

| <b>BIREN (Improved Paddy)</b>         |                                     |
|---------------------------------------|-------------------------------------|
| <b>Seedling Age for Transplanting</b> | Kharif -20- 25 days                 |
| <b>Spacing</b>                        | 20 cm ×15 cm                        |
| <b>Plant Type</b>                     | Semi Tall, Semi Erect & Non lodging |
| <b>Plant Height (cm)</b>              | Kharif -120-125                     |
| <b>No. of Productive Tillers</b>      | Kharif- 13-16                       |
| <b>Days of Maturity</b>               | Kharif -140-145 days                |
| <b>Grain Type</b>                     | Short Bold                          |
| <b>Grain Yield (t./ha)</b>            | <b>Kharif – 6.0 - 7.0</b>           |

### **Cultivation Procedure**

- Seed rate:** 30-35 kg/ha or 12-14 kg/acre
- Seed treatment:** Carbendazim (2 gm/kg)
- Area for Seedbed:** 10 decimal
- Nutrient Management for Seedbed:** In Aman [Kharif] season recommended dose of N: P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O @ 3.2:1.6:1.6 / 10 decimal.
- Seedbed Preparation:**
  - After first ploughing waterlogged condition maintained for 7 days.
  - During final land preparation, fertilizer applied IFFCO 10:26:26 @ 06 kg and Urea @ 06 kg / 10 decimal.
  - Raised beds are prepared after final ploughing then seeds are sown.
- Main Field preparation:** Well ploughed (2-3 thorough ploughings), drained & levelled field condition during kharif seasons. Alluvial & clay-loam soils are best suited for its cultivation.
- Nutrient Management:** In Aman [Kharif] season recommended dose of N: P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O @ 32:16:16 / acre .
  - Time of Application:** Basal dose (before or at transplanting) ½ of N + full P + ¼ K, ¼ N at active tillering stage and remaining N ¼ & ¼ K at panicle initiation stage. In zinc deficient areas applied zinc sulphate @8-10 kg/acre at 3 crop season interval.
- Water/Irrigation Management:**
  - Maintain **2–5 cm standing water** in early stages after transplanting.
  - Life-saving irrigation should be given at **i.** Transplanting stage **ii.** Tillering stage **iii.** PI stage **iv.** Milking stage.
  - Alternate Wetting & Drying (AWD) should be followed for better yield.
  - Irrigation should be stopped before 12-15 days of harvesting.
- Weed Management:** First Hand weeding 21 days after transplanting. Apply weedicide as per the instruction of nearest Agriculture scientist/KVK.
- Plant Protection:**
  - Insect Pests & their management:**
    - ✓ **Yellow stem borer/ Paddy stemborer:** CartapHydrochloride 50 % SP 8 kg/acre, Fipronil 5% SC 2ml/L.
    - ✓ **Leaf folder:** Avoid excessive nitrogenous fertilizers, Apply- CartapHydrochloride 50 % SP 8 kg/acre.
    - ✓ **Brown Plant Hopper:** Pymetrozine 50% WG) 120g/acre, Imidacloprid 2ml/L.
    - ✓ **Rice Earhead Bug/ Gundhi Bug:** Imidacloprid 17.8 SL @ 2ml /L, Malathion 50 EC @ 1.15 g/L or 230 g/acre.
  - Disease & their Management:**
    - ✓ **Sheath blight & Sheath rot:** Propiconazole 25% EC @ 1ml/litre water, Hexaconazole 5% EC @ 2ml/litre, Validamycin 3% L @ 2ml/litre.
    - ✓ **Blast:** Tricyclazole 75% WP @ 0.5g/litre.
    - ✓ **Brown spot:** Mancozeb 75 WP @ 2.5 g/L, Carbendazim 50 WP @ 1 g/L, Propiconazole 25 EC @ 1 ml/L.
    - ✓ **Bacterial leaf blight:** Streptocycline @ 1g/10litre water.
    - ✓ **False smut:** Carbendazim+Mancozeb @ 1.5ml/L
- Harvesting:** Harvesting should be done at physiological maturity stage i.e. when 80% of panicles are matured.
- Post-harvest operations:**
  - Threshing:** Threshing is done after sun drying of the harvested paddy is done. Before threshing of rice, the thresher should be shaken or cleaned well so that no other rice variety gets mixed.
  - Sunning:** The moisture percentage of paddy remains 17 to 18 % at the time of harvesting, so we need to expose the paddy to sun for at least 3 to 4 times to decrease the moisture percentage for better viability. Moisture content is kept below 12% before storing them in godown.
  - Winnowing:** After threshing, and drying winnowing should be done to remove the sterile or chaffy grains.
  - Bagging and Storage:** Threshed clean paddy should be bagged well & stored in the godown. Lot number should be maintain as per plots.