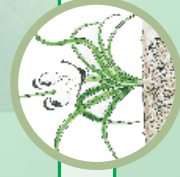
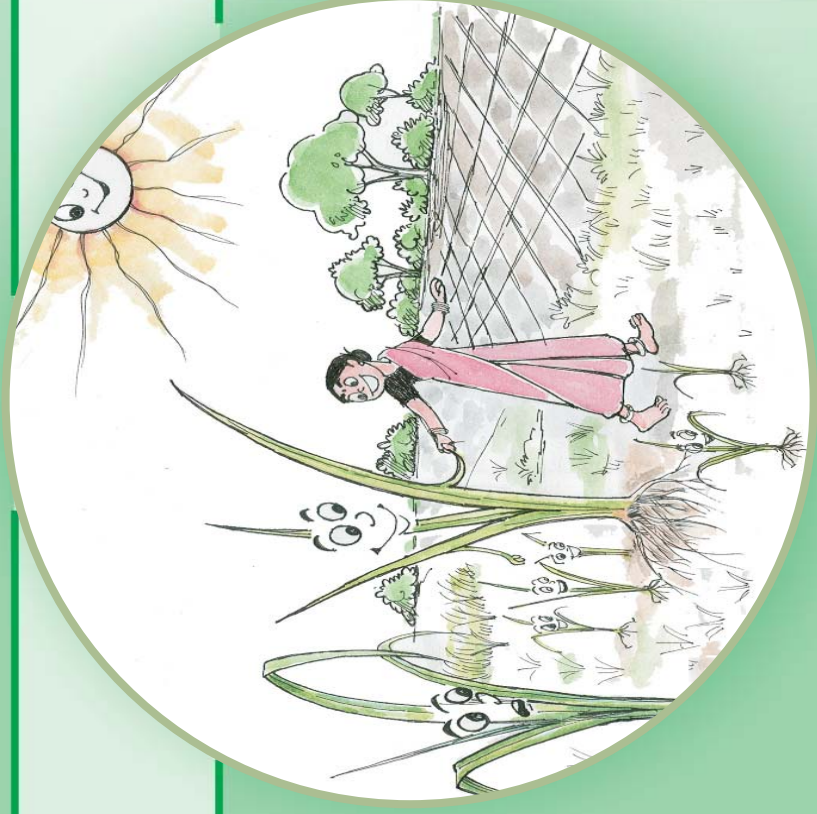


System of Rice Intensification



Desirable and Non Desirable Practices

Principle

Utilize early vigour of young seedlings



System of Rice Intensification (SRI)



Facilitate rice plant's prolonged and profuse tillering



Desirable

☺ Transplant seedlings up to 3-leaf stage and less than 14 days old



Best Practice

☺ Quick and careful transplanting of young seedlings



Not Desirable

☹ Transplant seedlings older than 3-leaf stage

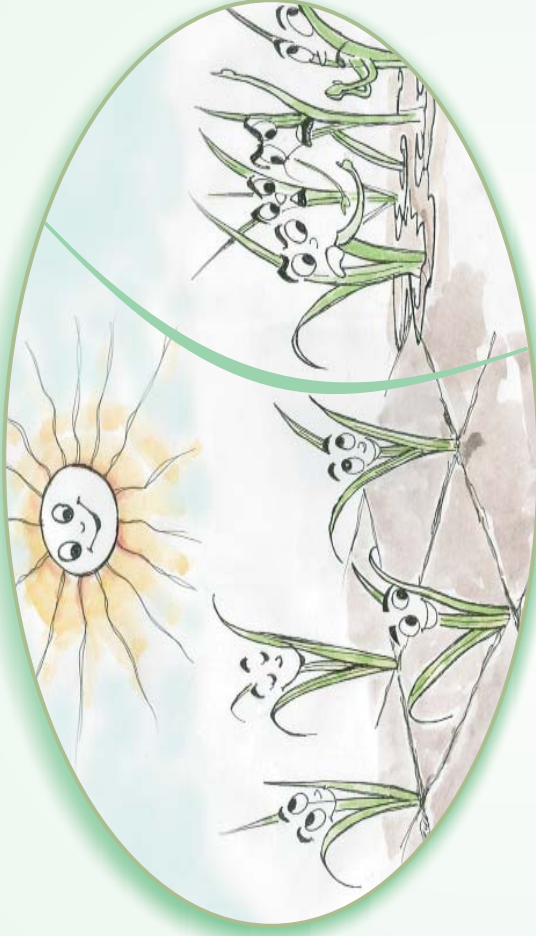


Principle



Reduce competition for light and nutrients

System of Rice Intensification (SRI)



Increase in plant's efficiency in using sunlight and nutrients



Desirable



- ☺ Plant at 25 cm x 25 cm spacing or wider if soil is fertile
- Minimum seedlings per hill

Best Practice



- ☺ Wider and regular spacing
 - ☺ Single seedling per hill
 - ☺ 25 x 25 cm square planting
- AS STARTING DISTANCE**

Not Desirable



- ☹ Random and close spacing
- ☹ Bunch planting Adopting row spacing only

Principle



Reduce external inputs (seeds, water, fertilizers, pesticides) with better and different management

System of Rice Intensification (SRI)



Realize more fully the biological potential of rice plants by the optimal use of inputs in a sustained way, (e.g., avoid suffocation of the roots)

Desirable



- ☺ Single seedling per hill (Low seed rate i.e. 5-7.6 kg/ha and upto 2.5 cm)
- ☺ Unflooded irrigation
- ☺ Less chemical inputs

Best Practice



- ☺ Single seedling per hill (Seed rate 5-7.5 Kg/ha)
- ☺ Alternate wetting and drying with shallow (2.5 cm) irrigation
- ☺ Integrated Nutrient Management

Not Desirable



- ☹ More than 2 seedlings per hill (Seed rate higher than 7.5 Kg/ha)
- ☹ Continuous flooding of soil

Principle



Keep soil from becoming anoxic (without oxygen)

System of Rice Intensification (SRI)



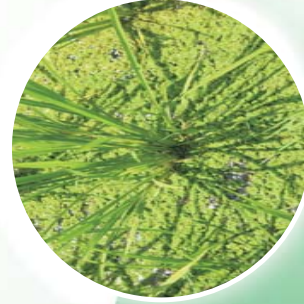
Prevent negative effects of submergence: facilitate exit of poisonous gases, and promote abundance, diversity and activity of life in the soil

Desirable



- ☺ Use weeder at 10-day intervals (2 or 3 times)
- ☺ First weeder use 10-12 days after transplanting

Best Practice



- ☺ Inter-cultivation which aerates soil by use of mechanical weeder



Not Desirable



- ☹ No use of weeder that aerates soil
- ☹ Chemical weedicides do not do this

Principle

Promote healthy root growth

System of Rice Intensification (SRI)



Avoid inhibition and degradation of root systems as occurs with current paddy cultivation



Rationale

Best Practice



☺ Quick and careful transplanting of young seedlings



☺ Wider spacing & square planting



☺ Single seedling per hill
☺ Alternate wetting & drying
☺ Less chemical inputs



☺ Inter-cultivation with weeder which aerates soil and also has pruning effect



☺ Enhance soil organic matter which feeds soil organisms

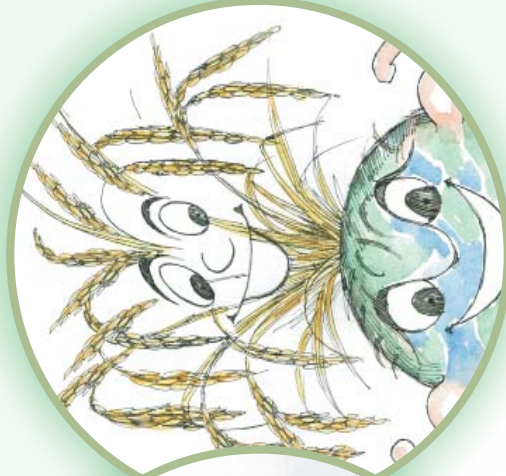


Principle



- ☺ Increase soil microbial activity
- ☺ Enhance soil organic matter

System of Rice Intensification (SRI)

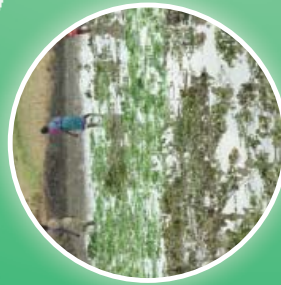


- ☺ Feed the soils - and the soil system will feed the plants
- ☺ Realize the biological potential of soil systems



Desirable

Best Practice



- ☺ Green manure crops/ green leaves / Azolla / crop residues/ compost / FYM / Bio-fertilisers

- ☺ Addition of in-situ/ ex-situ organic matter - as much as possible

- ☹ Usage of only chemical fertilizers

Not Desirable



