ICAR-National Rice Research Institute
(An ISO 9001: 2015 Certified Institute)
Cuttack – 753 006, Odisha, India

Agro-Advisory Service

Strategies for First Fortnight of September, 2024

- 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 m^2.

- For delayed transplanting, use the old aged seedlings. Farmers are advised to use 25-30days old seedlings of early or medium duration varieties and 45-50 days old seedling of long duration varieties. Transplant the old seedling in puddled soil 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 4 kg of sand within 5 - 10 days after transplanting **or** Bispyribac sodium 10% SC @ 120 ml/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) @ 900 ml/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 at15-20 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 @ 100 ml/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 @ 4 kg/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 50 g/acre in 200 litres of water **or,** Cartap hydrochloride 4G @ 10 kg/acre.

- Whenever two folded leaves/ hill observed, then to control leaf folder, spray Chlorantraniliprole 18.5% SC @ 60 ml/acre **or,** Flubendiamide 20 WG 50 g/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/1 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 disease in 1-2 tiller of a plant, spray Trifloxystrobin 25%+Tebuconazole50% WG @ 0.4 g **or,** Propiconazole 75% @ 1 ml per litre of water **or,** Hexaconazole 50% @ 2 ml per litre of water **or,** Validamycin 3 L @ 2 ml/litre. Repeat the sprayat 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 @ 0.5-0.75 g/litre of water using 200 litre of water per acre.

- In case of leaf blast disease incidence in the leaf, spray Trifloxystrobin 25% + Tebuconazole 50% (Nativo 75 WG) @ 0.4 g/litre **or,** Edifenphos 50 EC @ 2 ml/litre or Tricyclazole 75 WP @ 0.6 g/litre of water may be done for controlling the disease. Use 200 litre solution for one-acre area. Otherwise, spraying of leaf extracts of Bael (25g 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 disease in direct seeded rice, spray Propiconazole 25 EC @ 200 ml/acre **or** Mancozeb 75 WP @ 400 g/acre **or** Carbendazim 64%+Mancozeb 8% 75 WP @ 300 g/acre. Use 200 litre solution for one-acre area.
- 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.

MID/ LATE SEASON DROUGHT

- In midseason drought, it is advisable to raise the bund height and plug the holes in the bunds to arrest the seepage loss and keep the fields weed free.
- Implement efficient irrigation techniques such as alternate wetting and drying that reduces water consumption.
- Apply organic mulches to soil to reduce evaporation losses.
- In uplands, if rice crop is not yet sown or damaged due to drought, farmers should take up short duration low water requiring crops like cowpea (Utkalmanika), blackgram (T-9, Sarala, PU 19, 30), green gram (K851), Horsegram (Urmi) and Sesamum (Kanak, Kalika, Uma, Usha).
- If the crop is completely damaged, go for rice fallow pulses (black gram/ lathyrus) or toria after receipt of sufficient late season rains.
- Crop insurance should be taken to mitigate financial losses on crop failure.