SRI IN ANDHRA PRADESH STATE, INDIA

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SRI was introduced here just a year ago, following a visit to Sri Lanka in January 2003 by Dr. A. Satyanarayana, director of extension at the state agricultural university (ANGRAU) and Dr. L. Jalapathi Rao, senior rice researcher at Warangal research station. 250 demonstrations were planned on farmers' fields during summer rainy season, 50 supported by ANGRAU and the rest by the state department of agriculture. Massive publicity was given to create awareness through print media, TV and radio. In addition, an instructive powerpoint presentation was circulated on SRI methods. As a result, additionally several hundred farmers tried SRI by themselves. There were SRI demonstrations organized in all 22 districts of the state.

The area sown under SRI ranged from 0.1 to 1.6 t/ha, with a majority of experimenting farmers planting around 0.4 ha. The trials were laid out on all types of soils and with all kinds of irrigation sources, using over 12 different rice varieties. Wider spacing (at least 25x25 cm) with single young seedling was adopted by almost all the participating farmers. However, most did not do weeding as recommended with a 'rotating hoe,' and water management also was not optimum in many places, either having dry periods too long or flooding. Farmers came to realize the importance of these practices during the season and learned the skills, but too late for the standing crop. The consensus of farmers at post-harvest meetings was that there are no serious barriers to SRI adoption.

The performance of SRI during 2003 varied widely given the range of practices used. Details are given below. The most significant finding is that irrespective of the level of yields recorded with SRI, these methods gave on average at least a 2 t/ha yield advantage over usual cultivation methods -- with lower costs of production. In Rayalseema, the yield advantage for SRI was 4.7 t/ha.

Rice plants under SRI developed extensive root system and a large number of robust tillers. The increased number and larger size of panicles was responsible for the higher yields. These appear to derive from a more favorable soil environment created for the proliferation of soil microorganisms (addition of organic matter, alternate wetting and drying, churning of soil for aeration). SRI fields were uniformly greener than other fields. Some farmers applied urea at the time of panicle emergence in their anxiety to ensure higher yields from the excellent canopy. However, this application actually affected the crop adversely, maybe due to suppression of microbial activity. Farmers who were willing to try out new practices for rice cultivation found that they could get better results by applying less water and fewer chemicals.

Of the first 134 results reported to ANGRAU, most with shorter-maturing varieties, one-quarter, 33 farmers, recorded a yield over 10 t/ha, while another 28 farmers had yields between 8 and 10 t/ha. This contrasts with average paddy productivity in the state of about 4 t/ha. Given the reduction in water and other inputs as well as the increased yield, considerable farmer enthusiasm for the new methods as been engendered. It is anticipated that farmers will devote 10,000 acres, or maybe more, to SRI production in the coming winter season.

RESULTS OF SRI TRIALS IN ANDHRA PRADESH STATE, 2003

	No. of trials	Yield results > 10 t/ha	Range of results	Yield advantage (kg/ha)
Andhra Pradesh State	134	33	3.2-16.2	1869
Rayalseema Region	10	5	7.76-15.5	4731
Telangana Region	40	10	4/17-16.2	2504
Coastal Region	84	12	3.17-14.3	1145