AGRICULTURE RESEARCH STATION, TULJAPUR, DIST. OSMANABAD

No. STP/ **383** /07 Date:15 /12 /2007

Information on AICRIP Centre

1. Name of the University under which the centre is functioning : -

   Marathwada Agriculture University, Parbhani (Maharashtra.)

2. Name of the centre with postal address, Tel.& Fax, e-mail: -

   Agricultural Research Station, Tuljapur. Dist. Osmanabad. PIN : 413603

   Phone No.: 02471-242060

3. Name of the person in-charge with e-mail ID & Mobile phone No.:
   - Prof. N. G. Kurhade, Mobile no.: 9422873064

   Email id: van_satish77@rediffmail.com

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

   Dhutmal R. R. Jr. Rice Breeder, Mobile no.: 9420529504

5. Year of establishment as AICRIP Centre: -

   1980-81 as Plan Scheme funded by ICAR New Delhi.

6. Lists of Scientists currently on AICRIP roll-discipline wise:

Sr. No.	Designation	Name	No. of Posts	Filled	Vacant	Remaks
1	Jr. Rice Breeder	R. R. Dhutmal	01	01	--	Joined on 5/2/07
2	Jr. Agronomist	Vacant	01	--	01	
	Total		**02**	**01**	**01**	

7. List of other AICRIP staff : Nil

8. Region of the state represented by the centre : Marathwada Region
9. Rice ecologies represented : Rainfed upland – Black Soil.
10. Districts of the state covered : Osmanabad, Latur, Parbhani, Nanded, Hingoli,

    Beed, Aurangabad, Jalna.
11. Rice area in each of these districts - ecology wise:

Sr. No.	Districts		Area (00 ha)
1	Osmanabad		63
2	Latur		107
3	Parbhani		70
4	Nanded		178
5	Hingoli		46
6	Beed	}	160
7	Aurangabad		
8	Jalna		

12. Normal rainfall : 750 mm

13. Soil type & fertility status : Soils of these regions are typically vertisols;

    medium to deep black having about 40-65 % clay
    calcareous in nature with pH ranges from 7.5 - 8.5.

14. Popular rice varieties : Terna, Ambica.

15. Major production constraints : i. Severe iron chlorosis symptoms exhibited by

    high yielding dwarf and semi dwarf varieties
    on black soil.

    ii. Due to vagaries of monsoon upland rice crop
    frequently succumb to the severe moisture
    stress during the critical growth stages.

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

1. Rice Breeding :

On the basis of superiority in yield potential, tolerant to drought and blast disease, early duration (105-110 days) was released under the name **Ambica** in the year 1984-85 and was released under the name **Terna** during the year 1989-90 for upland rainfed area of the region.

2. Agronomy :

a) Agronomical trial conducted on seed rate of rice revealed that 40 kg seed per ha is sufficient.

b) The experimental finding for nitrogen and row spacing indicated that 50 kg N/ha with 30 cm row spacing is optimum for upland rainfed rice.

c) Experiments conducted on rice-based cropping system revealed that rice-gram is beneficial as compared to rice-sunflower, rice-safflower, rice-lentil systems.

d) In rice based intercropping system 6:2 proportion of rice and red gram was beneficial than sole crop of rice.

d) Weed management of direct sown rice under rainfed upland condition revealed that two hand weeding 20 and 40 DAS is the best practice. Among weedicides, pendimenthalin 30 EC @ 1.5 kg per ha was found effective to control the weeds.

3. Plant Pathology :

1. Paddy seed treatment with Bavistin 25 SD @ 4 gm/ kg of seed followed by one spray of Bavistin 50 WP (1gm/lit) at the time of earliest notice of the blast lesions and second spray of Hindson 50 EC (1ml/lit) 15-20 days later to be adopted.

2. Seed treatment with Carbendazim @ 1 gm/kg of safflower seed and Carboxing @ 1 gm for gram seed are advocated.

3. Paddy cultures developed at this station viz. TUP-9, TUP-26, TUP-28, TUP-34, TUP42 and TUP-47 were identified promising against foliar as well as neck blast disease under nursery condition.

4. Paddy seed treatment with Fongorene 50 WP @ 4 gm/kg of seed followed by two sprays of Bavistin 50 WP @ 1 gm/lit at tillering and panicle initation stages was significantly superior in minimizing the foliar as well as neck blast incidence with increased grain yield.

5. There sprays of Indemorph (Calixin) 80 EC @ 0.7 ml/lit of water at 30,42 and 54 days after planting is recommended for control of powdery mildew

of repeseed-mustard.

4. Entomology :

1. Spraying of Endosulfan 0.04 % and Sumicidin 0.01% gave highest grain yield of paddy by reducing stem borer infestation.

2. It is observed that the spraying of Endosulfan 0.07% at initiation of flowering and 15 days later gave significantly highest grain yield over control by reducing the gram pod borer infestation.

3. The treatment of first spray of HNPV-250 LE/ha followed by second spray of Monocrotophos 0.04% and third spray of HNPV 250 LE/ha gave highest grain yield by reducing the pod borer infestation in arhar.

4. In case of control of soybean leaf miner experiment it was observed that spraying of Endosulfan 35 EC @ 0.05% at 10% ETL level resulted in increase in yield and pest control.

17. Any other relevant information :

At Agricultural Research Station, Tuljapur the research work is ongoing for the development of superior varieties, suitable for drought areas, resistant to iron chlorosis, long slender grain type in addition to high yield. In this year, considering the interest of farmers and consumers of our locality, we have started a breeding programme to develop aromatic varieties. To facilitate the objectives, we are conducting IVT – aromatic short grain trial and emphasis will be given to isolate genotypes showing good performance in our ecology for their use in our breeding programme.Secondly the work on collection, evaluation and maintenance of land races is in progress.