

Preface: Mak Tam and Pak Tam are giving leadership for SRI evaluation, spread and innovation in the State of Selangor in Malaysia, with support from the state's Chief Minister. Both have had long and respected careers in government service in the agricultural sector, and are now in a post-retirement mode, involved with SRI.

SRI in Selangor

Having carried out SRI observation plots with the farmers and being in the third season now, we have found something very interesting. The natural farming concoctions can almost replace chemical pesticides in the padi fields, and some farmers have started to reduce their usage of chemical fertilizers. Some vegetable farmers in the area have switched to these natural concoctions completely.

These changes from dependence on agrochemicals to natural concoctions have reduced their cost of production to more than 50%. The farmers are delighted with the savings. And in some fields, fish population has returned and one farmer even got to sell them. All these experiences are being the talk of the village. The group that's making these concoctions, which you visited in July, now has their own small place to produce and sell their products which they branded as 'SRI'.



Villagers are encouraged to bring in the raw materials to make the concoctions and get paid by the group. Some come to do a couple of hours work in the mornings and afternoons for a small fee. The youths of the village are excited to be involved, and at the same time earn some money. There are sales of their concoctions every day and those who come to buy are from within the village and the surrounding villages, and some come from the neighboring state of Perak.

Domestic and international visitors are coming to the village. These happenings are all associated with organic planting and SRI. People are intrigued about farmers producing their own biofertilizers and biopesticides, and successfully using them in the fields. Academicians are coming to consider doing socio-economic and environment related studies. Pak Tam and I are there most of the time to help out, especially with the international visitors. At the same



time to guide the group so as not to be overwhelmed by all the attention, and to stay focused.

Agricultural Staff Training on SRI



The director of the Selangor state Department of Agriculture has requested hands-on training for his agricultural extension staff. Besides training on SRI proper, the trainings are also focused on introducing the subject on soil microbes and their role in enhancing soil fertility, preparing organic fertilizers and biopesticides, introducing new weeding/aerating and straw-incorporating equipments, and on giving support to farmers who

make decisions to plant SRI organic padi. To date, we have trained about 50 Agriculture Dept. staff from all disciplines in formal classroom setup, and also in the field.



Farmers' Training on SRI and Organic Fertilizer & Biopesticide Preparation

Talks and training for government officials and farmers are being carried out to introduce SRI.

1. 600 village heads, farmer leaders, and government officials in Selangor on 24 May, 2011
2. 40 farmers in Sawah Sempadan, 15 June, 2011
3. 300 farmers in Sawah Sempadan, Selangor, 21 Jun, 2011
4. 60 farmers in Sg Besar, Selangor Area 21, Sept. 2011
5. 50 farmers in Sg Leman, Selangor, 26 Sept. 2011
6. 50 farmers in Sg Leman, Selangor, 26 Sept. 2011



7. 40 farmers from Selangor at the Felcra Training Center, Seberang Perak, 13-15 Oct. 2011
8. 60 farmers from Sekinchan and Sg Leman, 7 Dec. 2011.



We also invited farmers who have successfully used the organic concoctions, and those who have planted SRI organic rice to share their experiences. This has piqued the interests of other farmers to try using the natural concoctions in their fields, and most have come back to get more to use in their other fields. Most farmers are looking forward to single-planting transplanters as it is impossible to get local people to do the planting. The foreign workers charge too much for their services, particularly single-plant transplanting by hand.

There have been requests from the State of Kedah to introduce SRI to their farmers. So far we have managed to carry out 2 talk sessions. Although there are other requests, we are not able to respond to them due to our commitments in Selangor.

1. 100 farmers in Kuala Kedah, Kedah, 29 Sept. 2011
2. 50 farmers in Kg Alor Ganu, Kedah, 22 Oct. 2011



Introducing SRI to the Ministry of Agriculture Officials in Perak



FELCRA Training Center was asked by the Ministry of Agriculture to hold a SRI talk to their staff in the Integrated Agricultural Development Area, Kerian Sg Manik, Perak. A talk was held on 9 Sept. 2011 to about than 50 staff.

Mechanisation for SRI



The engineering unit of the State's Department of Agriculture are actively coming out with small rotary weeding machines. Department of Agriculture is organizing a SRI Mechanization Seminar on the 22 Dec. 2011, and will invite the SRI community to participate. A few papers will be presented by officials, and will feature experience-sharing by farmers. A SRI-related machinery exhibition will also be held, plus field demonstrations using the various weeding machines.

At the same time, Pak Tam and I are working with a couple of innovative farmers to come out with motorized rotary weeders, using their rotary cultivator and the small transplanting tractor. Although the progress is not as fast as we hope, we are definitely pushing forward with some funding from MBI. One farmer uses a 5-hp mini tractor to get a 5-row weeding machine.



Another farmer who has mechanical engineering experience working for a private company has come up with a 6-row rotary weeding implement that is pulled behind a transplanter tractor. We are elated because with these machines, we know that there will be entrepreneurs interested in fabricating them and enabling them to offer weeding services to farmers. At present, farmers with transplanted crop are already asking for their fields to be weeded/aerated after telling them of the possibility of increasing their yields through weeding/aerating their fields. We are looking forward to more machines being produced by farmers themselves. We are looking for interested entrepreneurs.

Straw-Incorporation



We are making good progress in getting farmers to be interested to incorporate fresh straw into their soil immediately after harvesting. At present, there are 10 adjoining plots covering 12 hectares being put to use for this demonstration.

The State Department of Agriculture uses a boom-sprayer to spray the solution containing the microbes, and then rotovate the straw into the soil with a tractor.

Interestingly, about 200 neighboring plots are also incorporating their straw back into the soil. Some farmers use microbes, while some did not. Suddenly, the demand for the decomposing microbes rises, and we are training as many farmers to get their microbes using boiled rice placed under mature bamboo clumps, that is, using natural farming principles.

We realized later that the rise in demand was initiated by a tractor service provider who saw the potential of providing another value-added service to his clients. We are quite happy to see it happening as this is providing the impetus needed to drive more farmers to incorporate straw into the soil rather than just burn the straw as was usually done.

Conclusion

Both of us have been busy on the ground. We have needed to get the staff of the State Department of Agriculture to be at the same wavelength as us in wanting to see positive changes in the fields. And that's not easy. But with patient persistence, we have been warmly accepted by most of them. This is a picture of some of them during a visit to the straw-incorporation demonstration plot (picture below). They have come a long way from being weary of having to bear an added burden to their job, to looking forward to both of us coming to help them on the ground



We hope to create solid a foundation for SRI to be taken up by the farmers in Selangor. At present there is only one farmer group that is producing the biofertilizers and biopesticides. We plan to have seven more groups to cover the total of 19,000 hectares. At present we encourage the farmers to use the organic concoctions to replace chemical pesticides in their existing crop. About 200 farmers are already using the concoctions in their fields and reporting considerable cost savings by not needing to buy as many types of pesticides as before.

At the same time, we encourage farmers to aerate their machine-transplanted padi fields as a means to increase their yields. In transplanted padi, the plants show an increase in the

numbers of tillers after weeding/aerating activity is done. We hope there will be growing demands for the weeding/aerating services. This will encourage some mechanically-skilled individuals in the villages to improvise, and to be able to provide the weeding/aerating services.

Eventually, we hope to have a transplanting machine that can plant single-seedlings with suitable spacing for SRI. We are very confident that once this machine is realized, SRI will be practised by many farmers in Selangor State. SRI will not replace conventional planting for a long while, but if we can prove that changing to SRI means more income from cost savings and yield increase, moving to 100% SRI will be easier.