

## REVIEW OF RESULTS AND PROGRESS WITH THE SYSTEM OF RICE INTENSIFICATION DURING 2003

Until 1999, there was little knowledge and no use of the System of Rice Intensification (SRI) outside of Madagascar, where it was developed in 1980s. Four years ago, the first SRI trials were done elsewhere, first in China at Nanjing Agricultural University, then in Indonesia by its Agency for Agricultural Research and Development. These showed that SRI changes in the management of rice plants, soil, water and nutrients can indeed increase yields substantially. Further evaluations have documented that SRI methods raise, all at the same time, the productivity of the land, labor, water and capital invested in growing irrigated rice.<sup>1</sup>

Over the past four years, SRI has been introduced in at least 20 countries, from Philippines to Peru, with positive results already reported from at least 17. The following reports from a range of countries around the world where SRI is beginning to be used will inform readers of its status and spread at the beginning of 2004, the International Year of Rice.

### CUBA

All but two provinces in Cuba have initiated SICA, the Spanish acronym for SRI. The exceptions are the Isle of Pines, which does not produce rice, and Ciudad Habana, which is now beginning with the new methods as part of its urban agriculture program. The provinces of Pinar del Río and Villa Clara, respectively, have SICA in all 14 and 13 of their municipalities. Granma, one of the most important rice provinces, has SICA in 9 of its 13 municipalities. This is remarkable because most cultivation there has been by direct sowing, not by transplanting, and the only contacts with this province have been via email. 2003 SRI results reported to a national meeting of rice coordinators in January 2004 are summarized in Table 1 by province.

**Table 1. SRI yields compared with average yields in Cuba, by province, 2003**

Province	No. of trials reported	Average yield and range, usual methods, (t/ha)	Average yield and range, SRI methods (t/ha)	Increase (%)
Pinar del Río	6	4.3 (2.7-6.6)	7.6 (4.7-12.0)	77
Provincia La Habana	4	4.9 (3.5-6.5)	8.1 (7.0-8.8)	65
Villa Clara	5	3.0 (1.7-6.1)	7.0 (5.0-12.2)	133
Sancti Spiritu	3	6.5 (4.5-7.6)	9.9 (6.5-11.8)	52
Camaguey	1	2.8	8.5	203
Holguien	5	5.9 (3.4-7.2)	8.7 (5.5-13.0)	47
Granma	2	2.6 (2.4-2.8)	5.4 (4.6-6.2)	108
Santiago de Cuba	2	2.6 (1.6-3.6)	3.6 (3.0-4.2)	39
Average	28	4.3	7.3	71

At least three farmers using SRI have gotten yields as high as 14 t/ha with reduced inputs and cost savings. The rice research institute of the National Institute of Agricultural Sciences (INCA) in its first SRI evaluation trials at Los Palacios got 12 t/ha on-station. Farmers are now experimenting with various means to reduce the labor requirements of SRI, including mechanical sowing of germinated seeds spaced 40x40 cm, with good results. (Reported by Dr. Rena Perez, food security consultant, Ministry of Sugar.)

<sup>1</sup> For more information on SRI itself, see W. Stoop et al., "A review of agricultural research issues raised by the System of Rice Intensification (SRI) from Madagascar: Opportunities for improving farming systems for resource-poor farmers," *Agricultural Systems* (2002), 71, 249-274; and N. Uphoff, "Higher yields with fewer external inputs? The System of Rice Intensification and potential contributions to agricultural sustainability," *International Journal of Agricultural Sustainability* (2003), 1, 38-50; or consult the SRI homepage: [www.ciifad.cornell.edu/sri/](http://www.ciifad.cornell.edu/sri/)