

# BANKURA

## Rice Research Station, Bankura, Natunchatti West Bengal

This rice research station was established in the year 1966 under the Directorate of Agriculture, Government of West Bengal. The objective of this station is to identify varieties suitable for rainfed ecosystem.

### Major Achievements

#### Crop Improvement

- Out of 13 entries nominated from this station, five were found promising and released as varieties. Salient features of these varieties are given hereunder:



#### Puspa (IET 17509)

- Early maturity type
- Non-lodging, Non shattering suitable for early and late sown
- Also suitable under direct seeded and periodical moisture stress condition
- Resistant to leaf blast, leaf folder, BPH and tolerant to RTD and stem borer.
- It is a short bold grain type
- Average yield - 4500-5000 kg ha<sup>-1</sup>
- It has 96.2 ppm iron and 7.2 ppm zinc in whole grain

#### Dhiren (IET 20760)

- BNKR-1 (Dhiren), late duration non-lodging, non-shattering high yielding rice variety
- Grain type is short bold.
- Duration: 142 days
- Moderately resistant to leaf blast, neck blast, brown spot, sheath rot and leaf folder.
- Average yield : 5000-5500 kg/ha





### Sampriti (IET 21987)

- BNKR-3 (Sampriti) is non-lodging, non shattering, late maturing variety
- 50% flowering: 124 days,
- Grain type is long bold.
- Moderately resistant to leaf blast, neck blast, brown spot, sheath rot, sheath blight, RTD, BLB and GLH.
- Average yield : 4500-5000 kg/ha
- Brown rice contains 57.3 mg per kg Fe and 108.4 mg per kg Zn.

### Dhruba (IET 20761)

- BNKR-2 (Dhruba) is non-lodging, non shattering, late maturing variety
- 50% flowering: 117 days
- It is moderately resistant to leaf blast, neck blast, brown spot and leaf folder
- Its average yield is 5000-5500 kg/ha and yield potential 10608 kg/ha
- Grain type is short bold



### Agronomy

- Effect of seed rate and spacing under aerobic rice situation revealed that 30 kg ha<sup>-1</sup> seed rate and 20 cm row spacing were promising for realizing best aerobic rice yield
- Weedy rice per cent was very low and yield loss was also negligible under western zone (Bankura, Purulia, Paschim Medinipur) of West Bengal. Manual weeding and panicle cutting of weedy rice before harvesting of paddy are the control measures recommended.
- Integrated weed management in aerobic rice - Integration of Pendimethalin @1 kg a.i./ha or Butachlor @ 1.5 kg a.i./ha at 3-4 DAS with Bispyribac-sodium @ 35 g. a.i./ha at 15-20 DAS was found effective in reducing weed menace and thus help in realizing higher grain yields that were comparable to or nearer to need based hand weeding at 10, 20, 40 and 60 DAS.

### Soil science

- Study on impact of different sources of organic matter on rice soil health and yield recorded maximum grain yield (4.89 t ha<sup>-1</sup>) with application of recommended fertilizer dose [N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O @ 80, 40, 40 kg ha<sup>-1</sup>] and vermicompost [@ 2.5 t ha<sup>-1</sup>].
- Daransail Bhutmuri, IET 19886, Danaguri Netadhan, IET 20760, Aghonibora, Prafulla, CN 1794-2 , IET 21987, IET 21987, CN1324-913-303-BNKR 13-16-2 and CN1324-913-303-BNKR 13-16-1 were found promising for high Zn and Fe accumulation in brown rice.