

Cereals: Rice

Scientific name: *Oryza sativa* L

1. Field preparation

- On receipt of showers during the months of May - July repeated ploughing should be carried out so as to conserve the moisture, destroy the weeds and break the clods.
- After inundation puddling is to be done as per transplanting. More care should be taken to level the field to zero level.
- Stagnation of water in patches during germination and early establishment of the crop leads to uneven crop stand.
- Land leveling has say over efficient weed and water management practices.
- Provision of shallow trenches (15cm width) at an interval of 3m all along the field will facilitate the draining of excess water at the early growth stage.



Varieties

All the varieties recommended for transplanting can do well under direct wet seeded conditions also. However, the following varieties are more suited.

Varieties	Duration (days)	Time of sowing
Ponmani	160 to 165	1st to 30th August for <i>Samba</i>
CO 43, IR20, ADT 38 ADT 39, Ponni, Improved White Ponni	125 to 135	1st to 30th September for <i>Thaladi</i>
ADT 36, ADT 37	105 to 110	1st to 10th June for <i>Kuruvai</i> 1st to 10th October for late <i>Thaladi</i>

2. Manures and fertilizer application

- For direct wet seeded lowland rice, the recommendation is same as that of transplanted rice.
- Apply N and K as 25% each at 21 DAS, at active tillering, PI and heading stages.
- If N applied through LCC, use the critical value 3 for broadcasted and 4 for line sown drill seeded rice.
- Entire P as basal applied in the last plough or at the time of incorporation of green manure/ compost.
- Biofertilizers as recommended to transplanted rice may be followed wherever feasible and moisture available.
- Micro nutrient, foliar application and biofertilizers as recommended to transplanted rice.

3.Sowing



- Follow a seed rate of 60 kg / ha .
- Pre-germinate the seeds as for wet nursery
- Seed treatments as adopted for transplanted rice
- Sow the seeds by drum seeder or broadcast uniformly with thin film of water.
- Dual cropping of rice-green manure is economic for nutrient budget and efficient for grain production. For this method use 'TNAU Rice-Green manure seeder'.

4.Water management:

- During first one week just wet the soil by thin film of water.
- Depth of irrigation may be increased to 2.5cm progressively along the crop age.
- Afterwards follow the schedule as given to transplanted rice.

5.Weed management

- In wet seeded rice, pre-emergence application of pretilachlor 0.75 kg/ha on 8 DAS or pretilachlor + safener (Sofit) at 0.45kg/ha on 3-4 DAS followed by one hand weeding on 40 DAS in direct drum seeded rice.
- In wet seeded rice, sowing with drum seeder and cono weeding (manual / power weeder) is done at 10, 20 and 30 DAS.
- In transplanted rice, hand weeding twice on 15 - 20 DAT and 45 DAT will control the weeds effectively (or) Pendimethalin 3.0 lit/ha at 8 DAT with optimum moisture condition and one hand weeding on 45 DAT.
- PE pretilachlor + safner 0.45 kg/ha⁻¹ on 3 DAS + roto cylindrical weeder weeding on 45 DAS .