CONSERVATION TIDBITS

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NORTH WEST ALLIANCE CONSERVATION INITIATIVE

BETTER GAINS WITH OFFSITE WATERING

In light of the troubles our beef industry is facing these days, it is now more important than ever to find ways to decrease costs of production. One way of doing this is to supply clean water to livestock, which can increase rates of gain and decrease stress, while improving dugout/riparian quality.

Water for livestock on pasture is very commonly supplied by means of earthen water basins, such as dugouts, streams, and lakes, and often the livestock have free access to these sources. When livestock drink directly from these sources, they have a direct effect on water quality simply because they have to walk into the water in order to drink it. When livestock walk on the banks of a water source, the churn up sediment, which causes the water to become murky, and as a result, they have to wade further in to get clean water. To add to this, the deposit of urine and manure increases the bacterial load decreasing the quality. As clean water becomes more difficult to get, consumption decreases, and a lack of water reduces feed intake, which reduces gain.

Given this information, it would appear that supplying clean water to livestock should improve gains, overall health, and dugout quality. A publication from Montana State University states that cattle, given the choice between water directly from a dugout and water pumped from the same dugout into a tank ("offsite watering") preferred to drink from the tank. A study from Alberta in 1993 showed a 20% weight increase in cattle that drank dugout water pumped into a tank versus cattle that drank directly from the same dugout.

In regard to affordability, even at a 10% increase in weight gains with clean water, added value on a 500lb calf would be 50lb (500lbx10%). At a price of $0.90/lb, that works out to an additional $45.00 per calf. At an additional $45.00 per calf, it doesn't take a lot of animals to help pay for some kind of water development, even at today's low calf prices. On top of the economic benefits, providing offsite watering has ecological benefits as well. These include less sedimentation and increasing water quality in dugouts, and less water erosion, and healthier aquatic life in streams and lakes.

The burning question now is how can producers afford to implement a system like this given the current economic situation? While it is true that the ideal offsite watering system would consist of a fence separating the livestock from the water source, and some sort of self contained, automatic system to pump the water to the tank, there are cheaper ways to do it. Since the previously mentioned study claims that cattle will choose water in a tank over water from a dugout, fencing off the water source, while still the best method, is not as high a priority. Also, the pumping systems need not be automatic as long as the producer is willing to tend to the system every day.

There is always the option of gas-powered pumps or other less expensive means of moving water.

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Things to think about this Month:

- How to safely Dispose of Pesticide Containers
- Why compost Manure
- What to do with Leftover Seed
- Where to place a new well

The North West Alliance Conservation Initiative (NWACI) is a partnership between 7 municipalities including, the county of Athabasca, M.D. of Lesser Slave River, Parkland County, Strathcona County, Sturgeon County, County of Thorhild, and Westlock County. This partnership also receives funding from the Alberta Environmentally Sustainable Agriculture (AESA) program. The focus of the partnership is to promote and encourage the implementation of practices and techniques that will reduce the impact of agriculture on the environment. For more information or a no charge on farm consultation please contact Mike at 780-939-0602 or Jennifer at 780-939-0618 or www.nwaci.com.

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Better Gains With Offsite Watering...

Some options include:

Access Ramps – The ramp is only minimal improvement to the water body. The ramp makes footing better and cuts down degradation of the banks of the water body. The rest of the water body would be fenced off to limit access to the water.

Water Hauling – This is a time extensive system but is very flexible to have water systems moved wherever it is needed.

Solar and Winder Powered Systems – These are both very viable options to pump water from dugouts and water bodies. A storage tank is needed to store water for cloudy and still days. The tank should hold three to seven days supply of water. Energy from solar systems can be stored in a battery system and the wind powered systems should have an overflow management system at the tank.

Nose Pumps -- Cattle operate nose pumps by pushing them with their noses. The pumps are cost effective and easy to relocate. Calves under 300 pounds may have difficulty operating these pumps.

Pasture Pipelines – Buried pipelines are useful for moving water within a one mile radius on the pasture. Pipelines work well for rotational grazing systems that do not have multiple water sources.

The benefits of implementing an offsite watering system are twofold. The first benefit being economic gains, and the second being ecological improvement. In short, using this system is just one of the many ways you can make more money by improving environmental sustainability!

The NWACI will be able to assist you in deciding what the best watering system for your operation is. If you would like to try a solar powered system the NWACI has two portable systems available to try free of charge.

Why Compost Manure?

Composting is the breakdown of organic materials. When composting manure the breakdown is quicker than if left naturally. The end result of compost is a dark, crumbly, earthy smelling product similar to potting soil. The compost will kill parasites, larvae and weed seeds. Compost also reduces odor and flies and can decrease the size of the pile by 50%. Compost can be used to improve soil quality and be used as mulch.

What To Do With Left Over Treated Seed

Only treat as much seed as needed for immediate use. When temporarily storing treated seed place the seed in a sealed and secure container. If you have purchased bagged treated seed return the unopened bags to the dealer. For leftover un-returnable seed, plant at a rate not exceeding three times the normal seeding rate or take to an authorized landfill for immediate disposal.

Information from:

Beneficial Management Practices: Environmental Manual for Alberta Farmsteads.

Alberta Agriculture and Food — www.agric.gov.ab.ca

When loading pesticides remember to never leave filling procedures unattended.

Safely Disposing Pesticide Containers

Pesticide containers that are un-rinsed can cause potential contamination to soil, groundwater and surface water. Pesticide containers must be triple rinsed and dried before disposal at a pesticide container site. A pressure jug rinser is the best option but if this device is not available manually rinse containers three times then puncture or break the container and dispose at a pesticide container site.

Where to Place a New Well

When putting in a new well the location is pertinent to the quality of the water. It should be situated on high ground that is not subject to flooding, and upslope from any potential or known contaminant sources such as livestock corrals, manure storage, household sewage systems. Take the time to look into the setback distances a well should be away from:

- Building 3.25m (11ft)
- Watertight septic tank 10m (33ft)
- Sub surface weeping tile effluent disposal field 15m (49ft)
- Sewage effluent discharge to the ground 50m (164ft)
- Sewage Lagoon 100m (328ft)
- Above Ground fuel storage tanks 50m (164ft)
- Manure storage facility or collection area or livestock yard 100m (328ft)
- Sanitary landfill, modified landfill or dry waste site 500m (1640ft)
- Dead animal burial or composting site 100m (328ft)
- Old existing leaching cesspool; the installation of a leaching cesspool is no longer permitted 30m (98ft)

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