



— Photo by Wendy Holm

By Wendy Holm

The trip was unscheduled, but necessary... The Pedestals were in trouble and that much was evident. Even the Canadian farmers who'd visited Cuba's tiny farming community of Nueva Paz as part of last winter's farmer tours had told me this.

But what exactly was the problem? And could we fix it? That's what Ontario dairy farmer Jim Millson and I set out to find out as we headed for Cuba on a Pedestal rescue mission in early April.

As regular readers of this column know, Los Pedestales is a Cuban grazing system designed to replace protein in the diets of dairy cattle that was lost when the former Soviet Union collapsed. The system consists of rotational pastures separated by five-foot high legume hedges. Tented with fencing wire to provide a trellis and prevent over-grazing, these bushy legume fences stretch from one end of the field to another, creating a series of long skinny strip pastures that provide 5 Star accommodations to five or six fresh cows per hectare on a 36-day rotation.

Despite the potential of the Pedestals, they were largely abandoned as a strategy for dairy nutrition in Cuba because it was felt they did not perform to potential in field conditions.

The objective of our first project was

a) to find out what was wrong with the Pedestals and b) to see if we could make them work because, if successful, they offer a sustainable, small footprint dairy model for Cuba and many other countries around with world.

For this reason, under our pilot project Enhancing Sustainable Dairy Production Capacity in Cuba (Sustainable Cities Foundation, CIDA), Canadian dairy farmers Bruce Beattie (Alberta), Lorne Hansen (B.C.) and Jim Millson (Ontario) included three hectares of Pedestals as a key component of an integrated nutrition and management strategy for the farm cooperative CPA 25 Julio. And we learned a lot!

One of the problems associated with the Pedestals has been construction cost. The CPA solved this by purchasing one hectare of frames and building the remaining frames themselves, on-farm, from rebar.

Another was materials. We suffered a six-month delay in obtaining the 1.5 metre high wire fencing to protect and trellis the legumes. (If the Pedestals can be proved to offer real solutions, this problem will resolve itself.)

Another critical link in the chain is proper pasture establishment with the correct species of grasses and legumes: a vigorous, high protein climbing legume and a low, tender, palatable and nutritious pasture grass.

And finally, proper rotation of irriga-

tion and grazing is also critical.

The grasses originally recommended by Cuba's Ministry of Agriculture for use in the Pedestals were Crossed Bermuda, Guinea Likoni, and King CT115. The recommended legume was Glycenia. But since the Pedestals had developed a poor reputation, we first sought the advice of Aurelio Alvarez Mendez, Cuba's top pasture and forage expert at the Institute for the Investigation of Forages and Pastures.

Aurelio agreed with the use of Glycenia as a legume (also suggesting Tropical Kudzu, Blue Shell and Centrosemas) but warned against the recommended grass varieties, suggesting that Guinea Likoni was too invasive (would overgrow the legumes) and that King CT 115 had poor nutrition and was too vigorous under irrigated conditions. The grasses Aurelio recommended were Brachiarias (especially B. Mulatto), Guinea Mombasa, Tanzania, Bermuda Tifton 85 and Dwarf Elephant Mott.

Armed with this information, we went forward. The legume Glycenia took off, but both attempts by the farmers to establish the correct species of pasture grasses failed. As we later learned, this was because the Cuban farmers had no experience with artificial pasture establishment; the seeds were planted too deep and failed to emerge. ➡

Not understanding why the correct species of seeds did not germinate, the CPA appealed to nearby Cuban Institute for Animal Science for help. Unfortunately, rather than recognizing the problem as one of poor pasture establishment techniques, ICA told them to plant King CT 115 as originally recommended.

What a mistake. But in that mistake important lessons were learned as to why the Pedestals were failing and what needed to be done to make them work.

Like King Grass elsewhere in Cuba, CT 115 caught like a match to straw. It is the one species of grass that will grow under almost any conditions, drought included. Under irrigated conditions, King CT 115 quickly established itself in tall, vigorous plantings of five to six feet in height. It's inch thick woody stalks — the first four feet of the stem, all cellulose and no nutrition — were unpalatable to the cattle and quickly threw the legume hedges (the nutritional stars of the Pedestals) into shade, halting their growth.

Compounding the problem, the wire that had been supplied to cover the legumes was only one metre in height, not 1.5 as ordered, so the legume hedges were not only in shade, they were missing their most productive, top foot and a half of height.

Although production levels remained high relative to before we began the project (due to other changes to management and nutrition, production had already tripled before the Pedestals were introduced), the introduction of the cows to the Pedestals failed to result in the anticipated boost in production. In the words of CPA President Juan Sanchez Martell, the cows got fatter, but there was no increase in milk.

Hence the Pedestal rescue mission. And it was a timely success! After four days of on-site workshops with the Cuban farmers and scientists, a Pedestal rescue strategy was agreed to that will see:

- the existing King CT 115 ripped up and the Pedestals properly reseeded with the correct grass species (low, tender, nutritious), one hectare at a time,
- the Pedestal's legume hedges

restored to their correct (5') height by adding additional wire to the top of the trellises, and

- more disciplined management of grazing and irrigation rotations within the Pedestals.

Since we are still working with the CPA to add additional rotational pastures, create the capacity for on-farm formulation on feed rations and implement new calf management practices,

this opportunity to fine tune the Pedestals couldn't have come at a better time.


Canadian dairy farmers to the rescue: Long live the Pedestals, down with the King! •

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