29	17.34	1121.20
Philippines	38.69	N.A.	29.06	35.29	8.36	150.81	11.00	545.49
Poland	N.A.	45.80	73.17	40.34	18.13	286.30	19.30	N.A.
Portugal	58.08	23.57	80.19	44.22	11.29	193.61	N.A.	885.11
Republic of Korea	72.23	37.07	48.53	67.93	12.64	252.58	15.39	N.A.
Russian Federation	53.03	26.84	55.13	26.51	17.50	153.18	14.79	N.A.
Saudi Arabia	N.A.	59.25	59.96	54.01	30.40	256.55	N.A.	N.A.
South Africa	27.15	37.57	39.96	38.19	9.05	359.47	14.76	613.33
Spain	76.45	34.89	113.27	38.63	13.87	311.39	28.83	282.35
Sri Lanka	31.64	N.A.	36.87	31.84	12.38	158.01	15.29	413.24
Switzerland	N.A.	43.71	101.94	51.55	20.58	339.15	25.50	N.A.
Tajikistan	70.53	30.83	123.63	33.49	44.00	216.01	3.62	N.A.
Thailand	28.54	10.28	42.47	29.75	9.70	164.79	17.33	639.48
Turkey	79.27	27.07	94.18	31.05	15.20	328.25	43.22	N.A.
Ukraine	53.92	42.06	66.02	46.52	27.34	165.83	23.00	N.A.
United Kingdom	N.A.	78.90	N.A.	70.23	33.95	388.13	N.A.	N.A.
United States of America	81.12	35.41	109.60	81.45	20.34	485.86	34.94	800.33
Uruguay	85.69	35.21	71.36	49.41	9.74	201.18	19.37	483.82
Uzbekistan	29.32	47.99	111.99	45.86	36.52	340.29	N.A.	N.A.
Venezuela, Bol. Rep. of	38.42	29.79	34.08	34.27	7.79	193.76	11.43	637.80
<b>World</b>	<b>45.77</b>	<b>34.01</b>	<b>56.32</b>	<b>39.67</b>	<b>9.58</b>	<b>196.18</b>	<b>27.54</b>	<b>701.34</b>

Note : N.A.: Not available.

Source : FAOSTAT website as on 18.06.2019.



A photograph of an agricultural field with several people working. The field is filled with green plants, and there are trees in the background. A white oval is overlaid on the center of the image, containing text in Hindi and English.

भाग-IX  
कृषि अनुसंधान एवं शिक्षा में निवेश

SECTION-IX  
Investment in  
Agricultural Research and Education



**Table 9.1 (a): Gross Domestic Product by economic activity  
(at current prices)**

(crore ₹)

Items	2008-09	2009 -10	2010-11	2011-12 (SRE)	2012-13 (FRE)	2013-14 (PE)
<b>Agriculture</b>	806646	928586	1143517	1300569	1417468	N.A.
<b>Forestry &amp; Logging</b>	92485	104558	118898	131667	149405	N.A.
<b>Fishing</b>	44073	50370	57271	66862	78053	N.A.
<b>Total</b>	<b>943204</b>	<b>1083514</b>	<b>1319686</b>	<b>1499098</b>	<b>1644926</b>	<b>1906348</b>
<b>Total net domestic product at factor cost</b>	<b>4738370</b>	<b>5449104</b>	<b>6488641</b>	<b>7511795</b>	<b>8372744</b>	<b>9299345</b>
<b>Per capita income NNP (Rs)</b>	<b>40775</b>	<b>46249</b>	<b>54021</b>	<b>61855</b>	<b>67839</b>	<b>74380</b>

**Note** : 1. TRE: Third Revised Estimates, SRE: Second Revised Estimates, FRE: First Revised Estimates and PE: Provisional Estimates, 2. N.A. : Not available

**Source** : *Agricultural Statistics at a Glance 2014*, Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt. of India.

**Table 9.1 (b): Percentage share of Gross Domestic Product (GDP)  
at 2004-05 prices**

Industry	2006-07	2007-08	2008-09	2009-10	2010-11 (TRE)	2011-12 (SRE)	2012-13 (FRE)	2013-14 (PE)
<b>I. Agriculture, Forestry &amp; Fishing</b>	<b>17.4</b>	<b>16.8</b>	<b>15.8</b>	<b>14.6</b>	<b>14.6</b>	<b>14.4</b>	<b>13.9</b>	<b>13.9</b>
Agriculture	14.7	14.3	13.4	12.3	12.4	12.3	11.8	N.A.
Forestry & logging	1.8	1.7	1.6	1.5	1.4	1.4	1.3	N.A.
Fishing	0.9	0.8	0.8	0.8	0.7	0.7	0.8	N.A.
<b>II. Industry</b>	<b>28.7</b>	<b>28.7</b>	<b>28.1</b>	<b>28.3</b>	<b>27.9</b>	<b>28.2</b>	<b>27.3</b>	<b>26.1</b>
Mining & quarrying	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9
Manufacturing	16.0	16.1	15.8	16.2	16.2	16.3	15.8	14.9
Electricity Gas & Water supply	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9
Construction	8.0	8.1	8.0	7.8	7.6	7.9	7.7	7.4
<b>III. Services</b>	<b>54.0</b>	<b>54.4</b>	<b>56.1</b>	<b>57.1</b>	<b>57.5</b>	<b>57.4</b>	<b>58.8</b>	<b>59.9</b>
<b>Gross domestic product at factor cost</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Note** : 1. TRE: Third Revised Estimates, SRE: Second Revised Estimates, FRE: First Revised Estimates and PE: Provisional Estimates, 2. N.A. : Not available.

**Source** : 1. *Agricultural Statistics at a Glance 2014*, Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt. of India.  
2. Central Statistics Office.

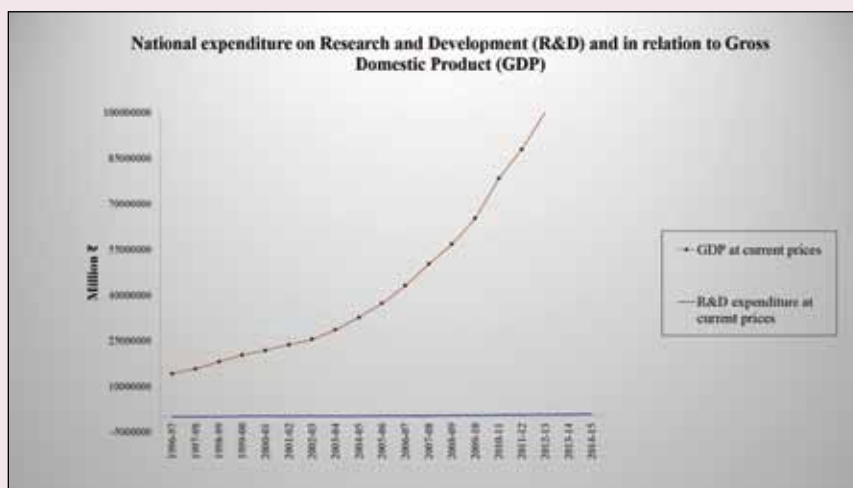
**Table 9.2: National expenditure on Research and Development (R&D) and in relation to Gross National Product (GNP) & Gross Domestic Product (GDP)**

(million ₹)

Year	R&D expenditure at current prices	GNP at current prices	GDP at current prices	R&D as % of GNP	R&D as % of GDP
1996-97	89136.1	12887060	14192770	0.69	0.63
1997-98	106113.4	14344080	15723940	0.74	0.67
1998-99	124731.7	16537710	18033780	0.75	0.69
1999-00	143976.0	18318420	20231300	0.79	0.71
2000-01	161988.0	19692490	21774130	0.82	0.74
2001-02	170381.5	21476770	23558450	0.79	0.72
2002-03	180881.6	23215100	25363270	0.78	0.71
2003-04	200863.4	26015080	28415030	0.77	0.71
2004-05	241172.4	29490890	32422090	0.82	0.74
2005-06	299325.8	33643870	36933690	0.89	0.81
2006-07	342383.9	39200420	42947060	0.87	0.80
2007-08	394377.7	45615740	49870900	0.86	0.79
2008-09	473533.8	52706440	56300630	0.90	0.84
2009-10	530413.0	60535850	64778270	0.88	0.82
2010-11	601967.5	70785120@	77841150	0.88	0.77
2011-12	659613.3	81982760#	87363290	0.89	0.76
2012-13	739827.9	N.A.	99440130	N.A.	0.74
2013-14	793558.9	N.A.	112335220	N.A.	0.71
2014-15	853261.0	N.A.	124451280	N.A.	0.69

**Note** : 1. GNP/GDP figures are based on 2004-05 Series up to the year 2010-11, and from 2011-12 onwards 2011-12 Series have been used, 2. @: Quick estimates, 3. #: Advance estimates.

**Source** : *Research and Development Statistics 2017-18*, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.





**Table 9.3: National expenditure on Research and Development at Current and Constant prices**

(million ₹)

Year	At Current Prices	At Constant Prices
1985-86	20687.8	79609.8
1990-91	39741.7	100851.5
1995-96	74838.8	116273.2
1996-97	89136.1	128734.5
1997-98	106113.4	143932.5
1998-99	124731.7	156639.3
1999-00	143976.0	175423.7
2000-01	161988.0	190428.9
2001-02	170381.5	194056.0
2002-03	180881.6	215638.4
2003-04	200863.4	212363.6
2004-05	241172.4	241172.4
2005-06	299325.8	287159.0
2006-07	342383.9	308644.1
2007-08	394377.7	336163.8
2008-09	473533.8	371450.7
2009-10	530413.0	392280.8
2010-11	601967.5	408501.8
2011-12	659613.3	659613.3
2012-13	739827.9	685442.3
2013-14	793558.9	692388.8
2014-15	853261.0	722435.1

**Note** : For working out research and development expenditure at constant prices (Base year 2004-05), has been used up to the year 2010-11, and from 2011-12 onwards Base year 2011-12 has been used.

**Source** : *Research and Development Statistics 2017-18*, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.



**Table 9.4: Expenditure on Research and Development by major scientific agencies under the Central Government**

(million ₹)

Agency	Research and Development Expenditure						
	2000-01	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15
<b>Council of Scientific &amp; Industrial Research</b>	8641.2	14270.4	29293.4	31359.1	29099.3	30987	33348.8
<b>Defence Research &amp; Development Organisation</b>	33593.2	52833.5	101489.2	98938.4	98948	108688.8	132579.8
<b>Department of Atomic Energy</b>	10055.2	17525.0	28550.1	32749.7	31905	38182.1	40751.7
<b>Department of Bio-technology</b>	1205.8	3258.5	9206.5	9711.3	10306.4	10370.3	10206
<b>Ministry of Communication &amp; Information Technology</b>	510.7	1678.5	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Ministry of New &amp; Renewable Energy</b>	122.7	96.2	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Ministry of Earth Sciences*</b>	842.3	2354.8	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Department of Science &amp; Technology</b>	3114.6	12370.5	21327.2	23597.1	23776.5	24660.6	27009
<b>Department of Space</b>	19054.0	26676.0	44822.3	37907.8	48562.8	51689.5	58183.7
<b>Indian Council of Agricultural Research</b>	11617.4	17172.7	31824.6	34656.7	35686.3	38848.7	39828.5
<b>Indian Council of Medical Research</b>	1491.2	3310.0	6788	7348.5	8080.4	8404.2	8430
<b>Ministry of Environment &amp; Forest</b>	2728.6	2353.1	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Total</b>	<b>92976.8</b>	<b>153899.4</b>	<b>273301.3</b>	<b>276268.6</b>	<b>286364.7</b>	<b>311831.2</b>	<b>350337.5</b>

**Note** : 1. Not including Public Sector Research and Development Expenditure, 2.\*: Formerly Department of Ocean Development, 3. Data includes both Plan and Non Plan R&D Expenditure.

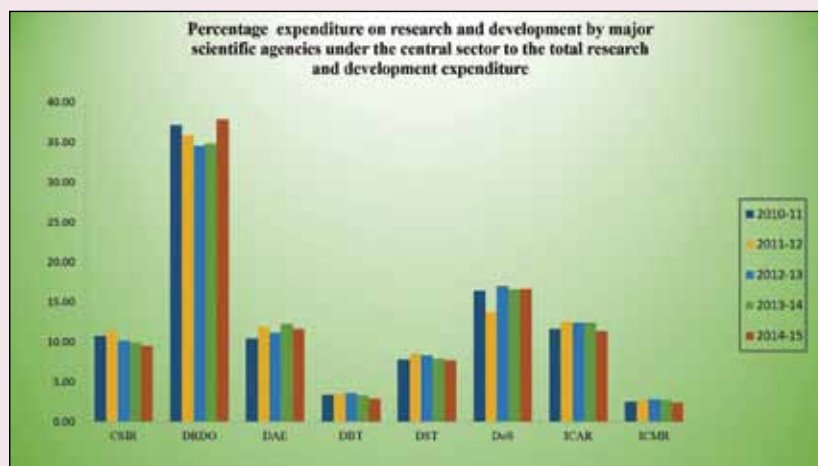
**Source** : *Research and Development Statistics 2017-18*, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

**Table 9.5: Percentage expenditure on Research and Development by major scientific agencies under the Central Sector to the total Research and Development expenditure**

Agency	2000-01	2005-06	2010-11	2011-12	2012-13	2013-14	2014-15
Council of Scientific & Industrial Research (CSIR)	9.29	9.27	10.72	11.35	10.16	9.94	9.52
Defence Research & Development Organisation (DRDO)	36.13	34.33	37.13	35.81	34.55	34.86	37.84
Department of Atomic Energy (DAE)	10.81	11.39	10.45	11.85	11.14	12.24	11.63
Department of Biotechnology (DBT)	1.30	2.12	3.37	3.52	3.60	3.33	2.91
Ministry of Communication & Information technology (MCIT)	0.55	1.09	N.A.	N.A.	N.A.	N.A.	N.A.
Ministry of New & Renewable Energy (MoNRE)	0.13	0.06	N.A.	N.A.	N.A.	N.A.	N.A.
Ministry of Earth Sciences* (MoES)	0.91	1.53	N.A.	N.A.	N.A.	N.A.	N.A.
Department of Science & Technology (DST)	3.35	8.04	7.80	8.54	8.30	7.91	7.71
Department of Space (DoS)	20.49	17.33	16.40	13.72	16.96	16.58	16.61
Indian Council of Agricultural Research (ICAR)	12.49	11.16	11.64	12.54	12.46	12.46	11.37
Indian Council of Medical Research (ICMR)	1.60	2.15	2.48	2.66	2.82	2.70	2.41
Ministry of Environment & Forest (MoEF)	2.93	1.53	N.A.	N.A.	N.A.	N.A.	N.A.
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>
<b>Total R &amp; D Expenditure (million ₹)</b>	<b>92976.8</b>	<b>153899.4</b>	<b>273301.3</b>	<b>276268.6</b>	<b>286364.7</b>	<b>311831.2</b>	<b>350337.5</b>

Note : 1. \*: Formerly Department of Ocean Development, 2. N.A.: Not available

Source : *Research and Development Statistics 2017-18*, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.



**Table 9.6: Division-wise break up of Revenue Receipts targets and actual achievement as per SH. 8-sales/services, SH. 10-fee/subscription and SH. 12- royalty/publication only**

(lakh ₹)

Name of the Division	Revenue Receipts	
	Achievements for 2017-18	Target for 2018-19*
<b>Crop Science</b>	1221.63	1465.96
<b>Horticulture Science</b>	1368.50	1642.20
<b>Animal Science</b>	2203.87	2644.65
<b>Natural Resource Management</b>	1159.76	1391.71
<b>Fisheries Science</b>	351.63	421.96
<b>Agricultural Engineering</b>	273.88	328.65
<b>Agricultural Economics and Statistics</b>	34.03	40.83
<b>Agricultural Education</b>	155.08	186.09
<b>Agricultural Extension</b>	0.29	0.35
<b>Agricultural Scientists Recruitment Board</b>	700.23	840.28
<b>Publication &amp; Information Division (D-KMA)</b>	29.14	34.97
<b>ICAR Headquarters, New Delhi (IPR)</b>	0.00	0.00
<b>Total Revenue Receipts and Targeted Receipts</b>	<b>7498.04</b>	<b>8997.64</b>

**Note** : \*: These include Income from Sales of Farm produce/livestock, Income from Services, Fee/Subscriptions and Income from Royalty, Publications etc.

**Source** : ICAR-Budget Book 2018-19.  
(<https://icar.org.in/content/icar-budget-book-2018-19>)

**Table 9.7: Total budget and expenditure of State Agricultural Universities**  
(million ₹)

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca-tion	Expendi-ture	Alloca-tion	Expendi-ture	Alloca-tion	Expendi-ture	Alloca-tion	Expendi-ture
<b>Andhra Pradesh</b>									
<b>Acharya N.G. Ranga Agricultural University, Hyderabad</b>									
	2015-16	2677.33	2376.64	1098.39	1098.39	7.31	7.31	3783.04	3482.34
	2016-17	2951.21	2951.21	905.96	905.96	20.87	20.87	3878.04	3878.04
	2017-18	3078.74	3078.73	503.90	503.90	28.24	28.24	3610.88	3610.88
<b>Sri Venkateswara Veterinary University, Tirupati</b>									
	2014-15	1128.02	1362.26	72.81	74.62	24.50	22.12	1225.32	1459.00
	2015-16	1376.56	1043.14	75.38	61.21	10.13	8.43	1462.08	1112.79
	2016-17	1574.00	1104.54	78.39	73.45	75.13	77.97	1727.51	1255.95
<b>Sri Konda Laxman Telangana State Horticultural University, Hyderabad</b>									
	2014-15	121.7	121.70	2.07	2.07	3.20	3.20	126.97	126.97
	2015-16	131.86	131.86	32.96	32.96	9.98	9.98	174.80	174.80
<b>Dr YSR Horticultural University, Venkataramannagudem, Tadepalligudem</b>									
	2012-13	546.80	504.57	95.50	91.87	163.61	209.46	805.91	805.91
	2013-14	534.00	550.67	74.49	74.71	89.81	72.92	698.30	698.30
	2014-15	432.96	432.96	104.51	104.51	132.43	132.43	669.90	669.90
<b>Assam</b>									
<b>Assam Agricultural University, Jorhat</b>									
	2016-17	2173.97	2173.97	903.71	897.21	256.95	256.95	256.95	3328.13
	2017-18	3047.60	3047.60	964.14	964.14	332.16	332.16	4343.90	4343.90
	2018-19	3154.34	3154.34	986.14	986.14	342.20	342.20	4482.68	4482.68
<b>Bihar</b>									
<b>Rajendra Agricultural University, Pusa, Samastipur</b>									
	2015-16	1283.05	1283.05	225.61	225.61	19.22	19.22	1527.88	1527.88
	2016-17 <sup>@</sup>	475.94	475.94	89.98	89.98	12.16	12.16	578.09	578.09
	2016-17 <sup>h</sup>	211.89	211.89	647.03 <sup>i</sup>	647.03 <sup>i</sup>	20.96	20.96	879.87	879.87
	2017-18	447.76	447.76	940.40 <sup>j</sup>	940.40 <sup>j</sup>	47.37	47.37	1435.53	1435.53
<b>Bihar Agricultural University, Sabour, Bhagalpur</b>									
	2016-17	1661.61	1349.32	482.89	487.95	23.46	12.22	2167.96	1849.48
	2017-18	2456.19	2045.94	391.87	383.61	1.31	1.19	2849.37	2430.73
	2018-19 <sup>**</sup>	1906.86	1215.76	410.36	385.74	5.11	9.06	2322.33	1610.52
<b>Chhattisgarh</b>									
<b>Indira Gandhi Krishi Vishwavidyalaya, Raipur</b>									
	2016-17	1078.33	1174.14	429.57	487.69	138.80	138.80	1646.69	1800.63
	2017-18	1431.80	1294.08	523.81	516.22	181.30	181.30	2136.91	1991.60
	2018-19	1108.90	1403.01 <sup>*</sup>	517.10	517.10 <sup>*</sup>	171.00	171.00 <sup>*</sup>	1797.00	2091.11 <sup>*</sup>
<b>Chhattisgarh Kamdhenu Vishwavidyalaya, Anjora, Durg (Established on 16 April, 2012)</b>									
	2016-17	4848.20	3736.40	444.80	377.30	170.00	72.00	5463.10	4185.70
	2017-18	5953.90	5755.10	577.40	519.30	121.60	9.00	6652.90	6283.40
	2018-19	4353.20	3882.80	488.00	429.00	159.90	31.20	5001.10	4343.00

Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture
<b>Gujarat</b>									
<b>Sardarkrushinagar Dantiwada Agricultural University, Dantiwada</b>									
	2016-17	1599.72	1579.82	102.63	131.91	54.87	61.35	1757.21	1773.07
	2017-18	2017.70	1907.12	146.31	167.93	36.85	50.30	2200.86	2125.35
	2018-19	1955.39	1919.36	195.27	217.01	189.98	63.25	2340.63	2199.62
<b>Anand Agricultural University, Anand</b>									
	2016-17	1736.70	1798.07	176.28	213.66	211.97	169.49	2124.95	2181.22
	2017-18	2008.72	1880.41	184.14	150.47	185.30	119.39	2378.16	2150.27
	2018-19	2202.00	2110.00	206.00	143.00	428.00	262.00	2836.00	2515.00
<b>Navsari Agricultural University, Navsari</b>									
	2016-17	1383.80	1343.60	129.60	129.60	67.50	66.50	1580.90	1539.70
	2017-18	1585.20	1423.00	201.50	189.40	58.40	46.20	1845.10	1658.60
	2018-19	1555.20	1597.40	373.40	272.20	113.50	44.80	2042.20	1914.50
<b>Junagadh Agricultural University, Junagadh</b>									
	2016-17	1537.91	1738.26	240.52	253.10	146.69	117.18	1925.12	2108.54
	2017-18	1853.40	1808.49	248.08	225.90	106.43	91.12	2207.99	2125.51
	2018-19*	1932.94	2023.88	670.18	297.59	30.28	14.96	2633.40	2336.43
<b>Haryana</b>									
<b>CCS Haryana Agriculture University, Hisar</b>									
	2016-17	3680.00	3254.50	497.33	491.27	209.25	107.05	4386.58	3852.82
	2017-18	4100.00	3746.09	525.96	412.00	358.14	227.67	4984.10	4385.76
	2018-19	4389.32	3833.41	566.19	482.15	350.82	189.49	5206.94	4505.05
<b>Lala Lajpat Rai University of Veterinary &amp; Animal Sciences, Hisar</b>									
	2016-17	759.00	741.48	40.70	36.29	56.34	68.93	856.04	846.70
	2017-18	1062.66	1120.28	27.11	15.04	52.93	45.55	1142.70	1180.87
	2018-19	1100.99 <sup>k</sup>	1097.22	49.17 <sup>kk</sup>	41.00	110.39	30.18	1235.65	1168.40
<b>Maharana Pratap Horticultural University, Karnal</b>									
	2015-16	-	-	-	-	-	-	-	-
	2016-17	-	-	50.00	48.22	-	-	50.00	48.22
	2017-18	50.00	49.59	-	-	62.00	-	112.00	49.59
<b>Himachal Pradesh</b>									
<b>CSK Himachal Pradesh Krishi Vishwavidyalaya, Palampur</b>									
	2016-17	111.13	113.00	30.04	35.02	8.57	5.62	149.74	153.64
	2017-18	130.26	132.33	26.86	33.07	8.44	8.35	165.56	173.75
	2018-19	115.28	126.56	33.40	35.00	9.36	9.02	158.04	170.58
<b>Dr. Y.S. Parmar University of Horticulture &amp; Forestry, Solan</b>									
	2016-17	944.20	944.20	221.94	239.60	91.51	117.84	1257.65	1301.64
	2017-18	1210.60	1190.00	208.62	208.62	68.41	68.41	1487.63	1467.03
	2018-19	1044.90	1020.00	259.70	259.70	79.06	79.06	1383.66	1358.76

Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture
<b>Jammu &amp; Kashmir</b>									
Sher-e-Kashmir University of Agricultural Science & Technology of Jammu, Jammu									
	2016-17	908.30	807.00	248.00	266.30	58.20	45.70	1214.50	1119.00
	2017-18	935.00	901.70	277.80	249.00	72.10	66.20	1284.90	1216.90
	2018-19	1276.30	1207.90	238.74	215.29	39.79	42.33	1554.83	1465.52
<b>Sher-e-Kashmir University of Agricultural Science &amp; Technology of Kashmir, Srinagar</b>									
	2013-14	1315.80	1253.83	386.52	389.64	76.44	85.44	1778.76	1728.91
	2014-15	1431.80	1398.12	469.74	471.95	67.55	66.12	1969.09	1936.18
	2015-16	1511.10	1497.73	325.12	307.10	77.65	70.12	1913.87	1874.95
<b>Jharkhand</b>									
<b>Birsa Agricultural University, Kanke, Ranchi</b>									
	2015-16	1055.67	868.17	316.77	307.77	34.46	13.86	1406.90	1189.90
	2016-17	1302.23	1107.37	394.77	330.35	3.68	3.68	1700.68	1441.60
	2017-18	1829.48	903.53	300.58	253.28	11.44	11.44	2141.50	1168.25
<b>Karnataka</b>									
<b>University of Agricultural Sciences, Bangalore</b>									
	2015-16	2730.01	2341.38	369.22	322.27	194.45	170.11	3293.68	2833.76
	2016-17	2885.64	2514.17	343.98	380.46	191.64	165.66	3421.26	3060.29
	2017-18	2858.62	2768.89	295.02	269.91	160.94	167.40	3314.58	3206.20
<b>University of Agricultural Sciences, Dharwad</b>									
	2016-17	1803.50	1814.60	238.95	253.66	254.51	127.50	2296.96	2195.76
	2017-18	1834.50	1788.22	275.95	301.34	238.78	219.62	2349.23	2309.18
	2018-19	1806.43	1884.75	429.36	427.67	111.18	129.89	2326.95	2442.31
<b>Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar</b>									
	2015-16	1393.63	1655.99	91.47	99.84	28.44	26.85	1513.54	1782.68
	2016-17	1500.91	1689.13	114.19	79.86	25.43	23.96	1640.53	1792.95
	2017-18	1567.88	1828.41	30.64	91.82	21.76	22.73	1620.28	1942.96
<b>University of Horticultural Sciences, Bagalkot</b>									
	2014-15	731.90	731.90	68.13	68.13 <sup>f</sup>	54.75 <sup>f</sup>	54.75	854.79	854.79
	2015-16	734.40	734.40	85.18	85.18 <sup>f</sup>	41.59 <sup>f</sup>	41.59	861.18	861.18
	2016-17	614.90	614.90	90.66	90.66 <sup>f</sup>	68.53 <sup>f</sup>	68.53	774.09	774.09
<b>University of Agricultural Sciences, Raichur</b>									
	2016-17	1026.19	906.41	181.18	199.03	164.36	138.18	1371.72	1243.62
	2017-18	1043.94	990.05	185.08	196.69	160.58	145.67	1389.60	1332.41
	2018-19	1043.44	1082.27	184.68 <sup>e</sup>	217.97	296.29	67.66	1524.40	1367.90
<b>University of Agricultural and Horticultural Sciences, Shivamogga</b>									
	2016-17	972.10	923.11	112.82	114.18	34.44	14.04	1119.36	1051.32
	2017-18	915.90	915.90	72.03	67.14	32.67	10.66	1020.60	993.70
	2018-19	722.29	703.61	103.64	95.54	117.75	117.75	943.68	916.91
<b>Kerala</b>									
<b>Kerala Agricultural University, Vellanikkara, Thrissur</b>									
	2015-16	3135.3	3031.6	435.57	339.64	602.23	602.23	4173.1	3973.47
	2016-17	2986.7	2986.7	511.75	406.83	557.09	557.09	4055.54	3950.62

## Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
	2017-18	3529.4	3529.4	475.16	394.7	520.07	520.07	4524.63	4444.17
<b>Kerala Veterinary and Animal Sciences University, Pookode, Wayanad</b>									
	2015-16	969.40	969.40	53.10	51.30	263.50	263.50	1286.00	1284.20
	2016-17	1050.60	1050.60	68.80	68.20	216.00	216.00	1335.40	1334.80
	2017-18	1113.70	1113.70	74.70	66.50	203.90	203.90	1392.30	1384.10
<b>Kerala University of Fisheries and Ocean Studies, Papangad, Kochi</b>									
	2013-14	218.76	172.77	16.15	16.06	12.63	10.30	247.55	199.13
	2014-15	219.40	214.90	16.00	16.00	8.52	7.18	243.92	238.08
	2015-16	337.48	283.35	18.74	18.74	3.37	2.52	359.59	304.61
<b>Madhya Pradesh</b>									
<b>Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur</b>									
	2016-17	1474.70	1474.70	488.20	477.70	105.18	89.30	2068.08	2041.70
	2017-18	1246.10	1246.10	478.30	446.82	118.68	109.69	1843.08	1802.61
	2018-19	1303.52	1440.48	551.21	628.71	58.48	67.25	1913.21	2136.44
<b>Nanaji Deshmukh Pashuchikitsa Vigyan Vishwavidyalaya, Jabalpur</b>									
	2015-16	2962.05	3541.01	418.16	415.94	2057.87	1216.91	5438.08	5173.86
	2016-17	3913.66	4084.11	474.05	360.06	57.99	36.44	4445.70	4480.61
	2017-18	4233.04	3971.01	412.91	412.91	191.41	191.41	4837.36	4575.33
<b>Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior</b>									
	2016-17	598.75	618.74	415.93	483.95	211.86	236.52	1226.55	1339.20
	2017-18	567.75	581.28	526.24	530.85	67.13	84.20	1161.12	1196.33
	2018-19	609.00	651.96	423.67	413.24	248 .67	117.44	1281.34	1182.64
<b>Maharashtra</b>									
<b>Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli</b>									
	2016-17	1283.24	1189.73	160.97	165.07	10.30	3.76	1454.51	1358.56
	2017-18	1305.53	1236.10	186.72	169.69	13.76	7.44	1506.01	1413.23
	2018-19*	1329.25	1305.99	160.39	121.56	20.78	4.87	1510.42	1432.42
<b>Mahatma Phule Krishi Vidyapeeth Rahuri, Rahuri</b>									
	2016-17	3020.30	2870.50	396.90	407.70	344.30	316.80	3761.50	3595.00
	2017-18	3232.20	3156.50	446.20	414.90	289.90	304.90	3968.30	3876.30
	2018-19	3520.30	3287.20	568.60	445.40	425.40	318.80	4514.30	4051.40
<b>Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani</b>									
	2015-16	1584.20	1584.20	202.10	202.10	14.90	14.90	1801.20	1801.20
	2016-17	1456.20	1446.20	210.80	217.30	4.50	4.50	1671.50	2068.50
	2017-18	1530.30	1530.30	244.40	200.50	21.50	21.50	1796.20	1752.30
<b>Dr. Punjabrao Deshmukh Krishi Vidyapeeth, Akola</b>									
	2016-17	2148.97	2118.06	247.17	264.47	38.57	38.18	2434.71	2420.71
	2017-18	2382.20	2334.56	234.78	255.91	35.16	34.45	2652.14	2624.92
	2018-19	2572.32	2226.06	286.45	283.58	77.79	70.79	2936.56	2580.43
<b>Maharashtra Animal &amp; Fishery Sciences University, Nagpur</b>									
	2015-16	894.75	858.28	110.27	105.19	15.48	12.06	1020.50	975.54
	2016-17	1181.21	1181.16	13.97	16.10	14.41	16.19	1209.59	1213.44
	2017-18	943.61	943.61	101.25	95.11	80.34	38.93	1125.20	1077.65



Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture
<b>Manipur</b>									
<b>Central Agricultural University, Imphal</b>									
	2013-14	N.A.	N.A.	N.A.	N.A.	1199.90	1168.40	1199.90	1168.40
	2014-15	N.A.	N.A.	N.A.	N.A.	1190.00	1229.90	1190.00	1229.90
	2015-16	N.A.	N.A.	N.A.	N.A.	1659.90	1567.10	1659.90	1567.10
<b>Nagaland</b>									
<b>Nagaland University, Lumami</b>									
	2013-14	0.00	0.00	32.91	32.58	0.00	0.00	32.91	32.58
	2014-15	0.00	0.00	21.52	15.00	0.00	0.00	21.52 <sup>s</sup>	15.00 <sup>ss</sup>
	2015-16	0.00	0.00	34.44	28.41	0.00	0.00	34.44	28.41
<b>Odisha</b>									
<b>Odisha University of Agriculture &amp; Technology, Bhubaneswar</b>									
	2016-17	1376.00	1502.76	695.87	604.26	548.72	347.30	2620.59	2454.32
	2017-18	1675.94	1568.21	681.00	563.58	671.94	449.02	3028.88	2580.81
	2018-19*	1961.90	2011.29	707.82	707.82	660.65	540.02	3330.37	3259.13
<b>Punjab</b>									
<b>Punjab Agricultural University, Ludhiana</b>									
	2016-17	4524.57	3766.28	885.89	815.62	295.61	522.69	5706.07	5104.59
	2017-18	4722.97	3997.58	963.41	811.18	304.96	483.84	5991.34	5292.60
	2018-19	5035.54	3966.58	918.31	804.86	385.17	529.16	6339.02	5300.59
<b>Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana</b>									
	2016-17	1025.52	886.74	145.23	144.40	54.33	40.27	1225.08	1071.40
	2017-18	969.20	920.40	135.97	133.77	93.73	27.23	1198.89	1081.40
	2018-19	1310.37	1102.06	144.50	139.15	164.03	78.63	1618.90	1319.84
<b>Rajasthan</b>									
<b>Swami Keshwanand Rajasthan Agricultural University, Bikaner</b>									
	2016-17	360.76	360.76	241.02	241.02	63.59	63.59	665.37	665.37
	2017-18	385.06	385.06	178.79	178.79	32.87	32.87	596.72	596.72
	2018-19	532.57	532.56	266.57	229.93	25.60	25.60	824.73	788.09
<b>Maharana Pratap University of Agriculture and Technology, Udaipur</b>									
	2016-17	770.96	770.96	332.56	332.56	222.42	222.42	1325.94	1325.94
	2017-18	812.80	812.80	344.02	344.02	185.37	185.37	1342.19	1342.19
	2018-19	864.08	864.08	400.82	400.82	143.60	143.60	1408.50	1408.50
<b>Rajasthan University of Veterinary and Animal Sciences, Bikaner</b>									
	2016-17	621.36	621.36	58.47	57.80	378.33	375.68	1058.16	1054.84
	2017-18	723.07	723.07	35.96	35.46	157.53	154.99	916.57	913.51
	2018-19	765.38	725.46	38.34	38.34	87.92	63.70 <sup>g</sup>	891.64	827.50
<b>Agricultural University, Kota (Established on September, 2013)</b>									
	2016-17	226.30	214.84	197.18	196.27	5.47	5.52	428.95	416.63
	2017-18	234.47	232.10	205.01	203.90	5.92	5.89	445.40	441.89
	2018-19	245.25	214.00	189.91	167.27	61.87	36.70	497.03	417.97
<b>Agriculture University, Jodhpur (Established in 21 September, 2013)</b>									
	2014-15	171.69	59.62	76.44	58.06	4.84	2.86	252.97	120.54

## Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture
	2015-16	170.67	107.48	88.76	69.09	5.00	5.00	264.43	181.57
	2016-17	259.88	166.16	95.67	91.23	6.42	5.92	361.97	263.30
<b>Sri Karan Narendra Agriculture University, Jobner, Jaipur</b>									
	2011-12 <sup>s</sup>	715.55	644.75	387.15	416.03	61.38	151.12	1164.07	1211.89
	2012-13 <sup>s</sup>	834.23	754.71	400.32	453.71	155.56	93.35	1390.11	1306.72
	2013-14	29.00	29.00	\$\$	\$\$	N.A.	N.A.	N.A.	N.A.
<b>Tamil Nadu</b>									
<b>Tamil Nadu Agricultural University, Coimbatore</b>									
	2016-17	4059.13	4348.61	632.67	652.39	378.17	580.47	5069.97	5581.47
	2017-18	4539.54	4426.83	684.61	693.86	409.07	477.70	5633.22	5598.39
	2018-19*	4176.09	4447.99	872.51	696.07	374.32	365.49	5422.92	5509.54
<b>Tamil Nadu Veterinary and Animal Sciences University, Chennai</b>									
	2014-15	1995.44	2198.69	122.34	128.93	180.80	224.52	2298.58	2252.14
	2015-16	2157.06	2044.67	131.96	130.72	450.45	292.65	2739.48	2468.04
	2016-17*	2067.14	2067.15	163.38	163.38	473.47	473.47	2703.99	2703.99
<b>Tamil Nadu Fisheries University, Nagapattinam</b>									
	2014-15	454.40	454.40	45.98	45.98	34.93	34.93	535.30	535.30
	2015-16	465.80	465.80	26.26	26.26	31.91	31.91	523.97	523.97
	2016-17	744.19	744.19	31.92	31.92	107.11	107.11	883.23	883.23
<b>Telangana</b>									
<b>Professor Jayashankar Telangana State Agricultural University, Hyderabad</b>									
	2016-17	2689.43 <sup>a</sup>	2520.02 <sup>a</sup>	419.64 <sup>a</sup>	412.80 <sup>a</sup>	252.40	190.85	3361.47	3123.67
	2017-18	2580.87 <sup>a</sup>	2632.10 <sup>a</sup>	323.38 <sup>a</sup>	242.39 <sup>a</sup>	186.84	217.42	3091.09	3091.91
	2018-19	2810.39 <sup>a</sup>	**	416.32 <sup>a</sup>	**	198.75	**	3425.46	**
<b>P.V. Narsimha Rao Telangana Veterinary University, Hyderabad</b>									
	2016-17	756.21	581.42	20.83	19.16	13.53	11.34	790.57	611.92
	2017-18	752.87	616.73	19.91	15.35	19.05	14.48	791.83	646.57
	2018-19	654.63	657.80	24.17	22.70	46.59	20.57	725.39	701.07
<b>Uttarakhand</b>									
<b>G.B. Pant University of Agriculture &amp; Technology, Pantnagar</b>									
	2012-13	1702.59	1701.96	226.72	214.95	351.89	363.48	2281.20	2280.39
	2013-14	1891.80	1748.25	250.51	225.82	318.58	304.21	2460.89	2278.28
	2014-15	1945.32	1794.70	241.08	266.27	303.54	287.88	2489.94	2348.85
<b>Uttar Pradesh</b>									
<b>C.S. Azad University of Agriculture &amp; Technology, Kanpur</b>									
	2015-16	938.85	1031.42	340.51	206.89	8.53	7.22	1287.89	1214.23
	2016-17	828.41	964.92	1181.16	338.59	10.28	8.76	2019.85	1312.27
	2017-18	807.51	970.25	333.20	313.76	11.90	11.52	1152.62	1295.53
<b>Narendra Dev University of Agriculture &amp; Technology, Faizabad</b>									
	2014-15	1091.17	944.16	412.48	260.69	15.32	13.96	1518.97	1218.81
	2015-16	914.40	732.81	461.17	275.64	15.33	9.16	1390.90	1017.61
	2016-17	1009.08	839.62	372.16	255.61	9.75	10.56	1391.00	1105.79

Investment in Agricultural Research & Education

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture	Alloca- tion	Expendi- ture
<b>Sam Higginbottom Institute of Agriculture, Technology &amp; Sciences (Deemed University), Allahabad</b>									
	2011-12	162.23	162.23	139.87	144.10	878.88	880.94	1180.98	1187.27
	2012-13	135.47	135.47	74.59	74.60	992.03	1077.50	1202.09	1287.57
	2013-14*	160.09	160.09	46.26	46.26	1009.29	1009.29	1215.64	1215.64
<b>Sardar Vallabhbhai Patel University of Agriculture &amp; Technology, Meerut</b>									
	2016-17	461.13	364.81	289.49	273.54	143.44	159.13	894.07	797.48
	2017-18	391.85	376.31	292.11	243.29	269.05	180.00	953.01	799.60
	2018-19	838.93	370.11	535.52	260.17	258.39	158.32	1632.85	788.60
<b>U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura</b>									
	2016-17	4191.19	4108.15	783.12	782.38	79.83	69.21	5054.14	4959.74
	2017-18	5021.96	3905.29	960.93	886.43	166.53	423.80	6149.42	5215.52
	2018-19	5663.74	4456.94	293.38	271.39	1586.64	92.35	7543.76	4820.66
<b>Banda University of Agriculture &amp; Technology, Banda</b>									
	2013-14#	65.00	30.2	Nil	Nil	Nil	Nil	65.00	30.20
	2014-15#	40.00	36.00	Nil	Nil	Nil	Nil	40.00	36.00
	2015-16#	44.00	44.00	Nil	Nil	Nil	Nil	44.00	44.00
<b>West Bengal</b>									
<b>Bidhan Chandra Krishi Vishwa Vidyalaya, Haringhatta</b>									
	2014-15	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	2015-16	17086.29	9199.45	2375.00	1544.46	1783.50	1507.47	21244.79	12251.38
	2016-17	25246.59	**	3162.80	**	1722.00	**	30131.39	**
<b>Uttar Banga Krishi Viswavidyalaya, Pundibari</b>									
	2016-17	363.704	407.57	65.89	48.43	58.348	9.18	487.942	465.28
	2017-18	494.30	473.64	40.12	86.54	131.71	69.09	666.13	629.27
	2018-19	416.73	452.25	26.457	20.03	145.20	109.80	588.387	582.08
<b>W.B. University of Animal &amp; Fishery Sciences, Kolkata</b>									
	2014-15	292.21 <sup>b</sup>	288.34 <sup>b</sup>	65.96 <sup>c</sup>	53.96 <sup>c</sup>	45.74 <sup>d</sup>	45.70 <sup>d</sup>	403.91	388.02
	2015-16	365.11 <sup>b</sup>	357.63 <sup>b</sup>	94.73 <sup>c</sup>	93.14 <sup>c</sup>	4.80 <sup>d</sup>	4.70 <sup>d</sup>	464.63	455.48
	2016-17	377.88 <sup>b</sup>	360.42 <sup>b</sup>	83.79 <sup>c</sup>	**	5.63 <sup>d</sup>	**	467.30	**

**Note** : 1.\*: Un-audited/Tentative/Provisional, 2.\*\*: The budget accounts are yet to be finalized, 3. a: Allocation includes pay and allowances and contingencies, 4. b: Includes salary, capital, revenue Plan & Non-Plan expenditure, 5. c: Includes the funding support from ICAR under Education, AICRP, KVK etc., 6. d: Includes the amount received from DBT, DST etc., 7.e: ICAR grants for the year 2018-2019 includes, KVK and AICRP grants. SAU grant has not been received due to non accreditation of the university, 8. f: Including Bioversity, Purudy University, NHM & Govt. of Karnataka Project, NHB & Govt. of India Project & RKVY etc., 9. g: Complete reconciliation under process, 10. S: An amount of ₹. 19.00 million was sanctioned under the scheme "Strengthening & Development of Higher Education in Agricultural Universities" during 2014-15, however an amount of ₹. 13.00 million only has been released, 11. SS: An amount of ₹. 2.00 million was sanctioned under the scheme "Library Strengthening" during 2014-15, however an amount of ₹. 1.48 million only has been released, 12. \$: SKN Agricultural University, Jobner was created by bifurcating SK Rajasthan Agricultural University, Bikaner in September 2013. Presently, it is funded by the State Government under State Plan only. Non-plan expenditures are continued to be incurred through SKRAU, Bikaner as previously done by it, 13. #: Sum of Head- salary and non-salary, 14. @: From 01.04.2016 to 06.10.2016, 15. h: From 07.10.2016 onwards it becomes Dr. Rajendra Prasad Central Agricultural University, 16. i=It includes DARE and ICAR, 17. k: This amount excludes the budget received for construction purpose during the year 2018-19. KK: The allocation includes unspent balance of the previous year. 18. N.A.: Not available, 19. Totals may slightly differ due to rounding off the figures.

**Source** : This information is collected from respective State Agricultural Universities through Dy. Director General (Agri.Edn.), Indian Council of Agricultural Research, New Delhi.

**Table 9.8: Details of financial outlay of Department of Agricultural Research and Education**

(crore ₹)

Schemes	2017-2018 Budget			2017-2018 Revised			2018-2019 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
<b>Demand No. 2 Department of Agricultural Research and Education</b>									
Gross	6800.00	-	6800.00	6992.00	-	6992.00	7800.00	-	7800.00
Recoveries	-	-	-	-	-	-	-	-	-
Receipts	-	-	-	-	-	-	-	-	-
<b>Net</b>	<b>6800.00</b>	<b>-</b>	<b>6800.00</b>	<b>6992.00</b>	<b>-</b>	<b>6992.00</b>	<b>7800.00</b>	<b>-</b>	<b>7800.00</b>
<b>A. The Budget allocations, net of recoveries, are given below:</b>									
<b>Centre's Expenditure</b>	2017-2018 Budget			2017-2018 Revised			2018-2019 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
I. Establishment Expenditure of the Centre									
1. Secretariat	13.98	-	13.98	14.45	-	14.45	14.30	-	14.30
<b>Central Sector Schemes/Projects</b>									
2. Agricultural Extension	232.51	-	232.51	232.51	-	232.51	241.81	-	241.81
3. Agricultural Engineering	42.68	-	42.68	42.68	-	42.68	100.00	-	100.00
<b>4. Management of Natural Resources</b>									
4.1 Natural Resource Management Institutes including Agro-Forestry Research	167.68	-	167.68	167.68	-	167.68	174.39	-	174.39
4.2 Climate Resilient Agriculture Initiative	50.00	-	50.00	50.00	-	50.00	52.00	-	52.00
<b>Total-Management of Natural Resources</b>	<b>217.68</b>	<b>-</b>	<b>217.68</b>	<b>217.68</b>	<b>-</b>	<b>217.68</b>	<b>226.39</b>	<b>-</b>	<b>226.39</b>
<b>5. Crop Sciences</b>									
5.1 Crop Science	387.41	-	387.41	399.66	-	399.66	800.00	-	800.00

Schemes	2017-2018 Budget			2017-2018 Revised			2018-2019 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
5.2 Horticultural Science	154.90	-	154.90	154.90	-	154.90	200.00	-	200.00
5.3 National Agricultural Science Fund	48.80	-	48.80	36.55	-	36.55	50.75	-	50.75
<b>Total-Crop Sciences</b>	<b>591.11</b>	<b>-</b>	<b>591.11</b>	<b>591.11</b>	<b>-</b>	<b>591.11</b>	<b>1050.75</b>	<b>-</b>	<b>1050.75</b>
6. Animal Sciences									
6.1 Animal Science	271.97	-	271.97	271.97	-	271.97	400.00	-	400.00
6.2 Fisheries Science	115.85	-	115.85	115.85	-	115.85	170.69	-	170.69
<b>Total-Animal Sciences</b>	<b>387.82</b>	<b>-</b>	<b>387.82</b>	<b>387.82</b>	<b>-</b>	<b>387.82</b>	<b>570.69</b>	<b>-</b>	<b>570.69</b>
7. Agricultural Education									
7.1 Agricultural Universities and Institutions	663.37	-	663.37	658.37	-	658.37	684.70	-	684.70
7.2 Economic Statistics and Management	31.29	-	31.29	31.29	-	31.29	32.54	-	32.54
<b>Total-Agricultural Education</b>	<b>694.66</b>	<b>-</b>	<b>694.66</b>	<b>689.66</b>	<b>-</b>	<b>689.66</b>	<b>717.24</b>	<b>-</b>	<b>717.24</b>
8. Actual Recoveries	-	-	-	-	-	-	-	-	-
<b>Total - Central Sector Schemes</b>	<b>2166.46</b>	<b>-</b>	<b>2166.46</b>	<b>2166.46</b>	<b>-</b>	<b>2166.46</b>	<b>2914.77</b>	<b>-</b>	<b>2914.77</b>
<b>Other Central Sector Schemes/Projects</b>									
1. Autonomous Bodies									
1.1 ICAR Headquarter	4382.56	-	4382.56	4574.09	-	4574.09	4599.37	-	4599.37
1.2 Central Agricultural Universities	235.00	-	235.00	235.50	-	235.50	270.00	-	270.00
1.3 National Academy of Agricultural Sciences	2.00	-	2.00	1.50	-	1.50	1.56	-	1.56
<b>Total-Autonomous Bodies</b>	<b>4619.56</b>	<b>-</b>	<b>4619.56</b>	<b>4811.09</b>	<b>-</b>	<b>4811.09</b>	<b>4870.93</b>	<b>-</b>	<b>4870.93</b>
<b>Grand Total</b>	<b>6800.00</b>	<b>-</b>	<b>6800.00</b>	<b>6992.00</b>	<b>-</b>	<b>6992.00</b>	<b>7800.00</b>	<b>-</b>	<b>7800.00</b>

Investment in Agricultural Research & Education

Schemes	2017-2018 Budget			2017-2018 Revised			2018-2019 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
<b>B. Developmental Heads</b>									
1. Economic Services									
1.1 Agricultural Research and Education	6469.55	-	6469.55	6661.64	-	6661.64	7368.46	-	7368.46
1.2 Secretaries-Economic Services	7.45	-	7.45	7.36	-	7.36	8.06	-	8.06
<b>Total-Economic Services</b>	6477.00	-	6477.00	6669.00	-	6669.00	7376.52	-	7376.52
2. Others									
2.1 North Eastern Areas	323.00	-	323.00	323.00	-	323.00	423.48	-	423.48
<b>Total -Others</b>	323.00	-	323.00	323.00	-	323.00	423.48	-	423.48
<b>Grand Total</b>	6800.00	-	6800.00	6992.00	-	6992.00	7800.00	-	7800.00

Source : DARE/ICAR Annual Report 2018-19, Ministry of Agriculture & Farmers Welfare, Govt. of India.



भाग-X  
मानव संसाधन

SECTION-X  
Human Resources



**Human Resources**





**Table 10.1: Enrolment in Science/Engineering and other disciplines**

(in 000')

Enrolment	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16*
<b>Science and Technology Disciplines (A)</b>							
<b>Science</b>	2822.6 (19.3)	3127.0 (18.4)	3789.9 (18.6)	3992 (18.6)	4095 (17.2)	4675 (17.6)	5417.5 (19)
<b>Engineering/ Technology</b>	1510.8 (10.3)	2862.4 (16.8)	3261.6 (16.1)	3333.2 (15.5)	3696.1 (15.6)	4326.3 (16.3)	4885.1 (17.2)
<b>Medicine</b>	509.0 (3.5)	652.5 (3.8)	715.7 (3.5)	752.3 (3.5)	992.9 (4.2)	1070 (4)	1118.2 (3.9)
<b>Agricultural Sciences</b>	80.4 (0.5)	93.2 (0.6)	97.3 (0.5)	103 (0.5)	107.2 (0.5)	207.8 (0.8)	240.09 (0.8)
<b>Veterinary Science</b>	20.5 (0.14)	27.4 (0.2)	28.5 (0.1)	29.3 (0.1)	28 (0.1)	28 (0.1)	31.33 (0.1)
<b>Total (A)</b>	<b>4943.2</b> (33.8)	<b>6762.6</b> (39.8)	<b>7893</b> (38.8)	<b>8209.8</b> (38.2)	<b>8919.2</b> (37.5)	<b>10307.1</b> (38.8)	<b>11692.2</b> (41)
<b>Other Disciplines (B)</b>							
<b>Arts (including Oriental Learning)</b>	6144.0 (42.0)	6177.7 (36.4)	7539.5 (37.1)	8157.3 (37.9)	8690.4 (36.6)	9945.7 (37.4)	10271.3 (36.1)
<b>Commerce/Management</b>	2607.6 (17.8)	2904.8 (17.1)	3571.1 (17.6)	3762 (17.5)	4181.6 (17.6)	4357.1 (16.4)	4637.32 (16.3)
<b>Law</b>	343.7 (2.6)	327.1 (1.9)	373.2 (1.8)	400.8 (1.9)	426 (1.8)	444.6 (1.7)	474.4 (1.7)
<b>Education</b>	365.6 (2.5)	570.0 (3.4)	732.6 (3.6)	741.9 (3.5)	1288.9 (5.4)	1215.4 (4.6)	1085.9 (3.8)
<b>Others</b>	220.8 (1.5)	232.7 (1.4)	217.9 (1.1)	229.3 (1.1)	258.8 (1.1)	315.5 (1.2)	323.6 (1.1)
<b>Total (B)</b>	<b>9681.7</b> (66.2)	<b>10212.3</b> (60.2)	<b>12434.4</b> (61.2)	<b>13291.3</b> (61.8)	<b>14845.7</b> (62.5)	<b>16278.3</b> (61.2)	<b>16792.6</b> (59)
<b>Total (A+B)</b>	<b>14625.0</b> (100)	<b>16974.9</b> (100)	<b>20327.4</b> (100)	<b>21501.1</b> (100)	<b>23764.9</b> (100)	<b>26585.4</b> (100)	<b>28484.8</b> (100)

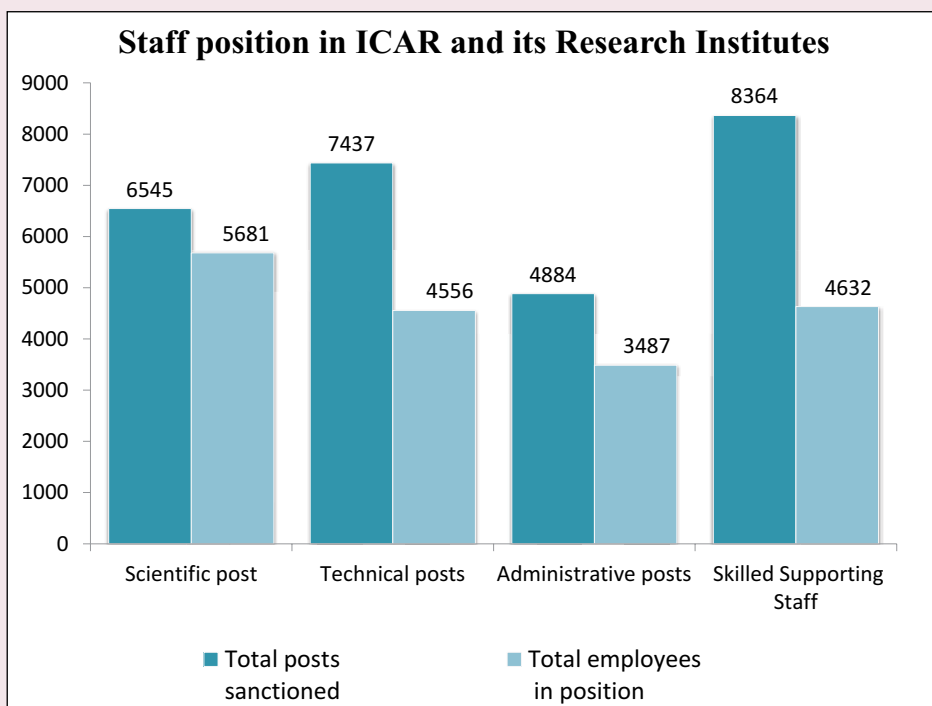
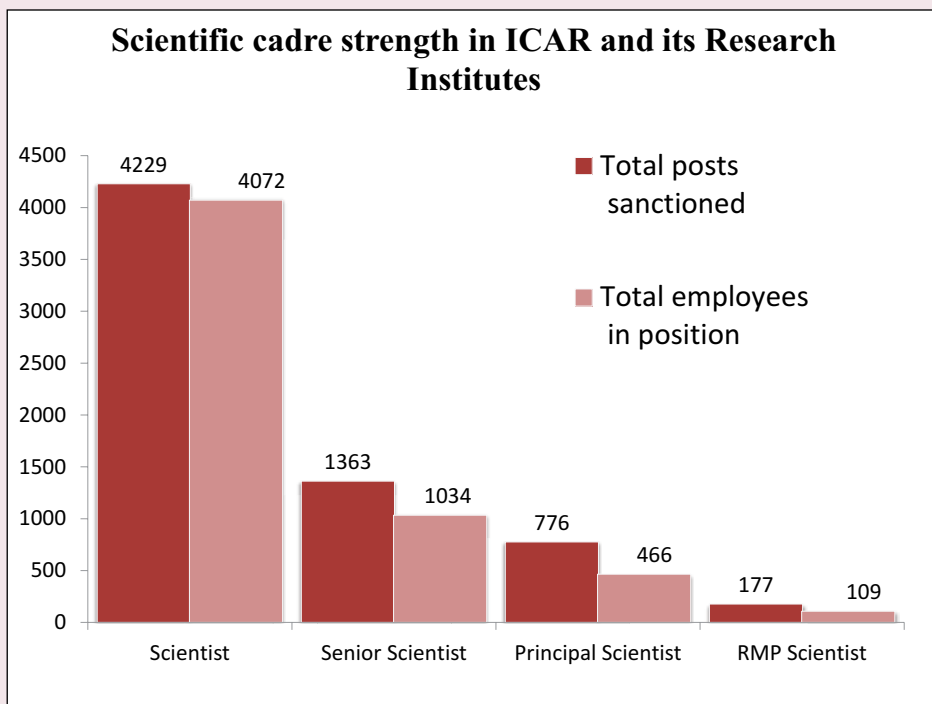
**Note** : 1. Figures in parentheses indicate percentage, 2.\*: Provisional.

**Source** : *Research and Development Statistics 2017-18*, Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

**Table 10.2: Total number of employees in the ICAR and its research institutes and number of Scheduled Castes, Scheduled Tribes and Other Backward Classes**

Sl. No.	Class of posts	Total posts sanctioned	Total employees in position	Scheduled Castes employees		Scheduled Tribes employees		OBC employees	
				Number	% to total employees	Number	% to total employees	Number	% to total employees
<b>1. Scientific posts</b>									
	Scientist	4229	4072	548	13.46	213	5.23	1050	25.79
	Senior Scientist	1363	1034	65	6.29	16	1.55	115	11.12
	Principal Scientist	776	466	15	2.22	3	0.64	29	6.22
	RMP Scientist	177	109	1	0.92	0	0	3	2.75
	<b>Total</b>	<b>6545</b>	<b>5681</b>	<b>629</b>	<b>11.07</b>	<b>232</b>	<b>4.08</b>	<b>1197</b>	<b>21.07</b>
<b>2. Technical posts</b>									
	Category-I	3974	2527	458	18.12	237	9.38	351	13.89
	Category-II	2708	1619	263	16.24	125	7.72	253	15.63
	Category-III	755	410	64	15.61	42	10.24	70	17.07
	<b>Total</b>	<b>7437</b>	<b>4556</b>	<b>785</b>	<b>17.23</b>	<b>404</b>	<b>8.87</b>	<b>674</b>	<b>14.79</b>
<b>3. Administrative posts</b>									
(a)	Category "A" Post Senior Registrar/Director/Deputy Secretary/Under Secretary/ CAOs/SAOs/AOs/CF&AO/F&AO/ Legal Advisor/Director(OL)/ DD(OL)/AD(OL)/PPS	379	345	48	13.91	23	6.67	27	7.83
(b)	Category "B" Post AF/AO/AO/PS/SO/AD(OL) / AL/A/Assistant/PA/Senior Sales Assistant/JAO/ALA	2632	2015	310	15.38	148	7.34	210	10.42
(c)	Category "C" Post UDC/Steno/LDC	1873	1127	196	17.39	95	8.43	209	18.54
	<b>Total</b>	<b>4884</b>	<b>3487</b>	<b>554</b>	<b>15.89</b>	<b>266</b>	<b>7.63</b>	<b>446</b>	<b>12.79</b>
<b>4. Supporting Skilled Staff</b>		<b>8364</b>	<b>4632</b>	<b>1281</b>	<b>27.66</b>	<b>421</b>	<b>9.09</b>	<b>734</b>	<b>15.85</b>

Source : DARE/ICAR Annual Report 2018-2019, Ministry of Agriculture &amp; Farmers Welfare, Govt. of India.









हर कदम, हर डगर  
किसानों का हमसफर  
भारतीय कृषि अनुसंधान परिषद

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