

7.1 ORGANIZATION

The All India Coordinated Project on Use of Saline Water in Agriculture was first sanctioned during the IVth Five Year Plan under the aegis of Indian Council of Agricultural Research, New Delhi at four research centres namely Agra, Bapatla, Dharwad and Nagpur to undertake researches on saline water use for semi-arid areas with light textured soils, arid areas of black soils region, coastal areas and on the utilization of sewage water respectively. During the Fifth Five Year plan, the work of the project continued at the above four centres. In the Sixth Five Year Plan, four centres namely Kanpur, Indore, Jobner and Pali earlier associated with AICRP on Water Management and Soil Salinity were transferred to this Project whereas the Nagpur Centre was dissociated. As the mandate of the Kanpur and Indore centres included reclamation and management of heavy textured alkali soils of alluvial and black soil regions, the Project was redesignated as All India Coordinated Research Project on Management of Salt Affected Soils and Use of Saline Water in Agriculture. Two of its Centres located at Dharwad and Jobner were shifted to Gangavati (w.e.f. 01.04.1989) and Bikaner (w.e.f. 01.04.1990) respectively to work right at the locations having large chunks of land afflicted with salinity problems. During the Seventh Plan, Project continued at the above locations. During Eighth Five Year Plan, two new centres at Hisar and Tiruchirappalli were added. These Centres started functioning from 1 January 1995 and 1997 respectively. Further, during Twelfth Five Year Plan, four new Volunteer centres namely Bathinda, Port Blair, Panvel and Vyttila were added to this AICRP. These four centres started functioning from 2014. During XI Plan, Project continued with an outlay of Rs. 2125.15 lakh at these centres with the Coordinating Unit at Central Soil Salinity Research Institute, Karnal. The total outlay of the XII plan is fixed at Rs. 4638.67 lakh including the state share of Rs. 963.67 lakh. The centre wise mandate of the project is as follows:

7.2 MANDATES FOR COOPERATING CENTRES

Main Centre	Mandate
Agra	<ol style="list-style-type: none">1. Water quality limits in relation to cropping system2. Develop strategies for conjunctive use of saline and canal water3. Improving the nutrient use efficiency in saline environment4. Improved irrigation techniques and salt water management5. Rain water management for salinity control6. Alternate land use through agro-forestry and horticulture7. Operational research for saline water use
Bapatla	<ol style="list-style-type: none">1. Water quality and soil surveys and monitoring of benchmark sites2. Crop water production functions with saline water in coastal sands3. Water quality limits with improved irrigation technologies4. Improved DorouV technology5. Upcoming problems of sea water in coastal sandy soils6. Fertility management of saline coastal sandy soils.7. Operational research on dorouV technology/saline water use8. Reclamation of abandoned aqua ponds
Bikaner	<ol style="list-style-type: none">1. Water quality surveys2. Salt and water balance in gypsiferous soils of the IGNP Command3. Irrigation management for saline water use4. Drainage for control of salinity and water logging5. Develop practices for use of nitrate and fluoride rich waters6. Nutrient management of saline gypsiferous soils
Gangavati	<ol style="list-style-type: none">1. Ground water quality surveys2. Performance evaluation of drainage system in T.B.P. command3. Reuse of drainage effluents/conjunctive use4. Drainage requirement of crops in saline black soils5. Performance of tree species in saline black soils including bio-drainage6. Organic materials for improving productivity of saline soils7. Tolerance of medicinal and aromatic plants to soil salinity8. Reclamation of rain fed alkali lands

Hisar	<ol style="list-style-type: none"> 1. Ground water quality surveys 2. Conjunctive use of canal and saline ground/drainage waters 3. Water production functions under salt stress conditions 4. Water quality guidelines for sprinklers/drip systems 5. Modelling crop yields under salt stress and strategies for mitigation 6. Management of alkali water for vegetable production
Indore	<ol style="list-style-type: none"> 1. Ground water and soil surveys 2. Management of heavy textured alkali soils 3. Crop water production functions for alkali black soils 4. Develop parameters for incorporating the effect of Cl/SO₄, Mg/Ca and SAR on sodification and soil permeability 5. Hydrosalinity modelling in Omkeshwar Command 6. Alternate land use of alkali black soils for agro-forestry 7. Tolerance of medicinal and aromatic plants to soil alkali stress 8. Management of wastewaters
Kanpur	<ol style="list-style-type: none"> 1. Water treatment techniques for use of alkali water 2. Conjunctive use of alkali and canal water 3. Performance of tree species in alkali soils 4. Fertility management under conditions of alkali water use 5. Soil/ land/ water resource inventories in Ramganga/Sharda Sahayak Command 6. Resource conservation technologies for alkali soils 7. Salt tolerance studies on crop cultivars
Tiruchirappalli	<ol style="list-style-type: none"> 1. Ground water quality surveys of Tamil Nadu 2. Mitigation strategies for adverse effects of salts on soil and crops 3. Conjunctive use of poor quality ground and canal waters 4. Survey of poor quality ground waters and salt affected soils 5. Alternate land use of salt-affected soils through agro-forestry 6. Multi-enterprise agriculture for higher income 7. Use of Distillery Spent wash for alkali land and water reclamation
Net work trials	<ol style="list-style-type: none"> 1. Identification of appropriate cultivars of crops for saline/alkali environments in different agro ecological regions 2. Water quality/salt affected soil resource inventories/mapping
Coordinating Unit	<ol style="list-style-type: none"> 1. Developing guidelines on use of saline water 2. Use of saline water in agro-forestry 3. Modeling salt and water transport and crop response in saline environment 4. Generating chemical/physical parameters for computers models 5. Management of domestic and industrial wastewaters 6. Bio-drainage and wastewater disposal strategies 7. Management of adhoc projects approved by the council
Volunteer Centre	Mandate
Bathinda	<ol style="list-style-type: none"> 1. Monitoring of ground water quality for irrigation purpose 2. Exploring land-water management options for crop cultivation in water logged salt affected areas
Panvel	<ol style="list-style-type: none"> 1. Assessment of soil properties of coastal region 2. Development of IFS model 3. Assessment of ground water qualities 4. Suitability of saline water for irrigation
Port Blair	<ol style="list-style-type: none"> 1. Assessment of ground water quality and soil salinity status of A& N Islands 2. Isolation and characterization of microbes to enhance crop performance under saline environment 3. Evaluation of alternate land management options
Vyttila	<ol style="list-style-type: none"> 1. Survey, characterization and mapping of ground water quality in the coastal areas of Kerala 2. Delineation and mapping of salt affected soils in the coastal areas of Kerala 3. Integrated farming system for sustainable land use in Pokkali lands

7.3 STAFF POSITION

STAFF POSITION AT THE COOPERATING CENTRES

XI plan	Agra	Bapatla	Bikaner	Gang- avati	Hisar	Indore	Kanpur	Tiruchir- appalli	Total
Scientific	2	4	3	4	3	4	4	4	28
Technical	5	5	4	5	2	5	5	4	35
Administrative	1	1	1	1	0	1	1	1	07
Supporting	1	2	1	2	1	1	2	2	12
Total	9	12	9	12	6	11	12	11	82

POST WISE STAFF POSITION AS ON 31.03.2016

Name of the post	Coordinating Unit, Karnal	Centres							
		Indore	Kanpur	Bikaner	Agra	Bapatla	Ganga- vati	Tiruch- irapalli	Hisar
Project									
Coordinator	1	-	-	-	-	-	-	-	-
Soil Scientist	1	-	-	1	-	1	-	-	-
Soil Chemist	-	1	1	1(1)	1(1)	-	-	1	1
Agronomist	1	-	-	-	-	-	-	-	-
Drainage Engineer	-	1	-	-	-	-	-	-	-
Soil Physicist	1(1)	-	1	-	-	-	-	-	-
Jr. Soil Chemist	1(1)	1(1)	-	1(1)	1(1)	1	1	1	1
Jr. Soil Physicist	-	1	-	-	1	-	-	-	-
Jr. Drainage Eng.	-	-	-	1	-	1	1	-	-
Soil Water Eng.	-	-	-	-	-	1(1)	1	1	1
Jr. Plant Physio.	-	-	1	-	-	-	-	-	-
Jr. Agronomist	-	-	-	1	1	1	1	1	1
Jr. Soil Survey Officer	-	1	1	-	-	-	-	-	-
Tech. Officer	2	-	-	-	-	-	-	-	-
STA	-	2(1)	3	-	2	-	-	-	-
Overseer	-	-	1	-	-	-	-	-	-
Lab. Tech.	1(1)	-	-	-	-	-	-	-	-
Tracer	--	-	-	-	-	-	-	-	-
Field Asstt.	-	1	-	1	2(1)	1	1	1	1
Fieldman	-	1	-	-	-	-	-	-	-
Lab. Asstt.	1(1)	1	1	1	1	2	1	1	1
UDC	1(1)	1	1	1	1	1	1	1	1(1)
Jr. Steno.	1(1)	-	-	-	-	-	-	-	-
Jeep Driver	-	1	1	1(1)	1	1(1)	1	1	1(1)
Lab. Attendant	3(2)	1	1	1(1)	1	1	1	1	1
Messenger	-	1(1)	1	1	1(1)	1	1	1	1(1)

() Vacant position

STAFF POSITION AS ON 31. 03. 2016

Name of the post	No.	Name of incumbent	Date of joining	Date of leaving
Coordinating Unit, CSSRI, KARNAL				
Project Coordinator	1	Dr. S. K. Ambast	27.04.2012	21.01.2015
		Dr. D.K. Sharma(O/I)	22.01.2015	27.03.2016
		Dr. M.J. Kaledhonkar	28.03.2016	Contd.
Sr. Agronomist	1	Dr. R. L. Meena	18.07.2007	Contd.
Soil Scientist	1	Dr. B.L. Meena	30.01.2013	Contd.
Technical Officer	2	Vacant		01.02.2014
		Sh. Anil Sharma	22.10.2011	Contd.
Technical Assistant	1	Sh. Maneesh Pandey	08.08.2013	22.03.2016
		Vacant		23.03.2016
Sr. Technician	1	Sh. Mohinder Singh	03.07.2014	Contd.
Personal Assistant	1	Vacant	-	-
Lab. Attendent	1	Sh. Raj Kumar	17.09.2013	Contd.
Cooperating Centres				
AGRA				
Soil Chemist & OIC	1	Vacant – Charge taken over by	01.01.2012	Contd.
		Dr. R.B. Singh		
Jr. Soil Physicist	1	Dr. R.B. Singh	30.11.1987	Contd.
Jr. Agronomist	1	Dr. S.K. Chauhan	15.03.1996	Contd.
Jr. Soil Chemist	1	Vacant	-	-
Sr. Tech. Assistant (Soils)	2	Sh. R.S. Chauhan	01.08.1991	Contd.
		Dr. P.K. Shishodia	11.07.1994	Contd.
UDC	1	Sh. Rajeev Chauhan	04.09.1991	Contd.
Field Assistant	2	Sh. N.P. Pachauri (working against t Field Assistant)		
		Vacant		
Lab Assistant	1	Sh. Sarnam Singh	18.12.1989	Contd.
Driver	1	Sh. Ram Sevak (working against the Jeep driver)		
Lab. Attendant	1	Sh. Devi Singh (working against the Lab Attendant)		
Messenger	1	Vacant	-	-
BAPATLA				
Pr. Scientist (SS) & Head	1	Dr. G.V. Lakshmi	01.10.2010	14-10-2015
		Dr. P. Ratna Prasad	15-10-2015	22.12.2015
		Mrs. K. Anny Mrudhula	23-12-2015	03.01.2016
		Dr. D. Balaguravaiah	04-01-2016	25.04.2016
Soil Scientist	1	Smt. K. Hema	08.08.2012	03.02.2016
		Dr. P. Mohana Rao	10-02-2016	Contd.

Jr. Soil Chemist	1	Dr. Sudha Rani	21.02.2014	Contd.
Jr. Agronomist	1	Mrs. K. Anny Mrudhula	10.12.2013	Contd.
Scientist (SWE)–I	1	Sh. A. Sambaiah	06.02.2013	Contd.
Scientist (SWE)–II	1	Vacant	-	24.04.2008
Sr. Assistant	1	Sh. D. Bullaiah	02.09.2013	Contd.
Lab. Assistant	2	Sh. S. Baba Vali	04.09.1990	Contd.
		Sh. Sh. K. Venkateswarlu	01.02.2014	Contd.
Field Assistant	2	Sh. M. Venkata Rao	02.01.2012	Contd.
		Sh. Y. Kiran Kumar	25-04-2015	Contd.
UDC	1	Sh. S.K. Mastan Vali	01.03.2011	Contd.
Lab Attendant	1	Sh. D.V. Siva Rao	16.07.1992	Contd.
Driver	1	Vacant	-	-
Messenger	1	Sh. A. Mark	29.12.1995	Contd.
BIKANER				
Chief Scientist & OIC	1	Dr. I.J. Gulati	24.07.2012	Contd.
Soil Chemist	1	Vacant	-	30.04.2009
Jr. Soil Chemist	1	Dr. B.L. Kumawat	03.04.2010	30.07.2014
		Vacant	01.08.2016	
Jr. Agronomist	1	Dr. N.S. Yadava	08.07.2011	Contd.
Jr. Drainage Engineer	1	Er. A.K. Singh	10.09.2001	Contd.
Technical Assistant	2	Dr. Deepak Gupta	04.08.2010	Contd.
		Sh. R.L. Sharma	23.07.2014	Contd.
Field Assistant	1	Sh. G.S. Pareek	01.06.2013	Contd.
UDC	1	Mr. Manohar Singh	02.04.2011	Contd.
Lab. Assistant	1	Sh. S.K. Bazed	14.02.1994	Contd.
Driver	1	Vacant	-	01.06.2013
Lab. Attendant	1	Sh. Keshu Ram	17.07.1995	30.09.2014
		Vacant	-	-
Messenger	1	Sh. Ganesh Ram	25.03.1994	Contd.
GANGAVATI				
Chief Scientist & OIC				
Soil Scientist	1	Dr. Vishwanath J.	04.01.12	Contd.
Soil Scientist		Vacant	30.08.2011	-
Jr. Agronomist	1	Dr. Anand S.R.	07.11.2012	Contd.
Scientist (SWE)	1	Er. Rajkumar H.	27.05.2011	Contd.
Jr. Drainage Engineer	1	Er. A.V. Karegoudar	12.12.2009	Contd.
Junior Asstt.(UDC)	1	Smt. Renuka Benakanadoni	21.12.2009	Contd.
Sr. Field Assistant	1	Sh. K. Veeranna	02.04.1998	Contd.

Field Assistant	2	Sh. P. Balasaheb	19.11.2001	Contd.
		Mr. Ramappa H. Talwar	09.07.2012	Contd.
Lab. Assistant	1	Mr. Prakash Banakar	21.04.2011	Contd.
L.V. Driver	1	Mr. Basker D. Golasangi	13.08.2010	Contd.
Lab. Attendant	1	Sh. Sameer Hejib	10.09.2013	06.06.2015
		Sh. Veeresh S. Akki	06.06.2015	Contd.
Messenger	1	Mr. Doddabaappa S.	01.02.1992	Contd.

HISAR

Soil Scientist & OIC	1	Dr. S.K. Sharma	08.08.2002	31.01.2016
Agronomist & OIC	1	Dr. Satyavan	11.03.1997	Contd.
Jr. Soil Chemist	1	Dr. Ramparkash	24.05.2011	Contd.
Soil Water Engineer	1	Er. Krishan Kumar	18.05.2013	Contd.
Field Assistant	1	Sh. Jagdish Chander	03.02.2001	Contd.
Lab Assistant	1	Sh. Dhan Singh	02.03.2009	Contd.
LDC	1	Vacant	-	12.09.2013
Lab. Attendant	1	Sh. Surat Singh	25.05.2010	Contd.
Messenger	1	Vacant		01.05.2012

INDORE

Soil Chemist & OIC	1	Dr. U.R. Khandkar	02.09.2008	Contd.
Drainage Engineer	1	Er. R.K. Sharma		09.05.2000
Contd.				
Jr. Soil Survey Officer	1	Sh. B.B. Parmar	02.09.2009	Contd.
Jr. Soil Chemist	1	Vacant	-	22.07.2010
Jr. Soil Physicist	1	Dr. (Mrs) S.P.K. Unni	15.09.2003	Contd.
Technical Assistant	2	Sh. S.C. Tiwari	04.03.1989	Contd.
		Vacant	-	-
UDC	1	A. K. Vijayvargiya	08.02.2016	Contd.
Field Assistant	1	Sh. N.S. Tomar	04.04.1996	Contd.
Field man	1	Sh. S.R. Hirve		25.08.2003
Contd.				
Lab Assistant	1	Ms. R. Ansari	16.11.1995	Contd.
Jeep Driver	1	Sh. Dinesh Mandloi	02.02.2009	Contd.
Lab. Attendant	1	Sh. D. S. Baghel	01.04.2011	Contd.
Messenger	1	Vacant	-	-

KANPUR

Soil Chemist & OIC	1	Dr. Ravendra Kumar	09.05.2008	Contd.
Soil Physicist	1	Dr. Devendra Singh	01.07.2014	Contd.
Asstt. Agronomist	1	Dr. S.N. Pandey	01.07.2009	Contd.
Asstt. Soil Survey Officer	1	Dr. Vinod Kumar	29.12.2011	Contd.

Sr.Technical Assistant	1	Sh. G.S. Tripathi	01.08.2004	Contd.
Field Assistant	2	Sh. Ved prakash	16.08.2014	Contd.
		Sh. Vinay Kumar	03.07.2013	Contd.
UDC	1	Sh. Kulbhushan Kumar	02.01.2015	Contd.
Lab. Assistant	1	Sh. P.S.Katihar	01.08.2004	Contd.
Driver	1	Sh. Madan Mohan	01.01.2016	Contd.
Lab. Attendant	1	Sh. Gaya Prasad	01.05.1988	Contd.
Messenger	1	Sh. Ram Moort	01.10.2010	Contd.

TIRUCHIRAPPALLI

Soil Chemist & OIC	1	Dr. L. Chithra	07.04.2015	01.03.2016
		Dr. P. Balasubramaniam	02.03.2016	Contd.
Jr. Soil Chemist	1	Dr. M. Bhaskar	09.05.2008	Contd.
Jr. Agronomist	1	Dr. A. Alagesan	07.04.2015	Contd.
Jr. Soil Water Engineer	1	Dr. S. Avudainayagam	02.09.2013	07.04.2015
Jr. Soil Water Engineer		Dr. S. Avudainayagam	08.04.2015	Contd.
Sr. Technical Assistant	2	Sh. K. Karikalan	09.06.2014	Contd.
		Sh. R. Mutharasan	09.06.2011	Contd.
Field Assistant	1	Sh. U. Jossephraj	01.04.2011	Contd.
Lab. Assistant	1	Sh. A. Palanivel	06.05.2013	31.05.2016
		Sh. P. Sakthivel	01.07.2016	Contd.
Lab. Attendant	1	Sh. S. Ponnann	21.08.1996	30.06.15
		Sh. R. Santhanam	01.07.2015	Contd.
UDC	1	Sh. C. Meenatchi	22.10.2008	29.02.16
		Sh. Muhammod Ali	01.03.2016	Contd.
Messenger	1	Sh. V. Palaniyandi	01.04.1995	Contd.

7.4 WEATHER DATA (2014-16)

Main Centre

AGRA

Latitude - 27020'N

Longitude - 77090'E

Months	Temperature		Relative humidity (%)	Rainfall (mm)	Evaporation (mm/day)	Water table (m)
	(°C)					
	Maximum	Minimum				
2014-15						
April 2014	37.2	19.3	53.6	-	7.0	16.8
May	41.3	24.9	53.2	-	8.2	16.9
June	42.3	28.6	63.1	32.2	8.6	16.8
July	37.1	27.5	67.2	98.6	8.2	15.9
August	34.9	26.2	85.9	124.7	8.0	16.1
September	35.2	24.4	73.5	81.9	7.9	16.0
October	34.5	19.8	68.7	04.8	4.0	16.1
November	30.1	13.1	80.9	-	4.0	16.0
December	22.3	07.6	55.8	04.8	4.5	16.2
January 2015	16.8	08.2	73.3	42.6	5.2	16.2
February	25.7	11.1	87.2	01.1	5.8	16.3
March	28.9	15.4	87.8	121.9	6.0	16.3
2015-16						
April 2015	36.1	19.8	75.9	36.2	6.1	16.4
May	42.2	25.3	73.6	138.3	6.0	15.9
June	41.5	26.8	68.8	46.9	6.0	15.9
July	37.1	27.5	67.2	57.9	6.2	15.6
August	34.9	26.2	85.8	129.7	6.2	15.6
September	37.3	24.8	66.9	17.0	5.8	15.3
October	36.4	20.5	77.2	17.7	5.5	15.4
November	29.1	15.7	84.5	-	5.5	15.5
December	23.2	17.7	89.9	-	5.4	15.5
January 2016	22.4	8.7	94.9	0.5	2.1	15.8
February	27.2	11.6	86.4	-	2.2	15.6
March	33.5	17.7	75.6	9.9	2.8	15.6

BAPATLA

Latitude - 15°54' N

Longitude - 80° 28' E

Months	Temperature (°C)		Relative humidity (%)	Rainfall (mm)	Decennial mean rainfall (mm)
	Maximum	Minimum			
2014-15					
April 2014	34.6	25.1	72.0	1.8	6.72
May	38.0	27.5	65.5	24.2	8.05
June	40.3	29.1	52.0	49.1	8.96
July	36.1	26.5	62.0	130.3	7.94
August	35.3	25.9	67.0	80.8	6.94
September	33.9	25.3	73.5	109.4	6.40
October	33.1	24.0	76.5	163.4	5.67
November	30.6	20.6	80.5	111.2	4.47
December	29.8	18.1	78.0	4.0	4.05
January, 2015	30.2	17.1	74.5	0	4.16
February	31.2	17.9	75.0	0	4.66
March	33.3	22.1	74.0	0.6	5.76
2015-16					
April 2015	34.3	25.7	71.5	7.1	6.78
May	38.9	28.3	62.0	1.5	8.93
June	35.3	26.0	70.5	167.1	6.83
July	37.7	26.5	57.0	165.4	8.02
August	34.5	24.9	76.5	301.3	6.48
September	33.9	25.2	79.5	205.5	6.16
October	33.8	23.8	76.0	26.5	5.56
November	30.5	21.2	81.5	113.7	4.68
December	30.5	18.8	80.5	9.3	4.15
January 2016	30.5	17.7	77.0	1.1	-
February	32.2	20.0	77.5	0	-
March	33.7	23.2	74.5	0	-

*Source: IJETST- Vol.||03||Issue||07||Pages 4406-4414||July||ISSN 2348-9480

BIKANER

Latitude – 28° 01' N				Longitude – 73° 35' E			
Months	Temperature		Relative humidity		Rainfall (mm) (km/hr)	Wind velocity	Evaporation (mm/day)
	(°C)		(%)				
	Maximum	Minimum	Maximum	Minimum			
2014-15							
April 2014	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-
July	39.4	24.2	67.3	37.7	33	11	10
August	36.4	21.0	72.7	53.8	237.2	8.7	7.8
September	36.1	22.0	78.9	63.9	157.7	8.4	7.0
October	35.4	20.4	61.0	31.9	0	4.9	5.0
November	31.2	14.4	56.9	24.0	0	3.3	3.1
December	24.4	07.2	73.3	27.4	0	3.2	3.2
January 2015	23.6	05.5	80.9	32.5	0	4.6	2.0
February	24.8	10.3	63.7	29.5	0	5.5	2.5
March	29.5	15.1	71.5	42.6	66.7	6.6	3.5
2015-16							
April 2015	36.6	20.4	56.9	36.9	61.6	6.3	6.3
May	40.5	25.4	62.6	35.6	93.1	8.4	11.6
June	38.1	26.0	55.0	30.9	93.6	7.9	8.7
July	36.8	25.8	76.9	51.4	194.2	9.7	7.6
August	36.6	25.7	77.3	83.7	130.8	9.4	8.2
September	35.9	22.5	63.3	37.3	2.20	6.8	7.7
October	35.5	17.8	66.7	37.9	5.40	5.2	5.3
November	28.7	11.5	69.0	35.5	0.0	3.7	3.1
December	24.6	5.50	83.2	34.5	0.0	3.1	1.4
January 2016	23.8	6.20	86.2	57.9	0.0	3.9	1.1
February	27.4	8.60	78.2	49.2	4.90	4.8	1.7
March	33.7	15.9	72.1	44.5	21.0	5.8	3.6

GANGAVATI

Latitude – 15° 00' N			Longitude – 76° 00' E			
Months	Temperature (°C)		Relative humidity (%)		Rainfall (mm)	Evaporation (mm/day)
	Maximum	Minimum	8.0 AM	2.0 PM		
2014-15						
April 2014	37.90	23.91	53.60	31.10	10.50	-
May	36.40	23.43	61.40	37.10	103.0	-
June	35.10	22.33	62.06	41.30	97.20	-
July	30.20	22.25	87.48	80.03	117.7	-
August	30.43	21.67	89.90	77.06	192.5	-
September	30.16	21.53	89.83	76.90	80.00	-
October	31.15	21.16	85.00	67.60	132.0	-
November	29.32	17.80	77.00	64.13	28.20	-
December	28.26	16.70	81.16	60.19	11.00	-
January 2015	29.08	16.40	59.50	34.10	0	-
February	31.80	16.20	53.60	28.60	0	-
March	34.30	20.50	56.80	34.50	2.80	-
2015-16						
April 2015	35.6	20.0	60.2	32.6	87.9	-
May	38.0	24.3	50.2	28.0	21.0	-
June	34.0	24.0	56.5	37.7	29.4	-
July	34.1	23.6	55.9	36.8	3.5	-
August	32.4	23.0	64.4	48.4	31.9	-
September	31.7	22.8	71.1	53.4	196.7	-
October	32.4	21.3	60.3	44.0	0	-
November	29.2	19.7	69.1	49.2	5.6	-
December	31.4	16.8	62.4	34.1	6.6	-
January 2016	30.0	15.6	53.8	30.1	0	-
February	33.8	19.4	49.8	24.9	0	-
March	39.2	21.9	37.3	21.1	0	-

* Data not available

HISAR

Latitude - 29° 10' N

Longitude - 75° 46' E

Months	Temperature		Relative humidity		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Morning	Evening		
2014-15						
April 2014	34.1	17.1	72	35	17.1	5.8
May	38.4	22.2	66	30	56.5	7.5
June	41.0	26.3	61	34	71.6	8.8
July	37.4	27.5	77	51	74.6	7.0
August	36.4	26.3	80	52	34.2	5.8
September	34.7	23.8	84	52	81.5	5.1
October	33.2	18.5	84	39	21.3	3.8
November	28.2	10.2	84	32	0.0	2.8
December	19.5	6.0	96	61	9.0	1.2
January 2015	16.2	6.0	97	73	15.4	1.0
February	23.5	9.6	91	54	12.2	2.1
March	26.5	12.4	92	54	121.1	3.2
2015-16						
April 2015	34.0	19.2	72	35	91.1	5.3
May	40.4	23.0	58	26	0.0	8.2
June	38.2	25.0	73	49	161.0	7.3
July	34.5	26.0	86	64	156.1	5.3
August	34.7	26.1	88	63	54.8	4.9
September	35.8	22.6	78	42	19.8	5.3
October	34.3	18.5	80	32	7.0	4.6
November	27.8	12.3	92	42	2.9	2.1
December	22.4	6.0	96	46	0.0	1.4
January 2016	19.6	7.1	95	65	0.0	1.1
February	23.8	7.2	92	49	5.3	2.3
March	29.7	13.6	89	47	25.2	3.7

INDORE

Latitude – 22° 14' N

Longitude - 76° 01' E

Months	Temperature*		Relative humidity*		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Maximum	Minimum		
2014-15						
April 2014	-	-	-	-	12.5	11.8
May	-	-	-	-	9.8	15.0
June	-	-	-	-	5.5	18.3
July	-	-	-	-	449.8	5.9
August	-	-	-	-	117.4	3.4
September	-	-	-	-	364.1	2.3
October	-	-	-	-	0.6	4.6
November	-	-	-	-	33.4	2.3
December	-	-	-	-	38.5	1.9
January 2015	-	-	-	-	42.8	1.9
February	-	-	-	-	5.3	4.3
March	-	-	-	-	34.7	6.3
2015-16						
April 2015	-	-	-	-	6.4	11.3
May	-	-	-	-	17.4	15.6
June	-	-	-	-	262.8	8.4
July	-	-	-	-	290.7	7.4
August	-	-	-	-	279.4	2.9
September	-	-	-	-	94.3	4.1
October	-	-	-	-	6.0	4.3
November	-	-	-	-	0.0	3.0
December	-	-	-	-	0.0	2.8
January 2016	-	-	-	-	11.2	2.1
February	-	-	-	-	0.0	4.1
March	-	-	-	-	0.0	8.4

* Data not available

KANPUR

Latitude – 29° 27' N

Longitude – 80° 20' E

Months	Temperature		Relative humidity		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Maximum	Minimum		
2014-15						
April 2014	33.4	19.0	63.5	40.8	4.4	3.6
May	39.6	21.9	56.3	33.3	0.0	7.1
June	41.4	24.8	61.3	34.8	25.3	10.8
July	34.8	24.3	53.0	63.2	213.6	7.2
August	34.6	27.8	83.1	63.5	52.9	4.8
September	33.2	25.2	88.0	72.0	135.3	--
October	32.7	20.2	86.8	52.9	60.4	3.8
November	28.8	12.7	84.0	41.0	0.0	2.5
December	20.7	08.8	91.0	58.0	16.8	--
January 2015	16.6	8.9	96.0	77.0	24.1	1.3
February	25.3	12.6	93.4	59.2	0.8	1.5
March	28.3	15.4	86.3	57.1	170.3	2.0
2015-16						
April 2015	35.0	20.0	75.1	54.2	8.3	3.1
May	41.3	23.6	58.2	32.4	26.9	5.7
June	39.4	25.5	65.3	45.8	48.9	8.8
July	34.4	24.1	83.2	63.1	79.9	6.3
August	34.2	23.5	86.6	67.5	123.8	6.4
September	35.3	22.0	82.0	57.5	99.0	5.7
October	33.6	16.8	85.3	53.0	19.3	3.6
November	30.1	11.6	89.5	50.4	0.2	2.0
December	23.5	7.0	89.4	45.2	25.8	1.4
January 2016	22.7	8.5	92.5	53.0	11.0	1.5
February	26.5	12.1	87.3	51.5	2.8	2.1
March	32.5	16.7	78.2	41.3	10.1	3.2

KARNAL

Latitude – 29° 43' N

Longitude – 76° 58' E

Months	Temperature		Relative humidity		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Maximum	Minimum		
2014-15						
April 2014	34.1	16.3	69	22	11.6	05.9
May	37.6	21.7	66	28	42.6	07.8
June	40.9	26.2	67	32	43.2	21.6
July	34.5	26.7	86	62	66.0	05.3
August	34.4	25.8	89	64	54.8	04.7
September	32.3	23.4	94	65	256.3	03.6
October	31.1	17.8	96	49	65.6	02.5
November	27.8	10.5	85	30	00.0	02.5
December	18.9	07.0	93	57	06.4	01.6
January 2015	15.7	06.8	98	75	00.5	01.2
February	22.4	09.5	93	56	01.0	02.2
March	25.6	12.8	92	54	04.2	02.6
2015-16						
April 2015	33.1	18.0	76	35	02.4	04.4
May	39.8	22.2	58	23	00.2	07.7
June	37.4	24.5	69	40	01.7	07.7
July	33.1	25.6	85	68	07.9	05.5
August	32.7	25.1	93	73	02.3	03.3
September	33.5	22.7	91	59	01.6	03.5
October	32.0	17.6	92	46	00.2	03.0
November	27.4	12.4	92	42	00.3	01.9
December	21.2	06.8	96	50	00.0	01.4
January 2016	18.3	07.1	97	63	00.0	01.2
February	23.2	07.9	92	49	00.0	02.0
March	28.3	13.1	87	45	46.2	03.1

TIRUCHIRAPPALLI

Latitude – 10° 45' N

Longitude – 78° 36' E

Months	Temperature		Relative humidity		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Morning	Evening		
2014-15						
April 2014	-	-	-	-	-	-
May	-	-	-	-	-	-
June	37.5	21.75	77.5	43.5	-	11.5
July	36	21	78.5	49.5	51.3	11.7
August	35.4	25.65	87.45	65.25	102.6	4.8
September	33.2	25.9	88.43	68.98	24.5	7.8
October	35.48	24.8	91.03	82.2	175	7.83
November	35.2	22.13	91.63	74.9	51.9	6.73
December	32.73	22.8	90.63	85.93	12.2	6.63
January 2015	24.2	21.2	84.7	-	39	-
February	32.5	22.8	91.2	71.3	-	7.7
March	35.2	23.2	89.3	39	-	8.7
2015-16						
April 2015	36	25.6	87.7	49.1	163	7.1
May	35.4	26.5	82.1	53.6	136.4	6
June	36.9	26.7	74.6	43.8	38.7	7.5
July	37.9	27.3	69.4	37.1	21.5	8.8
August	36.7	32.6	74	41	129.1	8.3
September	35.9	24.9	77.7	52.2	89.9	7.4
October	32.5	23.7	83.3	63.4	173.6	4.5
November	30.7	22.3	93.7	63.1	242.7	3.1
December	28.6	23.2	91.8	78.5	54	2.6
January 2016	31.4	20.7	91.7	76.5	-	3.7
February	34.2	22.3	85.2	49.9	-	5.7
March	36.9	24.7	84.5	40	-	6.7

Volunteer Centre

BATHINDA

Latitude – 30° 23' N

Longitude – 74° 95' E

Months	Temperature		Relative humidity		Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)			
	Maximum	Minimum	Morning	Evening		
2014-15						
April 2014	34.3	17.6	74.3	23.0	12.4	8.67
May	38.8	22.5	63.2	22.8	46.4	10.0
June	41.9	27.5	64.2	26.9	23.8	11.7
July	37.5	27.9	78.6	45.5	17.8	8.36
August	36.6	26.7	82.1	47.8	32.4	6.64
September	34.0	23.9	86.9	52.5	162.6	4.12
October	32.8	18.6	83.7	32.6	0.0	4.56
November	27.8	10.7	90.7	27.6	5.0	2.90
December	17.8	06.0	93.8	56.3	0.0	1.49
January 2015	15.2	06.6	99.3	70.5	19.8	0.85
February	22.8	10.1	92.7	53.1	11.5	2.46
March	25.7	12.6	93.0	52.3	104.9	3.26
2015-16						
April 2015	34.3	18.7	82.4	34.4	7.2	3.4
May	41.2	28.6	70.1	21.5	29.0	8.6
June	39.0	25.6	75.9	34.4	17.1	13.3
July	34.8	26.2	86.1	59.0	153.0	7.4
August	34.3	26.5	90.5	62.4	110.8	6.0
September	34.4	23.3	87.5	47.2	76.7	7.0
October	33.2	18.6	90.4	39.6	13.0	5.4
November	27.5	11.5	91.5	37.3	0.0	3.1
December	22.0	6.4	95.5	50.5	0.0	2.2
January 2016	18.3	7.7	93.8	67.5	2.2	1.8
February	23.4	8.0	94.2	54.3	14.5	3.5
March	36.9	24.7	84.5	40.0	44.4	5.0

PANVEL

Latitude – 18° 59' N

Longitude – 73° 06' E

Months	Temperature		Relative humidity	Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)		
	Maximum	Minimum	Average		
2014-15					
April 2014	36.0	23.0	78.0	000.0	2.0
May	35.0	24.0	53.0	000.0	2.0
June	33.75	27.0	76.0	107.0	2.0
July	30.0	25.0	89.0	1401.6	1.0
August	30.0	24.0	92	481.4	1.0
September	31.0	24.0	92	419.4	1.0
October	35.0	23.0	89	106.0	1.0
November	35.0	21.0	87	006.0	1.0
December	33.0	18.0	83	004.0	1.0
January 2015	32.0	16.0	88	000.0	1.0
February	33.0	17.0	86	000.0	1.0
March	35.0	22.0	84	006.0	1.0
2015-16					
April 2015	34.0	24.0	78	000.0	1.0
May	35.0	27.0	84	000.0	2.0
June	32.0	25.0	86	760.0	1.0
July	31.0	25.0	93	576.6	1.0
August	30.0	24.0	93	315.2	1.0
September	32.0	24.0	93	172.8	1.0
October	35.0	23.0	92	097.0	1.0
November	35.0	23.0	86	069.0	1.0
December	35.0	23.0	88	000.0	1.0
January 2016	33.0	16.0	89	000.0	1.0
February	33.0	17.0	88	000.0	1.0
March	36.0	21.0	86	000.0	1.0

PORT BLAIR

Latitude – 11° 36' N

Longitude – 92° 42' E

Months	Temperature		Relative humidity	Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)		
	Maximum	Minimum	Average		
2014-15					
April 2014	34.2	25.2	64	0	-
May	32.0	25.6	77	256.9	-
June	30.6	25.6	85	509.4	-
July	29.9	24.9	88	696.5	-
August	30.1	24.9	83	281.6	-
September	29.9	24.1	87	276.4	-
October	30.4	24.5	77	653.3	-
November	30.6	25.1	79	183	-
December	31.1	25.7	74	13.4	-
January 2015	30.0	23.6	69	189.9	-
February	30.6	24.0	71	0	-
March	32.6	23.9	67	15.5	-
2015-16					
April 2015	32.5	25.1	75	163.9	-
May	31.8	25.4	80	368.8	-
June	30.5	25.1	87	409.5	-
July	30.6	25.3	80	305.6	-
August	29.1	24.5	86	567.5	-
September	30.0	24.3	88	434.6	-
October	30.9	24.8	80	233.8	-
November	30.9	25.3	80	210.4	-
December	32.0	24.8	75	151	-
January 2016	31.6	24.5	73	62.3	-
February	30.9	24.2	70	0	-
March	32.5	24.7	69	29.4	-

VYTILA

Latitude – 09° 97' N

Longitude – 76° 32' E

Months	Temperature		Relative humidity	Rainfall (mm)	Evaporation (mm/day)
	(°C)		(%)		
	Maximum	Minimum	Average		
2014-15					
April 2014	NA	NA	NA	4.07	-
May	NA	NA	NA	28.3	-
June	NA	NA	NA	22.06	-
July	NA	NA	NA	20.10	-
August	29.0	23.0	98	68.7	-
September	30.6	23.2	96	21.3	-
October	32.0	25.2	75	8.1	-
November	31.6	24.8	80	9.6	-
December	30.4	24.6	75	0.0	-
January 2015	30.8	23.6	65	0.0	-
February	33.6	23.0	66	0.0	-
March	33.2	27.0	82	0.0	-
2015-16					
April 2015	32.2	24.8	78	trace	-
May	32.8	25.2	79	4.6	-
June	31.6	25.2	89	26.00	-
July	31.4	24.4	93	66.7	-
August	25.4	22.4	96	102.0	-
September	30.8	23.8	90	84.4	-
October	31.8	24.0	79	57.0	-
November	29.2	24.0	83	24.1	-
December	31.8	24.2	55	32.5	-
January 2016	32.0	24.6	63	0.0	-
February	32.4	25.0	67	58.4	-
March	33.2	27.0	81	0.0	-

7.5 LIST OF PUBLICATIONS (2014-16)

AGRA

Research Papers

- Chauhan RPS, Yadav BS and Singh RB (2014). Studies on drip irrigation, fertigation and spacing in Bt cotton. *The Journal of Rural and Agricultural Research*, 14(2):27-29.
- Chauhan RPS, Yadav BS and Singh RB (2015). Studies on crop yield responses to deficit irrigation and levels of nitrogen in wheat. *The Journal of Rural and Agricultural Research*, 15(1):15-18.
- Chauhan SK (2015). Effect of alkali water/canal water on yield and yield attributes of potato in semi-arid region of Uttar Pradesh. *Annals of Plant and Soil Research*, 17(2):204-207.
- Chauhan SK (2015). Effect of best quality water and alkali water on potato growing in semi-arid areas of Agra region of Uttar Pradesh. *TECHNOFAME- A Journal of Multidisciplinary Advance Research*, 4(1):84-87.
- Chauhan SK (2015). Effect of saline water irrigation on different mustard genotype. *TECHNOFAME- A Journal of Multidisciplinary Advance Research*, 4: 99-100.
- Chauhan SK (2015). Effect of saline water irrigation on soil and performance of onion crop in semi arid condition. *TECHNOFAME-A Journal of Multidisciplinary Advance Research*, 4(1):60-63.
- Chauhan SK (2016). Effect of spacing and salinity of irrigation water on growth and flower yield of marigold in semi-arid condition. *Annals of Agricultural Research (New Series)*, 37 (4): 1-4.
- Chauhan SK and Singh Parmindra (2015). Effect of sprinkler irrigation system over surface method of irrigation on growth and yield attributes of cluster bean. *TECHNOFAME - A Journal of Multidisciplinary Advance Research*, 4: 12-15.
- Shrotri SK and Chauhan SK (2015). Performance of wheat genotype at different dates of sowing under irrigated conditions. *Annals of Agricultural Research (New Series)*, 36(3):1-4.
- Singh SB and Chauhan SK (2016). Effect of Integrated Nutrient Management on barley (*Hordeum vulgare* L.) under semi-arid conditions of Western Uttar Pradesh. *TECHNOFAME-A Journal of Multidisciplinary Advance Research*, 5 (1): 20-23.
- Sinha BL, Chauhan SK, Nikhade JS and Padhae D (2015). Impact of in-situ moisture conservation practices and nitrogen on yield and energy use pattern of pearl millet under dry land condition. *Green Farming*, 6(2):315-318.

Popular Articles

- Chauhan SK (2014). Guwar danee kai bibhin upyog. *Kirshi Gayan Ganga*, 28(3): 13-15.
- Chauhan SK (2014). Kharia pani kai chthro main sarpghandha kee khati karain. *Kirshi Gayan Ganga*, 28(2): 28-29.
- Chauhan SK (2014). Mitti kee upajau shakti badha ne ka aka ashan avam Shasta trika. *Kirshi Gayan Ganga*, 28(2): 20-21.
- Chauhan SK (2014). Shushuk khati bale chtaro main mirda urvayta, *Kirshi Gayan Ganga*, 28(3): 19-20.

Technical Bulletin/ Manual

- Chauhan RS , Shishodia PK, Singh RB, Chauhan SK, Meena RL, Ambast SK and Sharma DK (2015). Assessment of underground irrigation water quality of Etawah district of Uttar Pradesh. Published by Soil Chemist AICRP on Management of Salt Affected Soils and Use of Saline Water in Agriculture, Raja Balwant Singh College, Bichpuri, Agra (U.P.).

BAPATLA

Research Papers

- Gupta AK, Jayasree G, Surekha K, Hemlatha S and Sudha Rani Y (2015). Simulating Penology, Growth Parameters and Yield of Aerobic Rice Using ORYZA2000 Model. *Indian Journal of Ecology*, 42(2): 449-453.
- Lakshmi GV, Hema K, Sambaiah A, Venkata Rao P and Latha M (2015). Management and usage of Nallamada drain water-A qualitative assessment. *Journal of the Indian Society of Coastal Agricultural Research*, 33(2): 36-40.
- Rao PV, Lakshmi GV and Latha M (2014). High RSC irrigation water effect on growth, yields attributes and yield of rice in A.P. *International Journal of Research in Chemistry and Environment*, 4: 10-14.
- Ratna Kumari K, Hema K and Narayana E (2015). Studies on amelioration of water stress in cotton through use of osmoprotectants and chemicals. *Journal of Cotton research and Development*, 29: 61-64.
- Sambaiah A, Lakshmi GV, Raghu Babu M, Hema K and Latha M (2014). Water management and usage of nallamada drain water – A quantitative assessment. *Journal of Soil Salinity and Water Quality*, 6:36-41.
- Shaik HG, Kumar S, Edukondalu L, Sambaiah A (2015). Some studies of time and temperature on aged rice. *The Andhra Agricultural Journal*, 60 (3): 670-675.
- Sravanthi A and Sambaiah A (2015). Sensitivity analysis of MODFLOW Used for the simulation of ground water fluctuations. *Internal Journal of Agriculture Science*, ISSN: 0975-3710 & E-ISSN: 0975-9107.
- Sravanthi A, Sambaiah A and Ravi Babu G (2015). Study of Ground Water Balance in Krishna Western Delta using Regional Ground Water Recharge and Balance Approach. *Research Journal of Agricultural Science*, 6 (5): 1106-1112.
- Srinivasarao Ch, Sudha Rani Y, Girijaveni V, Maruthi Sankar GR, Prasad JVNS, Prasad YG, Sahrawat KL (2015). Assessing village level carbon balance due to green house gas mitigation interventions using EX-ACT model. *International Journal of Environmental Science and Technology*, 13 (1): 97-112.

BIKANER

Research Papers

- Jakhar RK and Gulati IJ (2015). Status of fluoride in ground water from Ladnu tehsil of Nagaur district. *Bioinfolet*, 14/3987.
- Jakhar RK, Singh AK and Kumawat N (2016). Yield Attributes and Yield of Cucumber (*Cucumis stivus* L.) Cultivars as Influenced by Growing Conditions in Arid Zone of Rajasthan. *Environment & Ecology*, 34(4C): 2258-2261.
- KumarU, Gulati IJ and Bhunwal V (2016). Impact of humic acid and salicylic acid on biochemical and physiological parameters of tomato (*Lycopersicon esculentum* Mill) under salinity system. *The Eioscan*, 10(1&2): 71-74.

GANGAVATI

Research Papers

- Krishna Kumar P, Vishwanath J, H. Veeresh and Bharath KS. (2015). Nitrogen and zinc requirement of direct seeded rice in TBP command. *The Ecoscan*, 9(1&2): 1-6.
- Rajkumar RH and Satishkumar U (2014). Effect of soil and water conservation measures (field bunds) on soil moisture content in Beeralagudda micro watershed. *Asian Journal of Soil Science*, 9 (1): 149-151.

Vishwanath J, Karegoudar AV, Rajkumar RH, Anand SR (2015). Characterization of underground water for irrigation in Gadag district. *Journal Farm Sciences*, 28(3):342-346.

HISAR

Research Papers

Dhaka AK, Kumar Satish, Pannu RK, Ramprakash, Singh Bhagat and Malik Karmal (2015). Yield performance and economics of Pearlmillet (*Pennisetum glaucum*) intercropped in seed crop of dhaincha (*Sesbania aculeate*). *Environment and Ecology*, 33 (4B):1905-1910.

Dhaka AK, Kumar Satish, Pannu RK, Singh Bhagat, Ramprakash and Malik Karmal (2016). Performance of wheat (*Triticum aestivum L.*) succeeding pearlmillet intercropped in seed crop of sesbania. *Legume Research*, 39(1):70-78.

Gagandeep, Ramprakash, Kumar Sanjay, Satyavan, Rajpaul and Sharma SK (2016). Assessment of groundwater quality for irrigation in Hodal block of Palwal district, Haryana. *Journals of Soil Salinity and Water Quality*, 8(1):30-36.

Kumari Sachin, Ramprakash and Kumari Beena (2014). Persistence of bifenthrin in soil under the cover of okra. *Pesticide Research Journal*, 26(1):78-81.

Kumari Sachin, Ramprakash and Kumari Beena (2015). Leaching of bifenthrin in Sandy Soil under laboratory condition. *International Journal of Tropical Agriculture*, 33 (2):1675-1678.

Kumari Sachin, Ramprakash and Kumari Beena (2016). Dissipation of bifenthrin in soil under laboratory condition. *Environment and Ecology*, 34 (2):580-582.

Ramprakash, Kumari Sachin, Kumari Sushil, Sangwan A and Anoop Singh (2016). Effect of chelating agents on phytoextraction of lead from contaminated soil by *Zea mays*. *Range Management & Agroforestry*, 37(1):56-61.

Singh Niranjana and Sharma SK (2015). Studies on ESP and nitrogen levels and their interaction effect on forage sorghum, yield, protein and nutrient uptake. *Forage Research*, 41(2): 95-103.

Singh Niranjana, Sharma SK, Kumar Ashwani, Rajpaul and Singh Satyender (2014). Studies on effect of sodicity levels on dry matter, yield, protein and nutrient uptake in sorghum. *Forage Research*, 40(2): 109-115.

Singh Niranjana, Sharma SK, Kumar Rohtash and Singh Satyendera (2015). Effect of sodicity and nitrogen levels on dry matter, yield, protein and nutrient uptake in Maize. *Forage Research*, 40(4): 237-242.

Singh Niranjana, Sharma SK, Rajpaul, Kumar Rohtash and Kumar Ashwani (2014). Effect of sodicity and nitrogen levels on dry matter, yield, protein and nutrient uptake in teosinte. *Forage Research*, 40(2): 119-126.

Popular Articles

Gagandeep, Ramparkash, Sharma SK and Yadav Rajpaul (2014). Lavaneya Mardae: Samasya vae Samadhan. *Krishi Samvad*, 2: 42-43.

Singh Kuldeep, Yadav Rajpaul and Ramprakash (2016). Adhik khadyano utapadan hetu ushar-kallar bhumi ka sudhar. *Haryana Kheti*, 49(2): 28-30.

INDORE

Research Papers

Raghuwanshi SRS, Tiwari SC, Raghuwanshi OPS and Raghuwanshi US (2014). Characterization of taxonomic classification of Salt Affected Soils of Bhind district of Madhya Pradesh. *Agropedology*, 24(1): 102-105.

- Sharma RK, Khandkar UR and Tiwari SC (2015). Water harvesting in sodic black soil under rainfed condition of south-west Madhya Pradesh. *Journal of Soil Salinity and Water Quality*, 7(2):138-143.
- Singh AK, Yadav HS, Khandkar UR and Tiwari SC (2015). Potential uses of saline soils in agriculture. *JNKVV Research Journal*, 49 (3):473-480
- Singh YP, Verma SK, Dubey SK and Tiwari SC (2014). Distribution and characterization of Salt Affected Soils of Morena district of MP. *Journal of Soil Salinity and Water Quality*, 6(1): 64-69.
- Tiwari SC, Bangar KS, Khandkar UR, Verma SK and Dubey Rachana (2015). Survey characterization and mapping of ground water quality of Gwalior district of Madhya Pradesh. *Journal of Soil Salinity and Water Quality*, 7(2):152-156.
- Verma SK, Singh AK, Kumar A and Khandkar UR (2015). Innovations in reclamation and management of salt affected soils. *JNKVV Research Journal*, 49 (3): 442-455.

Technical Bulletin/ Manual

- Sharma RK, Tiwari SC, Khandkar UR and Verma SK (2016) Research in sodic black soil- Drainage, irrigation and management. *Tech. Bull. No., RVSKVV/DRS/2016/05* pp76.
- SK Verma, Tiwari SC, Bangar KS, Yadav SS, Tomar PS, Bansal KN and Raghuwanshi SRS (2014) Soil & Water Salinity Problems in Gird Zone of Madhya Pradesh. *Technical Bulletin No. DI/RVSKVV/48/2014*.

KANPUR

Research Papers

- Kumar G, Kumar V, Singh A, Kumar R, Singh D and Chakraborty S (2015). Evaluation of zink status and their relationship with soil properties in Chhibramau tehsil of Kannauj district of U.P. *Progressive Research*, 10 (special-IV): 2411-2413.
- Kumar G, Singh A, Kumar R and Pandey SN (2015). Distribution of iron and manganese in soils of Chhibramau tehsil of Kannauj district, Uttar Pradesh. *Annals of Plant and Soil Research* 17(4):81-83.
- Kumar R and Singh D (2015). Integrated response of fly ash, gypsum and organic manures to sustain the production of rice and wheat in partially reclaimed sodic soil. *Progressive Research* 10 (special-IV): 3819-3821.
- Kumar R, Kumar A and Pandey SN (2015) Status of available micronutrient and their relationship with soil properties of Raebareli district, Uttar Pradesh. *Technofame- A Journal of multidisciplinary Advance Research*, 3(1): 58-60.
- Kumar R, Singh A, Kumar G and Pandey SN (2016) Comparative effect of gypsum and phosphogypsum on crops irrigated with alkali water under sodic soil conditions. *Environment and Ecology*, 34 (4B): 2212-2216.
- Kumar V, Kumar R, Pal S, Swroop A, Singh D and Kumar G (2015) Impact of sharda sahayak canal water on soil properties of Raebareli district of U.P. *Progressive Research*, 10 (special-IV): 2298-2300.
- Kumar V, Kumar R, Swroop N, Kumar G and Ulkey V (2015). An assessment and characterization of ground irrigation water quality of Raebareli district of U.P. *Progressive Research*, 10 (special-IV): 2301-2303.
- Singh D, Kumar R, and Kumar S (2015). Management of rice straw practices to enhance yield of rice, nutrient availability and soil fertility under rice-wheat cropping system in central U.P. *Progressive Research* 10 (special-IV): 3679-3682.

Popular Articles

- Kumar G, Singh A, Kumar R and Singh D (2015). Tikau Phasloutpadan Hetu Karen Dhaincha Ka Prayog. *Krashak Bharti* (CSAUA&T Kanpur): 54-55.
- Kumar R and Singh D (2016) Phasloutpadan Main Mitti Parichhan Ka Mahtau. *Krashak Bharti* (CSAUA&T Kanpur):62-63.
- Singh A, Kumar G, Tiwari US, Kumar R and Tripathi BN (2015) Tkau Phasloutpadan Hetu Karen Vermicompost Ka Prayog. *Krashak Bharti* (CSAUA&T Kanpur): 19-21.

KARNAL

Research Papers

- Dotaniya ML, Datta SC, Biswas DR, Dotaniya CK, Meena BL, Rajendiran S, Regar KL, Manju Lata. (2016). Use of sugarcane industrial by-products for improving sugarcane productivity and soil health. *International Journal of Recycling of Organic Waste in Agriculture*, 5(3):185-194.
- Kumar S, Parihar SS, Singh M, Jat SL, Meena BL, Mirjha PR and Ram H (2016). Conservation agriculture practices and irrigation scheduling affects the energy dynamics in a maize production system. *Ecology, Environment and Conservation*, 22 (2):485-491.
- Meena BL and Majumdar SP (2016). Improving yield of barley grown on coarse textured soil by compaction and sulphur fertilization. *Ecology, Environment and Conservation*, 22: S151-S156).
- Meena BL, Majumdar SP, Meena VK, Dotaniya ML (2016). Response of compaction with sulphur fertilization to nutrient content, uptake and economics of barley on highly permeable soil. *International Journal of Agriculture Sciences*, 34(8): 1719-1722.
- Meena BL, Meena RL, Ambast SK and Pandey M (2014). Impact assessment of Agriculture Technological Interventions in Tsunami affected South Andaman- A Case Study. *Bharatiya Krishi Anushandhan Patrika*, 28(3): 141-148.
- Meena BL, Rattan RK, Datta SP, Meena MC (2016). Effect of iron application on iron nutrition of aerobic rice grown in different soils. *Journal of Environmental Biology*, 37 (6):1377-1383.
- Meena BP, Chouhan GS, Meena VK and Meena BL (2016). Effect of irrigation levels and agro-chemicals on growth parameters of summer maize (*Zea mays* L.). *Agriculture Science Digest*, 36 (3): 220-223.
- Meena RL, Ambast SK, Gupta SK, Chinchmalatpure AR and Sharma DK (2014). Performance of fennel (*Foeniculum vulgare* Mill.) as influenced by saline water irrigation and organic input management in semi-arid conditions. *Journal of Soil Salinity and Water Quality*, 6(1): 52-588.
- Meena VK, Kaushik MK, Kumar R, Singh M, Meena BL, Meena BP, Meena RK, Kumar U and Kumar S (2016). Influence of growth regulators on nutrient concentrations, nutrient uptake and quality parameters of cluster bean varieties. *Legume Research*, 39 (5): 797-801.
- Nasser Salem Saif Al-Wahaibi, Nazir Hussain, Hamood Sweidan Al-Hashmi, Majeda Suleiman Al-Zedjalli, Saud Saif Al-Habsi and Meena RL (2014). Comparative study of organic manure and mineral fertilizer application on performance of tomato in dryland conditions of Sultanate of Oman. *Journal of Soil Salinity and Water Quality*, 6(2): 79-85.

Popular Articles

- Meena BL and Ambast SK (2015). Sinchai mein kaise ho lavaneeye evam kshareeye jal ka suraksit upyog. *Kheti*, 3:18-21.
- Meena BL, Ambast SK and Meena RL (2015). Enhancing the Productivity of Degraded Lands in Coastal Ecosystem. *Popular Kheti*, 3(2): 44-49.

- Meena BL, Gajendra and Pandey M (2014-15). Mrada savasthay dvara khadya suraksa niscita. *Krishi Kiran*, 7:15-19.
- Meena BL, Kumar Ashwani and Meena RH (2016). Lavangrasat Mardaon mein kaise ho bajre kee unnat kethi. *Fasal Kranti*, 3(9):27-29.
- Meena BL, Kumar Ashwani, Meena RH and Sheoran P (2015). Lavan garast mradaon mein poshak tatavon ka prabandhan kaise ho. *Fasal Kranti*, 9:28-30.
- Meena BL, Meena RL and Kaledhonkar MJ (2016). The need of analytical techniques for in-situ study of soil organic matter. *Advances in Plants & Agriculture Research*, 4(4): 00146.
- Meena BL, Meena RL, Ambast SK and Kumar A (2014-15). Shushak shetron mein adhik upaj ki unnat takneekiyan. *Krishi Kiran*, 7:11-14.
- Meena BL, Ray P and Sharma DK (2015-16). Marda kee Ghatee Urvarata mein Tikav kethi ke liye upaye. *Dugdh Ganga* (NDRI), 5:72-76.
- Meena RL, Meena BL and Ambast SK (2014-15). Sinchai janit lavan garast mradaon ka prabandhan. *Krishi Kiran*, 7:30-32.
- Singh K, Mishra AK, Kumar P, Kumar A and Meena BL (2014-15). Gvar ki fasal: mrada, manav svasthya evam upyog. *Krishi Kiran*, 7:20-22.

Technical Bulletin/ Manual

- Ambast SK, Gupta SK and Sharma DK (2015). Laser Land Leveller, Central Soil Salinity Research Institute, Karnal, p 45.
- Ambast SK, Murugan AV, Swarnam TP and Gangwar B (2014). Tatiya Evam Dweepeeya Kshetron Mein Sthayee Krishi Hetu Bhumi Evam Jal Prabandhan. AICRP on SAS&USW, Central Soil Salinity Research Institute, Karnal, p 184.
- Sharma DK, Yadav RK, Meena RL and Gajendra (Eds) (2013). *Krishi Kiran 2013*, Central Soil Salinity Research Institute, Karnal, p 98.
- Singh Jogendra, Meena RL, Sharma PC, Chaudhari SK, Verma SK and Sharma DK (Eds) 2014. Abstract: 4th National Seminar on Innovative Saline Agriculture in Changing Environment. Indian Society of Soil Salinity and Water Quality, Karnal, Haryana. 172p.

TIRUCHIRAPPALLI

Research Papers

- Baskar M, Maheswari K and Pushpavalli R (2016). Influence of treated distillery effluent and nitrogen management on soil properties, growth, yield and nutrient uptake of rice crop. *Green Farming*, 7(5): 1111-1115.
- Iniyal lakshmi BR, Baskar M, Balasubramaiam P and Ramesh P (2015). Response of rice for micro nutrients under different amendments in sodic soil. *Green Farming*, (4): 946-949.
- Mahendran PP, Velmurugan R and Balasubramaniam P (2016). Identifying critical limit in soil and plant for determining response of groundnut to boron application in Madurai soils of Tamil Nadu, India. *Journal of Plant Nutrition*, 39(2):163-171. DOI. 10.1080/01.904167.2015.1086793.
- Masilamani P, Balasubramaniam P, Paramathma M and Jude Sudhagar R (2015). Germination behavior of Neem (*Azadirachta indica* A. Juss) seeds in bagasse fly ash incorporated medium, *Journal of Non-Timber Forest Products*, 22(2) 65-68.
- Pedda G, Peera SK, Balasubramaniam P, Tajuddin A (2015). Effect of silicate solubilizing bacteria and fly ash on mean leaf erectness of rice (*Oryza sativa* L.) in low, medium and high silicon soils. *International Journal of Applied Biology and Pharmaceutical Technology*, 6(1):133-135.

Pedda SK, Peera G, Balasubramaniam P and Mahendran PP (2015). Silicon release characteristics of graded levels of fly ash with silicate solubilizing bacteria and FYM in soil. *Green farming*, 6(6): 1302-1305

PORT BLAIR

Velmurugan A, Swarnam TP, Ambast SK and Navneet Kumar (2016). Managing waterlogging and soil salinity with a permanent raised bed and furrow system in coastal lowlands of humid tropics. *Agricultural Water Management*, 168:56-67.

Velmurugan A, Swarnam TP, Ambast, SK, Meena RL and Subramani T (2015). Soil salinity dynamics in raised bed and furrow (RBF) system and its effect on alleviating waterlogging in the coastal lowlands. *Journal of Soil Salinity and Water Quality*, 7(2):90-97.

Velmurugan A, Swarnam TP, Krishna Kumar, Sakthivel K, Rachael and Sarojini R (2015). Evaluation of Trichoderma Isolates for Induced Soil Salinity Stress Management in Egg Plant. *Trends in Biosciences* 8, (6):1595-1601,

PANVEL

Borse DK, Patil KD and Vanave PB (2015). Evaluation of stabilized silicic acid based foliar spray on rice variety panvel-1 under coastal saline soils of Konkan. *Journal of Plant Development Science*, 7 (11): 855-857

Borse DK, Patil KD, Chavan LS, Khade VN (2015). Effect of Fertiliser levels and weed control measures on growth and yield of white onion (*Allium cepa*) under north konkan coastal zone of Maharashtra. *Journal of the Indian Society for Coastal Agricultural Research*, 33 (1):19-23

Krishnamurthy SL, Sharma SK, Sharma DK, Sharma PC, Singh YP, Mishra VK, Burman D, Maji B, Bandyopadhyay BK, Mandal S, Sarangi SK, Gautam RK, Singh PK, Manohara KK, Marandi BC, Singh DP, Padmavathi G, Vanve PB, Patil KD, Thirumeni S, Verma OP, Khan AH, Tiwari S, Shakila M, Ismail AM, Gregorio GB and Singh RK (2015). Analysis of stability and G x E interaction of rice genotypes across saline and alkaline environments in India. *Cereal Research Communications*, 44(2):349-360.

Palkar JJ, Gokhale NB, Patil KD, Kasture MC, Parte PR and Cheke VD (2015). Assessment of Nutrient Status of Soil from Cashew Orchard of Coastal Lateritic Soil of Konkan. *Journal of Soil Salinity and Water Quality*, 7(1): 77-78.

7.6 FINANCE

The Twelfth Five Year Plan (2012–2017) was sanctioned by the Council vide letter No. NRM-24-4/2013-I-II dated 28-02-2014 with an outlay of Rs 4638.67 lakhs (ICAR Share Rs 3675.00 lakh). The budget head and Centre wise statement of expenditure for 2014-15 and 2015-16 is given below:

MAIN CENTRE

Agra

Budget head	2014-15		2015-16	
	Released ICAR share (100%)	Expenditure ICAR share (100%)	Released ICAR share (100%)	Expenditure ICAR share (100%)
Pay & Allowances	6500000	6426462	6500000	6820173
TA & POL	75000	64215	100000	6793
Contingencies				
Recurring	375000	374730	300000	299206
Non-recurring	0	0	0	0
Works	0	0	0	0
Total	6950000	6865407	6900000	7216172
ORP				
TA	50000	46706	100000	79384
Rec.contingencies	150000	148797	170000	169485
Total	200000	195503	270000	248869
Grand Total	7150000	7060910	7170000	7465041

Bapatla

Budget head	2014-15		2015-16	
	Released ICAR share (75%)	Expenditure ICAR share (75%)	Released ICAR share (75%)	Expenditure ICAR share (75%)
Pay & Allowances	5500000	5844454	5000000	6425969
TA & POL	55000	74906	60000	59734
Contingencies				
Recurring	350000	348780	300000	348099
Non-recurring	0	0	0	0
Works	0	0	0	0
Total	5905000	6268140	5360000	6833802
ORP				
TA	55000	65737	40000	39415
Rec.contingencies	200000	197797	200000	197664
Total	255000	263534	240000	237079
Grand Total	61600000	6531674	5600000	7070881

Bikaner

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	5500000	6919130	7300000	8204050
TA & POL	20000	32214	60000	47062
Contingencies				
Recurring	200000	161200	200000	194082
Non-recurring	0	0	0	0
Total	5720000	7112544	7560000	8445194

Gangavati

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	4000000	4077563	3000000	4668722
TA & POL	100000	122650	150000	135392
Contingencies				
Recurring	300000	398273	300000	297136
Non-recur.	0	0	0	0
Works	0	0	0	0
Total	4400000	4598486	3450000	5101250

Hisar

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	4500000	4621710	4800000	5040980
TA & POL	100000	93400	150000	24983
Contingencies				
Recurring+ works	300000	392228	250000	393217
Non-recurring	0	0	0	0
Total	4900000	5107338	5200000	5459180

Indore

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	5500000	7665624	7800000	8600219
TA & POL	100000	86599	100000	98974
Contingencies				
Recurring	400000	398796	285000	358892
Non-recurring	0	0	0	0
Total	6000000	8151019	8185000	9058085

Kanpur

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	4500000	6642366	7900000	6134148
TA & POL	100000	124934	150000	110049
Contingencies				
Recurring	325000	365842	250000	231764
Non-recurring	0	0	0	0
Total	4925000	7133142	8300000	6475961

Karnal

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (100%)	ICAR share (100%)	ICAR share (100%)	ICAR share (100%)
Pay & Allowances	0	0	0	0
TA & POL	170000	170000	100000	99000
Contingencies				
Recurring	375000	374000	800000	800000
NRC (Capital)	500000	500000	0	0
Total	1045000	1044000	900000	899000

Tiruchirappalli

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)	ICAR share (75%)
Pay & Allowances	5000000	6047613	6700000	5651522
TA & POL	100000	84503	140000	129156
Contingencies				
Recurring	300000	379836	270000	269905
Non-recurring	0	0	0	0
Total	5400000	6511952	7110000	6050583

VOLUNTEER CENTRE

Bathinda

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
Pay & Allowances	0	0	0	0
TA & POL	100000	60493	75000	13688
Contingencies				
Recurring	475000	284731	575000	391880
Non-recurring	0	0	0	0
Total	575000	345224	650000	405568

Port Blair

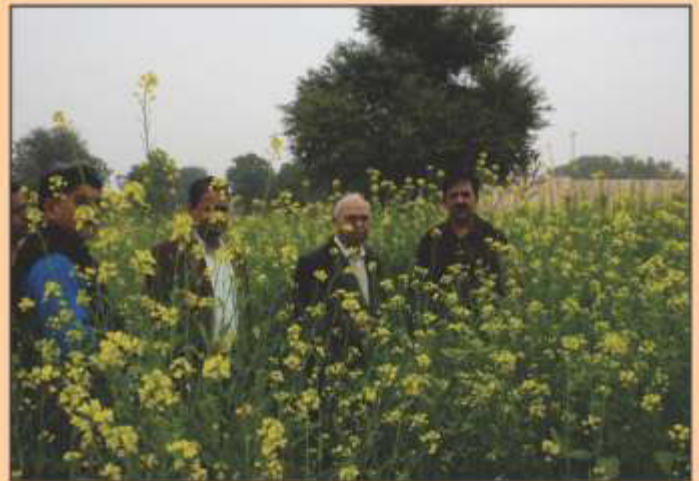
Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
Pay & Allowances	0	0	0	0
TA & POL	100000	40268	75000	87698
Contingencies				
Recurring	475000	304864	500000	360446
Non-recurring	0	0	0	0
Total	575000	345132	575000	448144

Panvel

Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
Pay & Allowances	0	0	0	0
TA & POL	75000	70000	75000	75919
Contingencies				
Recurring	500000	400000	575000	586218
Non-recurring	0	0	0	0
Total	575000	470000	650000	662137

Vytilla

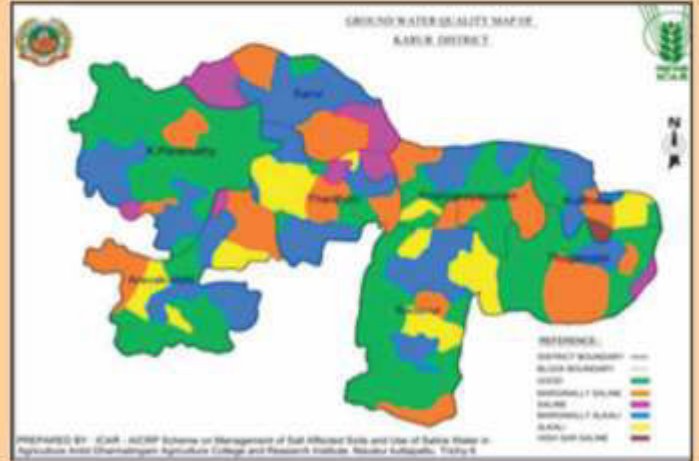
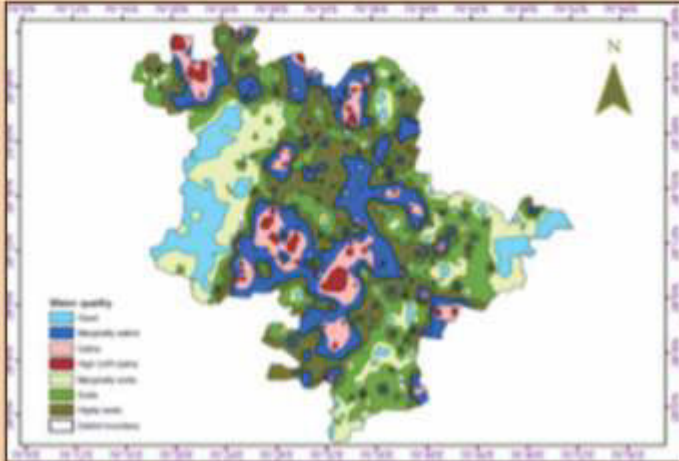
Budget head	2014-15		2015-16	
	Released	Expenditure	Released	Expenditure
Pay & Allowances	0	0	0	0
TA & POL	100000	75370	75000	62707
Contingencies				
Recurring	475000	385736	575000	595377
Non-recurring	0	0	0	0
Total	575000	461106	650000	658084





हर कदम, हर डगर
किसानों का हमसफर
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For Further details, contact:
Project Coordinator, AICRP (SAS&USW)
ICAR-Central Soil Salinity Research Institute
Karnal - 132001, Haryana (India)