

RECOMMENDED PRACTICES FOR RICE DOUBLE CROPPING DRY SUBTROPICAL AND ZONES (MEDIUM ALTITUDES)

These recommendations are made for the medium altitude areas (upto 1500 m) particularly in Wangdue-Punakha valley and Trashigang-Monggar.

FIRST CROP

VARIETIES

No. 11

- Cold tolerant, high yielding, early maturing, Japonica rice.
- It has good seedling cold tolerance, however symptoms like yellowing of leaves and stunting may occur under very low temperature.
- It is about 90 cm in height and matures in 160 days from sowing.
- It has yield potential of over 3 t/acre under good management but it is difficult to thresh.

Barket

- Cold tolerant, high yielding, early maturing, japonica rice.
- It has good seedling cold tolerance and produces vigorous seedlings under polytunnel nursery.
- It is 90-95 cm in height and matures in about 155 days.
- It is very easy to thresh unlike No.11.
- It has a yield potential of over 2.5 t/acre under good management.

CROP ESTABLISHMENT

- First crop can be established either by transplanting or direct seeding.

Transplanting

- First week of Feb. is the recommended time to sow nursery.
- Use a seed rate of 25-30 kg/acre.

- Raise seedlings using a polytunnel nursery bed.
- Raising of seedlings in polytunnel nursery (see leaflet on rice seedling production)

Time of transplanting

- The ideal transplanting time is the second week of March.
- The method of transplanting, either in line or at random, should be decided depending upon the weed control method to be adopted and labour availability.

Direct Seeding

Direct seeding greatly reduces labour cost in establishing a crop of rice. A direct seeded crop of rice also matures about a week earlier than transplanted. However, the general requirements for successful direct seeding are good rice variety, good land preparation, good weed control, and good water supply and management. Direct seeding can be done in 2 ways:

Dry Furrow Seeding

- Land preparation should be done in dry soil to get a well pulverized seed bed as in a dry bed nursery.
- Open up furrows 2-3 cm deep and 20-30 cm apart
- Drop unsoaked seeds evenly or place 4-8 seeds at a distance of 10-15 cm along the furrow.
- After sowing cover the seeds lightly with fine soil.
- Irrigate the field lightly after sowing. Do not keep standing water in the field as excess water deprives the seeds of oxygen and they eventually die. Keep the field moist until the seeds germinate.

- Keep the field saturated till seedlings attain a height of about 10 cm. Increase the water level gradually.
- Use a seed rate of 40-50 kg/acre.
- Optimum sowing time is the first half (1-15) of March.

Wet Broadcast Seeding

- Prepare the land as for any transplanted rice crop. However, field should be properly levelled for efficient drainage.
- After final land preparation, allow the mud to settle overnight to avoid sinking of seed. Keep water level to the minimum.
- Broadcast pre-germinated seeds (soaked for 24 hours and incubated for 36-48 hours) evenly. Walk backwards while seeding and avoid making too many mud depressions that collect water and rot the seed.
- Keep the water level as minimum as possible till the seeds secure roots and emerge (2-5 days but may take longer if temperature is low). Then, increase the water level gradually as seedlings grow in height.
- Use a seeding rate of 70-90 kg/ha.
- First half of March is the optimum seeding time.
- Weed control is the biggest challenge of this method. Butachlor is not suitable as it suppresses emergence and arrests seedling growth at early stages. However, Sanbird and NC 311 can be successfully applied 5-7 days after seeding without affecting rice growth.

Other activities like field preparation, manures and fertilizers, weed control etc are similar to a normal crop of rice.

SECOND CROP

VARIETY

IR 20913

- It is an advanced selection from the cross between Bhutanese white rice and an IRRI line.
- It is about 100 cm tall and mature in about 130-140 days from sowing.
- It has an yield potential of over 3 t/acre under average to good management conditions.
- It has moderate cold tolerance at seedling and flowering stages and is also good for late planting of the normal season crop.

CROP ESTABLISHMENT

Nursery sowing : June 15 - June 30
 Seed rate : 20-25 kg/acre
 Nursery raising : Seed selection as for the first crop. Seedlings could be raised either by wetbed or semi-drybed methods.

TRANSPLANTING

Time of transplanting : July 15 - July 30

Transplant 20-30 days old seedlings using 2-3 seedling/hill. Maintain closer spacing as recommended for the first crop.

Other practices are similar as for a normal rice crop.

For further information contact

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