

## The Sustainable Sugarcane Initiative is “*cubanized*” as “Sistema Sostenible de la Caña de Azúcar” (SSCA)

The author has known Jose Antonio Espinosa (Ñico), president of the “Camilo Cienfuegos” sugar cane cooperative in Bahia Honda, for some thirty years. In the 1980s he implemented an idea she had observed when visiting the Romana sugar mill in the Dominican Republic: the use of free-choice cane juice and a restricted amount of soybean meal for pigs, only Ñico didn’t have soybean meal on the cooperative, so he planted, and boiled soybeans. In the year 2000, Dr. Norman Uphoff from Cornell University presented the Cubans with a new method for producing rice, first developed in Madagascar, called the System of Rice Intensification (SRI), renamed in Spanish, *el Sistema Intensivo de Cultivo Arrocerero* (SICA). Ñico followed the advice on SICA, improved the cooperative’s paddy yields substantially, and ended up having to practically double his concrete, rice drying pad! Now, in 2012, smack in the internet age, which Ñico with his eighty plus years has avoided, he is the leader for the Sustainable Sugarcane Initiative in Cuba.



When Ñico first heard of SSI in June of 2011, he had only one idea in his mind: what a great system for “repairing” his cane fields after the harvest, filling in gaps where individual plants had died. When he was a youngster, his father’s cane fields used to last 20 and 30 years, but no longer. In the coop, no one speaks or reads English, however, when they opened Dr. Biksham Gujja’s “Manual on SSI” in their computer, the pictures were enough! They immediately started a bud-chip nursery. The first cane saps were planted on September 11<sup>th</sup>, 2011, in a single hectare, on a non-irrigated plot, with spacing of 1.4 m x 0.6 m between seedlings in the row. This cane should be harvested in February 2013, and Ñico has already estimated 100 t/ha compared to his overall average this current year of 58,2 tons.



With this year’s cane harvest over, and the seasonal rains threatening, the cooperative began its “*resiembra*” on the harvested fields on May 8<sup>th</sup>, 2012. In Spanish, “*resiembra*” means to fill in the holes or spaces, figured as usually 10% of total area, becoming vacant in the field due to natural root or plant death. This year they need to plant 48 hectares of new cane using the conventional, 3-sett, planting system and two months later will use bed-chip plants to “fill-in” any faulty germination in the area.



The author, an animal nutritionist by training, who has used sugarcane in its many forms as a source of energy for chickens, ducks, rabbits, pigs and cattle, has never in her 50 years in Cuba seen anything like the 8-month-old, 1-hectare plot of SSI cane at the Bahia Honda coop. On May 29, 2012, she was thrilled to be able to accompany Ing. Sergio Guillen, J' Grupo Cana, AZCUBA, and Ing. Lauro Fanjul, advisor, INICA, to Níco's coop.

We arrived at 330pm and immediately joined the administrative board of the coop immersed in a discussion of SSI. They were in the midst of selecting a board member to be responsible for the coop's entire new SSI program. They indicated it will be a woman! The discussion included also: the need for more nurseries; a more efficient system to deliver the plants to the field; the use of a biodegradable container, perhaps even the use of dead/disintegrating plantain stalks, cut in 6-inch segments, as potting plants; application of a fungicide to the bud-chips prior to planting; and, this very year, within one of the new blocks of cane to be planted, a simple comparison of the present planting system, using three parallel setts in the furrow, requiring 13 t/ha of cane as seed, to the new SSI methodology, which uses only 2 t/ha of seed.



After a delicious Cuban espresso, with protocol over and more rain threatening, we all went out to see what we had come for: the SSI cane in Bahía Honda!

Dra. Rena Perez  
Havana 06/2012