

## The Sustainable Sugarcane Initiative “fills fields” in Bahía Honda, Cuba

I left my house in Havana at seven on Wednesday morning, May 9<sup>th</sup>, 2012 hoping to reach the cane coop in Bahia Honda at 8:30 in time to take pictures of the farmhands loading the two oxen-driven carts, one with fermented filter-press mud, the other with six-week old bud-chip plants, destined as “field-fillers”. When Níco, the coop president, first heard about the SSI methodology, having already seen how successful SRI methods could be for raising the coop’s rice yield, he immediately seized upon the idea. He saw it as an opportunity to improve cane yields by using bud-chip plants to fill the spaces left in the fields due to faulty germination, calculated at ten percent. All his cane was so-called ‘secano’ meaning ‘dry’ with zero irrigation. It used to be that before the rains came they would send out brigades of workers into the field to literally tear away, with a hoe or machete, a small clump of roots from an adjacent plant, and to plant this in a small hole, thereby filling in the gaps in the field.

I had good reason to want to arrive early, because when crossing the mountains to get to Bahia Honda, we came upon a line of five slow tractors which, we found out later, were heading for the same coop to borrow some machinery. Their slow transit along the mountainous and very curvy road meant we did not arrive until 9:30, and therefore missed taking pictures of the workers loading the carts with the seedlings. However, Níco had instructed the chief technician, Juan Francisco, to accompany us. So, my driver, Juan Francisco and myself quickly drove back into Bahia Honda to where we could take a right turn towards the “Harlem” sugar mill and could see the coop’s nearby recently-harvested cane fields.



Once there, we took a dirt road surrounded by cane fields, and then another, and still another, before seeing in the distance the two ox-carts and the planting brigade waiting for us. I apologized for our delay to Raul Frontela, responsible for the entire 430 ha of cane in this coop. He knew I was coming to take pictures and had reserved some seedlings and fertilizer in order to demonstrate the process. He told me that the previous Saturday, he and his six-man crew had replanted another of the blocks of cane with 300 SSI seedlings.



The sun was becoming impossibly hot, so after some very rapid introductions and handshakes, the farmhands picked up their picks and shovels to start working. Two men dug holes with a pick, one used a shovel to bring the filter mud while three carried and planted the seedlings, all this while the driver moved the oxen-driven cart as necessary. I could see they knew how to work as a team, fast, almost too fast for me and my usual two cameras. Also, after breaking my hip two years ago, I’m not as agile as before.



As I watched the six men work, I asked questions of Raul and Juan Francisco, particularly interested in what they would think about this new way to produce cane. This year Raul has 47 ha of new cane to plant but the 10,000 bud-chip seedlings have been entirely reserved as “field-fillers”, not to plant new cane. I argued: “But please leave some to compare to your traditional planting system?” That led me to ask, “By the way, what is your traditional planting system? Can I see it?”



In the distance there was some standing cane, so Raul sent the driver of one of the carts to cut several stalks for us. When he returned, Juan Francisco drew a pattern in the soil of the so-called ‘actual’ way that cane is planted in Cuba, using setts (canutos), however, not one sett placed linearly, but rather three in parallel!

“Why so many ‘young women’ (setts/canutos) in the same small area?”, I asked. “You don’t irrigate, there can’t be enough moisture or nutrients for so many new plants to develop in such a small area”, I added. “Yes, we know”, replied Raul and Juan Francisco, “but it’s an orientation we have to implement.”

It was time to thank everyone and take a group picture. Rain threatened and I wanted to pass by and take pictures of the one hectare of SSI cane at the entrance to Bahia Honda near the bus terminal, and also catch the two women working in the nursery before they left for lunch.



The hectare of non-irrigated, 8-month old SSI cane was a Marilyn-Monroe eye opener! The adjectives used by those who stop and look at it comment on its uniformity, quality, vigor, size, color and incredible number of tillers. We went around the back of the plot, and Juan Francisco held open the barbed wire fence while I somehow squeezed through. He counted 27 tillers on one plant, then cut a single cane and broke off the top. I put it in the car, and once back in Havana counted the number of nodes: 11, all between four and five inches each. (Of course, not knowing much about the significance of this.)



Back at the coop, I caught up with Digna and Dianelys in the SSI nursery. Digna showed how she cut out the bud node with a machete while Dianelys filled plastic bags with a mixture of soil and filter press mud, then planted and covered the bud-chips. They both take turns watering the planting material daily, with a hose, including Sundays. Germination is 90% and the plants are ready for transplanting at six weeks. Before leaving the area, Juan Francisco wanted me to say hello to the man responsible for growing all the vegetables in the coop. As we walked down the hill, I could see that the material covering the roof of the



semi-shaded FAO project building had practically blown off and suggested, “Why don’t you plant maracuya (passion fruit) around the base and use it as shade? That’s what I do in my back yard.”



After lunch, we said our goodbyes rather quickly, as we wanted to get over the mountains and back down to the main highway heading to Havana before the rain started. I promised to send maracuya seeds while I thought: what a wonderful SSI-inspired, sunny Cuban day!

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