

HARVESTING

- Harvest the crop at 25-30 days after flowering. Threshing, winnowing and proper drying is done before storage.
- Dry to 12% moisture level for storage.

POINTS TO REMEMBER

1. Collection of pure seeds of the variety
2. Proper land preparation
3. In-time seed sowing
4. In-time inter cultural operations & fertilizer application
5. Need based plant protection measures
6. Right time harvesting and post harvest cares



CR DHAN 205



Farmer FIRST
Empowering Knowledge - Integrating Technology



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Production Technology for Rice Variety

CR DHAN 205

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Irrigated rice cultivation consumes about 5,000 litres of water for producing 1 kg rice. However, in aerobic rice cultivation it utilises 3,000 to 3,500 litres of water to produce 1 kg of rice compared to transplanted flooded system. The newly upcoming approach of rice cultivation called aerobic rice cultivation reduces water use in rice production and increases the water use efficiency. Growing rice crop under non-puddled condition as direct seeded like maize, wheat and pulses under supplemental irrigation is generally known as aerobic cultivation. Aerobic rice variety CR Dhan 205 is recommended for cultivation in the states of Odisha, Gujarat, MP and TN for aerobic cultivation. The variety was developed from the breeding materials of cross N22/Swarra. Maturity duration of the variety is 105-110 days with semi-dwarf plant type (100cm). It possesses short bold grain, more panicles per m² (230-300) with 82-85 days to 50% flowering, normal tillering (6-9), medium and dense panicle with moderate test weight (24.5g). It is moderately resistant to leaf blast, brown spot, sheath rot, stem borer (both dead heart and white ear heads), leaf folder, whorl maggot. The variety has good hulling, milling and head rice recovery, intermediate amylose content, short **bold grain** and other desirable grain quality parameters.

Package of practices for high yield

SEED SELECTION

- Ensure genetic purity with more than 80% germination by obtaining seeds from a reliable source.
- Select well-filled seeds from a healthy crop, free from insect and disease attack.

LAND PREPARATION

- One summer cultivation should be followed to kill the weeds and larvae of insect pests.
- Pulverize the soil to fine tith with 2-3 ploughing and level the land properly.
- Before final ploughing, add 10t/ha of well decomposed farm yard manure (FYM) into the soil uniformly.



Panicles of CR Dhan 205

SEED TREATMENT

- Take good quality genetically pure and healthy seed of the variety CR Dhan 205 and reject the lighter seeds.
- Prepare a 20% common salt solution for rejection of light seeds. Dissolve 200g salt in one litre of water and dip the seeds in the solution. Stir the solution and the floating seeds are removed.
- Prepare 10 litres of salt solution for 5 kg of seeds and the same solution can be used 3-4 times. Wash the seeds which did not float and dry under sun for 2 days and use for seeding. This procedure will help in a good healthy crop stand in the field, and uniform growth and flowering of the plants leading to high yield. Treat the seeds with Agrosan GN or Ceresan (dry) or Bavistin @ 2g/Kg of seed before sowing.

TIME AND METHOD OF SOWING

- During *Kharif* season, sowing should be from 1st to 2nd week of June depending on soil moisture. Dry season sowing should be finished within mid January.
- Seeds of the variety are direct seeded in line using seed drill or manually with a rope. Take 40-50kg of seeds to sow one hectare of land and sowing should be with a spacing of 20x15 cm during *Kharif* while 15x15 cm may be adopted during dry season. After sowing, seeds are covered with soil using a plank & light irrigation should be given immediately after sowing. Keep 2-3 seedling/hill & thin out if more seedlings/hill exists.

FERTILIZER MANAGEMENT

- Three weeks before seed sowing, incorporate the well decomposed FYM into soil. Apply NPK @ 80:40:40 per hectare with full Phosphorus & 50% Potassic fertilizer as basal dose.
- Apply 30% of nitrogenous fertilizer after 10-12 days of germination, another split of 40% at tillering (30-35 days after germination) & rest 30% at panicle initiation stage (50-55 days after germination).
- Micronutrient like Zinc Sulphate & Ferrous Sulphate may be added @ 20 & 12kg, respectively in one hectare of land.

WEED MANAGEMENT

- Weed is a main problem in direct seeded rice.
- Proper variety like CR Dhan 205 should be selected for cultivation, which can grow better in initial stage and competes with weeds.
- Spray herbicide like Pretilachlor @ one litre/ha in 300lit of water after 2-3 days of seed sowing or Phyzosulphuran ethyl (Sathi) at 250g/ha in 750 liters of water may also be used for controlling aerobic weeds.
- Hand weeding or intercultural operation with hand hoe or by weeder will control weeds & increases aeration for better root growth & also increasing tiller number.

WATER MANAGEMENT

- Wet season aerobic rice sowing should be performed by observing suitable soil moisture condition while in dry season, a thin film of water should be irrigated after sowing for proper germination of the seeds.
- Apply shallow irrigation each after 5 to 7 days interval or by observing fine cracks in the soil till 50 days after germination & increase irrigation during the critical period of flowering & dough stage by providing water at an interval of 3-4 days. Care should be taken during active tillering, panicle initiation, panicle emergence & dough stage of the crop.

PEST AND DISEASE MANAGEMENT

- Both the diseases of lowland and upland ecologies are observed in aerobic cultivation. Amongst them, disease like bacterial blight & blast are important under this cultivation.
- If appearance of 8-10% or more leaf infection observed, apply Streptomycin (150mg) + Copper Oxchloride (1g) in one liter of water for controlling bacterial blight disease.
- Apply Tricyclazone at the rate of 0.6g/liter to control leaf blast disease.