Report on System of Rice Intensification Performance in 2005 Season in Iraq

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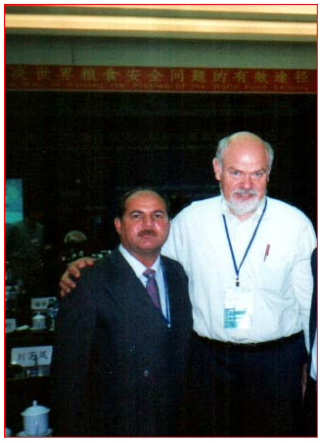
Introduction

In Iraq, we can cultivate rice in most of the districts of Najaf and Qadisiya provinces where about 70% of the potential rice area is cultivated with rice. However, average rice production of Iraq is low compared with other rice-growing countries around the world. Iraq currently has 125,000 hectares of land under rice cultivation, of which 75,000 have irrigation facilities. About 400,000 metric tons rice are produced at the rate of 3,200 kg/ha. The Iraqi people consume 900,000 tons of milled rice with provisioning cards, and more than 2 million tons of milled rice in total. Rice is imported from Thailand, Vietnam, India, and Pakistan to satisfy Iraq's demand.

Iraqi rice farmers mostly cultivate rice according to the cultural practices inherited from their parents. They use a large amount of seeds (about 160 kg/ha) and use dry methods. Transplanting is not common in Iraq. If farmers use transplanting methods, they transplant seedlings at a distance of 15 cm from another. They do not utilize organic matter (manure or compost), but only depend on chemical fertilizer. In addition to hand weeding, farmers used herbicides for weed control. Farmers generally grow an aromatic local variety Amber 33 because it is preferred by Iraqi consumers, having become popular during the blockade. Since 1991, farmers found they could provide food insurance for the people if they cultivated also wheat after rice; however, this system has exhausted the rice land. SRI methods will not only enhance rice yield but will help improve the soil, making rice production more expert and creating better agronomic understanding among rice farmers, while reducing their costs. All this will need more effort and more demanding work, however.

Start of SRI

At an international forum on hybrid rice in China in September 2004, I met Prof. Norman Uphoff and other Americans. He introduced himself as Director of the Cornell International Institute for Food, Agriculture and Development (CIIFAD). Subsequently he sent me materials about SRI in Afghanistan and elsewhere by e-mail. I found the new concepts practical and worthy of more detailed reading. I asked him to send more and he provided more materials on SRI around the world.



I have tried out the SRI (System of Rice Intensification) method for rice cultivation in Iraq. In this report, some results of rice season 2005 (we have one season in Iraq) are given from

Mahanawiya sub-district. In Iraq we started with SRI in season 2005 on ¼ hectare with parachute method, early transplanting (12 day-old seedlings), wide spacing (25x25cm) , one variety and with just 30kg of seeds per hectare.

Farmers and technicians have admired our great ambition to increase area with SRI by this method in many districts of 2 provinces with high-yield varieties. It does not need more labor and one does need not to spend more time in application. The Iraqi Al-Diyar channel and Tareek Al-Shaab newspaper have published reports on this new method.

Results and Discussion

Table 1: Some SRI results comparing methods in Mahanawiya sub-district, 2005

Culture methods (seedlings age or rate of seeding)	Yield (t/ha)	Number of tillers/m^2	Amount of seed (kg/ha)	Filled grains per panicle	Sterility rate (%)
Parachute method (12 days old)	4.5	340	30	164	14
Conv. transplanting (25 days old)	4.4	300	60	156	19
Wet method (120 kg/ ha)	4.44	288	120	157	14
Dry method (160 kg/ ha)	3.8	250	160	150	15

From Table 1, we see that the yield of Amber 33 cultivated with SRI methods, by parachute method of crop establishment, is 18% higher than dry methods. The increase appears related to having more tillers. The spacing makes for more vigorous roots with early transplanting in the second phyllochron. There is a saving of 81% for seeds in comparison with usual dry method. Grain filling is 1% higher than the dry method, but the sterility rate was almost the same. Note: All these results were obtained from communication with farmers, as shown below.