



CR DHAN 505



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Production Technology for Rice Variety CR DHAN 505

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CR Dhan 505 is recommended for release in the states of Odisha and Assam for water logged ecology. Waterlogged ecology faces frequent flooding and also drought. Rice production and productivity is very low from this ecology. CR Dhan 505 is suitable for this type of ecology. Maturity duration of the variety is 160 days with strong photo sensitivity. The variety produces around 4t/ha under water logging condition and 6t/ha under normal condition. It produces long and heavy panicle with high test weight (27g/1000 grains). It gives a well exerted and compact panicle. The variety is moderately resistant to leaf blast, neck blast, sheath rot, sheath blight, rice tungro virus, stem borer (both dead heart and white ear heads), leaf folder, whorl maggot, GRH and rice thrips. The culm of the variety is very strong. It is a tall plant type variety suitable for lowland ecology. It has good hulling, milling and head rice recovery and intermediate amylose content, better than checks and qualifying varieties. It possesses intermediate amylose content (24.5%) and other desirable quality parameters for consumers' preferences.

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.



Panicles of CR Dhan 505

LAND PREPARATION

- Plough the land immediately after the harvest of wet season rice, preferably with a mould board plough.
- One or two summer ploughings after pre-monsoon rain during April-May and ploughing before sowing makes the soil to a fine tilth.

SEED TREATMENT

- Use 45-50 kg seeds/ha for direct sowing of the crop in semideep water ecology. Treat the seeds with Agrosan GN or Ceresan (dry) or Bavistin at the rate of 2g/Kg of seed before sowing.

TIME AND METHOD OF SOWING

- The optimum time of sowing is from last week of May to first week of June.
- Sowing should be done after receiving pre-monsoon rain for proper plant stand establishment before accumulation of water in the semi deep water rice fields.

FERTILIZER MANAGEMENT

- Apply N: P: K @ 60:30:30 kg/ha in case of poor soil fertility status (based on soil test results).
- Apply half N, full P and three fourths of K as basal dose in the furrows in the line sown rice with farm yard manure at the rate of 5t/ha.
- Apply 10 kg of N as top dressing at beushening in broadcast rice and after weeding on line sown rice and the rest N and K fertilizers at panicle initiation stage, if water recedes.

WEED MANAGEMENT

- Before accumulation of rain water, the beushening and weeding operations are to be completed which is around 45-60 days after seeding.
- Spray herbicide Bispyribac Sodium at the rate of 30g a.i/ha in direct seeded rice (DSR) for control of major grasses, sedges and broad leaf weeds. This is a post-emergence herbicide and it can be applied after 12 days of sowing.

WATER MANAGEMENT

- It is a rainfed cop. Rain water should be managed with proper field bunding and drainage facility.

PEST AND DISEASE MANAGEMENT

Insect Pests

- For controlling the insect attack, spray is not feasible due to deepwater situation.
- Use of bio-control method is preferable. Release of *Trichogramma japonica*, an egg parasite at the rate of 50,000 numbers/ha is recommended for control of the pest.
- If water level reduces apply Monocrotophos at the rate of 0.5Kg a.i/ha or apply granular insecticides Carbofuran 3G at the rate of 33 Kg/ha or Cartap 4G at the rate of 25 Kg/ha on the basis of economic threshold level (ETL) (One egg mass/ m² or 5% dead heart).

Diseases

- Apply Streptocyclin (150mg) + Copper Oxychloride (1g) in one litre of water for controlling bacterial leaf blight disease.
- For controlling sheath rot disease, soak the seeds in 0.05%-0.1% Bavistin for 30 minutes before sowing.
- After raising the crop, minimize the disease by foliar spray of 0.05%-0.1% Bavistin or 0.4% Dithane M-45 or 0.1% Hinosan.

HARVESTING

- Harvest the crop at 25-30 days after flowering.
- Thresh immediately after harvesting and dry gradually under shed up to 12% moisture content for seed purpose and up to 14% moisture for milling.