

Agro Advisory Service for Rice
ICAR - National Rice Research Institute, Cuttack - 753006

Strategies for First Fortnight of July 2020

Dry Direct Seeded Rice

(i) Lowland dry direct seeded rice

- ☞ In semi-deep/deep water direct areas where direct seeding has already completed, to control weeds apply Bispyribac sodium 10% SC @ 120 ml/acre in 120 litres of water (8 tank of 16 lit capacity sprayer) at 8-10 days after emergence when the weeds are at 2-3 leaf stage as an alternate to manual weeding or apply tank mix of Fenoxaprop-p-ethyl + Ethoxysulfuron (Rice star + Sunrise) @ 260 + 50 g/acre at 15-20 DAS as an alternate to manual weeding.

(ii) Upland dry direct seeded rice

- ☞ In upland rice to control weeds spray herbicide Bispyribac sodium 10% SC at 120ml/acre in 120 litres of water at 8-10 days after emergence when the weeds are at 2-3 leaf stage as an alternate to manual weeding.

Transplanted rice

- ☞ For shallow lowland transplanted rice, use quality seed of varieties like CR Dhan 307(Maudamani), CR Dhan 303, CR Dhan 304, MTU 1001, MTU 1010, Naveen, CR Dhan 310, DRR 44, Improved Lalat, CR Dhan 301 (Hue), CR Dhan 800, CR Dhan 404, Swarna, Pooja, Swarna Sub 1, CR Dhan 311 (Mukul), CR Dhan 409 (Pradhan Dhan) and BPT 5204.
- ☞ For costal saline region farmers are advised to use salt tolerant varieties like CR Dhan 405 (Luna Sankhi), CR Dhan 403 (Luna Suvarna) and Lunishree
- ☞ Farmers those are interested to grow hybrids in irrigated medium and shallow lowland are advised to use varieties like Ajaya, Rajlaxmi, CR Dhan 701, KRH-2 and PHB 71
- ☞ Farmers those are interested for aromatic rice are advised to use quality seeds of varieties like Geetanjali, CR Sugandh Dhan 907, CR Sugandh Dhan 908 and CR Sugandh Dhan 910.
- ☞ Prepare seed beds of 1.2 m width, 10 cm high of convenient length. In-between two beds keep well defined irrigation/drainage channel of 30 cm width. About 320 m² areas are required to raise seedlings for transplanting of one acre main crop.
- ☞ Use seed rate of 12-16kg/acre for HYV depending on test weight of seeds, for hybrids use 5-6 kg/acre.
- ☞ Mechanical separation by dipping rice seeds in 2% brine solution (20 g common salt in 1 litre of water) helps not only selection of high-density seeds but also removal of floating weed seeds.
- ☞ Complete the seed treatment with Carbendazim 50 WP at 1.5 g/kg of seed for wet treatment or 2 g/kg of seed for dry treatment. As an alternate Seed may be treated with *Trichoderma viride* @ 10 gm per Kg of seed before sowing. Farmers are advised to avail the seed treatment facilities provided by state Agriculture Department in their locality.
- ☞ Complete the sowing in dry nursery. For lowland /irrigated area farmers are advised to go for wet bed nursery in the land where irrigation and drainage facilities are available.

- ☞ Sow the seeds uniformly in the nursery bed at a density of 30-40 g/m² nursery area for HYV, for hybrids maintain seed density 15-20 g/m² nursery.
- ☞ Apply 2 baskets of FYM per 40 sq m of nursery area along with application of 4 kg each of nitrogen, phosphorus and potash in 320 m² area of nursery bed (Urea 9kg, 25kg SSP, 6.7 kg MOP or 9kg DAP ,6.7 kg MOP and 5 kg urea)
- ☞ To control weeds in rice nursery apply pyrazosulfuron ethyl @ 80 g/acre at 0-3 DAS.
- ☞ If infestation of thrips is notice in rice nursery, spray NSKE (Azadirachtin) @ 800 ml/acre or Lambda-cyhalothrin 5 % EC @ 100 ml/acre or Thiamethoxam 25 % WG @ 40g /acre.
- ☞ In root-knot nematode and stem borer endemic areas, carbofuran granules @ 3 g/sq. m or phorate @ 1g/sq. m or diazinon @ 1g/sq. m is to be applied after 5 days after sowing
- ☞ If infestation of seedling blight is noticed, apply Propiconazole (Tilt) @ 1 ml/ 1litre of water.
- ☞ For transplanting by using mechanical transplanter, mat nursery preparation should begin 15-20 days prior to transplanting. Prepare the soil mixture by taking fine (pass through 2 mm sieve) and weed seed free soil. Mix this fine soil with farm yard manure or compost or vermicompost in 4:1 ratio. After thorough mixing, spread the mixture for about 2 cm thickness on the frame or plastic sheet. For spreading the soil over plastic sheet and making it uniform, use a wooden or iron frame divided into 4 equal segments. Fill the frame almost to the top with the soil mixture and level it. Spread the pre-germinated seeds over the soil mixture evenly. After spreading, cover the seed with a thin layer (0.5 cm) of soil mixture and a thin layer of straw or banana leaves if the nursery is grown in open area. Remove the straw or banana leaf cover after 2-3 days. Maintain the soil moisture by providing irrigation at regular interval.
- ☞ Main field land preparation should be done by puddling the field twice at 7-10 days intervals and land leveling for uniform crop stand. Apply 0.8 t/acre of well decomposed FYM before first puddling.
- ☞ For high yielding varieties apply 4 kg of urea, 44 kg of DAP and 33 kg of MOP or 22 kg of urea, 125 kg of SSP and 33kg MOP as basal dose at the time last puddling. In sandy soil apply 4 kg of urea, 44 kg of DAP and 16.5 kg of MOP or 22 kg of urea, 125 kg of SSP and 16.5 kg MOP as basal dose.
- ☞ For hybrids, apply 6 kg of urea, 52 kg of DAP and 30 kg of MOP or 26 kg of urea, 150 kg of SSP and 30kg MOP as basal dose at the time of final puddling.
- ☞ In zinc deficient areas apply Zinc Sulphate @ 10 kg/acre (once in two years) at the time of final land preparation.
- ☞ In boron deficient soil apply borax @ 2kg/ace at the time of final land preparation.
- ☞ Transplanting of 25-30 days old seedlings should be done at a spacing of 20x15 cm, use 2-3 seedlings per hill for high yielding varieties. For hybrids use only 1-2 seedling per hill.
- ☞ Apply herbicide Bensulfuron methyl + pretilachlor (Londax power/Eraze strong) @ 4kg/acre mixed with 4 kg of dry sand at 3-7 days after transplanting as an alternate to manual weeding.