

THE RUMPELSTILTSKIN PROJECT: SEWAGE TO MILK, BAYAMO



Wendy R. Holm, P.Ag.

Jaun Sanchez at Los Pedestales, Cuba's grass/legume rotational grazing system.

The problem with becoming involved with a good cause is that it becomes involved with you. Making separation is painful, if not impossible!

I knew when I started bringing Canadian farmers to Cuba in 1999 — building what I saw as a layer of cooperative topsoil from which fertile ideas might grow — that I was in trouble! A whole lot of road-breaking ahead. Tightrope walking in the dark.

But what rewards!

Our farmers know things the Cuban farmers don't, they know things we don't, together we have more solutions. If we can have some fun and build some bridges in the process, why not?

And so I set out to show Canadian farmers what I saw as the most innovative and promising aspects of Cuban farms: Like Cuba's global leadership in sustainable farming practices and urban agriculture (Right Livelihood Award, Swedish Parliament, 1999 for organic agriculture; last October Cuba was named the only sustainable nation by the World Wildlife Federation). ➤



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Like Cuba's success in large-scale organic farming (just as possible by tractor as by oxen; government support and farm extension are key).

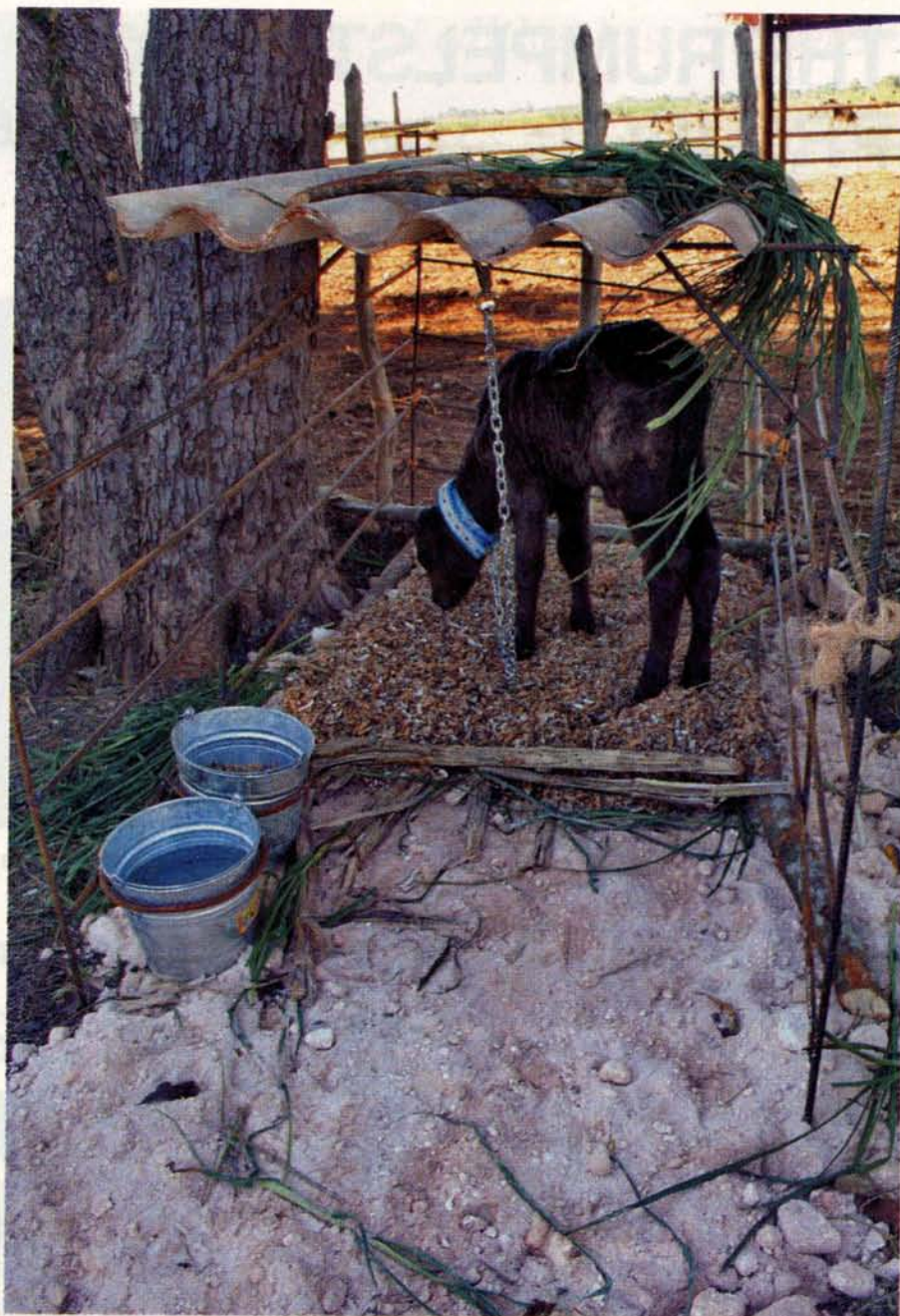
Like the political power of speaking in one voice. Sr. Lugo Fonte, President of Cuba's farmers' organization ANAP, is clearly at LEAST as important as Cuba's Minister of Agriculture.

But right on top of the list for me, from the first time I saw it, was Los Pedestales, Cuba's grass/legume rotational grazing system that uses legume hedges to divide a 100 by 150 metre field into 48 micro-pastures.

The legumes are planted in straight rows under a line of A-frame supports that are then tented-over with page wire. Irrigation causes the legumes to climb the wire and vigorously bush out both sides like long, skinny Chia Worms, creating a nice daily salad bar to go with lush grasses for the six to eight high-lactating (one to 130 days from calving) cows that graze each pasture. Pastures rest for 42-48 days between rotation.

Our farmers were impressed. "With a little help from Canadian farmers, Cuba could be self-sufficient in dairy", they said, "let's try to make this work!" And so we did.

In December of 2004 the team of Bruce Beattie (Alberta), Lorne Hansen (B.C.) and Jim Millson (Ontario) — all of whom had been to Cuba before with the Canada Cuba Farmer to Farmer Project — and I went down to Cuba to kick off the one year, CIDA-sponsored pilot project Enhancing Sustainable Dairy Production Capacity in Cuba. (Canadian NGO is Sustainable Cities; Cuban NGO is ANAP.) Thanks to the hard work of the Canadian dairy farmers (and in the case of Jim Millson, his entire family!) the project was a wonderful success. ➡



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In one year, with added nutrition, improved management practices and better genetics, milk production tripled. This year, the "Completion Project" will build on this capacity to make cooperative CPA 26 Julio a model of self-sustainability. (See Did you hear the one about the farmer's daughter? July/August 2005 and The Cuban boot project and other tales, WDF November/December 2006.)

Done, yes? Well, actually, no. Since much of Cuba's milk is produced in a green zone around her cities, the pilot study's rural model needs to be transferable to a peri-urban setting if Cuba is to become self-sufficient in dairy production.

This of course added a further complication. Water is always a precious resource. Farming at the urban edge puts even greater limits on water use as communities and industry compete for scarce resources. Add to this the fact that many of Cuba's cities have recently experienced prolonged periods of drought, and the challenge of producing milk in a sustainable way in peri-urban regions seems an impossible challenge.

Here is where the Rumpelstiltskin part comes in.

In the fairy tale Rumpelstiltskin, the heroine had the remarkable talent of spinning straw into gold. In this farmer's tale, the hero is Kim Rink, president of Canada-based EcoTek Systems, whose remarkable lo-tech constructed wetlands technology to recover water and nutrients from municipal wastewater will turn sewage into milk for the residents of Bayamo, the capital of Granma Province.

Presently, household sewage flows into a collection trench that skirts the city before entering the Bayamo River. In a project now on the drawing boards, Canadian dairy farmers will work with a peri-urban cooperative on the outskirts of Bayamo to develop the same sustainable dairy production capacity created at CPA 26 Julio, this time using treated municipal wastewater for effluent irrigation.

We will also build a small training facility at nearby ANAP farm for extension use and set up a friendly chal-



Water plant

— Photos by Wendy Holm

lenge to surrounding state farms to just TRY matching the production of the little cooperative player that now has the Canadians in their corner!

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farmers — building capacity at home and abroad. As the Cubans would say, Si, se puede! (Yes, we can!)•

Full details of the Cuba Project are posted at www.theholmteam.ca.

Wendy Holm is an Agrologist, resource economist and journalist based on Bowen Island, B.C.

She can be reached at 604-947-2893, holm@farmertofarmer.ca

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