

Nose Pumps: Cattle Pump Their Own Water

“Nose pumps increase water quality and herd health.”

Glenn Hogberg

Three Nose Pumps Evaluated

During the summers of '97 and '98 three different nose pumps were evaluated at the Hogberg's Ranch. (SE ¼ of section 12 Tp 78 Rg 19 W6M). The Hogberg's tried the nose pumps because they wanted to keep their recently built dugout clean, instead of allowing their cattle direct access to their dugout

Three nose pumps were used: **Lister, Eider, and Aquamat**. The dugout in a south sloping pasture, was fenced off with barbed wire. A wood platform was built that was higher than the water level on the east and west and plank fencing put around the nose pumps. Two of the pumps were bolted down to the platforms and placed on either side of the dugout. The 3rd pump was placed on a temporary platform of 2x8 planks that were staked into the ground on the west side of the dugout. The pumps were attached to a



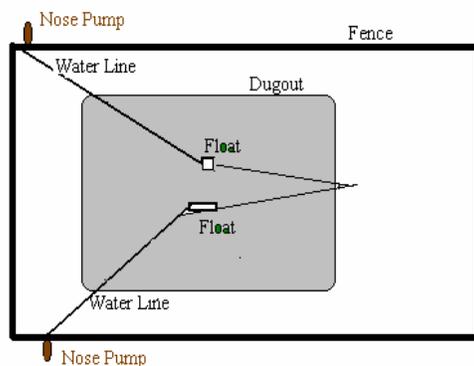
Aquamat pump installed at Glenn Hogbergs

one-inch water line with a foot valve on the end. The foot valves were prevented from sinking into the mud by Styrofoam or 2x6 floats that were attached to the water lines. The floats were tethered to prevent drifting. There were 45 cow/calf pairs using the nose pumps at one time.

For more information about nose pumps call:

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(250) 843-7653

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PFRA office, Dawson Creek
(250) 782-3116



Nose pumps, water line and fencing installation diagram

Advantages of Nose Pumps

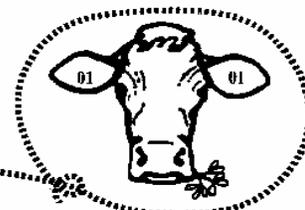
The Hogbergs found that the nose pumps had advantages over most other types of watering systems. They provided a higher quality of water and level of health than allowing direct access to the dugouts. Cattle were not tromping around in the mud creating murky water (which can contribute to foot rot), getting their udders dirty, and infecting the water with high levels of bacteria from their feces. They were more cost effective than any other pumping system and they did not require outside energy to power them (which can cost more). They required very little maintenance and they are portable enough to be used in a rotational grazing system.

Published by P.R.F.A. of BC

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V1G 1L6

Peace River Forage Association
of British Columbia



“Nose pumps can increase the longevity of a dugout.”

Ralf Hogberg

For Information on :
Aquamat contact:

Keddies Tack & Western Wear
 9816 - 132nd Avenue
 Grande Prairie, Alberta
 (780) 532- 4888

Lister contact:

Feed & Ranch Supply Ltd
 # 578
 100 Mile House, BC
 (250) 395- 2408
 Pumps must be ordered from Germany if not in stock.

Eider contact:

Peavey Mart
 1300 Alaska Ave.
 Dawson Creek,
 (250) 782- 4056

Dawson Co-op Service
 10020 Parkhill Drive
 Dawson Creek,
 (250) 782- 3371

CRC Ranch Supplies
 10117-17 th Street
 Dawson Creek
 (250) 782- 9893

Considerations

Hogbergs did encounter some problems. The ground near the pumps was often saturated from the overflow water out of the bowls. It became soft and muddy around the pumps and the cows ended up creating a hole in front of the east pump.

Hogbergs feel this problem could be solved in 2 ways. The first would be to place gravel around the pumps (possibly put the geogrid under the gravel). The 2nd way would be to put the pumps in a tub to catch the water. The tub would also solve the problem for the calves under three to four months of age that can not operate the pump lever. With a tub the calves are able to drink the overflowing water while mom is pumping.



Eider pump

Comparison of the Nose Pumps

Each of the pumps has their advantages and disadvantages, but Hogbergs like the Eider pump the most. Even though it has a lower volume per stroke than the Lister, it is lighter, easier for the cattle to pump, and more cost effective. The Aquamat is even cheaper and lighter than Eider, but the Eider pumps more per stroke, is stronger and has a larger bowl to pump the water into.

Pump Specifications

	Lister	Eider	Aquamat
Composition	metal	metal	metal and plastic (bowl)
Cost (1998)	\$450	\$325 (foot valve included)	\$300
Approx. Weight	34 Kg	30 Kg	11 Kg
Ease of pumping	Hardest	Easier	Easiest
Volume per stroke	1.14 Liters	1 liter	0.57 Liters
Pull water Height	8.2 m (27 feet)	7.9 m (26 feet)	6.9 m (20 feet)
Pull water Length	400 m (¼ mile???)	79 m (Replace 1 foot vertical with 10 feet horizontal)	61 m (Replace 1 foot vertical with 10 feet horizontal)

Cattle learn to pump

Each of the nose pumps is designed similarly to entice the cattle to learn how to obtain water through pushing the lever. The lowest part of the bowl, behind the lever, is where the excess water pools. Therefore, if the cattle wish to reach the water they must push the lever with their

nose. This in turn pumps the water into the bowl and the cows soon discover that if they push the lever they will get water. None of the Hogberg cattle had to be moved because they could not understand how to work the pump, but they did have to help pump the lever for a few cows to start with.

Compiled by: Heather Fossum & Kim Strasky

Water Projects Financially Assisted by: Prairie Farm Rehabilitation Administration office in Dawson Creek
 Forage Facts Project Funding: Agriculture & Agri-Food Canada through Peace River Agriculture Development Fund, Investment Agriculture Foundation & all supporters of Forage Goods & Services Auction 2000