



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 2021

- ❖ 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<sup>2</sup>.
- ❖ Apply herbicide Bensulfuron methyl + Pretilachlor (Londax power/Eraze strong) @ 4 kg/acre mixed with 4 kg of dry sand at 3-7 days after transplanting (DAT) as an alternative to manual weeding **or** spray Pyrazosulfuron-ethyl 80 g/acre at 3-5 DAT **or** spray Bispyribac Sodium 10 SC (Nominee gold) @120 ml/acre at 10-12 DAT (2-3 leaf stage of weed) **or** spray ready mix Penoxulam + Cyhalofop butyl (Vivaya) @ 900 ml/acre **or** spray tank mix Fenoxaprop-p-ethyl (Rice star) 240g + Ethoxysulfuron (Sunrice) 50g per acre at 15-20 DAT in 8 tanks of 16 litre capacity sprayer at 15-20 days after transplanting.
- ❖ In shallow lowland/ medium land transplanted rice, apply 35 kg urea/acre for HYV and 42 kg of urea/acre for hybrids at tillering stage.
- ❖ In Zinc deficient soil, if Zinc sulphate (ZnSO<sub>4</sub>) 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<sub>4</sub> solution (2 kg ZnSO<sub>4</sub>+10 kg of lime in 400 litres of water per acre) thrice at 15 days' interval on appearance of deficiency symptom in the field.
- ❖ In stem borer endemic areas, release egg parasitoid *Trichogramma japonicum* @ 50000 eggs/acre (i.e., 3 cards /acre) at weekly interval until moth activity disappears.
- ❖ Fix one light trap per hectare (i.e., 2.5 acres) to attract and trap/kill adults of stem borer, leaf folder and other insects.
- ❖ Place 3 pheromone traps/acre of rice field for monitoring the stem borer and leaf folder infestations. Whenever the number of male moths/trap/day reaches 3 or more, apply Azadirachtin 0.15% EC @ 800 ml/acre **or** Chlorantraniliprole 0.4%GR @ 4kg/acre mixing with sand at 1:1 ratio **or** Cartap hydrochloride 4G @ 10kg/acre **or** spray Chlorantraniliprole 18.5% SC @ 60 ml/acre in 200 litres of water **or** Flubendiamide 20WG 50g/acre in 200 litres of water.

- ❖ To control leaf folder, whenever two folded leaves/hill are observed, spray Chlorantraniliprole 18.5% SC @ 60 ml/acre **or** Flubendiamide 20WG 50g/acre **or** Quinalphos 25EC 640 ml/acre. Use 200 litres of water per acre for spraying.
- ❖ In case of incidence of infestation of Swarming caterpillar/ Case worm/ Hispa, spray Chlorpyrifos 20EC @ 400 ml/ acre **or** Triazophos 40 EC @ 500 ml/ acre. Use 200 litres of water per acre for spraying.
- ❖ In case of Gall midge infestation, spray Carbosulfan 25% EC @ 400 ml/ acre **or** apply Cartap hydrochloride 4G @ 10 kg/acre **or** Carbofuran 3G @ 10 kg/acre.
- ❖ If population of Brown Planthopper (BPH) exceeds ETL (5-10 hoppers/hill), it is advised to alter the micro-climate of the rice field by alternate wetting and drying technique (water should not stand in the field for long time). If problem still persists, spray Triflumezopyrim 10% SC @ 94 ml/acre **or** Pymetrozine 50% WG @ 120 g/acre **or** Dinotefuran 20% SG @ 80 g/acre **or** Imidacloprid 17.8% SL @ 50 ml/acre **or** Acephate 75% SP @ 400 g/acre. Use pesticides recommended for BPH at specified dose only. Avoid using nitrogenous fertilizers during infestation of BPH.
- ❖ On appearance of sheath blight disease in 1-2 tiller, spray Propiconazole 75% @ 200 ml/acre **or** Hexaconazole 50% @ 400 ml/acre **or** Validamycin 3L @ 400 ml/acre **or** Tebuconazole 50% + Trifloxystrobin 25% WG @ 80 g/acre. 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 Streptomycin sulphate (9%) + Tetracycline hydrochloride (1%) @ 200 g/acre along with Copper oxychloride @ 200 g/acre. Use 200 litre solution for one acre area.
- ❖ In case of leaf blast incidence, spray Tebuconazole 50% + Trifloxystrobin 25% (Nativo 75 WG) @ 80g/acre **or** Carbendazim 50 WP @ 400g/acre of water may be done for controlling the disease. Alternatively, 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. Also, biocontrol agent like *Trichoderma viridae* (minimum 10<sup>6</sup> CFU) @ 2 kg/acre can be used. Use 200 litre solution for one acre area.
- ❖ 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 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 all aspects of rice cultivation.

## **Contingent plan for prevailing moisture stress in rice field due to deficient rainfall and non-availability of irrigation water**

- ❖ Apply top dressing of fertilizers either in transplanted or direct seeded rice if there is sufficient soil moisture in the field, otherwise farmers are advised to postpone the top dressing of fertilizers in the rice field till sufficient soil moisture is attained either by rainfall or irrigation water. In case of transplanted rice in low/ medium land where top dressing of urea has not been applied, spray 2% urea after rainfall.
- ❖ With the availability of sufficient rainfall in coastal Odisha, transplanting of 45 days old seedlings for medium duration varieties and 60 days old seedlings for long duration varieties **or** normal seedlings of short duration varieties grown by Dapog method can be undertaken till 10<sup>th</sup> September. However, in central and western Odisha it is advised not to go for either sowing or transplanting of rice due to coincidence of onset of low temperature during anthesis.
- ❖ Do not apply pre- or post-emergence herbicides to control weeds in rice field when there is no sufficient soil moisture.
- ❖ In direct seeded rice, spray Kaolin 3% **or** KCl 1% **or** Cycocel 1000 ppm (1 ml commercial product/litre of water) to overcome moisture stress.
- ❖ Wherever rice has not been grown due to drought, farmers are advised to grow short duration pre *rabi* crops like Amaranths, Ragi, Horse gram, Green gram, Black gram, Cowpea, Sweet potato and Sesame in upland/medium lands utilising the available soil moisture in the field.

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