

USERNAME

GO

[Home](#) | [News](#) | [Crops](#) | [Livestock](#) | [Markets](#) | [Weather](#) | [Farm Living](#) | [Blogs](#) | [Opinion](#) | [Classifieds](#) | [Digital Edition](#) | [Mobile](#) | [Subscriber Services](#)Hover over to take
a closer look.Wind: 0
Humidity: 91 %

Saskatoon

GO

Livestock

Section Sponsored By:

Nose pump improves watering

[RELATED ARTICLES](#) | [SHARE](#) | [PRINT](#) | [TEXT SIZE](#) **A⁺** **A⁻** | [CONTACT NEWSROOM](#) | [REPRINTS](#)By [Barbara Duckworth](#) **May 02, 2002**

RIMBEY, Alta. - When Jim Anderson's father settled in west-central Alberta, he built his farm on the banks of the Blindman River.

It was common practice in 1946 for a farm to be near a water source, but a generation later Anderson is concerned about the quality of the river.

An interest in the stream bank environment sent him on a search for a way to bring the water to his cattle rather than allowing them to wade into the river for a drink.

In 1999, he heard about a frost-free, energy-free nose pump invented by Walter Diehl. Not only could it pump using cow power, it could bring water to remote areas of pastureland for little cost.

The concept is simple and is based on the same idea as an old-fashioned hand pump. Working with Diehl's blessing, Anderson redesigned the pump with help from the Alberta Research Council.

"Our biggest improvement has been the environmental influence. When cattle pump water, the water comes up into a bowl. What they don't drink goes right back down and I knew that was a major concern with backwash," he said.

The modified pump delivers a steady supply of fresh, clean water on demand into a shallow trough. The Styrofoam-insulated pipes and pumping mechanisms do not freeze even when the temperature dips to -40.

A major challenge in Anderson's area is freeze-up by the first part of September. He is unable to use some areas of the ranch because he can't get water to the cattle without risking a frozen pump.

"We have to manage our pastures so that the grazing pastures that use diaphragm pumps are grazed out before it starts freezing," Anderson said.

The estimated cost to run electricity to a quarter-section pasture without water was nearly \$10,000. This included the cost of the utility and pumping equipment.

Something less costly was in order.

After testing the refurbished nose pump on their own herd, Jim and Jackie Anderson obtained a provisional worldwide patent on the design and started marketing the pumps from their ranch this spring.

The design of the waterer includes a small enclosed trough with a lever

Search **LATEST DAILY NEWS**[MORE](#)

23/03/2010 3:00:00 PM

May canola falls but November rises

22/03/2010 4:00:00 PM

Weaker loonie, crusher demand lifts canola futures

19/03/2010 3:00:00 PM

Canola's credibility

19/03/2010 3:00:00 PM

Canola closes week little changed

19/03/2010 12:00:00 PM

Getting noticed**MOST POPULAR**

1. Canola growers' practices examined
2. Farmers compensated for stock kills
3. Canada's other red & white emblem
4. Buying into bison
5. A golden age, then a wave of ugliness
6. Weaker loonie, crusher demand lifts canola futures
7. Canola's credibility
8. Getting noticed
9. New Matrix system gives field guidance at night
10. Wind turbine flies on wings with two moving parts

that is pushed by the animal's nose as it drinks. The trough is approximately the width of a cow's head.

The pump is mounted on top of a galvanized steel culvert set vertically into the ground to whatever depth is required to pull the water from a dugout, well or other sources. The pump is able to draw water from a depth of 23 metres.

The nose-powered lever operates a piston pump suspended in the well, much like old hand pumps. Ice may build up on the sides of the trough when cattle slop after drinking, but the insulated culvert walls and cement pad keep the mechanism from freezing.

Cattle learn to operate the pump within a day. The trough is sloped downward so as the cow drinks it moves forward and pushes the lever. It quickly learns this action provides about half a litre of clean water.

Anderson suggests installing the pump in summer so cows learn how to operate it before cold weather arrives.

The cost of the system is about \$2,500. Orders include an instructional video and manual.

This summer the Andersons plan to try the pump with horses and bison. The Prairie Farm Rehabilitation Administration has expressed interest in the pumps for its remote pastures and has successfully used them on a demonstration site near Bentley, Alta.

The pumps fit into Anderson's overall environmental plan. In the last couple years, a project was established on the farm with the help of the Alberta Woodlot Association. The Andersons have built five kilometres of fence along the Blindman River banks to keep cattle out. More than 7,000 trees have been planted to stabilize the banks.

"The motive behind that is to improve water quality in the river that influences the consumers downstream," said Anderson.

The Blindman converges with the Red Deer River, which is a principal source of water to people in central Alberta.

"One of the biggest culprits of water quality is cows in the river," he said.

To see the pump in action, visit www.frostfreenosepumps.com.



[View More Livestock Articles »](#)