

Agricultural Service Board Bulletin

February 2024

CALF 911—HOW TO MANAGE COLOSTRUM

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Did you know?

- Hungarian partridges were introduced to AB in 1908 in De Winton.
- There are 9 species of bats in AB, 3 which migrate.
- A gopher’s gestation period is 23 days.
- AB has 38m ha of forested area, vs only 19.9m ha of farmed.
- Since 1951, 89 species have been released for biocontrol of 37 plant species in AB.
- Gophers have one litter of 5-8 pups per year.
- As of 2023, there are approx. 4000 clubroot positive fields in Alberta.
- Kochia can produce up to 100,000 seeds per plant.
- There are 86 herbicide resistant weeds in Canada.
- AB’s 1st case of clubroot was found in the 1970’s and the first case in canola was found in 2003, both near Edmonton.

The following is courtesy the Beef Cattle Research Council’s 2022 article of the same name. To view the original article , visit <http://tinyurl.com/3uznyh3n>.

Ensuring newborn calves consume colostrum is one of the most important management strategies cow-calf operations can implement to promote healthy calves. Colostrum provides essential antibodies (like Immunoglobulin G or IgG) to a calf with virtually no immune system. Colostrum also contains fats, vitamins, proteins and other immune cells essential to provide the calf energy, warmth and the local immunity it requires to thrive in the first few days of life. This initial immunity will protect against calfhood diseases such as scours, navel abscesses, septic arthritis and pneumonia.

Calves that are born unassisted and uncompromised will typically stand and nurse from their mothers within one to two hours after birth. However, calves that experience a difficult or prolonged birth, have a swollen tongue, experience hypothermia or are a twin may be less vigorous and unable to stand and nurse during that critical period. A cow with a large udder, poor udder suspension and/or large teats may also limit a calf’s ability to receive adequate colostrum.

It is crucial for producers to observe newborn calves to make sure they have received colostrum and to intervene if necessary. Look closely to see if any of the cow’s teats have been suckled, feel if the calf’s belly is full and check the hooves to see if the rubbery capsule has been worn off to indicate standing. Checking a calf’s suckle reflex by sticking your fingers in the calf’s mouth is also a simple indicator to demonstrate whether the suckle reflex is weak and the calf needs to be supplemented with colostrum.

Considerations when feeding a calf colostrum:

- Early intervention is key. Antibody absorption drops after six hours following birth, and by hour 12, the gut capacity to absorb antibodies drops by half. After 24 hours, the calf’s gut will be “closed” and no longer allows passing of antibodies through the gut lining.
- Beef calves should receive at least two litres (or 8.5 cups; 0.5 gallons) of colostrum within the first two hours of being born. If feeding colostrum, ensure it is warmed to 38°C (100°F).
- Some colostrum is better than none. If you think a calf has not received colostrum and you are within the 24-hour window, provide it. After 24 hours, any colostrum that is fed will not be absorbed and is a waste of good quality IgG.

- Always attempt feeding colostrum by bottle first, which allows colostrum to enter the abomasum where antibody absorption is maximized. In contrast, tube feeding first places colostrum in the rumen, where antibody absorption is limited, and colostrum only reaches the abomasum once the rumen overflows.
- The BEST SOURCE OF COLOSTRUM is from your own herd. Colostrum can be milked from the newly calved cow or collected from another cow on-farm and frozen and stored for up to one year. This ensures the colostrum received provides immunity to the calf from diseases that are specific to that farm and the calf’s environment while maintaining a closed herd.
- DON’T feed calves colostrum from other farms because of the risk of disease transmission like E. coli, Salmonella spp., Mycoplasma bovis and MAP (Mycobacterium avium paratuberculosis, the precursor to Johne’s disease).
- Store by freezing colostrum in a large Ziplock bag, laying it flat. Be sure to label the bags and use within a year of storage.
- NEVER thaw colostrum in the microwave because this will destroy antibodies. Instead, place the frozen Ziplock bag in a bucket of warm water and allow to thaw and warm slowly.
- Colostrum replacer or supplement products are sufficient if other options are not available, but remember that products labeled as a “Colostrum Supplement” DO NOT provide calves with enough antibodies to be relied on alone. “Supplement” products may provide a boost to calves who have had SOME colostrum but need more energy, fat and protein supplement with a little bit of IgG. For calves that have had no other colostrum, use a product labeled as “Colostrum Replacement.” Regardless of the source, colostrum should contain a minimum of 100g IgG up to 300g IgG. Very few colostrum replacer products provide 100g, so read the label carefully.
- DON’T feed beef calves colostrum from dairy animals, as antibody concentration in dairy colostrum is typically lower than in beef colostrum.

Properly managing colostrum on your operation can minimize the risk of disease and death and increase growth in pre-weaned calves. Ensuring each calf has received adequate colostrum will provide calves with the best start to a healthy and productive life.

HOW TO CHECK BINS AND BAGS FOR SPOILAGE

The following is adapted from the Canola Council of Canada's article of the same name. To view the full article and related information, visit <http://tinyurl.com/4vmvsrr4>.

All canola should be conditioned immediately after combining to cool it down, provide for consistent temperature throughout the bin and remove any moisture released through natural seed respiration that occurs in the first hours to weeks after harvest.

After that, monitor bins closely during the first six weeks after harvest and then continue to check stored canola regularly until delivery. This is especially true for canola at higher risk of spoilage.

The ideal situation for safe long-term storage is canola seed moisture of eight per cent or less and temperatures of 15°C or less. If stored canola temperatures plateau or start to rise while outside air cools through the winter, it can signal the start of spoilage. It only takes one small hot spot to start a chain reaction that can spoil a whole bin.

How To Check Bins

1. Cycle. The best method, even with bin monitoring cables, is to remove about a third of the canola. This disrupts the moisture cycle and helps to stop any heating or spoilage that may have begun in the central core. While unloading, feel and smell canola as it comes out of the bin. Check for visual abnormalities such as sweating. Run another moisture and temperature test. If canola has any hint of spoilage, consider cycling the whole bin.
2. Use bin monitoring cables. These give a quick assessment of temperature (and some also offer moisture) readings at nodes throughout

the bin. Cables may not detect small hot spots, so cycling can offer some extra assurance.

3. Probes. Probing through doors or roof hatches may uncover hot spots near the bottom and top of the bin, but cannot show canola condition through the central core and all sides. Be careful and consider your own safety when climbing bins to probe grain. Reduce your risk of falling by using appropriate safety equipment such as a harness.

How To Check Bags

If leaving bags for the winter, watch them regularly. Feel them for warm temperatures. Probe them if possible. Tape up any holes that may occur due to wildlife or any other damage. Spoilage in bags often starts around holes.

Bags are suitable for short-term storage of tough canola. A Saskatchewan study from 2009 compared bag storage of canola at 12, 13 and 14 per cent moisture. At 14 per cent moisture, canola in the study did not cool down as expected when outside temperatures cooled, so growers emptied those bags in December. Canola at moisture levels above 12 per cent should only be stored for three to four weeks to avoid deterioration of quality.

The risk with bags is that most don't have airflow, they tend to fluctuate more with changes in outside temperature (which means they cool faster but also warm up faster), and they are often not as accessible in winter if something goes wrong.

NEW WILL AND ESTATE PRE-PLANNING TOOL AVAILABLE—FCC

The following is a Dec. 12, 2023 press release from FCC. To view the full release, visit <http://tinyurl.com/bdhh52au>.

Farm Credit Canada (FCC) is announcing the release of a new Will and Estate Pre-Planning Tool for Canadian farms. It will provide producers with the starting point they need to think about how to successfully plan for the future of their operations.

The Farm Transition - Will and Estate Pre-Planning Tool for Canadian farms is based on Dr. Tom Deans' Willing Wisdom Index platform. It has been adapted to reflect the unique needs of Canadian farm owners. Producers will get their own personalized recommendations and checklist minutes after answering a series of questions. The checklist will identify what is being done well and any existing gaps in estate planning.

"The tool is meant to give urgency to a conversation that families often find difficult to start," said Dr. Tom Deans, intergenerational wealth transfer expert, speaker and author. "There's no other industry where a business owner forges such a close emotional connection to the business. You live on the very thing you are working. It's more than a business, it's an identity and to transition it to someone else is excruciating and a deeply emotional subject."

The will and estate tool can be used to start a conversation between family members on how to bring in and use resources like lawyers, accountants and wealth advisors in their plans.

"Many people in the agriculture industry tell us that will and estate

planning is an overwhelming task and so it's common for producers to avoid it. This tool complements the FCC's Advisory Services who are already helping Canadian farmers begin these conversations," said Greg Thamarat, FCC manager, advisory services. "By using the tool, producers will gain greater insight into this important step in their transition journey, as well as come away with a list of questions to bring to their advisors in advance of those plans."

Deans encourages people to point to the report as a reason to start talking about will and estate planning and avoid the erosion of family relationships and wealth.

"A farmer will take 8 to 10 minutes, go through the checklist, hit enter, get the report and see what they have to do. The recommendations will be clear and a common one will be to sit down and talk to the family," said Deans. "You can blame the index and say 'hey I did this, and it says we should sit down. What do you guys think?' Blame the report but now you have something in your hand that you can point to which is very different than saying 'we need to talk'."

The will and estate pre-planning tool is free, completely anonymous and confidential. The personalized checklist and recommendations producers receive include actions that can be taken immediately. They can then go back to the tool multiple times to see their score improve and checklist change based on what they have accomplished. It can be found at WillingWisdom.com/FCC.

SHELTERBELT REJUVENATION PROGRAM ACCEPTING APPLICATIONS

The Shelterbelt Rejuvenation Program is intended for the replacement of trees/shrubs in established shelterbelts in the County which are reaching the end of their lifespan or have been significantly damaged, such as but not limited to Colorado Spruce, Poplar, Caragana, Lilac. It is **not** intended to replace decorative or cash-crop producing trees/shrubs (such as u-picks & horticultural crops).

The County will place the order through our supplier Tree Time Services Inc. and will pay purchase costs. Applications are assessed on a first-come, first-serve basis. Application approval is subject to planting site verification. Landowners may still access tree planting assistance for orders over 200 trees purchased independent of this program.

Find the program application form at <https://tinyurl.com/8hb69cv8>.

For species availability and quantities, please visit www.treetime.ca. If you have any questions about this program, contact Trevor Kerr 403.882.3211 or email tkerr@countypaintearth.ca.



SEASONAL EMPLOYMENT OPPORTUNITY

If you are motivated person eager to contribute skills and experience, we are currently inviting applications for a Seasonal Employee with the Agricultural Service Board (ASB).

ASB Equipment Operator – Competition Number ASB01

Responsibilities will be mainly for roadside mowing but may include other duties as they arise. Ideally applicants would have formal agricultural training and/or agricultural background, and experience in the operation and maintenance of agricultural implements will be an asset. Must possess a valid Class 5 driver's license. This position will be a three-month position starting July 15, 2024.

The job posting will be closed on March 15, 2024. For more information relating to the ASB Position contact Trevor Kerr, Assistant Agricultural Fieldman at (403) 740-9182.

Interested candidates are invited to forward their application quoting the Competition #ASB01, to:

County of Paintearth No.18
Box 509, Castor, AB T0C 0X0
Phone: (403) 882-3211 Fax: (403) 882-3560
Email: jobs@countypaintearth.ca

CYBER SECURITY ON YOUR FARM

The following is adapted from the Ontario Federation of Agriculture's article titled "Farm businesses not immune to cyber security risks". To view the full article, visit <http://tinyurl.com/3798drs2>.

Experts agree that in today's connected world, it's a matter of when, not if, a business will face a cyber security problem. Breaching incidents of all kinds, whether it's compromised information, financial fraud or data that is held hostage until a ransom is paid are on the rise, and agriculture is not immune to these threats.

Outdated, unmaintained systems running old software no longer being updated is one of the most common vulnerabilities – and is widespread, especially in small businesses.

Lack of data backup leaves a business particularly vulnerable in a security breach, and can also be a serious problem in case of computer or server failure, or a virus, for example.

People also represent a cyber security risk. Lenient approaches to who has access to on-farm systems, such as sharing passwords, using a single login for all users or not removing system access from employees who no longer work for the business can leave a business vulnerable.

As well, a lack of awareness amongst farmers, their families or their employees of scams like phishing emails, where fake messages encourage users to click on potentially damaging links or share information, is also a challenge.

There is no such thing as 100% security, but with cyber criminals looking for weak or vulnerable targets, experts suggest taking steps to minimize risk as much as possible. A few simple steps include:

- Making a checklist of all your current technology and ensuring that you're using current software versions and systems.
- Establishing basic rules for your team to recognize where threats come from and what to do – or not do. Free online videos are available to help with training.
- Ensuring new systems or devices are set up properly and asking suppliers what security the devices have and whether data is encrypted.
- Not sharing passwords, making sure passwords are strong and updating login credentials when an employee leaves the business.
- Backing up data and installing valid anti-virus software, firewalls and malware detection systems that are kept up to date.

Ultimately, we need to think about cybersecurity on the farm like we do biosecurity – an investment into a best practice that, while not fool-proof, will go a long way to minimizing or even avoiding risk.

Yes, it can be tedious and there is some cost involved, but every day, week or year that we protect our businesses and prevent problems is invaluable.





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Trevor Kerr

Any comments or suggestions for the ASB Bulletin can be made to Trevor Kerr by phone or email tkerr@countypaintearth.ca

Test Your Knowledge

1. Antibody absorption in calves drops after ___ hours following birth.
2. Never thaw colostrum in a _____.
3. The ideal situation for canola storage is seed moisture of ___% or less and ___°C or less.
4. FCC's Will & Estate Pre-planning tool only takes ___ minutes to complete.
5. Where can you view tree species available through the Shelterbelt Rejuvenation Program?
6. When does the ASB seasonal job posting close?
7. On-farm cybersecurity should be treated like on-farm _____.
8. A cow requires about ___% of her body weight in forage every day.

Test Your Knowledge Answers

1. 6 hours
2. Microwave
3. 8%, 15°C
4. 8-10 minutes
5. treebme.ca
6. March 15, 2024
7. Biosecurity
8. 2-3%

GRAZING LIVESTOCK IN RIPARIAN AREAS

The following is adapted from the Agroforestry & Woodlot Extension Society's factsheet of the same name. To view the full factsheet, visit <http://tinyurl.com/2s4hdbns>.

'Riparian areas' are the transitional zones between water bodies and upland areas. Fully functional, healthy riparian areas provide valuable services that include filtering and trapping runoff, recharging groundwater, slowing soil erosion along banks and gullies, supporting biodiversity, and producing abundant forage for livestock throughout the growing season. Riparian areas can be damaged when livestock are allowed access to graze and/or drink from the adjacent water body. However, with careful management that accounts for the unique characteristics of riparian areas, riparian grazing can be done without long-term degradation.

Grazing that maintains or increases riparian health is an art and a science, and requires determining the appropriate stocking rate and grazing period for the available forage, controlling access to water, allowing for adequate rest periods, and introducing livestock only when soil moisture conditions are acceptable.

Riparian Grazing Considerations

Stocking Rates

A cow requires about 2-3% of her body weight in forage every day. By estimating the forage yield of the riparian area, you can determine an appropriate stocking rate over a given time period that does not lead to overgrazing.

Access to Water

Cattle drinking directly from the stream or wetland can destabilize the bank, muddy the water, and contribute to nitrification of the water supply. Off-stream or off-site watering areas prevent degradation of stream banks and improve water quality. Plus, cattle experience better gains when they have access to clean water!

Rest Periods

Letting riparian areas rest during the growing season enables plants to re-grow leaves and root mass post-grazing. Keep in mind that overgrazing is a function of time, and can result from staying in a riparian area for too long or returning to a grazed riparian area before plants have fully recovered.

Moisture Conditions

Wet soils are vulnerable to pugging and compaction, especially in the spring. Graze in low moisture conditions to avoid damaging sensitive streambanks.

Grazing Management

Cattle may linger around riparian areas on summer days due to the availability of water and shade. Fencing your riparian area as a separate pasture makes it possible to better manage the grazing process and to exclude livestock from particularly sensitive areas.

Livestock Preference

It is important to be aware of the palatability of different riparian species to livestock. Trees and shrubs tend to be browsed more intensively in late summer and fall, when grasses have cured and good forage is lacking. Livestock are particularly fond of willow, dogwood, saskatoon, and young aspen and balsam poplar trees.

Riparian Reforestation and Grazing

There is growing interest among farmers and ranchers across Alberta in restoring riparian area health and functionality by planting trees, shrubs, and herbaceous species. Integrating riparian reforestation and riparian grazing can be a delicate balance, but the two practices need not be mutually exclusive.

If possible, grazing should be done in mid-summer when moisture conditions are low and there is plenty of herbaceous forage available. Grazing at this time also gives seedlings a chance to recover before winter and allows for taller grasses to grow up around seedlings, providing shelter and trapping snow.

Note that there is not a single model to follow for grazing riparian areas, and this information is only intended to provide some guidelines and processes to consider. It is most important to monitor your site, as it has specific needs and requirements, and adjust as necessary.



AWES

Agroforestry & Woodlot
Extension Society

AHEM EMERGENCY PREPAREDNESS HANDBOOKS

The following is an Alberta Beef Producers press release dated December 21, 2021. To view the original release, visit <http://tinyurl.com/5n8f957d>.

The Animal Health Emergency Management Project (AHEM) is equipping the Canadian livestock industry with awareness, understanding, and resilience in emergency preparedness.

One of the ways it's doing that is by providing producer handbooks that outline important considerations and actions for emergency situations.

In December 2021, AHEM released updates to those producer handbooks, including one for Alberta's beef cattle sector.

Download the handbook today, and start working through it with the personnel on your operation: <http://tinyurl.com/4tuu38xr>.

To see more of the Animal Health Emergency Management producer handbooks (including goats, sheep, equine, pigs and dairy cattle), and a customizable workbook [\[http://tinyurl.com/2c5ddves\]](http://tinyurl.com/2c5ddves), head to 'Resources,' on the Animal Health Emergency Management Project website [\[https://animalhealth.ca/ahem/resources/\]](https://animalhealth.ca/ahem/resources/). AHEM is a four-year initiative funded through the Canadian Agricultural Partnership's AgriAssurance Program. The Alberta Beef Cattle Sector Handbook is supported by Alberta Beef Producers.