

Animals can operate water pumps

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RIMBEY — A pair of local cattle producers has found what they believe to be the least expensive and most reliable energy source for watering stock of all — the animals themselves.

Jim and Jackie Anderson, who run Simmental/Hereford-cross cows and calves on their farm southeast of Rimbeey, were having trouble stocking some of their fields because of difficulties getting water to the cattle. There was no natural source of water, and it's downright dangerous to give the animals direct access to dugouts, especially during winter.

"We used diaphragm pumps, probably for 20 years, and they worked perfectly good in summer, but they weren't working in winter," says Jackie.

While some farmers break holes in the ice to let their cattle drink in winter, that sort of system comes at a cost that the Andersons feel is unacceptably high. Every year, says Jackie, there are stories about one or two cows breaking through the ice and drowning. In one of the worst cases on record, a producer near Viking lost 170 animals when they crashed through the ice on his dugout while trying to get a drink.

And then, the Andersons met a man from Olds who was working on a pump that the cattle could operate themselves. His idea was to create a system similar to the hand-operated pumps that were commonplace on prairie farms years ago.

The difference would be that the capacity would be less, so it would take fewer and shorter strokes to pull the water up from its source. Cattle could run the pump themselves by giving it a few short strokes with their noses, and then slurping water from the small trough into which it was fed.

The water would come from a source below the frost line and a drain system would prevent ice from building up at the top, making a system that would work year round, regardless of the weather.

However, the man died before completing his work on the new system. Convinced that his idea should not die with him, the Andersons took the project over and continued working on a cow-pow-



Photo by **BRENDA KOSSOWAN/LIFE** staff

Jim Anderson shows how his animals operate the Nose Pumps.

ered, frost-free water pump. They built and tested pump that worked well for the most part. However, it's bulk and its square design did not stand up well to the field test, in part because the cattle like to rub on it, says Jim.

He and Jackie went back to the drawing board, creating a rounded housing, powder-coated in sky blue paint, that would be less attractive as a scratching post. Blue just seemed to be the right colour for a watering system, says Jim.

The Andersons received help from the Olds College School of Innovation, which tested the prototype for them. The completed prototype is still at work in a field across the road and a little south of their house.

The pumps can be adapted to either a dugout or well water system, provided the water is not too deep for the animals to draw. Two or three pumps can be placed over a single culvert so more than one animal can drink at the same time.

Andersons have created a brochure describing how the pump works and offering tips

for training animals to use the pump. They recommend starting with a small number of animals and hand-pumping the water for them so they get used to the idea of drinking from the small trough at the front of the pump.

Once some of the animals are trained, new animals introduced to the herd will learn from them how to use the pump, says Jim.

Cattle, bison and horses all learn to use the system fairly quickly. The bovines seem to learn faster, perhaps because of the way they move their heads while eating, and "especially if they're thirsty," he says.

Jackie says her horses seemed a little more reluctant to operate the pump, but caught on quickly enough. She had one aged and dominant mare that exploited the talents of her younger herd mates to get a drink. The mare would wait for one of the other horses to pump some water, and then push it off and take a drink.

"Once they know it's a water source, then they'll do it," says Jackie.

The Andersons feel their pump can also work for smaller livestock, and are testing them with a couple of flocks of sheep.

They have assumed, but are not yet certain that the diameter of the pipe will have to be reduced so smaller animals can run the pumps more easily.

He and Jackie are now selling pumps across the country and have even found a customer in France, north-east of Paris.

The advantage is that, once installed, the pumps will not require further investment.

"It's a few dollars up front, but once it's paid for, there's very little to spend," says Jackie.

"Every year, they pay for themselves, because they aren't drawing any power."

Information about the Anderson Frostfree Nosepump is available online at www.frostfreenosepumps.com or by calling 403-843-6740. The Andersons also have a toll-free line, 1-866-843-6744.

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