

CATTLE "PUMPED" OVER WINTER WATERING SYSTEM

The Frostfree Nosepump™ is an energy-free device livestock producers can install on many water sources to ensure their cattle are watered all year, particularly during the winter when freezing is a concern. The system is a cost-effective livestock watering alternative that is powered by the cattle themselves.

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 himself. The culvert must be purchased through a local dealer.

The design consists of a blue powder-coated 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 and extends 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.

"We took our 135 cows to the quarter with the nose pump in mid-October and they will stay 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 fresh ground where we have other nose pumps. This helps with disease prevention and manure distribution."

Training the cows to use the pump is the next step once the system is installed. Though it may seem like a daunting task teaching 135 cows to drink from a foot-sized trough one at a time, Anderson said the process was surprisingly easy. However, he warns that calves, until they reach a certain maturity, are unable to use the pump. Over the past three years, he says this has not been a problem for his calves: "Babies don't need much water if they have milk."

Anderson ball-parks the system – fully installed – at \$2,500, (the pump itself is \$975) though this figure can change depending on the depth of the

well needed, surrounding pad to protect the well, water source used, length of intake line needed, and number of systems being installed.

"There should be a financial benefit to farmers and producers when you look at the other alternatives: electric, solar, wind and gas," said Glen Brandt, Red Deer district engineer, who also provided technical assistance on site preparations. "This system runs on cattle power, so whatever Jim can market this at, they'll be less expensive than alternative watering sources."

"The benefits are mainly environmental: because this system is economical, we hope there'll be positive uptake, in turn getting more cattle out of the creeks, rivers and dugouts, and giving farmers more opportunities to have their cattle out of the yard for longer periods of time. The two biggest benefits are grazing in remote areas and improved water quality."

Frostfree Nosepumps can be installed in areas with good underground water wells or cisterns, though a dugout can 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 has yet to determine a maximum depth the system can effectively pump at, though he has managed to lift 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.

"The FFNP has given us year-round use of our dugout and turned summer pasture into another wintering ground: manure's on the field where it does some good, cattle are off dugout banks in summer & ice in winter, the water stays clean & fresh. It's an awesome unit!"

Mike Poffenroth,
Bentley, AB

"I was skeptical ... but it works!"
Don Carlyle, Carlyle Cattle Co. Ltd.
Blackfalds, AB

*"Making good use of cow power!
A pleasure to watch!"*

Albert Kuipers,
Grey Wooded Forage Assoc.

*"The two biggest benefits are:
the ability to graze remote areas,
and improved water quality."*

Glen Brandt, PFRA,
Red Deer, AB

*(from PFRA newsletter
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- Cattle pump their own water!
- No electricity needed!
- Ideal for dugouts or shallow wells!



Frostfree Nosepumps Ltd.

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