

Aringay woman improves rice yield by 40%

by Roberto Verzola

Philippines, March 26, 2014 -- Julita Colcol (second from left in the picture below), “Kit” to friends, was understandably proud when we visited her trial plot in Sta. Cecilia, a village in the municipality of Aringay, La Union Province, last March 5, 2014. The 49-year old farmer's visitors included municipal officials not only from her hometown of Aringay, but also from the neighboring provinces of Pangasinan, Ilocos Sur and Ilocos Norte, as well as farmers from her town's other villages. They were all attending a two-day round-table and workshop on the system of rice intensification (SRI), a new method of growing rice. The activity was hosted by the Aringay municipal government and conducted by the non-profit SRI Pilipinas.



Her rice crop was maturing and everyone saw the promise of a good harvest. Kit basked in the admiration of peers and officials, but silently prayed that her plot be spared from freak disasters or pest attacks.

It was not like this in the beginning, Kit recalls. Her newly-planted SRI trial plot of around 900 square meters, had looked positively bare then, as if it was still being prepared for planting. Only when one came nearer and looked more closely, would one notice the tiny seedlings, barely ten days old, with only two leaves to show. Since each seedling

had been planted ten inches away from its neighbor – much farther than usual -- the plot looked spacious indeed.

Kit still bristles at the taunts thrown her way by neighbors, when they saw the newly planted seedlings. They wondered openly whether she had gone mad.

Kit had learned earlier the reason for planting seedlings singly rather than in clumps: rice seedlings were like young children. We don't feed our children from a single plate with food enough only for one child, do we? For exactly the same reason, Kit learned, we want to give each seedling its own “plate”, with enough nutrients and sunlight for itself. As a woman, she grasped the analogy at once. The knowledge made it easier for her to ignore the taunts.

There is another reason rice seedlings should not be planted in clumps, Kit learned. When several seedlings are planted beside each other, in one hill, they compete against each other like puppies or piglets competing for their mother's teats. In this competition, there will always be winners and losers. The taller seedlings get more sunlight and grow faster. The shorter ones get less and grow more slowly. The shortest of them, shaded by the rest, becomes the “runt”. This sickly seedling will attract pests and disease. Since every clump will have such a runt, the whole field will be susceptible to

pest and disease.

Why should seedlings be transplanted while they only have two leaves? To others, this seemed much too early, compared to the conventional practice of transplanting seedlings with four to five leaves. To Kit, it was the right time to transplant. In tropical countries, she had learned earlier, the rice seedling's first tiller appears on the fourth leaf. If the seedling is uprooted at this time, the tillering process is interrupted, delaying if not aborting the process. When Kit transplanted her two-leaf seedlings, they still had more than a week to settle down before the tillering process began. Thus, with early transplanting, tillering can start and proceed without interruption.

In short, Kit transplanted her seedlings in a way that gave them more time and space to produce more tillers. Instead of the usual five to seven tillers, Kit's rice plants grew an average of 32 panicle-bearing tillers each and a maximum of 46. This is how, through SRI, Kit's yield improved.

By how much did her rice yield improve? In Kit's village, the typical yield during the second cropping is 4.75 tons per hectare. In her SRI trial plot of 900 square meters, two samples of a 2x5-meter crop cut done by the municipal agriculture office yielded an average of 7.5 tons/hectare, fresh weight. Corrected for moisture, this meant a yield of 6.7 tons/ha, 40% higher than the average yields in the area.

Kit is doubly proud, because she didn't use pricey hybrid seeds or commercial fertilizers.



For seed, she used C-4, a traditional inbred variety well-liked for its eating qualities (see the picture above). Decades ago, it was a popular commercial variety. Today, it is rarely seen in markets.

To enrich the soil, Kit used no synthetic fertilizer. Instead, she applied a mix consisting of 25 50-kg bags of manure and 25 bags of rice hull, giving the rice plants not only more time and space, but also more nutrients. She put in that much, Kit explains, because soil tests had shown that her trial plot was highly acidic. She doesn't have to use as much in the succeeding seasons, she adds.

The six farmers in Aringay who first tried SRI in 2013, received encouragement and support from the municipal agriculturist Ben Magno and the Sangguniang Bayan (town council) chairman of the committee on agriculture Ramsey Mangaoang. Through Mangaoang's efforts, the council allotted an initial P200,000 budget to promote SRI among Aringay's rice farmers.

Of the six SRI pioneers of Aringay, Kit was the only woman. It makes her even prouder. ###