South Sask River Watershed Agri-Environmental Group Plan

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Know your Livestock Water Quality

Decommission Abandoned Water Wells

Natural Edge Planting

CONTACT US TODAY!

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Know your Livestock Water Quality

Adapted with permission from original article which can be found online at Saskatchewan.ca Search "Know your Livestock Water Quality"

It is important to know the quality of the water that is being provided to animals. Testing the water is always a good idea, whether it is well water or surface water; however, it is not sufficient to test the water just once, since quality can change over time. Surface water in particular can change due to runoff and evaporation. Depending on environmental conditions, it may be prudent to test the water no more than two weeks prior to animal exposure, and again if conditions change. While continuous testing may be inconvenient, it is important to the safety and productivity of the livestock.

Death is not the only outcome caused by poor water. Even non-lethal concentrations of salts and sulphates can impact animal health and productivity depending on the stage of production (mature animal vs calf), pregnancy status, lactation status, anticipated average daily gain and concurrent weather. Poor-quality water will also cause problems with mineral absorption. Sulphates in water are known to interfere with the absorption of certain minerals, leading to mineral deficiencies that result in losses in reproductive efficiency, weight gain and immunity to disease. Higher quality minerals such as chelated minerals may be used to compensate for some levels of poor water, but even high-quality mineral sources are of little use if there is a high level of salt in the water. Sodium is the only nutrient that drives mineral intake; therefore, if the animal's sodium requirements are being met by salt in the water, they may not be attracted to the mineral. There are several feed and water testing labs in Saskatchewan that perform livestock water quality testing. Regional Livestock Specialists are able to assist producers with water sampling, testing and interpretation of results. Contact your local specialist for assistance or call the Agriculture Knowledge Centre at 1-866-457-2377 for more information.

It normally takes five to seven business days for the lab to complete the testing from the time the sample arrives at the lab to reporting out of results. Take turnaround time into account when planning your water testing strategy.

Another option is to use a TDS meter. However, there are a number of caveats when using one of these meters:

- Laboratory tests are always more accurate than TDS meters.
- The meters are only as good as the user – ensure proper calibration and follow the manufacturer's instructions.
- Most meters only provide an estimated TDS value (overall dissolved solids) but provide no information on sulfate content. **An acceptable TDS reading does not rule out a harmful level of sulfates.**
- The displayed result can differ from the actual TDS by a factor that differs depending on the specific brand of meter being used (as an example, plus or minus 20 per cent).
- Make sure you know in what units your meter displays results, e.g. mg/L.

In summary, it is always a good idea to test the quality of water being provided to livestock. Laboratory testing is most accurate, although TDS meters can be used as an initial assessment. Remember that the accuracy of the meters is poor and therefore questionable samples should be submitted to a lab.

Growing Forward 2
A federal-provincial-territorial initiative

South Sask River Watershed Stewards

Government of Saskatchewan

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The **South Saskatchewan River Agri-Environmental Group Plan** is a producer based group dedicated to raising watershed awareness among local area farmers and ranchers. Producers within the boundaries of the South Sask River Watershed have been accessing ***cost-shared funding*** through the **Canada-Saskatchewan Farm Stewardship Program** encouraging the implementation of **Beneficial Management Practices.** The BMPs help address issues of water quality, nutrient management and soil erosion within the watershed.

Did You Know?

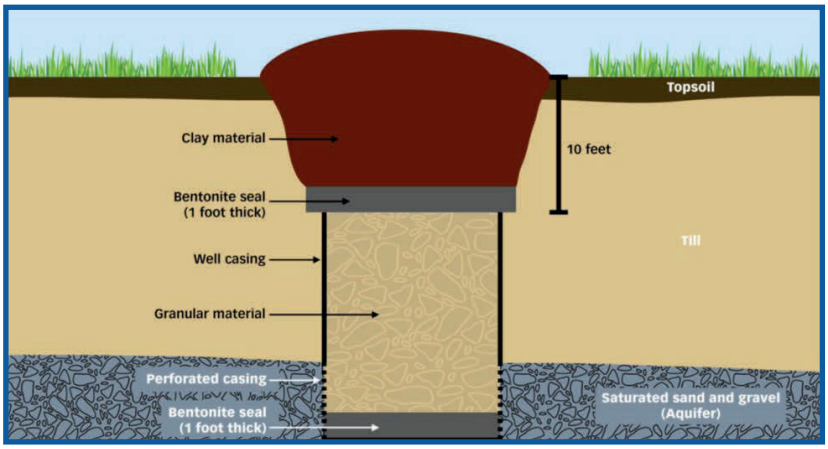
"For every 1% increase in organic matter, the soil can hold an additional 20,000 gallons of water per acre. Just think of the flooding that can be alleviated if this water is stored in the soil profile versus running off into streams and rivers." Gabe Brown

Decommission Abandoned Water Wells

There are numerous reasons to **decommission abandoned water wells** on your property including protection of ground water resources and the safety of your family. Decommissioning a well properly seals off the well to prevent contaminants from entering the water supply.

General steps to decommission a bored water well.

- ◊ Disinfect water with a shock chlorination.
- ◊ Slowly pour bags of bentonite into the well, pouring enough for a one foot thick layer of bentonite.
- ◊ Backfill well with clean sand or gravel, to within ten feet of the surface. Excavate ten feet and remove casing. Call Sask Power before digging!
- ◊ Additional Bentonite seals should be placed between zones. This will be specific to each well.
- ◊ Pour enough bags of bentonite for a one foot thick layer to seal the top. This layer of bentonite should extend a foot beyond the edges of the removed casing.
- ◊ The top ten feet should be filled in with clean clay and tamped down every foot.
- ◊ Backfill over the edge of the well hole and mound up one to two feet to allow for drainage and setting.



Picture: Water Security Agency

Complete details on how to properly decommission a large diameter well can be obtained from the Water Security Agency. Small diameter drilled wells need to be decommissioned by a registered well driller.

Natural Edge

The Natural Edge program is designed to help landowners create a natural shoreline by planting a selection of native trees, shrubs, wildflowers, and grasses suitable for their property. It is an easy step by step process that restores areas of shoreline to their natural state. The plants help reduce soil erosion, improve water quality by filtering runoff, and are essential to providing habitat, including shelter and food, for over 90% of wildlife. The process is very simple and begins with a site visit from South Saskatchewan River Watershed staff. During the site visit the land owner will discuss the details of the planting plan with our staff. Once a planting plan has been developed by our staff and approved by the land owner, a date can be set for the planting.

These projects are made possible by the financial support of the Government of Canada through the federal Department of Environment and Climate Change Canada.

Fisheries and Oceans Canada
Pêches et Océans Canada

Watersheds CANADA

The NATURAL Edge Restoring the Ribbon of Life