



New System Makes Winter Watering Easier

This producer wanted to give his cows more room, keep his dugout water clean and add organic matter to his sandy land. With an assist from Growing Forward 2, a new solar-powered water pump and fencing did all three.

On a December afternoon near Clyde, Alta., the temperature's down around -20 degrees C. Despite the cold, Andrew Wieler's 100 head of cattle have ready access to clean, warm water. As a producer, that's as good a Christmas present as he could ask for, and it's all happened in the last few months.

"I had the idea that I wanted to get the cows out on the land during the winter," says Wieler. "I was tired of having the cows close in, and having so much manure to deal with."

The limiting factor was water. While the cows had access to water close to home, further out, he'd need to pump water from a couple of available dugouts. Without electricity for this purpose out in the field, Wieler wouldn't be able to achieve his objective. He had water; he needed power.

Then he heard about the *Growing Forward 2* On-Farm Stewardship Program. Under this program, Alberta producers may be eligible for cost-sharing of up to 70 percent for management practices that improve water quality.

To Wieler, this cost-sharing – and technical support from *Growing Forward 2* staff -- brought a solution within reach. He purchased a new water system that uses solar energy to charge a battery that powers a pump to bring water from the nearest dugout. Water bowls feature a heating element that's powered by a 30-lb. bottle of propane.

The second part of Wieler's *Growing Forward 2* project was dugout fencing to keep his cattle off the ice in winter and out of his clean water supply the rest of the year.

"It seems like every winter, someone loses an animal that falls through the ice in a dugout," says Wieler. "I've seen it happen, and they don't get out again. I was sick of the cows trying to get into the dugouts, so I fenced my dugouts with heavy-duty wire."

Advantages and Tradeoffs

Wieler's goal was to get his cows further out on the land. A new approach to water management made it possible. This in turn allowed him to meet two other goals for his operation.

"From a manure aspect, it is way less work than having them close in," he says, "and you don't get that concentrated manure pack on the land. We also have some sandy land with sandy ridges, and there are days in the spring when it really wants to blow. Having the cows out there allows us to get more organic matter on that sandy land. That part's a really big deal for me."



The operating cost of the new system is also attractive. Sunlight, when it's available, is free. If Wieler gets several overcast days in a row, he knows he needs to go out and supplement the battery with a generator. Propane to heat the water bowls runs about \$30 per month.

Considering 2015 was his first year with his new solar- and propane-powered water system, Wieler expected a learning curve and got one. Looking to 2016, he's believes the system will deliver everything he was looking for last summer.

"There's been the odd time when it was touch and go whether there was enough sunlight for the solar," Wieler says. "I moved the cows three days ago, set up the system and they watered there for three days just fine, and it's cold. It requires a bit of maintenance, but it's a good system."

Growing Forward 2 is a federal – provincial – territorial initiative.