



भा.कृ.अनु.प – राष्ट्रीय चावल अनुसंधान संस्थान
ICAR-National Rice Research Institute
(An ISO 9001: 2015 Certified Institute)
Cuttack – 753 006, Odisha, India



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 First Fortnight of September, 2022

- ❖ Undertake gap filling with seedlings (left over/aged) or clones separated from the same field in order to maintain a plant population of 33 hills per m².
- ❖ For delayed transplanting by using the old age seedling farmers are advised to use up to 25-30 days old seedlings of early or medium early varieties and 45-50 days old seedling of long duration varieties. Transplant the old seedling in puddled soil in strait at shallow depth at a closer spacing of 15 x15 cm with 4-5 seedlings 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). **or**, spray ready mix Penoxulam + Cyhalofop butyl (Vivaya) @ 900ml/acre **or**, tank mix Fenoxaprop-p-ethyl + Ethoxysulfuron (Rice star + Sunrise) @ 240+50 g/acre at 15-20 DAT in 8 tanks of 16 litre capacity sprayer at 15-20 days after transplanting.
- ❖ In early transplanted rice, if problem of thrips is noticed, farmers can go for neem seed kernel based insecticide like Azadirachtin 0.15% @ 1 lit/acre or spray Lambda-cyhalothrin 5% EC @ 100ml/acre or Thiamethoxam 25 % WG @ 40 g/acre in 200 litre of water.
- ❖ In stem borer endemic areas, release egg parasitoid *Trichogramma japonicum*@ 20000 eggs /acre (1-2 cards /acre) at weekly interval. 4-5 such releases to be made.
- ❖ Fix light trap @1/acre to attract and trap/kill adults of stem borer, leaf folder and other pests.
- ❖ Place 3 pheromone traps with lures/acre of rice field for monitoring the stem borer and leaf folder infestations. 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 or, Tetraniliprole 200 SC @ 100 – 120 ml/acre in 200 litres of water **or**, Flubendiamide 20 WG 50g/acre in 200 litres of water **or**, Cartap hydrochloride 4G @ 10kg/acre
- ❖ Whenever two folded leaves/ hill observed, then to control leaf folder, spray Chlorantraniliprole 18.5% SC @ 60 ml/acre **or**, Flubendiamide 20 WG 50g/acre **or**, Cartap

hydrochloride 50 WP@ 400 g/acre **or**, Tetraniliprole 200 SC @ 100 – 120 ml/acre in 200 litres of water.

- ❖ In Zinc deficient soil, if Zinc sulphate ($ZnSO_4$) has not been applied during final land preparation, spray Zn-EDTA @ 0.5 g/litre of water at 30 and 45 days after transplanting of rice **or**, spray 0.5% $ZnSO_4$ solution (2 kg $ZnSO_4$ +10 kg of lime in 400 litres of water in one acre) thrice at 15 days' interval on appearance of deficiency symptom in the field.
- ❖ If there is infection of sheath blight, on appearance of diseases in 1-2 tiller, spray Tebuconazole 50% + Trifloxystrobin 25% WG @ 0.4 g **or**, Propiconazole 75% @ 1ml per litre of water **or**, Hexaconazole 50% @ 2ml per litre of water **or**, Validamycin 3 L @ 2ml/litre. Repeat the spray at 7-10 days' interval. Use 200 litre solution for one-acre area.
- ❖ In case of incidence of Bacterial blight/Bacterial leaf streak, apply Plantomycin @ 1 g/litre along with Copper oxychloride @ 0.5-0.75g/litre of water using 200 litre of water per acre.
- ❖ In case of leaf blast incidence, spray Tebuconazole 50%+ Trifloxystrobin 25% (Nativo 75 WG) @ 0.4g/litre **or**, Edifenphos 50 EC @ 2ml/litre or Tricyclazole 75 WP @ 0.6 g/litre of water may be done for controlling the disease. Otherwise, spraying of leaf extracts of Bael (25 g fresh leaves) or Tulsi (25 g fresh leaves) or Neem (200 g fresh leaves) per litre of water can help in reducing the incidence of disease.
- ❖ In case of incidence of brown spot in direct seeded rice, spray Propiconazole 25EC @ 200 ml/acre **or** Mancozeb 75WP @ 400g/acre **or** Carbendazim 50WP @ 400g/acre **or** Carbendazim 64%+Mancozeb 8% 75WP @ 300 g/acre. Use 200 litre solution for one-acre are
- ❖ Do not practice beushening in direct seeded rice if the crop is more than 45 days old.
- ❖ 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.

Post flood management of rice crop in flood affected areas:

Drain out the excess water from rice fields wherever feasible.

Case I: Post flood management of Sub 1 rice varieties:

Where submergence tolerant varieties like Swarna *Sub1*, CR 1009 sub 1, IR-64 *Sub1*, BINA Dhan-11 are planted, the plants may rejuvenate within a week or so. The following practices may be followed to minimise the loss.

- Drain out the excess water from their submerged rice field whenever possible and maintain only 5cm of standing water in the field.

- Wash out the mud from the paddy leaves by spraying of clean water just after receding of flood water if possible.
- Go for gap filling by using tillers, separated from the existing hills or using old seedlings.
- Spray 2% urea at 5-7 days after cessation of flood water. Use 320 lit of water (20 tanks of 16 lit capacity tank) per acre.
- If there is no flow of water from field to field go for top dressing with Urea 12kg and MOP 10kg/acre at Panicle initiation stage.

Case II: Post flood management for other rice varieties

- If flood water ceases from the standing rice crop in few days of submergence and there is mortality of some hills, farmers are advised to go for gap filling by using tillers, separated from the existing hills.
- If crop mortality is more than 50%, farmers are advised to go for re-transplanting with the available aged seedlings with closer spacing (15 x 15 cm) and 4-5 seedlings per hill.
- If the crop is totally damaged pre germinated seeds of short duration cold tolerant rice varieties like Anjali, Ankit, Annapurna, Kalinga-2, Heera, Vandana and Kalyani-2 can be sown directly in puddle field in the completely damaged plots in coastal regions by 15th of September.
- In interior Odisha/ western Odisha, if the crop is totally damaged it is wise to go for short duration non-rice crops like Blackgram, Green gram, Cowpea, Toria and Horsegram.

Case III: Flash flood for few days followed by dry spell then follow the following practices to minimize the crop loss.

- Spray urea 2% @ 500 lit/acre.
- If irrigation water is available, apply irrigation to keep the soil at saturation.
- Top dress urea @12kg and MOP 10kg/acre at PI stage.
