

GROWING RICE THE ORGANIC WAY



Growing rice organically and thus sustainably ensures a steady production level. Proper seed selection, field management and postharvest handling are crucial for good yields.

According to the International Federation of Organic Agriculture Movements (IFOAM, 2008) organic agriculture is «a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.»

Choosing suitable varieties and good seeds

Selecting new varieties



What to consider:
1. Upland or lowland?
2. Tested locally?
3. Re-usable seeds?
4. Good yields?

Selection of own seed



Select only fully mature, uniform, healthy and disease free panicles.

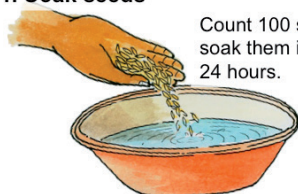


- › Select varieties that are suitable and adapted to local conditions.
- › Rice is self-pollinating. This allows for selection of seeds from own fields.
- › Do not thresh seeds destined for sowing.
- › The dry season harvest is a better source for good seed.
- › Set aside 30 to 40 kg of seed to plant 1 hectare.

Seed viability testing and seed preparation

Seed viability testing

1. Soak seeds



Count 100 seeds and soak them in water for 24 hours.

2. Incubate



Wrap the seeds in a moist paper or cloth and incubate for 2 days.

3. Count germinated seeds



Count all germinated seeds and express the number in percent of 100.

Pregermination of seeds:

- › Start seed preparation at onset of rain.
- › Seeds coming from 3 or more months of storage need first to be prepared by warming them in the sun for 3 hours.
- › Allow seeds to cool off before soaking for 1 day.
- › Discard floating seeds.
- › Fill seeds half full into sacks for incubation during 36 hours. Check them regularly to prevent overheating in the sun.

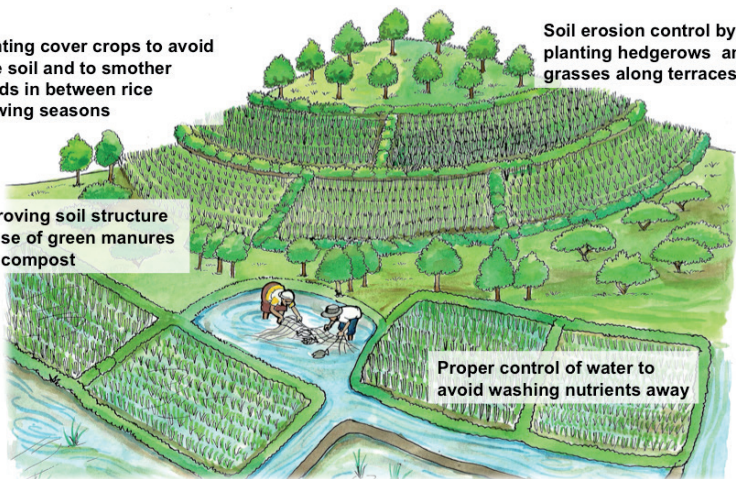
Improving management techniques

Planting cover crops to avoid bare soil and to smother weeds in between rice growing seasons

Improving soil structure by use of green manures and compost

Soil erosion control by planting hedgerows and grasses along terraces

Proper control of water to avoid washing nutrients away



- › Construct terraces to minimise soil loss.
- › Avoid unnecessary disturbance of the soil.
- › Improve soil fertility and conserve soil by intercropping with green manure crops.
- › Prevent nutrient deficiencies by adding organic fertilisers and rock phosphate.
- › Prevent competition by weeds and seed multiplication with repeated timely weeding.

Selection of an appropriate production system

The System of Rice Intensification

Watering:

- › Keep the soil moist, but not wet until flowering.
- › Do not add water the last 25 days before harvest.

Planting:

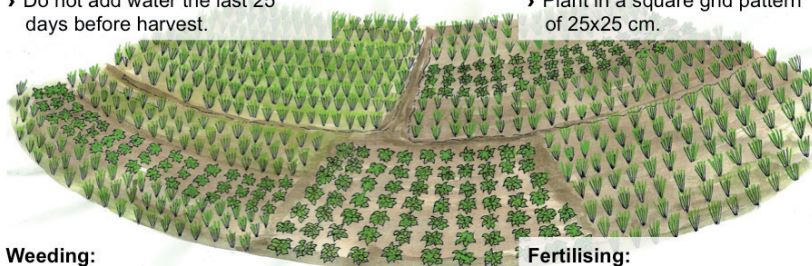
- › Transplant seedlings when still young (8 to 12 days old).
- › Plant in a square grid pattern of 25x25 cm.

Weeding:

- › 1st: 10 days after planting
- › 2nd: within 2 weeks after 1st
- › Additionally: 1 to 2 times before flowering.

Fertilising:

- › Add compost or manure whenever possible to increase nutrient levels.



The System of Rice Intensification (SRI) is a successful integrated approach to help increase productivity.

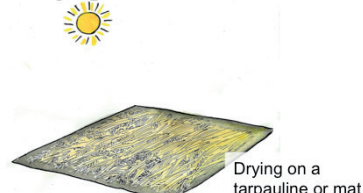
- › Adjust the production system to local conditions.
- › Intercrop and rotate rice with other crops.
- › Apply mosaic planting of different rice varieties.

Proper postharvest handling to minimise losses

1. Harvesting



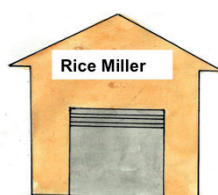
2. Drying



3. Threshing and packing



4. Milling and storage/selling



- › Harvest only at full maturity.
- › Growing mixed varieties in one field may result in different maturity levels.
- › Spread grains evenly and loosely when drying to prevent mould.
- › Use proper milling facilities to ensure a high percentage of whole grains.
- › Rice should be free of husks, weed seeds and stones to fetch good prices.