SPECIAL AREAS BOARD

Ag Talk—December 2016

Check Your Bins!

If you just finished harvest, you likely aren't thinking about checking your grain bins quite yet. That's a job for January, right? Wrong!

While you may have just *finished* harvest, a lot of growers *started* many months ago, often times putting grain in the bin that had less than ideal moisture content. And because of the *great* fall weather we have been experiencing, you cannot rely on the old snow melt on the top of the bins trick to indicate a grain heating problem. Our Ag Fieldmen have heard reports of spoiling, rotting and even germinated bins already this winter.


Credit: Lee Quaschnick

Use sensing cables, electronic probes or try inserting a one meter metal rod into the grain near the top of the pile, in the center. Wait half an hour, remove the rod and test for warmth in the palm of your hand.

Canadian Grain Commission stored product entomologist Wayne Timlick recommends checking your grain bins more frequently than you have in the past, due to higher moisture grain being stored. Prioritize your bins based on their moisture and temperature conditions, keeping in mind your profitability of each bin. Add grain dryers, grain chillers, aeration systems or turn grain from bin to bin when hot spots are identified to prevent loss in grain quality, weight, germination and potential burning.

Remember high moisture content and temperatures going into the bin aren't the only cause of hot spots. Insects are also a culprit. Due to the high cost, difficulty and licenses required, fumigation should be a last resort. The best way to prevent insect infestations is to start with cool, dry grain in a clean bin. Alberta Agriculture & Forestry have a great document called Stored Grain Insects, Mites & Molds- Frequently Asked Questions to refer to for further information. Referenced below, Alberta Agriculture & Forestry's Cereal Grain Drying & Storage guide on the maximum moisture content levels for straight grade seeds (percentage wet weight basis) is very useful.

Barley (feed)	14.8
Barley (malt)	13.5
Canola rape seed	10.0
Corn/maize	15.5
Domestic buckwheat	16.0
Domestic mustard seed	10.0
Fababeans	16.0
Flax	10.0
Lentils	14.0
Oats	13.5
Peas	16.0
Rye	14.0
Safflower	9.5
Soybean	14.0
Sunflower	9.5
Triticale	14.0
Wheat	14.5

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Using Barley as Forage

With less than ideal harvest conditions this year and some barley being left to the bottom of the priority list, we should remind ourselves about the value of barley as feed in our beef cattle operations. In Alberta, as much as 80 per cent of all barley grown in Alberta every year is used as feed. Barley as feed can bring a lot to the table, especially in a year like this:

- It has the genetic diversity to perform well in many of the province's growing conditions
- It is an excellent source of energy (starch)
- It contains more protein than corn (which is also widely used for livestock feed)
- It has a higher level of starch digestion in ruminants than corn (despite having a lower starch content)
- It can be the total grain portion for beef cattle and dairy cows

Smooth-awned (beards) or semi-smooth awned varieties may be preferable to the rough-awned varieties as feed, due to occasional livestock problems related to feeding the current varieties of the roughawned type. Dry whole-plant barley forage rations will provide about the same amounts of digestible energy as alfalfa, and slightly more than timothy hay in cattle rations. Alfalfa forage contains more protein than barley forage. For maximum yields consistent with good quality and acceptable palatability, it should be cut at about the late soft- dough stage. More mature plants will yield slightly more fodder, but may be less palatable to livestock with reduced protein levels.

The crop may be cut with a conventional forage harvester or swather and allowed to field-dry in the swath or windrow. When the swaths are dry (less than 12-14% moisture), the forage may be chopped, baled, or handled as loose fodder and placed in storage barns or stacks.

To ensure proper nutrition, cattle fed barley forage should also receive about 1 per cent limestone and appropriate amounts of vitamin A. Awnless varieties or less mature awned varieties can be dry rolled or swath grazed without risk of injury to the mouths of the cattle from the awns. The risk of Vomitoxin or DON (deoxynivalenol) from fusarium infected kernels can cause problems for swine or for milk production cattle, however there is no evidence - even after exclusive studies that DON affects beef cattle production. Read more about that here .

For more information on this or other forage options give your local ag fieldman a call or contact your CARA forage specialist.

(info presented was collected from Alberta Agriculture and Forestry:

http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/crop4933

http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/crop1256

http://www.albertabarley.com/

https://www.ag.ndsu.edu/PUBLICATIONS/landing-pages/livestock/barley-grain-and-forage-for-beef-cattle-as-1609)

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Upcoming Events!

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Ag Talk—December 2016

Remote Watering for Livestock Pays

There are many livestock watering options available to use over the winter, however they generally fall into two categories: remote & direct watering.

Remote watering systems include bringing water to the livestock, such as those set up on wells, pipelines, wet wells, etc. These systems require a power source and are often mechanical, gravitational, solar, wind, geothermal or electrical.

Direct watering systems mean the livestock access water from water bodies like creeks, sloughs, dugouts or in some cases, lick the snow cover.

While remote livestock watering comes with an increased initial set up cost, there are great advantages to consider, both economic and environmental. One interesting benefit of remote watering is increased livestock production. Livestock prefer to drink from troughs over direct access water sources. Some studies suggest cattle weight gain can be reduced by 20-30% with the consumption of contaminated water from direct access. When cattle have good quality water they drink more, eat more and therefore gain more weight.

Herd health problems can be amplified by direct watering systems. This can include increased exposure to water transmitted diseases and toxic blue-green algae, greater incidence of foot rot and leg injuries, and risk of drowning from falling through ice. All these risks will decrease herd productivity and increase production costs.

Direct watering can cause environmental concerns if the riparian area of the water body being used is disturbed. This can include problems like disturbing fish spawning areas, damage to banks, nutrient build up, rapid weed/algae growth in the summer and deterioration of water quality. This can happen in both summer and winter months. The Wintering Site Assessment and Design Tool is a great resource for analyzing your wintering water site risk.

By using a remote watering system you protect the water source you pump from, the delicate environment surrounding it, and other species depending on it. You also drastically increase the longevity of your water source, saving you repair and maintenance costs to the water body itself. Agriculture & Agri-Food Canada estimates loss of storage use and increased maintenance costs of $200-$500 per year on a dugout where cattle are allowed direct access.

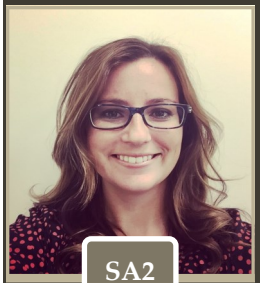
The Chinook Applied Research Association in Oyen has resources for remote livestock watering options producers in the Special Areas have installed and used. Some are purchased, some homemade and some retro-fitted. You can stop by their office to view it.

Growing Forward 2 funding available for remote livestock watering systems and water development. Under the On-Farm Stewardship program you can receive reimbursement for 50% of costs, up to $30,000 for approved year round watering systems, including monitoring devices. New this fall you can receive up to 70% back on energy free outdoor livestock watering fountains from the On-Farm Energy Management. To develop new or improve watering sources such as wells, dugouts, springs, etc you can be reimbursed 1/3 of project costs to a maximum of $5000 under the On-Farm Water Management Program. Please see program details at wwww.growingforward.alberta.ca for more information, availability and eligibility requirements.

Your local Ag Fieldmen and CARA staff can assist you with Growing Forward 2 funding applications, as well as provide additional information on remote livestock watering systems

Your Agriculture Fieldmen

JESSE WILLIAMS



SA2

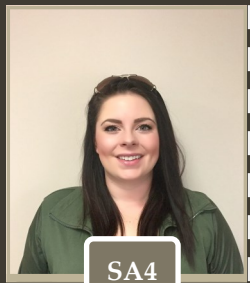
(403) 854-5625/(403) 854-1114

DON HOGAN

SA3

(403) 664-3618/(403) 664-5585

JUSTINE SIMPSON



SA4

(403) 577-3523/(403) 575-5525

We offer support for programs including:

- Plant identification & noxious weed control
- Grazing management & strategies
- Pest management & controls
- Growing Forward 2
- Environmental Farm Plans
- Shelterbelt programs & planning
- Animal predation concerns
- Equipment rentals including RFID tag readers & pest traps
- Concerns related to *Soil Conservation Act, Weed Control Act, Agricultural Pest Act, Animal Health Act,* and other legislation.