

# Frostfree nose pumps for easy water

Cattle are snoopy animals by nature they're always getting their noses into something. They also like to drink a lot of water. And so it seemed only natural to one Alberta livestock producer to combine these two qualities to market an effective winter watering system.

The Frostfree Nosepump™ is an energy free device livestock producers can install on many water sources to ensure their cattle have

adequate water all year, particularly during the winter when freezing is a concern. The system is a cost-effective watering alternative that is powered by the cattle themselves.

The initial design, a concept of Walter Diehl of

Bowden, AB, has been further engineered and redesigned by Jim Anderson. The Alberta producer has obtained a provisional worldwide patent on his new design.

The system's easy assembly, reliability and low cost



make it a hit in an industry where water can determine an operation's success or failure. Conveniently, the pump, which Anderson assembles right on his farm three miles southeast of Rimbey, AB, can be installed by the landowner.

The new design consists of a blue metal hood, pendulum, down-hole cylinder and foot valve mounted on a vertical culvert. The culvert acts as a reservoir, storing water from sources such as underground aquifers or dugouts.

The pump is attached to the top of the culvert, extending to a foot valve in the water. The piston pump is activated by the animal pushing the bottom of the pendulum, drawing water up into the bowl.

"The 30-pound pump is compact with a curved back, sitting 20 inches high and long," described Anderson, who carried on with the idea when Diehl's health prohibited him from continuing his work. Since then, Anderson has modi-

fied the system with assistance from Earl Jensen of the Alberta Research Council, making it more userfriendly, environmentally sensitive and efficient.

Anderson, along with his wife Jackie, has been raising livestock and growing grains and forage for the past 28 years. Since 1999, Anderson has installed four nose pumps on his property. Due to the unit's durability, simplicity and ruggedness, he's had no trouble with the virtually maintenance-free system.

During the first year of use, Anderson watered a herd of 170 cows with a single nose pump for three months of winter feeding on one quarter-section of land. Although only one animal can use the pump

at a time, the herd learned to space themselves and take turns. At the end of the 2001 calving season,



Anderson turned in a nearly 100 per cent crop of healthy calves.

"We took our 135 cows to the quarter with the nose pump in mid-October and they stayed out

there until late January," said Anderson. "That creates an ideal opportunity to get them out of my farmyard. We feed them out there in the field, and by January the manure is spread fairly evenly. At calving season we bring them all home to clean yards and sheds. As they calve, we move them back out in smaller groups to

**Frostfree Nose, Page 5-**

## Frostfree Nose

Continued from S-2

rounding the culvert with a thick clay or bentonite. Locating wet wells on ground that slopes away from the source will prevent nutrient-rich water from flowing back into the dugout, creek or river.

A licensed drilling company will ensure that every hole drilled meets all government regulations.

Nose pumps should be installed in areas with good underground water wells or cisterns, though a dugout or nearby stream can also be used.

By fencing off the surface water source and trenching a pipe from the source's bottom to the nearby culvert, it becomes a reservoir. The

water will fill the culvert to the same level as the dugout.

Anderson and Brandt have yet to determine a maximum depth the system can effectively pump at, though Anderson has managed to lift water from 47 feet. The only hitch he's come across is ice forming at the edge of the bowl at temperatures below minus 30 degrees, which, if left to accumulate, could cause the pendulum to jam.

By doing routine checks and

tapping ice off as required Anderson is confident the unit will work trouble-free for years.

For more information on the Frostfree Nosepump™ visit the Anderson website at [www.frostfreenosepumps.com](http://www.frostfreenosepumps.com).

Or call Jim at (866) 843-6744. Fax: (403) 843-6916.