

ICAR - National Rice Research Institute, Cuttack 753 006
Agro Advisory Service

Please follow Covid-19 guide lines as per the Ministry of Health and Family Welfare for doing any agricultural operations

Strategies for First Fortnight of January 2021

(1) Winter rice (*Sarad Dhan*)

- Complete the harvesting of winter paddy either manually by sickle or by using combine harvester or reaper. Paddy grains need to be sun-dried to 14% moisture content for consumption purpose and for seed purpose it should be dried to 12% moisture for better self-life. Pack each variety separately without mixing for better price of the produce.
- Farmers who are keeping their own seed are advised to segregate the false smut infected panicles separately so that there should not be any infected panicle harvested for seed purpose.
- For safe storage of paddy/rice, use 'Super Grain Bag' which is helpful for retaining the quality, texture, colour, aroma and taste of the commodities for longer period of time
- Soon after noticing the infestation of the stored grain, take up fumigation by using Aluminium Phosphide (do not use in dwelling houses) tablets @ 3 tablets / ton of grain (total 9 gm of tablets) in fairly air tight containers or by covering grain bags with thick tarpaulin leaving no gaps. The tablets should be wrapped in cotton pouches before placing them in the stacks, which helps to discard the remnants after completing the fumigation. All the corners of plastic cover should be plastered with 6-inch-thick layer of mud/ sand snake/ adhesive tapes to prevent leakage of gas. Maintain minimum exposure period of about 7-10 days for better result.
- If infestation of **Ear cutting caterpillar** is noticed: Use Quinolphos 25EC @ 400 ml/acre **or** chlorpyriphos 20EC @ 500ml/ acre preferably applied in the morning hours at the base of the crop.
- If **Rodent** problem is noticed: Locate the rodent burrow in the crop field and surrounding areas. Place Aluminium phosphide 6% tablet @ One tablet (12 gm) per burrow and seal the burrow with mud which will kill the rodents.
- Farmers are advised not to burn the rice straw.

(2) Summer rice (*Dalua Dhan*)

- Farmers interested to grow dry/summer rice, should procure/arrange good quality seeds of varieties CR Dhan 601, CR Dhan 602, Chandan, Improved Lalat, Lalat, Naveen, CR Dhan 310, Satabdi, Bina Dhan 11, CR Dhan 205, CR Dhan 206, 'MTU 1010', MTU 1001, Luna Sankhi (for saline area) etc.

(2.1) Transplanted rice

- Prepare the wet nursery seed beds in puddled soil of 120 cm wide and of convenient length with 30 cm gap in between two beds. About 320 m² nursery areas are required for transplanting one-acre main field.

- Seed treatment should be done with carbendazim 50 WP @ 1.5 g/kg of seed or 10g of *Trichoderma* / *Pseudomonas* formulation /kg of seed.
- Use 14-16 kg of HYV seeds for raising nursery for transplanting in one-acre area. Complete the sowing of pre-germinated treated seeds in wet nursery uniformly.
- In severe cold region, farmers are advised to go for sowing of pre-germinated seeds in wet nursery bed when night temperature records above 10 °C.
- To protect the rice nursery from cold injury, apply a thin layer of well decomposed FYM after sowing of seeds in wet bed to keep the bed relatively warm. Preferably use bore well water for irrigation at evening and drain out the cold water at morning to maintain the soil temperature favourable for growth. In severe cold affected areas use polythene cover at night time.
- For production of healthy seedlings, apply 2.5:10:5 g m⁻² (N: P₂O₅: K₂O) along with 2.5 Kg m⁻² of organic manure, 0.5 g m⁻² Zn as basal dose followed by top dressing of 2.5 g N m⁻² at 15 DAS
- Irrigation water should be applied in furrows to maintain saturated condition in the surface soil of nursery bed. Standing water to a depth of 2-3 cm should be maintained at least for 2-3 days before uprooting of seedlings.
- In heavy weed infestation area, to control weeds in nursery, spray pyrazosulfuron-ethyl 10%WP (Sathe) @ 80g/acre at 3-5 days after sowing (DAS) **or** bispyribac-sodium (Nominogold) @ 120 ml/acre at 10-12 DAS or at 2-3 leaf stage of weeds in 120 litres of water.
- If infestation of thrips is noticed in rice nursery, spray azadirachtin 0.15% neem seed kernel based EC formulation @ 800 ml/acre **or** lambda-cyhalothrin 5 % EC @ 200 ml/acre **or** thiamethoxam 25 % WG @ 40g /acre.
- In nursery, where stem borer infestation is expected to notice, installation of pheromone traps with Scirpholure is recommended (at least 3 per nursery of 200 m²). When the number of male moths/trap reaches 4 or 5, spray azadirachtin 0.15% neem seed kernel based EC formulation @ 800 ml/acre **or** broadcast granular insecticide chlorantraniliprole 4% GR @ 4kg/ acre **or** cartap hydrochloride 4G @ 10kg/acre mixing with sand at 1:1 ratio **or** spray chlorantraniliprole 18.5% SC @ 60 ml/acre in 200 liters of water.
- If infestation of bakanae disease is noticed in rice nursery, spray carbendazim 50WP @ 1g per litre of water and repeat the spray at 7-10 days' interval.
- In-case of leaf blast infestation, spray tebuconazole 50% + trifloxystrobin 25% WG @ 0.4 g or isoprothiolane 40EC @ 1.5 ml per litre of water. Repeat the spray at 7-10 days' interval.
- In-case of brown spot infestation, spray propiconazole 25EC @ 1ml **or** mancozeb 75WP **or** carbendazim 50WP @ 2g of water **or** carbendazim 64%+mancozeb 8% 75WP @ 1.5g per litre of water.

- If infestation of seedling blight is noticed, apply carbendazim @ 2 g/litre of water **or** propiconazole @ 1 ml/ 1litre of water.

- Complete the preparatory tillage of main rice field for timely transplanting.

(2.2) Wet direct sown rice

- Maintain only a thin film of water for proper establishment and early growth of seedlings.

- If pre-emergence herbicides were not applied, to control weeds apply early post-emergent ready mix bensulfuron- methyl+ pretilachlor granular herbicide (Londax power/Earese strong) @ 4kg/acre mixed with 4 kg of sand **or** spray bispyribac-sodium (Nominogold) @ 120 ml/acre at 10-12 DAS or 2-3 leaf stage of weeds in 120 litres of water.

- Top dress 26 kg of urea per acre as basal dose at tillering stage.

- Put 3 pheromone traps with 5mg lure/acre in the rice field for monitoring of the yellow stem borer and leaf folder. Whenever the number of male moths/trap reaches 4 or 5, spray azadiractin 0.15% neem seed kernel based EC formulation @ 800 ml/acre **or** broadcast granular insecticide chlorantraniliprole 4% GR @ 4kg/ acre **or** cartap hydrochloride 4G @ 10kg/acre mixing with sand at 1:1 ratio **or** spray chlorantraniliprole 18.5% SC @ 60 ml/acre in 200 liters of water.

- If infestation of bakanae disease is noticed, spray carbendazim 50WP @ 1g per litre of water and repeat the spray at 7-10 days' interval.