

## Information on AICRIP Centre- Pattambi

- 1 Name of the University/Dept. under which the center is functioning Kerala Agricultural University
- 2 Name of the centre with postal address, Tel, Fax & E-mail Regional Agricultural Research Station, Mele Pattambi (Post), District Palakkad, 679 306 (Pin), KERALA. Ph/Fax: 0466 2212228/2212275 Email: [rarsptb@kau.in](mailto:rarsptb@kau.in)
- 3 Name of the person in charge with email id & mobile phone No. Prof. P V Balachandran, Ph. D Email: [Pvbalu2004@yahoo.com](mailto:Pvbalu2004@yahoo.com) Mobile No.: +91 9447 625698
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- 5 Year of establishment as AICRIP Centre 1963
- 6 **List of scientists currently on AICRIP roll – Discipline-wise:**

Sl No	Designation	Discipline	No. of posts sanctioned
i	Associate Professor	Agronomy	1
		Plant Pathology	1
		Plant Breeding	1
		Agriculture Entomology	1
ii	Assistant Professor	Plant Pathology	1
		Plant Breeding	1
		Plant Physiology	1

### 7 List of other AICRIP Staff

Sl No	Designation	Number of posts sanctioned
i	Farm Officer (Agri)	4
ii	Driver	1

- 8 Region of the state represented by the Center Central Zone

9 Rice ecologies represented

1. Upland
2. Lowland

10 Districts of the state covered

1. Eranakulam
2. Thrissur
3. Palakkad
4. Malappuram

11 Rice area in each of the districts -ecology wise

<b>Eranakulam</b>	Upland	80000 ha
	Lowland (Pokkali)	20000 ha
<b>Thrissur</b>	Upland	10000 ha
	Lowland (Kole)	20000 ha
<b>Palakkad</b>	Upland	60000 ha
	Lowland	
<b>Malappuram</b>	Upland	20000 ha
	Lowland	

12 Normal Rainfall (for 2007)

2559.8 mm

13 Soil type & fertility status

Lateritic Sandy Loam & Moderate Fertility

14 Popular rice varieties

Jyothi, Aathira, Swarnaprabha, Matta, Thriveni, Neeraja, Nila, Kairali, Kanchana, Aiswarya, Mangalamashuri, Karuna, Harsha, Varsha, Swetha and Anaswara.

15 Major production constraints

1. Labour shortage
2. Lack of mechanization
3. High cost of labour and cultivation
4. Marketing and procurement problems

16 **Major contributions of the center in terms of varieties/technologies developed:**

Efforts for yield improvement, initially improvement of traditional rice varieties resulting in the release of 34 improved traditional varieties with an average yield of 800kg/ha to 2500kg/ha. These improved traditional varieties are known nationally and internationally as donors for biotic and abiotic stress resistance breeding. PTB 10- Thekkancheera, very short duration variety possesses gene for high photosynthetic efficiency – is utilized throughout the world in hybridization programmes. PTB- 33, is another important donor variety, carrying genes against 3 biotypes of BPH. PTB 18, PTB 21 are also worth mentioning as donors of multiple resistance.

Annapoorna (PTB 35) is the first short duration high yielding variety of India, developed through hybridization released in 1966 from Pattambi. Subsequently 24 high yielding varieties suitable for different rice ecosystem were released from this station. Jayathi (PTB 46) is an internationally known high yielding multiple resistant variety released from Pattambi. Four photo period sensitive high yielding varieties released for rabi season with high fertilizer use efficiency. This includes Rasmi (Ptb 44) Anaswara (Ptb 58). Anaswara (PTB 58) released in 2007 by 'γ' irradiation of PTB 20 has excellent cooking quality.

Hybrid rice research programme was launched to identify effective maintainers and restorers for CMS lines. KAURH2 a white kernelled hybrid has been developed and is under evaluation.

Many varieties with abiotic stress tolerance were also released from this station. PTB 47 and PTB 48 (Neeraja and Nila) are high yielding varieties with tolerance to deep water submergence. PTB 42, 43 and 55 are drought tolerant suitable for upland rice cultivation. PTB 44 (Rashmi) is mutant with salinity resistance. Mangala Mahsusri (PTB 53) and Karuna (PTB 54) are tolerant in iron toxicity and shallow flooding. Identification of suitable varietal interventions under AICRIP has been one of the major objectives of the station. Multilocation trials of selection from IET 14735 were released as Swetha (PTB 57).

Concerted efforts were taken for collection and conservation of rice biodiversity. State wide exploitation in collaboration with NBPGR for collection, conservation, Characterization and evaluation of rich genetic diversity of rice was initiated in this station and strengthened under NATP.

The Seed Testing Laboratory at Regional Agricultural Research Station, Pattambi undertake official tests for seed certificate and seed law enforcement to ensure uninterrupted supply of quality seeds of high yielding varieties to the farmers, the National Seed Project was formulated. Studies conducted in this station showed that storability of seeds can be extended up to 14 months if packed in 400 gauge polylined cloth bag at 10 per cent moisture level. Maintenance breeding of popular High Yielding Varieties through nucleus seed and breeders' seed production are the major work undertaken in seed project. Foundation seed (50-60 tonnes) of important varieties are also produced here. Under farmer participatory seed programme, 125 tonnes of truthfully labeled seed are annually produced.

Inclusion of chemicals carbofendithion for control of rice stem borer and leaf folder from the experiments IET in Package of Practices released by K A U. Adhoc recommendation of Acephate and Thiomethoxam Manist BPh from AICRIP trials. The chemicals like profenophos Manist leaf folder, Indoxycarb against stem borer, leaf folder and case worm, carbosulfom granules against stem borer approved by ZREAC for inclusion in Bp of the University from AICRIP trials.

1. The foliar spray of Bavistin 50WP @ 500 g/ha. For the control of rice blast.
2. The fungicide carpropamid @ 1ml/l. is foliar spray for the control of blast has been included in Package of Practices.
3. Seed treatment with Beam 75 wp or Bavistin 50 wp or fungorin 50 wp @ 2g/kg. seed either as seed treatment or as cut seed treatment for the control of rice blast in PoP.
4. Spray of Propiconazole (Tilt 25 Ec) 1 ml/l. for the control of sheath blight included in PoP.
5. Spraying Dithane Z 78 against brown spot – included in PoP.
6. Spraying of cowdung extract @ 20g/l. for the control of bacterial blight is an effective technology developed by the station.
7. Spraying of Isoprothiolane against rice blast @ 1.5 ml/l. Propinab @ 2.5 g/l. against brown spot were found effective and are under farm trial stage.

### **17 Any other relevant information:**

This center has just completed preparation of the Soil Fertility Map of rice growing tracts of Palakkad District and also prepared Soil Fertility Cards for individual farmers. This was a project implemented in collaboration with National Bureau of Soil Science & Land Use Planning, Bangalore and Kerala Soil Survey Organization.