

Introduction

Rice is the important cereal crop and staple food in Manipur. The proteins content is around 7-8 percent. The area under first crop of rice was 20,500 ha during 1990. The main season for growing of first crop is from January to July.

In Manipur, previously the farmers cultivated China variety as first crop of rice. But course of time, the variety changes its purity as well as its production. Now the varieties are being replaced by RC Maniphou-4 and RC Maniphou-5 which are derivatives of cross between Kalinga and Palman. These varieties have character of short duration and bound suitable for pre-*kharif* (February sowing) in the farmers' field. These two varieties matured in 100-115 days and 120- 125 days respectively in summer (March-April sowing) seasons under Manipur conditions.

These early matured rice crop can be successfully be followed by main *kharif* rice. These varieties can be sown in late April and May and harvested in August and first week of September. Followed early sowing of Rabi crops. Even it can plan for seed production of mustard as flowering is not conceded others varieties of mustard. RC Maniphou-4 is a fine variety and RC Maniphou-5 is a bold variety, and bear about 150-200 spikelets per panicle and yield ranges about 4-5 t/ha under good management.

Varietal Selection

Selection of suitable high yielding varieties for different location of Early *Kharif* rice is very important for getting better yield.

Under irrigated and low land

Crop season: March- April to June – July.

Variety	Duration (Days)	Yield Potential (t/ha)	Remarks
RC Maniphou-4	115	4.0-4.5	Fine
RC Maniphou-5	125	4.5-6.0	Medium

For rain fed uplands

Crop season: April-May to August – September.

Variety	Duration (Days)	Yield Potential (t/ha)	Remarks
RC Maniphou-4	105	3.5 - 4.0	Fine
RC Maniphou-5	110	3.5 - 4.5	Medium

Climate and temperature

Rice cultivation is conditional by temperature parameter at the different phases of growth. The critical mean temperature for flowering and fertilization is ranges from 16° to 20°C, whereas during ripening, the range is from 18°to 32°C. Temperature beyond 35°C affects not only pollen- shedding gut also grain-filling. For vigorous growth, moderately high

temperature is required. For panicle initiation slightly lower temperature (20°-22°C) would be ideal. High temperature and high light intensity adversely affect grain filling.

Land/Field Selection

Low lying area irrigated area should be selected for rising of early *kharif* rice.

Seed Selection

For proper germination of seed and healthy seedlings select well filled mature grain(spikelet) as seed .Remove chatty and half filled grains that float on the water surface and use the heavy and submerged grains as seed. Wash the seeds in clean water and dry in shade.

Seed rate

For transplanting (2-3 seedling/hill)	40-50 kg
For transplanting (one seedling / hill)	25 kg
For wet sowing	65 kg
For dry sowing	80 kg
For row sowing of sprouted seed	60 kg

Soaking incubation

Wet method

After selecting, the seeds are to be soaked directly in any one of the following fungicidal suspensions for 24 hours and incubated 36-48 hrs.

Fungicide

1. Mancozeb
2. Captan
3. Cabcirdazin

Concentration

- 2.5 gm/1 litre of water
- 2.5 gm/1 litre of water
- 2.5 gm/1 litre of water

Incubation may be done in cowdung and straw heap for sprouting.

Sowing time

1. Pre-kharif (From 3rd week of January to first week of February)
2. Sumer (From 1st week to 2nd week of March)

Dry method

Seed and any one of the following fungicides are to be put in a closed container and then agitated for five minutes for thorough mixing.

Fungicide

Doses

- | | |
|----------------|-------------------|
| 1. Mancozeb | 2.5 gm/kg of seed |
| 2. Captan | 2.5 gm/kg of seed |
| 3. Carbendazim | 2.0 gm/kg of seed |

Planting Method

Site for Nursery area: - Upland, water source is available.

Seed bed preparation: - Flat seed bed is recommended. Beds should be 125cm wide and 10 m long with 30 cm gap in between two beds. 60-70 such bed are required for transplanting one hectare of land. About 700-800 m² area of nursery is required for transplanting of one hectare of area. Preparation of nursery bed may be started from November to January (pre-kharif) and February (summer) depending on the availability of water. The nursery should be well puddle and levelled to avoid uneven patches of water.



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PACKAGE OF PRACTICES OF RC MANIPHOU-4 (RCM-7) AND RC MANIPHOU-5 (RCM-8) AS EARLY VARIETY



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