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ICAR-National Rice Research Institute
(An ISO 9001: 2015 Certified Institute)
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Agro-Advisory Service

Please follow COVID-19 guidelines of the Ministry of Health and Family Welfare, Govt. of India/Odisha, while doing any agricultural operations.

Strategies for Second Fortnight of July, 2022

Dry Direct Seeded Rice in Upland

- ❖ To control weeds in direct seeded upland rice, please spray Bispyribac sodium 10% SC @ 120ml/acre in 8 tanks of 16 litre capacity sprayer at 8-10 days after emergence of weeds (or when the weeds are at 2-3 leaf stage) or Fenoxaprop-p-ethyl 9 EC @ 260 ml/acre at 20 days after in moist soil as an alternative to manual weeding.
- ❖ In upland areas, where herbicide has not been applied, first manual weeding or mechanical weeding by operating finger weeder or wheel hoe may be done. After weeding, 26 kg of urea/ acre may be applied as top dressing.

Dry Direct Seeded Rice in Lowland

- ❖ To control weeds in direct seeded lowland rice, spray Bispyribac sodium 10% SC @ 120ml/acre in 8 tanks of 16 litre capacity sprayer at 8-10 days after emergence of weeds (or when the weeds are at 2-3 leaf stage) or tank mix of 260g of Fenoxaprop-p-ethyl (Rice star) + 50g of Ethoxysulfuron (Sunrise) per acre at 15-20 DAS in moist soil.
- ❖ In semi deep/deep water areas, where direct seeding has been done and herbicide is not applied for weed control, '*beushening*' may be done after accumulation of sufficient water (at least 7-10 cm standing water) in the field. After *beushening*, 18 kg of urea/acre may be applied as top dressing.
- ❖ In rainfed shallow lowland areas where direct seeding has been done and herbicide has not been applied to control weeds, '*beushening*' may be done after accumulation of sufficient water (at least 7-10 cm standing water). After *beushening* 36 kg of urea/acre may be applied as top dressing.

Transplanted Rice

- ❖ In saline soil and seawater inundated areas, farmers are advised not to go for dry bed nursery. In such areas, community nursery may be raised in less saline affected land with assured irrigation facilities.
- ❖ Nursery sowing should be completed by end of 2nd fortnight of July.
- ❖ In assured irrigated areas, select the land for wet bed nursery close to source of irrigation water with good drainage facilities. It is advised to follow community nursery approach at village level.
- ❖ To transplant one-acre area, about 320 m² area (8 cents) nursery beds are required. Prepare wet nursery raised beds of 10cm high, 1.2-1.5 m wide and of convenient

length. Well defined irrigation/drainage channel of 30-45 cm width must be kept in between two beds.

- ❖ Use 14-16 kg seeds/acre for HYV and 5-6kg/acre for hybrids for nursery sowing. In less fertile lands apply fertiliser @ 6-3-3 g of N, P₂O₅, K₂O /m² of nursery at the time of land preparation. In zinc deficient soil, apply 960 grams of zinc sulphate to 8 cents of rice nursery as basal dose.
- ❖ Before sowing, the seeds should be treated with *Trichoderma* dust formulation @ 10g/kg of seeds (Soak the paddy seeds in water for 8 hours, decant water, mix with *Trichoderma* dust formulation and store as a heap covered with moist sack or polythene sheet for 12-24 hours before sowing in nursery **or** seed can be treated with Captan 50% (Capgold / Captara) or Thiram 75% (Thiram 75 / Thirox) @ 3g per kg of seed or any other seed treating chemicals provided by the State Government agencies.
- ❖ In heavy weed infested areas, spray Pyrazosulfuron-ethyl @ 80 g/acre in 8 tanks of 16 litre capacity sprayer at 3-5 DAS to control weeds in rice nursery **or** Bispyribac sodium 10% SC @ 120ml/acre in 8 tanks of 16 litre capacity sprayer at 8-10 days after emergence of weeds (or when the weeds are at 2-3 leaf stage).
- ❖ If infestation of thrips is noticed 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 @ 3g/sq.m or Phorate @ 1g/sq.m **or** Diazinon @ 1g/sq.m in nursery area is to be applied 5 days after sowing.
- ❖ In case of seedling blight disease appearance, apply Propiconazole @ 1 ml/ litre of water.
- ❖ If leaf blast is observed in rice nursery, spray Tebuconazole 50% + Trifloxystrobin 25% WG @ 0.4g **or** Isoprothiolane 40EC @ 1.5ml per litre of water. Repeat the spray at 7-10 days interval.
- ❖ To control Bakanae disease in rice nursery, spray Carbendazim 50WP @ 1g or Carbendazim 64% + Mancozeb 8% 75WP @ 1.5g per litre of water and repeat the spray at 7-10 days' interval.
- ❖ In-case of brown spot, spray Propiconazole 25EC @ 1ml **or** Mancozeb 75WP **or** Carbendazim 64% + Mancozeb 8% 75WP @ 1.5g per litre of water.
- ❖ In-case of rice tungro disease, manage green leaf hopper by spraying Imidacloprid 17.8SL @ 0.25 ml **or** Thiamethoxam 25WG @ 0.2 g per litre of water.
- ❖ Keep 3 pheromone traps /acre of rice nursery for monitoring the stem borer and leaf folder infestation. Whenever the number of male moths/trap reaches 4 or 5 apply Azadirachtin 0.15% EC @ 800 ml/acre or Chlorantraniliprole 0.4% GR @ 4kg/acre mixing with sand at 1:1 ratio or spray Chlorantraniliprole 18.5% SC @ 60 ml/acre in 200 litres of water or Cartap hydrochloride 4G @ 10kg/acre.
- ❖ In-case of case worm, spray Indoxacarb 15.8% EC @ 80 ml/acre **or** Flubendiamide 39.35% SC @ 20ml/acre.
- ❖ For transplanting by using mechanical transplanter, mat nursery preparation should begin 15-20 days prior to transplanting. Mix 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 seedling trays or polythene sheet. For spreading the soil over polythene 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. Seedlings raised in one cent area is sufficient to transplant in one-acre area.

- ❖ Main field land preparation should be done by puddling the field twice at 7-10 days intervals and land levelling for uniform crop stand. About 0.8 t/ acre of well decomposed FYM may be applied before first puddling.
- ❖ Incorporate the *dhaincha* green manuring crop at the time of initial puddling of main field.
- ❖ For high yielding varieties apply 35 kg of DAP + 27 kg of MOP **or** 18 kg of urea + 100 kg of SSP + 27 kg MOP per acre as basal dose at the time last puddling. In sandy soil apply 35kg of DAP and 13.5 kg of MOP **or** 18 kg of urea + 100kg of SSP + 13.5kg of MOP per acre as basal dose.
- ❖ For hybrids, apply 53 kg of DAP + 27 kg of MOP **or** 26 kg of urea + 150 kg of SSP + 27 kg MOP as basal dose at the time of final puddling.
- ❖ In zinc deficient areas. apply Zinc Sulphate @ 10 kg/acre or zinc-EDTA @ 6kg/acre(once in two years) at the time of final land preparation.
- ❖ In boron deficient soil apply Borax @ 2kg/acre at the time of final land preparation.
- ❖ Transplanting of 25-30 days old seedlings should be done at a spacing of 20 x15 cm at shallow depth, use only 2-3 seedlings per hill for high yielding varieties. For hybrids use 1-2 seedling per hill.
- ❖ To control weeds, apply granular herbicide Bensulfuron methyl 0.6% + Pretilachlor 6% GR @ 4 kg/acre mixed with 4kg of sand within 5 - 10 days after transplanting **or** Bispyribac sodium 10% SC @ 120ml/acre in 8 tanks of 16 litre capacity sprayer at 8-10 days after emergence of weeds (or when the weeds are at 2-3 leaf stage).
- ❖ Farmers are advised to download and use NRRI developed **riceXpert** mobile App (available in Google Play store) for getting information on all aspects of rice crop.

Advisory for rainfed areas, which have not received normal monsoon

- ❖ In scanty rainfall areas where upland rice is not takenup, sowing of short duration other crop varieties of green gram, black gram, ragi, groundnut and red gram may be completed by utilising available soil moisture.
- ❖ In heavy rainfall areas, stop the sowing of seeds and top dressing of fertilisers or herbicides for time being.
- ❖ In direct seeded rice first top dressing of fertiliser may be done with the availability of the soil moisture.
- ❖ Do not spray herbicides in rice field to control weeds when there is no sufficient soil moisture.
