

SRI involves a certain set of principles and a set of management practices that have been transformed based on the principles.

### For all Production Systems

- Aerobic soil management during the vegetative growth stage
- Reduced tillage where possible
- Mechanical weeding / mulching
- Planting in a grid pattern with even spacing

### Irrigated System Adaptation

- Careful transplanting at the two-leaf stage
- 1 plant/hill and 25cm spacing
- Direct seeding of 1-2 seeds/hill

### Rainfed System Adaptation

- Careful seasonal timing / siting to avoid flooding during the vegetative growth phase
- Bunds, leveling and organic matter to improve water retention and control



The SRI methodology, originated in Madagascar to raise rice productivity and reduce poverty, this method has been demonstrated to be effective in over 40 countries at present.

### Enhancing ....

**Productivity**  
**Livelihood**  
**Bio-diversity**  
**Water Conservation**  
**Environmental Quality**

### More Information

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# SRI

“SRI Attempts to address every individual physiological trait of the rice plant, by careful management of the plant and resources”

*Dr. Abhaya Balasuriya*  
*Senior Lecturer*

*Faculty of Agriculture*

*Rajarata University of Sri Lanka*

“This immerging technology (SRI) not only addresses food security, but also the water scarcity challenge that climate change is making all the more dangerous. These are all lessons for our world”

*World Bank President*

*Robert Zoellick*

*Hindustan Times, December 2, 2009*

## SRI is a,

Knowledge-based agro-ecological rice growing methodology that helps farmers produced more rice using fewer resources.

### FOUR SRI PRINCIPLES

#### 1. EARLY PLANT ESTABLISHMENT

Young seedlings are transplanted quickly and carefully, (8-15 days old, when they have just two leaves)

#### 2. REDUCED PLANT COMPETITION

Plants are set out singly, in a square pattern initially (25cmx25cm), one plant per hill.

#### 3. ORGANIC MATTER USE

Application of biomass (compost, manure, green manure, etc.) is recommended to build up healthy, productive soils. Chemical fertilizers are only used to complement or balance organic fertilization if needed.

#### 4. REDUCED WATER USE

During the vegetative growth period a minimum of water is applied. Keeping soil only moist, well drained and aerated. This facilitates root growth and beneficial for soil organisms.

## PERCEIVED BENEFITS OF SRI

### Higher Productivity

Lower seed requirement by 80-90%(6-8kg/ha vs 40-60kg/ha). Increased grain yield of 50-100% or more with higher straw production. Grain filling is also higher with less breakage.

### Conservation of Bio-diversity

As land area under rice can be reduced crop diversification is favored.

### Water Conservation

Since the irrigation water requirement can be reduced by 25-50% higher amount of water can be stored in tanks.

### Benefits on Human Health & Environment

As stronger SRI plants have greater natural resistance pesticides are less necessary. Since the organic matter is incorporated with soils, healthiness and water holding capacity of soils improves.



## SRI vs CONVENTIONAL RICE CULTIVATION

Agronomic Practices	SRI Method	Conventional Rice
Seed requirement (kg/ha)	5-10	80-120
Age of seedlings (days)	8-15	20-30
Transplant per hill	1	3-4
Spacing of hills (cm)	25x25 to 50x50	10x10 to 20x20
Water management drying	Moist soil	Continuous flooding
Fertility management organic matter	Compost or other fertilizer	Basal mineral
Weed management rotary hoe	3 to 4 rounds with may use herbicides	2 rounds

### Farmers perceptions of SRI

SRI is an excellent solution for some burning issues in Anuradhapura area. Kidney failure among paddy farmers, other non-communicable diseases and cancer problems can be solved through the consumption of rice grown with SRI, which uses less chemicals.

**N.G. Muthubanda, Thambuththegama**

I am happy about my yield this time and particularly the healthy nature of the rice that we are going to consume. I don't intend on selling Any paddy harvested from the plots cultivated under SRI method.

**T.A. Rathna Siril, Eppawala**

Most of all, the healthy nature of rice is very important so I kept my harvest for family consumption.

**W.W. Jayarathne, Thambuththegama**