

Tracking for food security

Paddy being the principal crop and staple food of the people needs attention for increase of production and productivity. There is hardly any scope for getting additional land for food crops and paddy cultivation and hence to meet the projected demand for food security, the gains in rice production must come largely from higher yields. With water supplies available for agriculture squeezing, it is equally clear that a substantial increase in water inputs for boosting rice production to the required level would compromise human needs and integrity of eco system. Given these constraints the inundation method of rice cultivation will obviously become unaffordable, primarily in terms of water resources. Further profitability of rice growing farmers has declined due to increasing prices of inputs and relatively stable prices for rice putting the economy of rice cultivation and cultivators under pressure.

SRI offers an attractive alternative to improve paddy productivity. It is a system of practices that can bring about improvements in total factors of productivity of land, capital, water and labour. The first experiments with SRI in Koraput were tried out by Pragati, Koraput in Kharif 2006 with demonstration for 11 farmers in 5.5 acres of land in Koraput block. In spite of technical hitches and glitches it was observed that all the farmers harvested double to 4 times as compared to traditional method of paddy cultivation with less seeds, low water intake and of course organically. Since then more and more farmers have started adopting SRI.

During Kharif 2007, 24 farmers in one Panchayat (Mahadeiput of Koraput block) adopted SRI method. **Purnima Rout** is a landless woman who got motivated to take up SRI in 1 acre of land. Purnima lives with her husband and two children in Daleiput village of Mahadeiput GP in Koraput. The family has encroached 1 acre of Govt. land (upland) where they raise either paddy or Ragi in rainy season. Besides they also depend on share cropping and wage labour.



Purnima along with some farmers of her village went to a training programme on SRI and Sustainable Agriculture organized by Pragati. Back home she convinced her husband to try out SRI in 1 acre land which she has asked for sharecropping from one of her fellow villagers. At first they ploughed the land and sowed Sunhemp seeds. Again they ploughed the land when the seedlings were 20 days old. They had well prepared the land with proper drainage. They had prepared a raised seed bed (10ft. long, 2ft. wide and 6 inch height)and used 2 kg. of seeds(Pooja variety) after processing in brine solution.

There was delay (18 days old seedlings) in transplantations of seedlings due to irregularity of monsoon rains. They used a local made marker for spacing of plants (25 sq.cm.- Line to line and plant to plant). Plant mortality was quite insignificant. After 10 days Purnima herself used the weeder for weeding the field. She had some difficulties since she was using the weeder for the first time and even reluctant to use as she thought that it may hurt the root of young seedlings. Thus afterwards they did weeding manually.

It was altogether a new experience for the couple as they watched the tillering of plants. There were averages of 40 to 45 tillers, minimum 25 and maximum 45. They were wholly dependent on rain water. The panicles were strong which they had never seen before. They applied only farm yard manure, compost (cow dung) and 2 quintals of vermin compost.

Harvesting was made in November 2007. They got 11.25 quintals of paddy leaving aside the chaffy grains. However Purnima had to share 50% of the yield with the land owner as agreed with him and as is the existing practice in the locality. But

Seed variety: “Pooja”
Area: 1 Acre
Amount of seed: 2 kg.
Source of collection: Farmer’s own
Age of seedling: 18 days
Minimum tillers: 25
Maximum tillers: 45
Average tillering: 40
Fertilizers and manures: 3 quintal of farmyard manure and cow dung compost and 2 quintals of vermin compost
Labour used: 21 @ Rs 30 per head
Pest and Diseases: Nil
Harvest: 11.25 quintal

Key observations:

- Land preparation and water management most vital factors
- Not only tillers ,also number of panicles and number of grains is more in SRI
- No pests though it was purely organic.

compared against the traditional method of cultivation, the owner of the land used to harvest 7 quintals of paddy at the maximum by using 45 to 50 kg. of seeds and an average investment in chemical fertilizers and pesticides worth Rs 1500/- to 2000/-.

Purnima and her family are delighted with the success of their experiment. She has enthusiastically shared her experiences at SAMBHAV and at the District level Workshop on SRI and SA and also at different forums. She proudly displayed one of her plants with 45 tillers in the District Demonstration festival PARAB-2007 in the demonstration stall of Pragati. Henceforth she has decided to adopt SRI in coming days and motivate other farmers of the locality to adopt the same.

SRI is indeed a farmer friendly technology that can address the problem of food security, especially for small and marginal farmers and ensure sustainable land fertility through organic practices.

N.B. This is purely the observation of a farmer.

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