

**PART I - GENERAL INFORMATION ABOUT THE KVK**

**1.1. Name and address of KVK with phone, fax and e-mail**

<b>KVK Address</b>	<b>Telephone</b>		<b>E mail</b>	<b>Web Address</b>
Krishi Vigyan Kendra Babbur Farm Hiriyur-577 598 Chitradurga District Karnataka	08193-289160	08193-289160	<a href="mailto:kvkchitradurgahyr@gmail.com">kvkchitradurgahyr@gmail.com</a>	<a href="http://www.kvkchitradurga.in">www.kvkchitradurga.in</a>

**1.2 .Name and address of host organization with phone, fax and e-mail**

<b>Address</b>	<b>Telephone</b>		<b>E mail</b>	<b>Web Address</b>
	<b>Office</b>	<b>Fax</b>		
University of Agricultural & Horticultural Sciences, Shivmogga-560065 Karnataka	08182- 267001	08182-298008	<a href="mailto:vcuahs2014@gmail.com">vcuahs2014@gmail.com</a>	<a href="http://www.uahs.in">www.uahs.in</a>

**1.3. Name of the Programme Coordinator with phone & mobile No**

<b>Name</b>	<b>Telephone / Contact</b>		
	<b>Residence</b>	<b>Mobile</b>	<b>Email</b>
Dr. Sarvajna B. Salimath	08193-289160	9480838201	<a href="mailto:kvkchitradurga@gmail.com">kvkchitradurga@gmail.com</a> <a href="mailto:sarvajnauasb@rediffmail.com">sarvajnauasb@rediffmail.com</a>

**1.4. Year of sanction:** 2000 under NATP, 2004 as full fledged KVK

### 1.5. Staff Position (as on 31<sup>st</sup> March 2016)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator /SMS	Dr. Sarvajna B. Salimath	Sr. Scientist & Head(I/c)	M	Soil Science & Agril. Chemistry	M.Sc., Ph.D.	15600-39100	21480+7000	01-09-2008	Permanent	Others
2	SMS	Dr. S. Onkarappa	Scientist	M	Agril. Entomology	M.Sc., Ph.D.	15600-39100	19800+6000	17-07-2009	Permanent	Others
3	SMS	Mr. Prakash Kerure	Scientist	M	Horticulture	M.Sc.	15600-39100	18320+6000	10-11-2011	Permanent	OBC
4	SMS	Dr. Rudragouda F. Channagouda	Scientist	M	Agronomy	Ph.D.	15600-39100	16920+6000	17-10-2013	Permanent	OBC
5	SMS	Mr. Gajendra T.H	Scientist	M	Agril. Extension	M.Sc.	15600-39100	16920+6000	06-12-2013	Permanent	OBC
6	SMS	Miss. Bindu B M	Scientist	F	Food Science & Nutrition	MH.Sc (Food & Nutrition)	15600-39100	30000	10-08-2016	Temporary	Others
7	Programme Assistant( Lab Tech.)/T-4	Ms. B.N. Geetha Kumari	Programme Assistant	F	Agriculture	B.Sc. (Agri.)	9300-34800	11460+4200	08-11-2010	Permanent	OBC
8	Programme Assistant (Computer)/ T-4	Miss Kavitha P.Naik	Programme Assistant	F	Computer Science	B.Sc. (Computer)	9300-34800	10130+4200	31-11-2013	Permanent	OBC
9	Programme Assistant/ Farm Manager	Mr. Navalappa Sasanoor	Farm Manager	M	Farm Manager	B.Sc (Horti)	9300-34800	13500	13-06-2016	Temporary	OBC
10	Assistant	Mr. D. Gurumurthy	Accountant/Superintendent	M	Assistant	BA	9300-34800	17200	01-01-2013	Permanent	Others
11	Jr. Stenographer	A. Rekha	Jr. Stenographer	F	Junior Stenographer	BA	5200-20200	12731	27-12-2013	Temporary	OBC
12	Driver	Mr. Mahaboob Patel	Driver	M	Tractor Driver	S.S.L.C.	5200-20200	17200	23-10-2008	Permanent	OBC
13	Driver	Mr. Bhadraiah	Driver	M	Jeep Driver	7 <sup>th</sup>	5200-20200	10150	10-03-2014	Temporary	Others
14	Supporting staff	Mr. Kallesha. E	Assistant Cook cum Care taker	M	Asst. Cook cum Caretaker	B.com	5200-20200	9100	01-10-2016	Temporary	OBC
15	Supporting staff	Smt. Nagamma	Messenger	M	Messenger	7 <sup>th</sup>	5200-20200	9600	24-11-2016	Permanent	OBC

**1.6. Total land with KVK (in ha) : 36.9 ha**

S. No.	Item	Area (ha)
1	Under Buildings	08.00
2.	Under Demonstration Units	03.00
3.	Under Crops	22.30
4.	Orchard/Agro-forestry	03.60
5.	Others	-

**1.7. Infrastructural Development:**
**A) Buildings**

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2009	550	55.0 lakh	-	-	-
2.	Farmers Hostel	ICAR	December 2002	305	30.0 lakh	-	-	-
3.	Staff Quarters	-	-	-	-	-	-	-
4.	Demonstration Units	-	-	-	-	-	-	-
5	Compost Unit	ICOF	October 2009	77.25	1.5 lakh	-	-	-
6	Nursery	NHM	2009-10	-	3.0 lakh	-	-	-
7	Rain Water Harvesting System	ICAR	March 2008	-	9.70 lakh	-	-	-
8	Threshing Floor	-	-	-	-	-	-	-
9	Farm Store house	-	-	-	-	-	-	-
10	Plant Health Clinic	NHM	June 2008	-	20 lakh	-	-	-
11	Vehicle & Implement Shed	ICAR	Sept 2011	-	2.65 lakh	-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Bolero KA 16 A 457	2004	4,35,386	342945	Good Condition
Tractor	2007	466319	4019.7	Good Condition
Two Wheeler (Hero Honda) KA 16 S 4401	2009	42,645	32134	Good Condition
Scooter (Honda Activa) KA 16 S 4415	2009	39,350	20665	Good Condition
TVS Victor KA04EF8139	2003	38,363	70663	Good Condition

**C) Equipments & AV aids**

SI No.	Name of the equipment	Year of purchase	Cost (Rs.)	Present status
1.	Pusa Digital STFR meter	5/17/2016	65000	Good Condition
2.	667 Pigeon induction cook top	7/18/2016	2000	Good Condition
3.	Lenovo Computer	8/6/2016	98554	Good Condition
4.	Lenovo Computer	8/23/2016	49277	Good Condition
5.	Lenovo Computer	12/13/2016	48530	Good Condition
6.	Lenovo Computer	12/13/2016	48530	Good Condition
7.	Lenovo Computer	12/13/2016	48530	Good Condition
8.	HP Deskjet Printer	12/19/2016	12600	Good Condition
9.	Sony hard disc	12/21/2016	30000	Good Condition
10.	HP laser jet printer	12/26/2016	9800	Good Condition
11.	Kyocera Xerox machine	2/6/2017	94950	Good Condition
12.	CC Camera & Accessories	1/28/2017	36143	Good Condition
13.	Vocum cleaner	2/17/2017	7998	Good Condition

14.	De stoner with aspitra blower 2HP	1/9/2017	51525	Good Condition
15.	De Huller Millet Machine	1/9/2017	80150	Good Condition
16.	Grader	1/3/2017	44655	Good Condition
17.	Lenovo Computer	2/16/2017	48530	Good Condition
18.	HP Laser jet printer	2/15/2017	10128	Good Condition
19.	Canon Camera	2/21/2017	16989	Good Condition
20.	Whirlpool Air conditioner & Accessories	3/10/2017	49800	Good Condition
21.	Whirlpool Air conditioner & Accessories	3/11/2017	49800	Good Condition
22.	Whirlpool Air conditioner & Godrej Air conditioner and Accessories	3/13/2017	85200	Good Condition
23.	AAS machine & Accessories	1/13/2017	1420000	Good Condition

### 1.8. Details SAC meeting conducted in 2014-15

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	11-08-2014	49	7	Awareness on importance of pulses in nutritional security	Twenty Five Front Line Demonstrations were conducted during 2015-16 under NFSM (Bengal gram and Redgram)
				Conduct residue analysis in Pomegranate Fruits	The residue analysis in pomegranate will be carried out during 2016-17 under Promegranate project of UAHS , Shivamogga.
				FLD of proven technology need to be convincing Line depts. staff and farmers	Large scale demonstrations were conducted on ICM in Groundnut, Redgram, Onion, Hebbal Aware (HA-4) , Mango, Millets, Fodder, Cotton, Arecanut Banana, Pomegranate crops during 2014-15(19 FLD's and 2015-16(14 FLD's).
				Emphasize on large scale production of Vermi compost.	Large scale production of Vermi Compost is being taken up in the Farm and technology being scaled up with IFSD Farmers of Hiriyyur & Callakere Taluka (12 farmers).
				Common training calendar may be prepared jointly by KVK and DATC Hiriyyur.	The plan was prepared after discussing with ADA, DATC , Hiriyyur and accordingly care was taken to avoid duplicity . Similarly action plan for 2016-17 is being shared with ADA, DATC.
				KVK must limit to training programmes to those related to FLD and OFT beside need based and selected sponsored programmes.	Trainings have been conducted based on the action plan prepared for 2015-16.(Totally 56 trainings related to FLD & OFT were conducted during 2015-16)
				Problems for taking up FLD/OFT should be identified through PRA of cluster villages. Work intensively in these villages for 2 to 3 years on the prioritized problems. Impact of KVK interventions	New cluster villages were identified through PRA technique. Success stories were documented and impact assessment will be initiated for KVK interventions. Poster presentation were made on

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
				should be measured in terms of extent to which these problems are minimized	assessment of Onion varieties for Chitradurga district at UAS, Dharwad
				Seek permission from ZPD and recruit Farm Manager on contract basis immediately. Simultaneously, initiate action to recruit on permanent.	Farm Manager on contract basis has been recruited during Dec 2015.
				Popularize double cross hybrid in sericulture through demonstration	FLD on double cross hybrid in sericulture was conducted in Hariyabbe cluster during 2014-15.
				Soil test based fertilizer recommendation may be taken as innovative activity	265 Soil Health Cards have been prepared during 2015-16 for two villages for Hiriya & Challakere . International Soil Health Day was celebrated on 5 <sup>th</sup> of Dec 2015 .
				Documentation and maintenance of district agriculture status and other activities	Data of agriculture status has been documented based on the reports of JDA, Chitradurga & Statistical department , Chitradurga
				Characteristics of Hebbal Avare HA-4 variety need to be assessed	FLD was implemented in Baramasagara Cluster (at Hampanur village) and different parameters were assessed. Seed production of HA-4 was taken up in the KVK Farm
				Conduct compressive demonstration on large scale with line department for wider spreading of the technology.	Large scale demonstrations were conducted on groundnut, Redgram, Bengalgram and Greengram in collaboration with agriculture department during 2014-15. During 2015-16 large scale demonstration were conducted in Challakere taluka. Technology was spread in collaboration with DoA, Challakere throughout the taluka .
				Popularize micro credit facility of NABARD and other nationalized banks.	Through our on campus trainings farmers are sensitized about NABARD linkage for micro finance.
				Sensitize farm women about scientific dairy management practices	Front Line Demonstrations on different green fodder varieties were taken up in Hiriya Tq. and seeds of

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
					CoFS -29 were given to adopted village dairy farmers of Shidlyanakote .
				Create awareness on DCH castor hybrid through large scale demonstration	Large scale demonstrations were conducted in KVK contact farmer's field during 2014-15 through IFS programme in 10 villages of Hiriyur taluka.
				Intensify the onion seed production through participatory approach	Around 22 q Arka Kalyan seed was produced through participatory seed production programme at Muddapura cluster during 2014-15. During 2015-16 seed production of Bheema Super Variety is being taken up in Hosakundure village of Hosdurga Tq. (5 Farmers ).
				Demonstrations/Training about drip irrigation in onion need to be conducted	OFT on onion was conducted using raised bed cultivation through drip irrigation. A demonstration was taken up at our Farm during 2015-16.
				Popularize the agricultural technologies through electronic media	Regularly sending agriculture information through SMS (Farmers Portal) and actively using mass media for technology dissemination in a wider scale.



## PART II - DETAILS OF DISTRICT

### 2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1	Agriculture
2	Agriculture + Animal husbandry
3	Agriculture + Horticulture
4	Agriculture + Animal Husbandry+ Horticulture
5	Agriculture + Sericulture + Horticulture + Animal Husbandry

### 2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1	Central Dry Zone (Zone– IV) of Karnataka	Normal rain fall- 592 mm Max Temp- 38 Min Temp- 19.3 Hot semi arid Shallow and medium red and black soil

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area in lakh ha
1	Red sandy loam with low rainfall	Soil are low in available nitrogen content, medium in phosphorus and potassium. Organic matter content is low and bulk density is moderate. Water holding capacity is less and soil depth is shallow natured.	1.96
2	Red sandy loam with medium rainfall	Available nutrients are medium in nature, micro nutrients like iron, copper, manganese are medium in nature. Molybdenum, boron and zinc are low. These soils are well drained and suitable for water logging sensitive crops, Low CEC.	1.36
3	Medium to deep black soils with medium rain fall	Soil depth is high (90 cm and above). These soil contain swelling and shrinking property because Montmorillinite clay. These soils are suitable for cotton, maize, jowar, etc. Water holding capacity is more.	2.09

#### 2.4. Area, Production and Productivity of major crops cultivated in the district

Crop	Area (ha)	Production(MT)	Productivity(kg/ha)
Maize	92414	246857	2726
Finger Millet	50766	4564	1152
Sorghum	1436	615	143
Redgram	9118	5070	185
Greengram	5113	1123	73
Chick pea	40520	19993	164
Groundnut	93967	67312	439
Sunflower	19533	10573	536
Castor	645	352	180
Seasumum	2149	560	87
Saf flower	2067	925	149
Coconut	57110	9709	170
Banana	5790	160405	51000
Mango	3438	34380	1000
Sapota	1513	15130	1000
Sweet Orange	728	9734	1337
Papaya	940	72380	77000
Pomegranate	6911	62199	9000
Watermelon	228	7140	31316
Onion	17055	327541	19955
Tomato	2044	29808	21849
Chilli	1511	16621	11000
Brinjal	340	8840	26000
Chrysanthimum	530	7420	14000
Arecanut	21694	43388	2000

Source : Department of Agriculture & Horticulture , Chitradurga.

## 2.5. Weather data

Month	Rainfall (mm)	Temp(Max) °C	Temp(Min) °C	Relative Humidity (%)
April-15	30	39	26	59.5
May	376.42	36	26	65
June	493	31	24	76.5
July	476.4	29	23	77.5
August	120	29	23	79
September	244	29	23	78.5
October	100	32	21	78.5
November	3	32	16	59
December	100	30	15	61
January-16	0	30	17	62
February	0	34	19	54
March	0	35	24	51

\*Source: JDA office, DoA, Chitradurga

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	34806	6 LPD	10 LPD
<i>Indigenous</i>	239931	1.5 LPD	2 LPD
<b>Buffalo</b>	151895	2 LPD	3 LPD
<b>Sheep</b>	924231		
<i>Crossbred</i>	-	Meat	20 Kg / Animal
<i>Indigenous</i>	-	Wool	1 kg / year
<b>Goats</b>	226696	16 Kg/ Animal	18 KG/ Animal
<b>Pigs</b>	2810		
<i>Crossbred</i>	-	60 Kg/ Animal	80 Kg/ Animal
<i>Indigenous</i>	-	40 Kg/ Animal	60 Kg/ Animal
<b>Rabbits</b>	1465		
<b>poultry</b>	161175		
Hens	-		
<i>Desi</i>	-	60-80 eggs / year	100 eggs / year
<i>Improved</i>	-	280 eggs / year	280 eggs / year
Ducks	18		
Turkey and others			
<b>Fish</b>	7920	-	-

Source: Department of Animal Husbandry

District profile has been Updated for 2016-17 : No

## 2.7 Details of Operational area / Villages

Sl.No	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Hosadurga	Kasaba	Hosakunduru	3	Onion	Non availability of quality seed material Dependency on other states Higher seed cost	Seed Production
2.	Chitradurga	Bharamasagar	Hampanuru	3	Field Bean	Non availability of quality seed material Use of local variety and impure seeds Mainly growing for vegetable purpose	Seed Production
3.	Hiriyur	Kasaba	Kariobanahalli	1	Watermelon	Fruit cracking, Imbalanced nutrient application WMBNC virus	Integrated Crop Management
4.	Hiriyur	Kasba	Shidlayyanakote	2	Onion	Low yield due to local varieties No results of onion varieties suitable for Rabi season of Chitradurga Dist. Poor keeping qualities like sprouts & rotting in storage Incidence of purple blotch disease	Varietal Evaluation
5.	Challakere	Parasurampura	Bommanakunte	1	Groundnut	Plant population Imbalanced nutrition Leaf minor, root grub and rust problem	Integrated Crop Management

6.	Hosadurga	Srirampura	Kalkere	1	Redgram	Low yield, pod borer, leaf webber and Sterility mosaic disease	Integrated Crop Management
7.	Hiriyur	Imangala	Kariobanahalli	1	Bengalgram	Low yield, pod borer and wilt	Integrated Crop Management
8.	Hosadurga	Baguru	Shettihalli	1	Arecanut	Bud rot Incidence of scales, mites Plant nutrition	Integrated Crop Management
9.	Hosadurga	Baguru	Doddarangayyanahatti	1	Coconut	Yield loss due to imbalanced nutrient management incidence of Red palm weevil ,mites, stem bleeding, wilt, and leaf spot disease	Integrated Crop Management
10.	Hiriyur	Dharpura	Sidlyanakote	1	Finger millet, groundnut,redgram	Low yield Neck blast, lodging and suscepability to drought Non availability good quality fodder variety	Varietal Evaluation
11.	Hiriyur	Dharpura	Rangenahalli and Hemadal	1	Fodder, sorghum,groundnut	Non availability of good quality green fodder variety Non availability of drought resistant variety	Varietal Evaluation
12.	Hiriyur	Kasab Hiriyur	Bheemanabhande and Sidlyanakote	1	Millets, redgram	Low yielding varieties Existing varieties are susceptible to stress condition Not available good quality fodder	Varietal Evaluation

## 2.8 Priority thrust areas

Sl. No	Thrust area
1.	Salt affected Soil Management
2.	Introduction of promising varieties /hybrids in finger millet, onion, beans,
3.	Nutrient Management in cotton, banana, arecanut, pomegranate
4.	IPDM in Pulses , Arecanut, Coconut
5.	Value addition, Branding & Marketing in Millets & Pulses
6.	Entrepreneurship : Mushroom production , quality honey production ,nursery technique
7.	Seed production : Onion ,Millets ,Pulses and Fodder .
8.	Production of Bio- inputs <i>Pseudomonas</i> , <i>Trichoderma</i> .
9.	Crop integration

## PART III - TECHNICAL ACHIEVEMENTS

### 3.A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
4	1	8	2	14	11	120	113

Seed Production (q.)			Planting materials (Nos.)		
5			6		
Target		Achievement	Target		Achievement
Millets	15q	2.50 (HMT 100-1) 4.95 (SIA-2644)	Drum Stick (Bhagya/PKM-1)	5,000 No.	-
HA-4 Field Bean	5q	-	Mango- Mallika	1000 No.	-
CoFS-29	0.4q	0.08 0.80 (COFS-31)			

Live stock, poultry strains and finger lings				Bio-Products(q)			
7				8			
Target		Achievement		Target		Achievement	
-		-		Pseudomonas-15		0	
-		-		Trichoderma-5		0	

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
65	113	2190	4023	2304	6237	30935	422967

### 3.B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in Sl. No. 2.7

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT	Title of FLD	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No	Kg
1	Crop improvement	Foxtail millet	Non availability of high yielding varieties .Existing varieties susceptible to pest and diseases	Assessment of foxtail millet varieties for higher yield	-	2	1	1	1	0.64	-	-	3	24
2	Crop improvement	Onion	Bulb splitting, rotting in storage, low yields	Varietal Assessment in Onion For Higher Yield in Rabi Season	-	1	1	-	-	2kg	-	-	-	-
3	ICM	Finger millet	Low yield , Neck blast, lodging and suscepability to drought and Imbalanced nutrition		Introduction ML-365 Finger millet variety for higher yield	10	1	1	1	0.50	-		3	30
4	ICM	Groundnut	Plant population, imbalanced nutrition, leaf minor and root grub		ICM in groundnut	12	1	1	4	2.80			3	15



5	Variety introduction	Fodder sorghum	Non availability of good quality green fodder variety, Non availability of drought resistant variety		Popularization of fodder sorghum var. CoFS-29	3			1	0.10			3	30
6	Seed Production	Onion	Non availability of quality seed material, dependency on other states, higher seed cost		Seed Production in onion for self reliance	2	2	1	2	5kg	-	-	-	-
7	ICM	Watermelon	Fruit cracking, Imbalanced nutrient application, Watermelon bud necrosis virus		Integrated crop management in watermelon	2	2	-	2	-	-	-	-	-
8	ICM	Arecanut	Bud rot, Incidence of spindle bug, scales, mites and plant nutrition		Integrated crop management in Arecanut	1	1							58
9	ICM	Coconut	Yield loss due to imbalanced nutrient management, incidence of red palm weevil, black headed caterpillar, mites, stem bleeding, wilt and leaf spot disease		Integrated crop management in Coconut	1	1							30
10	ICM	Red gram	Pod borer, webber, wilt and Pigeonpea sterility mosaic disease		Integrated crop management in Redgram	2	2		1	00.25	-	-		30
11	ICM	Bengalgram	Pod borer and wilt		Integrated crop management in Bengalgram	1	1		1	6.20	-	-		26
13	ICM	Banana	Fertilizer application: Imbalanced, Split application: Lack of knowledge, Micronutrients: Less awareness, Method of application , Bio inputs: lack of knowledge		Improved Management practices for higher yield in Banana	1	1	1		112 kg Banan a special				
14	ICM	Pomegranate	Bacterial blight disease		Integrated management of Bacterial blight in Pomegranate	12	5	-	1	-	-	-		25

## 3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No.of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment of foxtail millet varieties for higher yield	UASD	Foxtail millet	1	1	5	Field Day
2	Varietal Assessment in Onion For Higher Yield in Rabi Season	IIHR, Bangalore	Onion	1	-	1	-
3	Introduction ML-365 Finger millet variety for higher yield	UASB	Finger millet	1	1	13	Field day
4	ICM in groundnut	UASB	Groundnut	1	1	18	Field Day
5	Popularization of fodder sorghum var. CoFS-29	TNAU,	Fodder sorghum	-	1	3	Field Day
6	Seed Production in onion for self reliance	DOGR, Pune	Onion	1	1	4	Filed Day
7	Integrated crop management in watermelon	IIHR, Bangalore	Watermelon	-	1	4	Filed Day
8	Integrated crop management in Arecanut	UAS(B)	Arecanut	-	1	2	-
9	Integrated crop management in Coconut	UASB	Coconut	-	1	5	-
10	Integrated crop management in Redgram	UASB	Red gram	-	1	4	Field Day
11	Integrated crop management in Bengalgram	UASB	Bengalgram	-	1	2	Field Day
12	Improved Management practices for higher yield in Banana	IIHR	Banana	-	1	3	-
13	Integrated management of Bacterial blight in Pomegranate	NRC on Pomegranate, Solapur	Pomegranate		1	5	Field Day

## 3.B2 contd..

No. of farmers covered															
OFT				FLD				Training				Others (Specify)			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-	1	-	-	-	-	-	31	5	9	0	21	3	16	0
1	-	1	-	-	-	-	-	29	2	11	0	-	-	-	-
-	-	-	-	6	0	4	0	97	11	27	3	22	8	16	2
-	-	-	-	3	0	2	0	64	13	18	9	41	6	0	0
-	-	-	-	8	0	2	0	22	8	11	0	12	0	16	0
-	-	-	-	5	0	0	0	63	12	44	3	56	4	16	1
-	-	-	-	12	0	0	0	20	0	2	0	15	9	6	0
-	-	-	-	6	0	0	0	148	43	0	0	-	-	-	-
-	-	-	-	5	0	0	0	172	29	2	0	-	-	-	-
-	-	-	-	25	0	0	0	67	36	8	15	128	25	21	3
-	-	-	-	25	0	0	0	53	0	0	0	33	5	5	1
-	-	-	-	10	0	4		52	-	20	5	52		20	5
-	-	-	-	5	0	0	0	230	32	22	5	61	6	31	7

### PART IV - On Farm Trial

#### 4.A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Millets	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	1					1					2
<b>Total</b>	<b>1</b>					<b>1</b>					<b>2</b>

#### 4.A2. Abstract on the number of technologies refined in respect of crops : Nil

#### 4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises : Nil

#### 4.A4. Abstract on the number of technologies refined in respect of livestock enterprises : Nil

#### 4.B. Achievements on technologies Assessed and Refined

##### 4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Varietal Evaluation	Foxtail millet	Assessment of foxtail millet varieties for higher yield	2	2	0.8
Varietal Evaluation	Onion	Varietal Assessment in Onion For Higher Yield in Rabi Season	2	2	0.8
<b>Total</b>					<b>1.6</b>

##### 4.B.2. Technologies Refined under various Crops : Nil

##### 4.B.3. Technologies assessed under Livestock and other enterprises: Nil

##### 4.B.4. Technologies Refined under Livestock and other enterprises : Nil

#### 4.C1. Results of Technologies Assessed

##### Results of On Farm Trial

### OFT 1: Varietal Assessment in groundnut For Higher Yield

Crop/enterprise	Farmin g situation	Problem definition	Title of OFT	No. of trials	Technol ogy Assessed	Parameters of assessment	Data on the parameter				Results of assessment	Feedback from the farmer	Any refineme nt needed	Justifica tion for refineme nt
1	2	3	4	5	6	7	8				9	10	11	12
Foxtail millet	Limited irrigatio n	Non availability of high yielding varieties .Existing varieties susceptible to pest and diseases	Assessme nt of foxtail millet varieties for higher yield	3	Varietal Evalu ation	1.Yield (q/ha) 2. Panicle length (cm) 3. plant height (cm)	Varieties	Plant height (cm)	Panicle length (cm)	Yield (q/ha)	SIA-2644 recorded a higher yield over local & HMT 100-1	1. High yielding  2. Less incidence of pest and diseases  3. Good quality fodder	-	-
Farmers practices	67.0	13.3	7.8											
HMT-100-1	75.6	16.7	10.4											
SIA-2644	98.2	20.4	13.8											

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmer practice	Local	7.8	q/ha	11040	1.90
HMT-100-1	UASD	10.4	q/ha	16470	2.12
SIA -2644	UASR	13.8	q/ha	24950	2.52

**4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1	<b>Title of Technology Assessed:</b>	Assessment of foxtail millet varieties for higher yield					
2	<b>Problem Definition</b>	Non availability of high yielding varieties Non availability of good quality fodder varieties Existing varieties are susceptible to stress condition					
3	<b>Details of technologies selected for assessment:</b>	1. Introduction of new variety-SIA-2644 2. Seed rate -7-10 kg/ha 3.FYM :6.25 t/ha, Biofertilizer- Azospirillum, PSB, Trichoderma 4 g/ kg seeds 4. Application of micronutrients (10 kg ZnSo <sub>4</sub> and 2 kg borax 5. 40 :40 :N:P kg/ha					
4	<b>Source of technology</b>	UAS Raichur , UAS Dharwad					
5	<b>Production system and thematic area</b>	Rainfed and assessment of varieties					
6	<b>Performance of the Technology with performance indicators</b>	Varieties	Plant height (cm)	Panicle length(cm)	Yield (q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
		Farmers practices	67.0	13.3	7.8	11040	1.90
		HMT-100-1	75.6	16.7	10.4	16470	2.12
		SIA-2644	98.2	20.4	13.8	24950	2.52
7	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>	1. High yielding 2.Less incidence of pest and diseases 3.Good quality fodder					
8	<b>Final recommendation for micro level situation</b>	SIA-2644 recorded better yield over local variety					
9	<b>Constraints identified and feedback for research</b>	Develop drought resistant variety					
10	<b>Process of farmers participation and their reaction</b>	Farmers expressed that SIA-2644 super variety and performing well w.r.t to yield, drought resistant and good quality fodder variety					

**OFT 2** : Varietal Assessment in Onion For Higher Yield in Rabi Season  
Vitiated due to lack of rain fall

**4.D1. Results of Technologies Refined : Nil**

**4.D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the following details: Nil**

**PART V - FRONTLINE DEMONSTRATIONS**

**5.A. Summary of FLDs implemented during 2016-17**

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1	Millets	Limited irrigation	Kharif	Finger millet	ML-365	-	ICM	1.Introduction of new variety ML-365 2.Biofertilizers- <i>Azospirillum</i> and PSB, Biopesticide- <i>Trichoderma</i> 3.Micronutrients (10 kg ZnSo4 ) 3.RDF-50:40:25 NPK/ha +FYM- 7.5 t/ha	4	4	3	7	10	
2	Oilseed	Limited irrigation	Kharif	Groundnut	GKVK-5	-	ICM	1. Introduction new variety (GKVK-5), 2. Biofertilizers- <i>Rhizobium</i> & PSB , Biopesticide- <i>Trichoderma</i> 3. Use of micronutrients (10 kg ZnSO4 and 2kg boron) 4. RDF-25:50:25 kg NPK+ 7.5 t FYM/ha 5. Gypsum : 500 kg /ha	2	2	2	3	5	
3	Fodder Crops	Limited irrigation	Kharif	Fodder sorhum	COFS-29	-	Variety introduction	1.Introduction of new fodder varieties 2.Biofertilizers- <i>Azospirillum</i> and PSB, Biopesticide- <i>Trichoderma</i> , Recommended RDF application	1	1	3	11	14	
4	Vegetable crops	Irrigated	Kharif	Onion	Bhima Super	Nil	Seed/Plant Production	Demonstration of breeder seeds @ 1 kg / acre , Balanced application of nutrients (RDF), FYM: 25 t/ha ,Soil application of <i>Trichoderma</i> , PSB, <i>Pseudomonas</i> @ 4kg/t of FYM, Selection of seed bulbs, seed bulbs treatment with copperoxychloride @ 3g/l, Keeping bee hives @ 1/acre for high seed yield	2	2	-	5	5	

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
5	Fruit crops	Irrigated	Summer	Watermelon	Kiran	Kiran	ICM	Demonstration of balanced application of nutrients (RDF), FYM: 25 t/ha, Soil application of <i>Trichoderma</i> , PSB, <i>Pseudomonas</i> through enriching with FYM @ 4 kg/t, micronutrient application of Arka vegetable special @ 6kg/acre.	5	5	-	12	12	
6	Plantation	Irrigated	Kharif	Arecanut	Bheemasa mudra local	-	ICM	FYM – 20kg/tree, N:P:K 100:40:140 g/tree, MgSO <sub>4</sub> – 200 g/tree <i>Tichoderma viridae</i> – 100 g/tree Dimethoate 30 E C – 1.7 ml/l, Dicofol 18.5 EC – 2.5 ml/l Copper oxy chloride 75WP – 3 g/l, Phorate 10G – 10 g/tree	2	2	0	5	5	
	Plantation	Irrigated	Kharif	Coconut	Tiptur tall	-	ICM	FYM – 50 kg/tree, N:P:K 500:330:1200 g/tree, MgSO <sub>4</sub> – 500 g/tree <i>Tichoderma viridae</i> – 100 g/tree, Pheromone trap Lure(RPW) 1 No/ha Hexaconazole 5EC – 3ml in 100 ml water root feeding Mancozeb 75WP – 100 g/tree drenching	2	2	0	5	5	
	Pulses	Rainfed	Kharif	Red gram	BRG-2	-	IPM	FYM – 7.5 t/ha, N:P:K 25:50:25, Sulphur - 20 kg, ZnSO <sub>4</sub> – 15 kg <i>Trichoderma</i> – 5 g/kg seeds, <i>Rhizobium</i> – 500 g/ha, PSB – 500 g/ha. Pheromone traps – 10 Nos., HaNPV – 200 LE/ha., Use of	10	10	0	25	25	



Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
								Bird perches Dicofol 18.5 EC – 2 ml/l, Emamectin benzoate 5 SG – 0.3 g/l						
	Pulses	Rainfed	Rabi	Bengalgram	JG-11	-	IPM	FYM – 7.5 t/ha, N:P:K 13:25:25, Foliar spray 19:19:19 2 g/l <i>Trichoderma</i> – 5 g/kg seeds, <i>Rhizobium</i> – 500 g/ha, PSB – 500 g/ha. Pheromone traps – 5 Nos., HaNPV – 100 LE/ha., Use of Bird perches Dusting of Malathion 5D 20 kg/ha., Emamectin benzoate 5SG – 0.3g/l	10	10	0	25	25	
	Fruit crops	Irrigated	Kharif	Banana	Putta Bale	Nil	Integrated Nutrient Management	RDF: 540:325:675 kg/ ha, for Tissue culture and 175:105:220 g per tree for suckers method ,FYM: 40 tons/ha, Split application of major nutrients, Foliar application of Arka banana special and Bunch feeding	4.4	4.4	5	9	14	
	Fruit crops	Irrigated	Kharif	Pomegranate	Bhagava	-	Integrated Disease Management	N:P:K- 400:200:200 g/tree, <i>Pseudomonas fluorescens</i> - 50 g, <i>Trichoderma viridae</i> @ 50 g VAM @ 50 g, Neem cake @ 250 g, Micronutrients @ 2 g / l	2.5	2.5	0	5	5	

## 5.A. 1. Soil fertility status of FLDs plots during 2013-14

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
1	Millets	Limited irrigation	Kharif	Finger millet	ML-365	-	ICM	1.Introduction of new variety ML-365 2.Biofertilizers- <i>Azospirillum</i> and PSB, Biopesticide- <i>Trichoderma</i> 3.Micronutrients (10 kg ZnSo <sub>4</sub> ) 3.RDF-50:40:25 NPK/ha +FYM- 7.5 t/ha	Kharif	Low	Medium	Low	Chickpea
2	Oilseed	Limited irrigation	Kharif	Groundnut	GKVK-5	-	ICM	1. Introduction new variety (GKVK-5), 2. Biofertilizers- <i>Rhizobium</i> & PSB , Biopesticide- <i>Trichoderma</i> 3. Use of micronutrients (10 kg ZnSO <sub>4</sub> and 2kg boron) 4. RDF-25:50:25 kg NPK+ 7.5 t FYM/ha 5. Gypsum : 500 kg /ha	Kharif	Low	Medium	Low	Foxtail millet
3	Fodder Crops	Limited irrigation	Kharif	Fodder sorhum	COFS-29	-	Variety introduction	1.Introduction of new fodder varieties 2.Biofertilizers- <i>Azospirillum</i> and PSB, Biopesticide- <i>Trichoderma</i> , Recommended RDF application	Kharif	Low	Medium	Medium	Fodder crop
4	Vegetable crops	Irrigated	Kharif	Onion	Bhima Super	Nil	Seed/Plant Production	Demonstration of breeder seeds @ 1 kg / acre , Balanced application of nutrients (RDF), FYM: 25 t/ha ,Soil application of <i>Trichoderma</i> , PSB, <i>Pseudomonas</i> @ 4kg/t of FYM, Selection of seed bulbs, seed bulbs treatment with copperoxychloride @ 3g/l, Keeping bee hives @ 1/acre for high seed yield	Kharif	Medium	Medium	High	Ragi
5	Fruit crops	Irrigated	Summer	Watermelon	Kiran	Kiran	ICM	Demonstration of balanced application of nutrients (RDF), FYM: 25 t/ha, Soil application of <i>Trichoderma</i> , PSB,	Summer	Medium	Medium	High	Ragi

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
								Pseudomonas through enriching with FYM @ 4 kg/t, micronutrient application of Arka vegetable special @ 6kg/acre.					
6	Plantation	Irrigated	Kharif	Arecanut	Bheemasamudra local	-	ICM	FYM – 20kg/tree, N:P:K 100:40:140 g/tree, MgSO <sub>4</sub> – 200 g/tree <i>Tichoderma viridae</i> – 100 g/tree Dimethoate 30 E C – 1.7 ml/l, Dicofol 18.5 EC – 2.5 ml/l Copper oxy chloride 75WP – 3 g/l, Phorate 10G – 10 g/tree	Kharif	Low	Medium	High	Arecanut
7	Plantation	Irrigated	Kharif	Coconut	Tiptur tall	-	ICM	FYM – 50 kg/tree, N:P:K 500:330:1200 g/tree, MgSO <sub>4</sub> – 500 g/tree <i>Tichoderma viridae</i> – 100 g/tree, Pheromone trap Lure(RPW) 1 No/ha Hexaconazole 5EC – 3ml in 100 ml water root feeding Mancozeb 75WP – 100 g/tree drenching	Kharif	Low	Medium	High	Coconut
8	Pulses	Rainfed	Kharif	Red gram	BRG-2	-	IPM	FYM – 7.5 t/ha, N:P:K 25:50:25, Sulphur - 20 kg, ZnSO <sub>4</sub> – 15 kg <i>Trichoderma</i> – 5 g/kg seeds, <i>Rhizobium</i> – 500 g/ha, PSB – 500 g/ha. Pheromone traps – 10 Nos., HaNPV – 200 LE/ha., Use of Bird perches Dicofol 18.5 EC – 2 ml/l, Emamectin benzoate 5 SG – 0.3 g/l	Kharif	Low	Low	Medium	Foxtail millet
9	Pulses	Rainfed	Rabi	Bengalgram	JG-11	-	IPM	FYM – 7.5 t/ha, N:P:K 13:25:25, Foliar spray 19:19:19 2 g/l	Rabi	Medium	Medium	High	Ragi

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
								Trichoderma – 5 g/kg seeds, Rhizobium – 500 g/ha, PSB – 500 g/ha. Pheromone traps – 5 Nos., HaNPV – 100 LE/ha., Use of Bird perches Dusting of Malathion 5D 20 kg/ha., Emamectin benzoate 5SG – 0.3g/l					
10	Fruit crops	Irrigated	Kharif	Banana	Putta Bale	Nil	Integrated Nutrient Management	RDF: 540:325:675 kg/ ha, for Tissue culture and 175:105:220 g per tree for suckers method ,FYM: 40 tons/ha, Split application of major nutrients, Foliar application of Arka banana special and Bunch feeding	Kharif	Low	Low	Medium	Banana
11	Fruit crops	Irrigated	Kharif	Pomegranate	Bhagava	-	Integrated Disease Management	N:P:K- 400:200:200 g/tree, Pseudomonas fluorescens- 50 g, Trichoderma viridae @ 50 g VAM @ 50 g, Neem cake @ 250 g, Micronutrients @ 2 g / l	Kharif	Low	Low	Medium	Onion

## 5.B. Results of Frontline Demonstrations

### 5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BC R	Gross Cost	Gross Return	Net Return	** BC R
							H	L	A										
Finger millet	Introduction ML-365 Finger millet variety for higher yield	ML-365	-	Limited irrigation	10	4	20.0	14.8	17.4	13.7	27.7	18262	60932	42670	3.33	16074	47789	31715	2.97
Groundnut	ICM in groundnut	GKV K-5	-	Limited irrigation	5	2	19.16	14.80	16.98	12.81	32.5	29812	71672	41860	2.40	25346	54033	28687	2.13
Fodder sorghum	Popularization of fodder sorghum var. CoFS-29	COFS-29	-	Limited irrigation	10	1	908	884	896	746	20.1	12607	35822	23215	2.84	12050	29844	17794	2.48
Onion	Seed Production in onion for self reliance	Bhima Super	Nil	Irrigated	5	2	10.5 t/ha (Seed yield)	8.12 t/ha (Seed yield)	9.31 t/ha (Seed yield)	25.74 t/ha (Bulb yield)	-	221000	915200	652700	4.13	98500	257400	167100	2.84
Watermelon	Integrated crop management in watermelon	Kiran	Kiran	Irrigated	12	5	39.5 t/ha	35.5 t/ha	37.5 t/ha	30.8 t/ha	15.13	82750	300580	217788.	4.0	74477	246400	172296	3.3
Arecanut	Integrated crop management in Arecanut	Bhee masa mudra local	-	Irrigated	5	2	20.55	10.53	14.89	11.43	30.63	102616	387192	284576	3.78	93880	297180	203300	3.20
Coconut	Integrated crop management in Coconut	Tiptur tall	-	Irrigated	5	2	98(nut s/ha)	89(nut s/ha)	94(nut s/ha)	77	22.36	46621	78960	32339	1.72	49340	64848	15508	1.33
Red gram	Integrated crop management in Redgram	BRG-2	-	Rainfed	25	10	6.88	1.88	3.54	2.86	26.06	19404	14140	-5264	0.72	18188	11440	-6748	0.62
Bengalgram	Integrated crop management in Bengalgram	JG-11	-	Rainfed	25	10	12.50	5.0	9.2	7.39	24.54	21180	52440	31260	2.45	20120	42095	21975	2.08

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	**BCR	Gross Cost	Gross Return	Net Return	**BCR
							H	L	A										
Banana	Improved Management practices for higher yield in Banana	Putta Bale	Nil	Irrigated	14	5.6	275	178.5	180	137	31.5	180316	548772	368456	2.51	187377	402172	214795	1.77
Pomegranate	Integrated management of Bacterial blight in Pomegranate	Bhagava	-	Irrigated	5	2.5	150	78.5	104.9	79.2	32.58	155000	734580	579580	5.27	112000	554400	442400	4.99

### 5.B.2. Livestock and related enterprises : Nil

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

### 5.B.3. Fisheries: Nil

### 5.B.4. Other enterprises : nil

### 5.B.5. Farm implements and machinery

### 5.B.6. Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	13	557	
2	Farmers Training	23	420	
3	Media coverage	90	-	
4	Training for extension functionaries	11	420	
5	Others (Please specify)	-	-	

## PART VI – DEMONSTRATIONS ON CROP HYBRIDS

### Demonstration details on crop hybrids : Nil

**PART VII. TRAINING****7.A.. Training of Farmers and Farm Women including sponsored training programmes (On campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Cropping Systems	11	226	54	280	64	38	102	290	92	382
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	9	176	11	187	48	5	53	224	16	240
Off-season vegetables	1	11	0	11	0	0	0	11	0	11
Fruit crop	1	17	0	17	0	0	0	17	0	17
<b>Soil Health and Fertility Management</b>										
Integrated water management	6	109	17	126	11	6	17	120	23	143
Integrated nutrient management	7	139	56	195	18	5	23	157	61	218
<b>Livestock Production and Management</b>										
Dairy Management	1	20	0	20	0	0	0	20	0	20
<b>Home Science/Women empowerment</b>										
Value addition	5	97	63	160	29	7	36	126	70	196
<b>Plant Protection</b>										
Integrated Pest Management	8	203	67	270	10	15	25	213	82	295
Integrated Disease Management	4	139	2	141	13	3	16	152	5	157
<b>Capacity Building and Group Dynamics</b>										
Entrepreneurial development of farmers/youths	5	63	69	132	0	0	0	0	0	132
<b>TOTAL</b>	<b>58</b>	<b>1200</b>	<b>339</b>	<b>1539</b>	<b>193</b>	<b>79</b>	<b>272</b>	<b>1330</b>	<b>349</b>	<b>1811</b>

### 7.B Training of Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Cropping Systems	12	331	44	375	0	0	0	331	44	375
<b>Horticulture</b>										
a)Vegetable Crops	6	119	5	124	0	0	0	119	5	124
<b>Soil Health and Fertility Management</b>										
Soil fertility management	1	192	35	227	0	0	0	192	35	227
<b>Home Science/Women empowerment</b>										
Women empowerment	1	0	115	115	0	0	0	0	115	115
Value addition	5	56	156	212	0	0	0	56	156	212
<b>Plant Protection</b>										
Integrated Pest & Disease Management	3	122	15	137	0	0	0	122	15	137
Integrated Pest Management	6	215	4	219	11	0	11	226	4	230
Integrated Disease Management	6	242	96	338	0	0	0	242	96	338
<b>Capacity Building and Group Dynamics</b>										
Entrepreneurial development of farmers/youths	3	92	8	100	0	0	0	92	8	100
<b>TOTAL</b>	<b>43</b>	<b>1369</b>	<b>478</b>	<b>1847</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>1380</b>	<b>478</b>	<b>1858</b>

### 7.C. Training for Rural Youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-	-

### 7.D. Training for Rural Youths including sponsored training programmes (off campus): Nil



**7.E. Training programmes for Extension Personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	6	217	26	243	0	0	0	217	26	243
Nutrient Management	4	96	27	123	0	0	0	96	27	123
Nursery	1	32	0	32	12	0	12	54	0	54
<b>Total</b>	<b>11</b>	<b>345</b>	<b>53</b>	<b>398</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>367</b>	<b>53</b>	<b>420</b>

**7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Total</b>	-	-	-	-	-	-	-	-	-	-

**7.G. Sponsored training programmes conducted**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
	-	-	-	-	-	-	-	-	-	-	

**7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
5	Nursery Management of Horticulture crops	1	9	4	13	11	3	14	20	7	27
5.b.	Entrepreneurship through value addition	1	15	0	15	0	0	0	15	0	15
	<b>TOTAL</b>	<b>2</b>	<b>9</b>	<b>19</b>	<b>28</b>	<b>11</b>	<b>3</b>	<b>14</b>	<b>20</b>	<b>23</b>	<b>42</b>

**PART VIII – EXTENSION ACTIVITIES****Extension Programmes (including extension activities undertaken in FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	13	450	72	522	25	5	30	5	0	5
Exhibition	7	35000	3000	38000	10100	15000	25100	880	480	1360
Film Show	80	2200	700	2900	10	2	12	2	0	2
Method Demonstrations	19	280	54	334	22	5	27	5	2	7
Farmers Seminar	2	250	50	300	20	5	25	5	2	7
Workshop	7	950	350	1300	22	25	47	41	25	66
Group meetings	32	306	90	396	51	53	104	4	2	6
Lectures delivered as resource persons	62	1446	290	1736	1120	190	1310	51	30	81
Newspaper coverage	66	0	0	0	0	0	0	0	0	0
Radio talks	22	0	0	0	0	0	0	0	0	0
Popular articles	20	0	0	0	0	0	0	0	0	0
Extension Literature	11	0	0	0	0	0	0	0	0	0
Advisory Services	3340	2500	89	2589	700	20	720	40	17	57
Scientific visit to farmers field	378	300	0	300	60	0	60	370	8	378
Farmers visit to KVK	3340	1800	300	2100	950	256	1206	40	20	60
Diagnostic visits	5	10	2	12	1	0	1	3	0	3
Exposure visits	6	97	4	101	49	19	68	8	2	10
Animal Health Camp	1	41	3	44	22	2	24	4	0	4
Krishi mela	3	150000	25000	175000	20000	0	20000	4000	3000	7000
Farmers Scientist interaction	9	315	172	487	68	34	102	18	2	20
Important days celebrated	9	324	182	506	72	26	98	32	21	53
<b>Total</b>	<b>7432</b>	196269	30358	226627	33292	15642	48934	5508	3611	9119

**PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS**

**9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Millets	Foxtail millet	HMT 100-1		2.50	12500.0	-
		SIA-2644		4.95	24750.0	-
Fodder	Fodder Sorghum	CoFS-29	-	0.08	6400.0	-
		COFS-31		0.80	64000.0	-
<b>Total</b>						

**9.B. Production of planting materials by the KVKs:**

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
-	-	-	-	-	-	-
<b>Total</b>						

**9.C. Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Agents	Trichoderma	-	-	-
	Pseudomonas (Powder)	-	-	-
<b>Total</b>		-	-	-

**9.D. Production of livestock materials: Nil**

**PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND  
DROUGHT MITIGATION**

**10. A. Literature Developed/Published (with full title, author & reference)**

<b>Item</b>	<b>Title</b>	<b>Authors name</b>	<b>Number</b>
<b>Research papers</b>			
<b>1</b>	Study of coconut tree climber use efficiency over traditional method in chitradurga district of Karnataka.	Dr. Prakash Kerure, Dr. Sarvajna B. Salimath, Dr. Rudragouda F. Channagouda, Dr. S. Onkarappa	1
<b>Technical reports</b>	Annual Report, Action Plan, ZREP Report, Monthly & Quarterly Report	Dr. Prakash Kerure, Dr. Sarvajna B. Salimath, Dr. Rudragouda F. Channagouda, Dr. S. Onkarappa, Dr. Gajendra T.H & Miss. Kavitha P.Naik	
<b>Technical bulletins</b>			
<b>Popular articles</b>			
	Kallangadi Adayakilla Gadi	Dr. Prakash Kerure	
	Sandrateya besayadinda labha	Dr. Prakash Kerure	
	Kale kaledare erillige eluvarige kale	Dr. Rudragouda F. Channagouda	
	Sirivantike taruva Sevantige	Dr. Prakash Kerure	
	Mavu sandrateya besaya	Dr. Prakash Kerure	
	Nugge belege munnuggi	Dr. Prakash Kerure	
	Irillu besaya kramagalu	Dr. Prakash Kerure	
	Irulli beeja tene koylu	Dr. Prakash Kerure	
	Mavige shakti tumbi	Dr. Prakash Kerure	
	Nirina Samrpaka nirvane	Dr. Sarvajna B. Salimath	
	Krishiyalli panchagavyad gamattu	Dr. Rudragouda F. Channagouda	
	Jala Maripurna vedhana Anivara	Dr. Sarvajna B. Salimath	
	Jola beladare mevice baravilla	Dr. Rudragouda F. Channagouda	
	Kalegal Nirvane	Dr. Rudragouda F. Channagouda	
	Mevige bara baradu	Dr. Rudragouda F. Channagouda	
	Shenga elluvarige aadunik besaya kramagalu	Dr. Rudragouda F. Channagouda	
	Elluvrige jodu salina bittane	Dr. Rudragouda F. Channagouda	

Item	Title	Authors name	Number
	Shenga keeta bhade niyantrisidare laba	Dr. Rudragouda F. Channagouda	
	Shenga bele rogalige upachara	Dr. Rudragouda F. Channagouda	
	Krishige Jeeva Jeevamrutha	Dr. Rudragouda F. Channagouda	
<b>Extension literature</b>			
<b>a) Leaflets/Folders</b>	Dhalimbe hanina mahathva mathu mavlya vardhane	Miss. Bindu B.M ,Dr. Sarvajna B. Salimath, Dr. S. Onkarappa, Mr. Prakash Kerure, Dr. Rudragouda F. Channagouda	
	Parthenium nirmulane- janarinda, janarigagi, janarigoskara	Dr. Sarvajna B. Salimath,Ms. Geethakumari B.N, Miss. Kavitha P.Naik Dr. S. Onkarappa, Mr. Prakash Kerure, Dr. Rudragouda F. Channagouda	
	Hasirele gobbara	Dr. Sarvajna B. Salimath,Ms. Geethakumari B.N, Miss. Kavitha P.Naik Dr. S. Onkarappa, Mr. Prakash Kerure, Dr. Rudragouda F. Channagouda	
	Pariya bele yojane – Chitradurga Jille	Dr. Rudragouda F. Channagouda, Dr. Sarvajna B. Salimath, Dr. S. Onkarappa, Mr. Prakash Kerure	
<b>Newsletter</b>	Krishi Vani -Vol I (April 2016-June2016) Krishi Vani -Vol I (July 2016-Sep 2016)	Dr. Sarvajna B. Salimath, Dr. S. Onkarappa, Mr. Prakash Kerure, Dr. Rudragouda F. Channagouda, Dr. Gajendra T.H, Miss . Kavitha P.Naik, Ms. Geethakumari B.N	

**10.B. Details of Electronic Media Produced: Nil**

**10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).**

### **Success Story 1**

#### **Popularization of Fodder sorghum variety CoFS-29**

##### **1. Background:**

Chitradurga district come under central dry zone of Karnataka and received less and uneven distribution rainfall throughout the year. In this region, dairy is one of the important alternative components for economic security of the farmers. During the last few years, Chitradurga was suffering from the drought seasons which had a large negative impact on dairy farmers. This is severely threatening the availability of fodder for the dairy animals. The fodder productivity was low in this region mainly due to lack of technical knowledge on fodder production and non availability of quality seeds of improved variety. In this background, we have plan to conducted frontline demonstration on popularization of Fodder sorghum variety CoFS-29

##### **2. Intervention Process:**

ased on PRA, cluster village was selected for conducting frontline demonstration on popularization of high yielding fodder sorghum var. CoFS- 29 on large scale

##### **3. Intervention Technology:**

Introduction of high green fodder yielding and drought resistant fodder sorghum variety CoFS-29 Seeds were treated with Azospirillum, PSB and Trichoderma @ 4 g/kg seeds.

**4. Impact Horizontal Spread :** This technology have been spread entire district of Chitradurga. This fodder variety has been growing by around 2500 farmers of Chitradurga district. This technologies was shared with farmers of Chitradurga through trainings, field day, bi-monthly workshop , Krishi meal, radio programme and news paper

**5. Impact Economic Gains :** There will be improve economic status of family and saving fodder cost around Rs. 23215 per year. Due feeding of high palatability green fodder there was increased in a milk yield with tune of 20 per cent over existing practices.

**6. Impact on Employment Generation:** Due intervention of this technology, one member in a family involved in these activities throughout the year and gaining around 360 men or women days which helps for family security

## Success Story 2

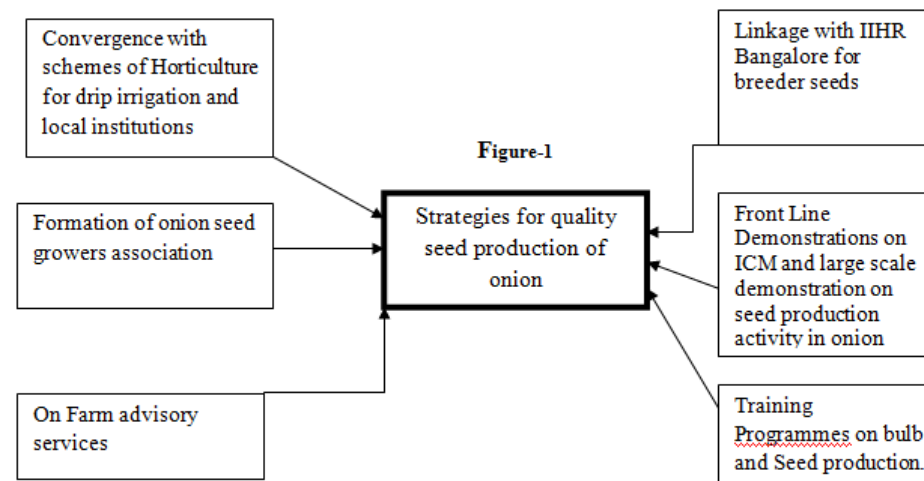
### Onion seed production for self reliance and higher returns

#### 1. Background:

Chitradurga district is located in the Central Dry Zone of Karnataka (Zone IV) with average rainfall of 450-500 mm. Onion is cultivated in an area of 19,193 ha with a productivity of 20 t/ha. However, the potential yield is around 30 t/ha which indicates that there is scope for increasing the productivity and returns. The reasons for lower productivity are poor quality seed material, imbalanced nutrient management and lack of awareness on plant protection measures. From past three years the KVK started seed production activity in onion through FLD and by farmer's participation programme. Since, it is mainly grown for commercial bulb production during Kharif. Very less number of farmers goes for seed production during Rabi season with local varieties. In this contest the KVK helped to farmers for technical interventions on scientific seed productions and self reliance for quality seeds in district.

#### 2. Intervention process:

Based on the constraints faced by the farmers and problems identified by KVK, it was planned to take up quality seeds production through front line demonstrations, trainings and organise field days for wider dissemination of the technology.



### 3. Intervention technology:

- a. **Organization of sensitization and training programmes:** The KVK started assessment of different suitable technologies for correcting the leaf twisting problem during 2008 -09. The results revealed that application of zinc, boron and gypsum reduced the percentage of leaf twisting in onion. In the succeeding years demonstrations were conducted on integrated crop management to improve the bulb yield and during 2012-13 onwards given more emphasis on seed production activity in major onion growing areas of Chitradurga. Apart from importance of seed production and its economics were convinced through District level seminar, work shop and krishi melas. The training programmes on ICM, Nutrient management, weed management and scientific way of seed production activity were conducted with respect FLD's, OFT's and method demonstrations.
- b. **Front line demonstrations:** Onion is major traditional crop of our Chitradurga dist. Initially KVK introduced the Arka Kalyan promising variety of onion in three villages of Hiriyr by conducting large scale front demonstrations in 80 farmer's fields. Since, 2009 to 2016 in different clusters of Chitradurga district to transfer the technology of onion commercial bulb production and seed production activity. Farmers were educated on seed treatment, balanced nutrient management and pest and disease management. Later on the FLDS on integrated crop management in onion were conducted in, 2012-13 and 2013-14 by covering 10 ha in 25 farmer's field. After that by realising importance of quality seeds in onion cultivation, the KVK initially started seed production activity in improved varieties viz., Arka Kalyan and Bhima Super during 2013-15, 2015-16 and 2016-17 in 15 ha through farmer's participation involving 15 farmers.
- c. **Large scale demonstrations under 'seed village programme':** In order to ensure quality seed availability in the district, seed production activity was started with Muddapura village during 2012-13 with eight farmers and around 20 q seed was produced. This seed was spread through KVK by providing market linkage. Seed was spread to neighbouring districts viz., Bellary, Chikkamagaluru and Tumkur. During 2016-17 under UAHS, Shivamogga an innovative programme on participatory seed production activity was taken up to evolve "Seed village". Fifty farmers of Hosakundur village of Hosadurga taluka, Ramagiri village of Holakere taluka and Babbur of Hiriyr taluka took up the seed production activity. Breeder seeds of Arka Kalyan, bio inputs, Yellow Sticky trap as a part of IPM kit, bee hives were given to farmers and various on campuses, off campus training, field visits were made to the demo plot and various advisory services on plant protection and nutrient management were give
- d. **On farm testing's:** Varietal assessment was made to know the performance of different varieties during 2013-14 and 2014-15. Among them Bhima super and Arka Kalyan were found to be promising, based on the it helps to take up large scale seed production programme
- e. **Farmer field school programme:** Farmer Field School was conducted in Basappana Malige, Vaddikere, Beerenehally, Burujinroppa. During 2011-12 under NAIP Project, large scale demonstrations and Farmers Field School Programme was taken up in Basappana Malige, MD Kote and Vaddikere village of Chitradurga. The Farmers field school helped the farmers to understand the relation between biotic and abiotic factors.



- f. **Farm advisory services:** The various advisory services on variety, nutrition, weed management, micro irrigation, integrated pest and disease management, seed production aspects viz, isolation distance, rouging, role of pollinators, seed extraction and storage, packages and formation seed grower association.

#### **4. Impact of Horizontal spread:**

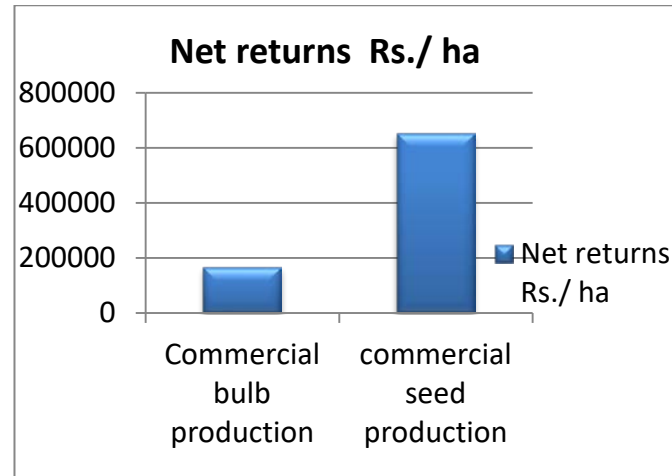
Convergence and linkages with the schemes of line departments and organizations involved in seed production activity, providing micro irrigation system through linkages with State Horticulture Departments, National Horticultural Mission and Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP). KVK also developed linkages with Non-Government organisations viz., MYRADA, and GRAMA for promotion seed production activity by technical support and farm advisories. Nearly the seed spread over 200 ha in entire Chitradurga district.

#### **5. Impact of economics gain:**

The total 50 farmers were taken for seed production at 50 acre during 2016-17. The seed yield was 10 q/ha. On an average 200q of seed yield was gained from entire village with an economic value if they sold at minimum of Rs. 1000/kg it may be estimated around Rs. 2,00,00,000 worth.

#### **6. Impact of employment generation:**

Seed production techniques and quality seed production high value vegetable seed like onion helps to higher net returns and that makes more of farmers especially youths are interested to take up large seed production in their respective villages makes additional employment generation throughout the year as the seed production in onion makes farmers to engage 8-10 months in field. Thus it helps to generation of employment to family members of farmer. It also helps to farmers of Chitradurga district for self-reliant of quality seeds and timely availability at their local region by reducing the risk to purchase of seeds from neighboring state.



### Success Story 3:

#### “Smt. Mahantamma: An Empowered Woman”

##### Introduction:

Smt. Mahantamma C/O Siddappa, Hemadala tq., Chitradurga district represented voice of woman in farming. Rural youths of small and marginal family migrating towards urban and semi-urban areas with the aspiration of white collar jobs. As a rare instance, being a woman Smt. Mahantamma enlightened farming community by adopting integrated farming system in one acre land.

##### Technology Intervention:

KVK, hiriyur assisted Smt. Mahantamma to adopt Integrated farming system. Wise integration of agriculture components makes farming a profitable venture. Since suggested to grow Pomegranate- 16 gunta, Finger Millet -8 gunta, Jasmine- 6 gunta, Fodder crops – 5 gunta. Remaining area is used for Cattle yard, Vermincompost unit, Biogas plant and Azolla unit. All along the border Red sandal- 10 Nos., Silver Oak- 80 Nos., Teak-10, Melia Dubia-45 Nos., Drumstick- 4 Nos. and Sapota- 10 Nos was planted. Animal husbandry is most associated and profitable component of IFS. Since, she is rearing 2 crossbred cattle and earning 10,000 per month. Rearing of cattle also helped in bio-fuel production and vermin compost preparation. Installation

of 8 apiculture boxes in the field helped in getting comparatively higher yield due to higher rate of pollination. It was also given importance on soil and water conservation because water is the major limiting resource. Since, she is using micro irrigation method (drip and sprinkler irrigation).

**Economic gain:**

Integrated farming system method of farming helped her to earn more than 4,00,000 rupees annually within one acre of land. In one acre land she is living self sustained, prosperous, secured, independent and socially respectable life. If every woman thinks and plays role like this there is no need of woman empowerment and gender equality measures at policy level.

**Employment generation:**

Due to intervention of integrated farming system helped to generate one complete man and women day of Employment.

**10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year: Nil**

10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Irrigated crops	Keeping water bowls nearer drip irrigation system	To avoid damage by rodents
2	Fruit crops	Beating drums for scaring birds	To avoid fruit damage caused by birds
3	Perennial crops	Keeping percolated water cans for managing water scarcity	To provide consistent water supply

**10.F. Indicate the specific training need analysis tools/methodology followed for**

- Identification of courses for farmers/farm women: PRA tools: Problem tree and transect.
- Rural Youth : PRA tools

**10.G. Field activities**

- i. Number of villages adopted : 1
- ii. No. of farm families selected: 124
- iii. No. of survey/PRA conducted: FLD on fodder, Finger Millet and Groundnut were conducted, animal health camp conducted

**10.H. Activities of Soil and Water Testing Laboratory**

Status of establishment of Lab : Established

- 1. Year of establishment : January 2006
- 2. List of equipments purchased with amount :nil

**Details of samples analyzed so far since establishment of SWTL:**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
<b>Soil Samples</b>	12538	10917	6966	445540
<b>Water Samples</b>	11417	10308	6602	814460
<b>Total</b>	<b>23955</b>	<b>21225</b>	<b>13568</b>	<b>1260000</b>

**Details of samples analyzed during the 2016-17 :**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
<b>Soil Samples</b>	1541	1435	1008	77050
<b>Water Samples</b>	1429	1373	909	142900
<b>Total</b>	<b>2970</b>	<b>2808</b>	<b>1917</b>	<b>219950</b>

**10.I. Technology Week celebration during 2016-17 Yes/No, : Yes**

Period of observing Technology Week: 19/12/2016 to 29/12/2016

Total number of farmers visited : 392

Total number of agencies involved : 4

Number of demonstrations visited by the farmers within KVK campus : 7

**Other Details**

<b>Types of Activities</b>	<b>No. of Activities</b>	<b>Number of Farmers</b>	<b>Related crop/livestock technology</b>
Gosthies	1	392	Integrated farming for sustainable livelihood
Lectures organized	7	392	Pulses for Soil health and livelihood, Exhibition Quality pomegranate production through ICM Dairy farming and income generation activities Millet based farming system for nutrition and economic security Participatory seed production activities in Onion, Education tour , Exposure visit to IFS plot Role of honey bees in onion seed production Value addition in horticulture crops
Exhibition	1	392	Value added products and informative charts on Agri. And horti. crops
Film show	3	392	Sheep and goat farming, Onion seed production tree based farming
Fair			
Farm Visit	2	50	
Diagnostic Practical's			
Supply of Literature (No.)	250	250	Soil health management , Value addition , Fodder cultivation, Pomegranate production
Supply of Seed (q)	-	-	
Supply of Planting materials (No.)	-	-	
Bio Product supply (Kg)	-	-	
Bio Fertilizers (q)	-	-	
Supply of fingerlings	-	-	
Supply of Livestock specimen (No.)	-	-	
Total number of farmers visited the technology week		<b>392</b>	

**10. J. Interventions on drought mitigation (if the KVK included in this special programme):** Contingent Crop plan shared with extension officials during bi and tri monthly meetings.

## **PART XI. IMPACT**

**11.A. Impact of KVK activities (Not to be restricted for reporting period).**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./ha)	After (Rs./ha)
Seed production of Onion	40	100	350000	650000
INM in Banana	30	70	300000	450000
ICM in Pomegranate	430	80	800000	1200000

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

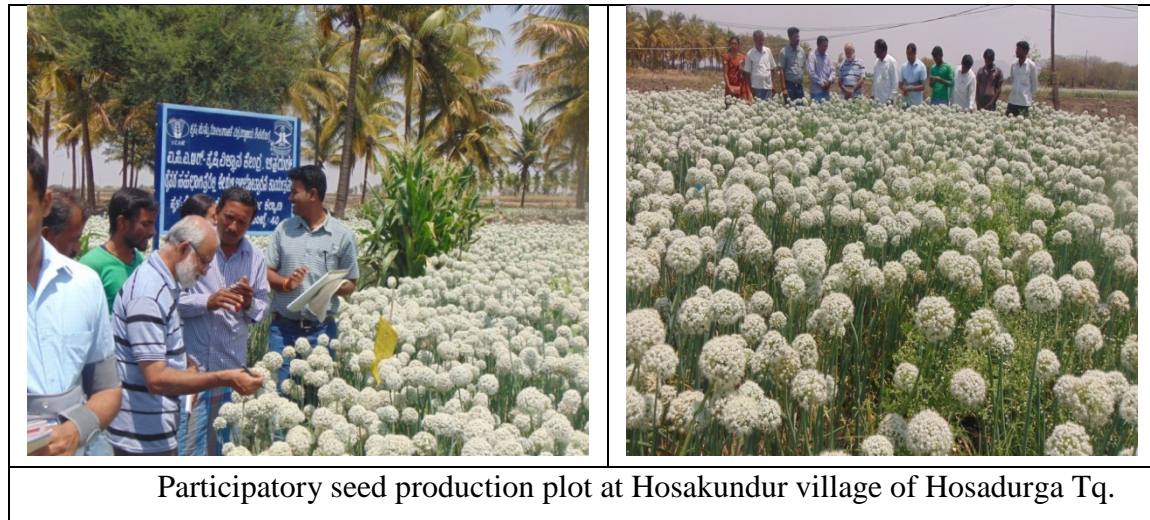
### **11.B. Cases of large scale adoption**

1. Onion seed production
2. INM in banana
3. ICM in Pomegranate
4. Spread of COFS-31 and COFS-29 Fodder Sorghum variety in the district
5. Spread of Foxtail millet variety (HMT-100-1 and SIA- 2644)

### **11.C. Details of impact analysis of KVK activities carried out during the reporting period:**

#### **1. Farmers Participatory Seed Production in Onion**

The onion is an important vegetable crop of Chitradurga dist and availability of quality seed is limiting factor. Hence, KVK chitraduegaa conducted demonstration on farmers' participatory seed production of onion variety Bhima Super by involving 5 farmers in 2 ha at Hosakundur village of Hosadurga Tq. In *kharif* season produced bulbs and seed production during *Rabi* season. It was compared the seed production with commercial bulb production. The economics were calculated. There was a high net return in seed production of Rs. 6, 87,600.00 to commercial bulb production of Rs. 1, 81,000.00 and High benefit cost ratio of 3.75. Farmers expressed the seed production gave high returns compared with commercial bulb production.

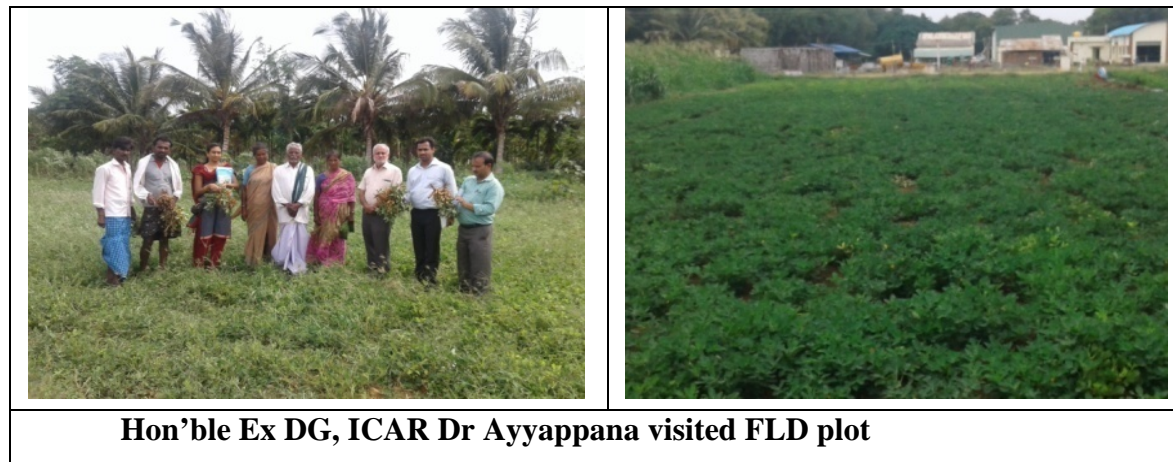


2. **Improved Management practices for higher yield in Banana:** Bunch yield of banana in the demonstration plot at Katanayakanahally and Beerenahally of Hiriyur tq. were better .Bunch yield raised from 15-20 kg per plant were as in control plot it was 8-10 kg



### 3. Integrated crop management in groundnut:

In groundnut crop, the demo plot (GKVK-5 with improved production practices) recorded higher plant height (64.5 cm), number of branches (11.6), number of pods per plant (37), 100 seed weight (29.9 g), shelling per cent (69.5 %), pod weight per plant (21.6 g), pod yield (1885 kg/ha), net returns (Rs. 47199 /ha.), B:c ratio (2.63) respectively, over check plot. Similarly, incidence of pest and diseases were lower in demo plot as compared to check plot



**Hon'ble Ex DG, ICAR Dr Ayyappana visited FLD plot**

### 4. Integrated Crop Management in Watermelon

The watermelon is very important vegetable crop growing during summer season. The ICM technologies were adopted in 5 ha by involving 12 farmers at Kariobanahalli of Hiriyur Tq. Technologies demonstrated by micronutrient spraying of Arka vegetable special at the rate 1.0 gram per liter of water. The number of fruit set was more on demo plot is 4.3, reduced fruit split of 1.1% high yield 37.47 t/ha compared with Check plot yield of 31.8 t/ha and reduced fruit set of 2.2. There was 15.13% increased over yield compared to check with high net returns of Rs. 2, 16, 510.00 and BCR of 3.6. The farmers were expressed that 12-15% extra yield with good qualities.





**Water melon field day at Kariobanahalli, Hiriyyur**

- 5. Popularization of fodder Sorghum variety:** In fodder module, demo plot recorded higher fodder yield (46.8 t./ha), palatability (90.1 per cent), net returns (Rs. 15225 /ha), B:C ratio (2.22) over check plot. However, demo plot recorded 26 per cent higher fodder yield over check.



**Field day on Fodder crop**

**6. Introduction ML-365 Finger millet variety for higher yield :**

Among these two plots, demo plot (ML-365 with improved production practices) recorded higher plant height (112.5 cm), number of tillers per plant (5.4), number of fingers per plant (11.0), ear length (8.8 cm), 1000 seed weight (25.8 g), yield (28.9 q/ha) with tune of 28.4 per cent, net returns (Rs. 27595/ha), B:C ratio (2.38) respectively, over check plot. However, demo plot recorded lower incidence of neck blast (0.0 per cent) over check plot (24.5 per cent).



**Field day on Finger millet**

## 7. Integrated farming system:

“Smt. Mahantamma: An Empowered Woman” “Woman with a voice by definition a strong woman. But the search to find that voice can be remarkable difficult” – Milinda Gates Smt. Mahantamma C/O Siddappa, Hemadala tq., Chitradurga district represented voice of woman in farming. Rural youths of small and marginal family migrating towards urban and semi-urban areas with the aspiration of white collar jobs. As a rare instance, being a woman Smt. Mahantamma enlightened farming community by adopting integrated farming system in one acre land. KVK, hiriyr assisted them to adopt IFS. She believes in “Wise integration of agriculture components makes faming a profitable venture”. Since she is growing Pomegranate- 16 gunta, Finger Millet -8 gunta, Jasmine- 6 gunta, Fodder crops – 5 gunta. Remaining area is used for Cattle yard, Vermincompost unit, Biogas plant and Azolla unit. All along the borders, she has planted Red sandal- 10 Nos., Silver Oak- 80 Nos., Teak-10, Melia Dubia-45 Nos., Drumstick- 4 Nos. and Sapota- 10 Nos. She is much aware of animal husbandry is most associated and profitable component of IFS. Since, she is rearing 2 crossbred cattle and earning 10,000 per month. Rearing of cattle also helped in bio-fuel production and vermin compost preparation. Installation of 8 apiculture boxes in the field helped in getting comparatively higher yield due to higher rate of pollination. She also gave importance on soil and water conservation because water is the major limiting resource. Since, she is using micro irrigation method (drip and sprinkler irrigation). Integrated farming system method of faming helped her to earn more than 4,00,000 rupees annually within one acre of land. In one acre land she is living self sustained, prosperous, secured, independent and socially respectable life. If every woman thinks and plays role like this there is no need of woman empowerment and gender equality measures at policy level. UAHS, Shimoga identified Smt. Mahantamma’s efforts on successful adoption of farm university technologies at field level.



**Hon'ble former DG, ICAR Dr Ayyappana visited FLD plot**

### **8 Assessment of foxtail millet varieties for higher yield:**

Among the two varieties, SIA-2644 recorded higher plant height (100.2 cm), panicle length (22 cm), weight per panicle (11.8 g), seed weight per panicle (7.5 g), grain yield ( 14.4 q/ha), fodder yield (28.7 q/ha) , net returns (Rs. 22744 /ha) and B:C ratio (2.73) respectively, over HMT-100-1 (76.2 cm, 18.2 cm, 9.6 g, 6.4 g, 11.4 q/ha, 25.3 q/ha, Rs. 16830 /ha and 2.44, respectively). Lower yield recorded in farmers practice. The magnitude of yield increased over farmer practice was 48.5 per cent.



**Scientists interaction with farmers**

**PART XII - LINKAGES**

**12.A. Functional linkage with different organizations**

<b>Name of organization</b>	<b>Nature of linkage</b>
Department of Agriculture, Chitradurga	<ul style="list-style-type: none"> <li>• Extension activities(conducting <i>Kharif</i> Campaigns , seminars, workshops) , Large scale demonstration , Agri. Inputs .</li> <li>• Transfer of technologies through extension functionaries for large scale adoption</li> </ul>
Department of Horticulture, Chitradurga	<ul style="list-style-type: none"> <li>• Extension activities(conducting <i>Kharif</i> Campaigns , seminars, workshops) , Large scale demonstration , Horti. inputs.</li> <li>• Transfer of technologies through extension functionaries for large scale adoption</li> </ul>
AIR Chitradurga	Dissemination of technology through radio programmes , farm advisories, forecast
Karnataka Agriculture price commission	Pilot project on enhancement of farmers income through IFS approach
NABARD	Technologies transferred to FPO's of Chitradurga (Coconut and onion)
Animal Husbandry	Conducting animal health camp and trainings
Department of forestry	Awareness trainings and Vanamahostava

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

**12.B. List Externally Funded Projects / schemes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies**

Name of the scheme	Role of KVK	Date/ Month of initiation	Funding agency	Amount (Rs.)
IFS	Implementing intuition	9/4/2016	UAHS(S)	30000
Village Adoption	Implementing intuition	1/4/2015	UAHS(S)	100000
NFSM	Implementing intuition	1/4/2016	ICAR	123000
Participatory seed Production activity in onion	Implemented intuition	6/12/2016	UAHS(S)	400000
Pulse Production Intensification	Implementing intuition	6/15/2016	UAHS(S)	250000
Demonstration of managing the pests/diseases through crop management practices in Pomegranate	Implemented intuition	8/10/2016	UAHS(S)	2000000
Value addition on food (Agri/Horti.) Crops	Implementing intuition	1/31/2017	UAHS(S)	500000

**12.C. Details of linkage with ATMA**

a) Is ATMA implemented in your district :No

**12.D. Give details of programmes implemented under National Horticultural Mission:**

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
1	Disease Forecast	IMD Pune for weather forecast	102497	26400	-
2	Field visits	Pest and disease Surveyaance with DoA			
3	Trainings	Resource persons in Dept. Trainings and seminars			
		TOTAL	102497	26400	-

12.E. Nature of linkage with National Fisheries Development Board : Nil

12.F. Details of linkage with RKVY : Nil

12. G Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2016	-	-	-
May	-	-	-
June	4	10150	-
July	3	10350	-
August	-	-	-
September	2	10200	-
October	3	10300	-
November	4	10300	-
December	-	-	-
January 2017	1	10700	-
February	4	11300	-
March 2017	2	11200	-
<b>Total for the year 2016-17</b>	<b>23</b>		-

**PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK**

13.A. Performance of demonstration units (other than instructional farm):

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Breed	Produce	Qty.	Cost of inputs	Gross income	
-	-	-	-	--	-	-	-	-	-

**13.B. Performance of instructional farm (Crops) including seed production**

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Foxtail millet	4/7/16	15-10-2016	1.0014	HMT 100-1	Seed	2.50	8250.0	12500.0	
	4/7/16		1.0014	SIA-2644	Seed	4.95	14500.0	24750.0	
Fodder Sorghum	5/7/16	10-9-2016	0.00175	CoFS-29	Seed	0.08	3100.0	6400.0	
	23/7/16		0.00175	COFS-31	Seed	0.80	41000.0	64000.0	

**13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.):Nil****13.D. Performance of instructional farm (livestock and fisheries production) :Nil****13.E. Utilization of hostel facilities: Nil**

Accommodation available (No. of beds): 25 beds

**13.F. Database management**

S. No	Database target	Database created
1	Farmers database	Created
2	SMS farmers database	Created
3	Soil and water testing	Created
4	Crop wise farmers	Created
5	Soil water analysis data	Created

**13.G. Details on Rain Water Harvesting Structure and micro-irrigation system:**

Sprinkler and drip irrigation system established for 1 ha land of IFS unit

**PART XIV - FINANCIAL PERFORMANCE****14.A. Details of KVK Bank accounts**

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
Current	Canara Bank	Hiriyur	867	KVK General	0867101024602	572015302	CNRB0000867
Current	Canara Bank	Hiriyur	867	Revolving fund	0867101024962	572015302	CNRB0000867

**14.B. Utilization of KVK funds during the year 2016-17 (Rs. in lakh)**

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	41.50	1 <sup>st</sup> 15.84	69.11
2	Travelling allowances	1.50		1.50
3	<b>Contingencies</b>	<b>12.98</b>		<b>14.2</b>
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	3.50		6.34
B	POL, repair of vehicles, tractor and equipments	2.45		2.46
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.00	2 <sup>nd</sup> 22.86	0.98
D	Training material	0.50		0.32
E	Frontline demonstration except oilseeds and pulses	2.86		2.75
F	NFSM (FLD)	-		-
G	On farm testing	0.32		0.03
H	Training of extension functionaries	0.25		-
I	Maintenance of buildings	0.50		0.42
J	Extension Activities	0.30		0.21
k	Library	0.10	3 <sup>rd</sup> 1.62	0.06
l	FFS	0.30		0.29
K	IFS	0.30		0.24
L	Soil & water testing & Issue of Soil health cards	0.50		-
M	Display Boards	0.10		0.10
<b>TOTAL (A)</b>		<b>55.98</b>	<b>40.32</b>	<b>84.81</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			-
2	<b>Equipments including SWTL &amp; Furniture</b>	3.00	-	4.24
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)	8.00	-	-
4	<b>Library</b> (Purchase of assets like books & journals)	-	-	-
<b>TOTAL (B)</b>		<b>11.00</b>		<b>4.24</b>
<b>C. REVOLVING FUND</b>		-		-
<b>GRAND TOTAL (A+B)</b>		<b>66.98</b>	<b>40.32</b>	<b>89.05</b>



**14.C. Status of revolving fund (Rs. in lakh) for the three years**

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2014 to March 2015	11.11	6.52	5.51	12.12
April 2015 to March 2016	12.12	6.48	4.10	14.50
April 2016 to March 2017	14.50	11.93	12.71	13.72

**Revolving Fund Receipt and expenditure statement during the year 2016-17**

Particulars		Receipt	Expenditure	Net Income during 2016-17	Closing Balance 2016-17
<b>I</b>	<b>Bio Inputs</b>	8.29	7.50	some credit bills are pending hence RF income is decreased	13.72
	Trichoderma				
	Pseudomonas				
	PSB				
	VAM				
<b>II</b>	<b>Micro Nutrients</b>				
	Banana Special				
	Citrus Special				
	Mango Special				
<b>III</b>	<b>Onion Arka Kalyan (Breeder seeds)</b>	2.14	2.14		
<b>IV</b>	Soil & Water	1.50	3.07		
<b>V</b>	Maintenance of KVK plots & expenditure & AAS Lab electrical works charges etc	11.93	12.71	(-) 0.78	13.72

**15. Details of HRD activities attended by KVK staff during 2016-17:**

<b>Name &amp; Designation</b>	<b>Title of the Programme</b>	<b>Duration</b>	<b>Place</b>
Dr. Prakash Kerure , Scientist (Horticulture)	Strategic Research and Extension Plan (SREP)	4 days	UAS, GKVK, Hebbal
Dr. Gajendra T.H, Scientist (Agri. Extension )	Commercial dairy farming	30 days	NDRI, Haiyana

**SUMMARY FOR 2016-17****I. TECHNOLOGY ASSESSMENT****II. Summary of technologies assessed under various crops :**

<b>Thematic areas</b>	<b>Crop</b>	<b>Name of the technology assessed</b>	<b>No. of trials</b>
Varietal Evaluation	Foxtail millet	Assessment of foxtail millet varieties for higher yield	2
Seed production	Onion	Varietal Assessment in Onion For Higher Yield in Rabi Season	2

**Summary of technologies assessed under livestock: NIL**

**Summary of technologies assessed under various enterprises: NIL**

**Summary of technologies assessed under home science: NIL**

**II. TECHNOLOGY REFINEMENT**

**Summary of technologies refined under various crops: NIL**

**Summary of technologies assessed under refinement of various livestock : NIL**

**Summary of technologies refined under various enterprises : NIL**

**Summary of technologies refined under Home Science : NIL**

### III. FRONTLINE DEMONSTRATION

#### Crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Finger millet	ICM	Introduction ML-365 Finger millet variety for higher yield	1	10	4	17.4	13.7	27.7	-	-	18262	60932	42670	3.33	16074	47789	31715	2.97
Groundnut	ICM	ICM in groundnut	1	5	2	16.98	12.81	32.5	-	-	29812	71672	41860	2.40	25346	54033	28687	2.13
Fodder sorghum	Variety introduction	Popularization of fodder sorghum var. CoFS-29	1	10	1	896	746	20.1	-	-	12607	35822	23215	2.84	12050	29844	17794	2.48
Onion	Seed/Plant Production	Seed Production in onion for self reliance	1	5	2	9.31 t/ha (Seed yield)	25.74 t/ha (Bulb yield)	-	-	-	221000	915200	652700	4.13	98500	257400	167100	2.84
Watermelon	ICM	Integrated crop management in watermelon	1	12	5	37.5 t/ha	30.8 t/ha	15.13	-	-	82,750	300580	217788.	4.0	74,477	246400	172296	3.3
Arecanut	ICM	Integrated crop management in Arecanut	1	5	2	14.89	11.43	30.63	-	-	102616	387192	284576	3.78	93880	297180	203300	3.20
Coconut	ICM	Integrated crop management in Coconut	1	5	2	94(nuts/ha)	77	22.36	-	-	46621	78960	32339	1.72	49340	64848	13508	1.33
Red gram	IPM	Integrated crop management in Redgram	1	25	10	3.54	2.86	26.06	-	-	19404	14140	-5264	0.72	18188	11440	-6748	0.62
Bengalgram	IPM	Integrated crop management in Bengalgram	1	25	10	9.2	7.39	24.54	-	-	21180	52440	31260	2.45	20120	42095	21975	2.08
Banana	Integrated Nutrient Management	Improved Management practices for higher yield in Banana	1	11	4.4	180	137	31.5	-	-	180316	548772	368456	2.51	187377	402172	214795	1.77
Pomegranate	Integrated Disease Management	Integrated management of Bacterial blight in Pomegranate	1	5	2.5	104.9	79.2	32.58	-	-	15530	734580	579580	5.27	112000	554400	442400	4.99

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Livestock : NIL**

**Fisheries : NIL**

**Other enterprises**

**Women empowerment: Nil**

**Farm implements and machinery : Nil**

**Other enterprises**

**Demonstration details on crop hybrids :Nil**

#### IV. Training Programme

Training for Farmers and Farm Women including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Cropping Systems	11	226	54	280	64	38	102	290	92	382
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	9	176	11	187	48	5	53	224	16	240
Off-season vegetables	1	11	0	11	0	0	0	11	0	11
Fruit crop	1	17	0	17	0	0	0	17	0	17
<b>Soil Health and Fertility Management</b>										
Integrated water management	6	109	17	126	11	6	17	120	23	143
Integrated nutrient management	7	139	56	195	18	5	23	157	61	218
<b>Livestock Production and Management</b>										
Dairy Management	1	20	0	20	0	0	0	20	0	20
<b>Home Science/Women empowerment</b>										
Value addition	5	97	63	160	29	7	36	126	70	196
<b>Plant Protection</b>										
Integrated Pest Management	8	203	67	270	10	15	25	213	82	295
Integrated Disease Management	4	139	2	141	13	3	16	152	5	157
<b>Capacity Building and Group Dynamics</b>										
Entrepreneurial development of farmers/youths	5	63	69	132	0	0	0	0	0	132
<b>TOTAL</b>	<b>58</b>	<b>1200</b>	<b>339</b>	<b>1539</b>	<b>193</b>	<b>79</b>	<b>272</b>	<b>1330</b>	<b>349</b>	<b>1811</b>



**Training for Rural Youths including sponsored training programmes (off campus): Nil**

**Training programmes for Extension Personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	6	217	26	243	0	0	0	217	26	243
Nutrient Management	4	96	27	123	0	0	0	96	27	123
Nursery	1	32	0	32	12	0	12	54	0	54
<b>Total</b>	<b>11</b>	<b>345</b>	<b>53</b>	<b>398</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>367</b>	<b>53</b>	<b>420</b>

**Training programmes for Extension Personnel including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Sponsored training programmes**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
	-	-	-	-	-	-	-	-	-	-	

**Details of Vocational Training Programmes carried out for rural youth**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
5	Nursery Management of Horticulture crops	1	9	4	13	11	3	14	20	7	27
5.b.	Entrepreneurship through value addition	1	15	0	15	0	0	0	15	0	15
	<b>TOTAL</b>	<b>2</b>	<b>9</b>	<b>19</b>	<b>28</b>	<b>11</b>	<b>3</b>	<b>14</b>	<b>20</b>	<b>23</b>	<b>42</b>

### V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Field Day	13	552	5	557
Exhibition	7	63100	1360	64460
Film Show	80	2912	2	2914
Method Demonstrations	19	361	7	368
Farmers Seminar	2	325	7	332
Workshop	7	1347	66	1413
Group meetings	32	500	6	506
Lectures delivered as resource persons	62	3046	81	3127
Popular articles	20	0	0	0
Advisory Services	3340	3309	57	3366
Scientific visit to farmers field	378	360	378	738
Farmers visit to KVK	3340	3306	60	3366
Diagnostic visits	5	13	3	16
Exposure visits	6	169	10	179
Animal Health Camp	1	68	4	72
Krishi mela	3	195000	7000	202000
Farmers Scientist interaction	9	589	20	609
Important days celebrated	9	604	53	657
<b>Total</b>	<b>7432</b>	<b>275561</b>	<b>9119</b>	<b>284680</b>

#### Details of other extension programmes

Particulars	Number
Extension Literature	11
News Letter	2
News paper coverage	66
Technical Reports	9
Radio Talks	22
TV Talks	2
Animal health amps (Number of animals treated)	700
<b>Total</b>	<b>812</b>



## VI. PRODUCTION OF SEED/PLANTING MATERIAL

### Production of seeds by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers
Millets	Foxtail millet	HMT 100-1	2.50	12500.0	-
		SIA-2644	4.95	24750.0	-
Fodder	Fodder Sorghum	CoFS-29	0.08	6400.0	-
		COFS-31	0.80	64000.0	-

Production of planting materials by the KVKs: Nil

Production of Bio-Products: Nil

Production of livestock and related enterprise materials: Nil

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2013-14

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	1541	1435	1008	77050
Water	1429	1373	909	142900
<b>Total</b>	<b>2970</b>	<b>2808</b>	<b>1917</b>	<b>219950</b>

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted : Nil

## IX. NEWSLETTER

Number of issues of newsletter published : Two

## X. RESEARCH PAPER PUBLISHED

Number of research paper published

one

## XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
-	-	-	-	-

-----XXXXXXXX-----