

Information on AICRIP Centre - Kanpur

1. Name of the University/ department under which the center is functioning :

Department of Genetics and Plant Breeding, C.S.Azad University of Agriculture & Technology, Kanpur-208002

2. Name of the center with postal address, tel. & fax ,e –mail: AICRIP, Department of Genetics and Plant Breeding, C.S.Azad University of Agriculture and Technology, Kanpur – 208002

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3. Name of the person in charge with e-mail ID & mobile phone no:

Dr.Ram Krishna, Professor and Head, Department of Genetics and Plant Breeding

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4. Next contact person with e-mail ID & mobile phone no:

Dr.Vijay Kumar Yadav, Jr.Rice Breeder (AICRIP)

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5. Year of establishment as AICRIP center: 2005

6. List of scientist currently on AICRIP roll-discipline:

Dr.Vijay Kumar Yadav, Breeding, Dr.Hari ram, Agronomy, Mr.Devendra Singh, Soil Science

7. List of other AICRIP staff :

Dr.K.N.Dwivedi, Breeding

Dr.G.S.Parihar, Agronomy

Dr.Fazal Ahmad, Entomology

Mr.Nand Kumar, Biochemistry

8. Region of the state represented by the center:

* South-Western Semi-Dry plains Agra Division

* Mid Plains (Central Plain Zone) Kanpur and Lucknow Division except Kheri and Fatehpur Dists.

* Bundelkhand Jhansi and Chitrakoot Dham Divisions

9. Rice ecologies represented :

* Irrigated

* Saline/Sodic areas

* Rainfed

10. Districts of the state covered: 28

11. Rice area in each these districts-ecology wise.(year 2006)

S.No.	Name of Division/Districts	Ecology	Rice Area in ha	Productivity (qtl./ha)
1	Aligarh	Irrigated/brackish water	36832	20.87
2.	Hathras	Irrigated/brackish water	7755	20.69
3	Mathura	Irrigated/brackish water	32880	25.20
4	Agra	Irrigated/brackish water	1021	22.66
5	Firozabad	Irrigated	14433	30.75
6	Mainpuri	Saline/Sodic	56735	23.52
7	Etah	Saline/Sodic	37875	22.09
Agra division			187531	23.44
8	Farrukhabad	Irrigated	13144	20.89
9	Kannauj	Irrigated	19679	25.39
10.	Etawah	Saline/Sodic	41868	25.78
11.	Auraiya	Saline/Sodic	42877	25.19
12	Kanpur city	Irrigated	32279	19.98
13	Kanpur dehat	Irrigated/Saline/Sodic	55080	22.47
Kanpur division			204927	23.50
14	Lucknow	Irrigated	35499	19.24
15	Unnao	Saline/Sodic	87407	17.14
16	Raebareli	Saline/Sodic	136732	20.56
17	Sitapur	Saline/Sodic/Irrigated	133490	16.62
18	Hardoi	Saline/Sodic/Irrigated	127800	21.79
19	Kheri	Irrigated	176122	22.53
Lucknow division			697050	20.04
20	Jhansi	Rainfed	1909	18.76
21	Lalitpur	Rainfed	3484	6.16
22	Jalaun	Rainfed	818	10.62
Jhansi division			6211	10.62
23	Hamirpur	Rainfed	203	7.77
24	Mahoba	Rainfed	406	7.77
25	Banda	Rainfed	14460	8.25
26	Chitrakoot	Rainfed	10047	7.53
Chitrakoot division			25116	7.95
27	Fatehpur	Irrigated/Sodic	71543	16.88
28	Pratapgarh	Saline/Sodic	106016	18.69
Allahabad division			177559	17.78
Area jurisdiction			1298394	17.21

12. Normal rainfall: South – Western Semi – Dry Plains (Agra Division) Average rainfall - 662 mm, Mid Plains (Central Plain Zone) Kanpur and Lucknow Division except Kheri and Fatehpur Dists, Average rainfall – 863 mm, Bundelkhand (Jhansi and Chitrakoot Dham Divisions) Average rainfall – 867 mm

13. Soil type and fertility status:

- * South-Western Semi-Dry Plains – The soils are alluvial in nature and affected by salts.
- * Mid Plains (Central Plain Zone) – The soils of this region vary widely from sandy loam to clay loam. It is the largest zone of highly productive alluvial soils, high fertility with intense irrigation and increased cropping intensity.
- * Bundelkhand – This zone has four broad soils group, namely, Rakar, Parwa, Kabar and Mar characterized by undulated topography, residual and low depth of soil, poor exploitation of ground water because of hard impermeable rocks on the surface.

14. Popular rice varieties:

Rainfed: Saket 4, Govind, Ashwini, NDR 118, NDR 80 and NDR 97

Irrigated: Early duration – Saket 4, Pant 12, NDR 80 and Baranideep

Medium duration – Pant 10, NDR 359, Sarjoo 52, Kranti and Pant 4

Late duration - Samba Mahsuri and Swarna

Hybrids: PHB 71, PA 6444, PRH 10

Saline alkaline soils: Usar Dhan-1, Usar Dhan-2, Usar Dhan-3, Daket 4, CSR 10, CSR 13 and Lakara

Basmati/Aromatic short grain: Pusa Basmati 1, Taraori basmati Pusa Sugandha 4, Pusa Sugandha 5, Ramraj, Rambhog, Vishnuparag, Mahachinnabar and Bejhari

15. Major production constrains:

- * South-Western Semi-Dry Plains
 1. Problem of Brackish water
 2. Problem of micro nutrient deficiency
 3. Poor seed replacement rate
- * Mid Plains (Central Plain Zone)
 1. Problem of sodicity
 2. Depletion in ground water table
 3. Poor seed replacement rate
 4. Low yield of indigenous scented cultivars of rice
 5. Problem of micro nutrient deficiency
- * Bundelkhand (Jhansi and Chitrakoot Dham Divisions)
 1. Lack of irrigation water
 2. Predominant of arable and degraded lands
 3. Grazing of crops by stray cattle

Constraints common to all zones:

- Poor and limited resource base of farmers

- Scarcity of labour in peak period of operations
- Stray cattle menace.
- Non availability of inputs including credit facility at proper time.
- Lack of proper facility for skill upgrading of farmers on risk management.

16. Major contribution of the centre in terms of varieties/technologies developed:

- Centre developed two varieties – Ashwini and Usar-1.
- Developed production technology for the cultivation of rice in Saline and Alkaline soils.
- Developed fertility management package for hybrid rice
- Screened out best hybrids for University's area jurisdiction
- Screen out varieties against insect pest
- Found out established method for rice cultivation ie. Aerobic rice, SRI, ICM
- For University's area jurisdiction

17. Any other relevant information: Work is in progress for hybrid development and genetic refinement of Aromatic short grain varieties.