over the Fenceline

Spring 2018

Battle River Research Group

No Matter How Long the Winter, Spring is Sure to Follow. - Proverb

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Management Decisions with Spring Grazing: How Early is Too Early?

Calendar dates are one thing when it comes to noting when spring is finally here. But when the grass emerges after the snow has nearly disappeared, it can certainly be safe to say then that spring has finally arrived.

Of course, that often equates to the itchy temptation in believing that's also the time to turn out the cows to the pasture! However, it may in fact be better to wait a bit longer so that you're not pushing the limits with future pasture productivity. So, I ask you to consider this: How early is too early to turn out your cows?

When you start seeing that first hint of green in your pastures, those are the first leaves emerging from plants with very little energy stores left in their roots and crowns. That first leaf is very important for the next few weeks of growth because it is the very first leaf that starts photosynthesis so that other leaves from that same plant can also begin to emerge.

If that leaf is clipped off before it has fully grown and the second leaf begins to also emerge, the plant must draw on more energy reserves that are already mostly depleted. This sacrifices a plant's vigor and health later on into the growing season, particularly if there's not enough leaf area left to continue even some photosynthesis.

Perennial forage plants that are left alone until they

have gone past the 3 to 4 leaf stage, though, will then have replenished most of their energy stores to be able to regrow sufficiently after grazing. The time taken to get to this stage will ultimately be determined by the amount of energy store left in the roots at the time that first leaf begins to emerge.

If plants are coming out of a period of stress from the previous year via overgrazing, drought, or insects, then expect those plants to take longer to grow up to this stage than if they were emerging after a previously normal or excellent growing season. This may mean having to defer the start of grazing 2 to 4 weeks later than normal.

Plant growth the previous year stops earlier with drought or overgrazing, forcing the plant to draw on reserves for longer. Plants that are not given adequate biological time to recover decline in productivity and health, which eventually may lead to death. This may not be noticeable during the season where drought or overgrazing is evident, but it may certainly show up come the following spring.

That is why allowing rest for recovery is crucial. Allowing plants adequate rest is certainly the cheapest rejuvenation strategy you can allow. Managing the new regrowth is also important to guarantee good productivity and regrowth for the rest of the year.

Suitable rest periods are needed in between grazings. Grazing lightly so that there is more than half the residue left behind will allow for a quicker recovery. Rest periods need to be long enough to allow plants to regrow to their 3 to 4 leaf stages, and in the spring, this may only take a matter of days. The rule of thumb is graze fast if the grass comes back fast. It's the exact opposite if the grass is growing slowly, like later in the year; Graze slow if the grass is growing slow. Rest periods need to be longer for slower-growing grass than fast-growing grass. Use of cross-fencing and temporary electric fencing will help allow for more flexibility with managing your pastures and with forage growth and recovery. Adding fertility may also help with plant recovery if moisture is adequate.

Certainly, too early is when plants are beginning to emerge. Simply waiting a little longer can yield surprising results later in the year, both literally and figuratively. By understanding and monitoring plant growth, you give yourself a greater ability to make wise decisions that will benefit your profitability in the short-term, and help encourage greater returns on your operation for the long term. Just remember, if you look after your grass, your grass will look after you!

This photo is a great indicator of when NOT to graze. These cows are out too early!

Karin Lindquist
Forage - Beef Specialist
Ag Info Center
Stettler, AB

What Condition Should my Cows be in Prior to Breeding Season?

Cows should be in average condition. This would be a condition score 3 (on a scale from 1 to 5) at calving. Cows that lose weight between calving and breeding season will have a delayed heat cycle and have 10 to 20% lower conception rate. If a cow is thin at calving, most of the nutrients consumed will be used to produce milk and repair the reproductive system. It is very difficult to have lactating cows gain weight in the first three months after calving.

Barry Yaremcio
Beef & Forage Specialist
Ag Info Center
Stettler, AB

Member Spotlight

New to our quarterly newsletters, we will be interviewing one of our BRRG Members and featuring them in our "Member Spotlight."

Below we have interviewed Tara & Greg Davis of Gadsby, Alberta (Stettler County). Read below to learn about their family and their farming operation.

Would you like to be our next member spotlight? email: env@battleriverresearch.com

Introduce yourself, your family and give us a brief introduction into what you do on your operation.
Hi my name is Tara Davis I am married to Greg and we have 4 children Lane 12, Colin 10, Heidi 9 and Justine is 6. We have 2000 acres of crop land and 200 head cow calf operation south of Gadsby, AB. Our only income is from the farm, neither of us work off the farm.

What do you as a family farming operation believe is the most important aspect of the work you do? What is the one thing you wish everybody knew about?
The important aspect to us is that our kids get to work along side us everyday and learn how to run a farm. We get to work with at times, 3 generations. It is neat to see how different each generation thinks and works. I wish everyone knew that it is a lot of fun, but at the same time it is a big undertaking juggling work and family time. A lot of our family time is working cattle, or fixing a machine. Somedays even going for a long parts run, we all get in the vehicle and go for a road trip.

If you could turn back the clock to when you began farming and know what you know now, what piece of advice would you give yourself? Not be scared to take out some loans to get yourself ahead.

What are three of the most important lessons you could share about your experience's in the Agriculture Industry? 1. Don't be scared to take a risk. 2. If something doesn't feel right don't be scared to say no. 3. Talk to neibours and other farmers to see what works for them before you make a decision.

Has there been anything along the way in your years of farming that maybe didn't work out the way you had hoped? Any surprises?
In the cattle, finding breeds of cattle that we like and also find breeders that work for us. In the grain, learning that you have to spend money to make money.

What have you found most valuable from the Battle River Research since becoming a member?
I loved the calving course last year in Stettler. it has been very useful, and the meal was very good, makes a person want to attend more functions.

Greg & Tara Davis

Below are a list of the elegible programs wthin the Canadian Agricultural Partnership funding. To find more information on these programs go to: https://cap.alberta.ca/CAP/ or call 310: FARM or the BRRG Office: 780-582-7308 or email: env@battleriverresearch.com

Farm Energy & Agri-Processing Program

Eligible Projects
- wall & ceiling insulation
- LED lighting
- natural gas furnaces
- ag ventilation fans
- energy free or low engery outdoor livestock water fountains
- timers
- photosensors
- irrigation systems with VFD
- and more!

Irrigation

Eligible Projects
- new low-pressure centre pivot to replace a gravity, side-wheel or high-pressure centre pivot
-retrofit of a high-pressure centre pivot to a low-pressure centre pivot
- variable-rate irrigation equipment (controllers and software)
- control panel upgrades
- and more!

Farm Water Supply

Eligible Projects
- new water well construction
- new dugout construction
- spring development
- tie-in into multi-user water supply
- water treatment
- well pit conversions
- well decommissioning
- and more!

Environmental Stewardship & Climate Change - Producer

Eligible Projects
- riparian area fencing
- year round/summer watering systems
- improved pesticide management
- improved nutrient management
- shelterbelts
- plastic roller
- improved manure storage
- and more!

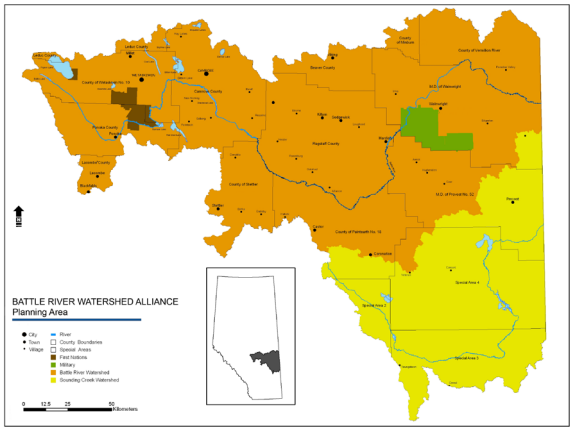
Funding Available for Landowner Projects: Buffalo Trail Riparian Restoration Program

A new program coordinated by the Battle River Watershed Alliance (BRWA) is looking to work with local landowners and provide funding for projects that help improve the health of the Battle River and the many creeks, lakes and wetlands in the watershed.

An important focus of the program is to protect and improve the health of shorelines and streambanks, also called riparian areas. This, in turn, will support improved water quality and fish habitat. The BRWA is interested in working with landowners in the Battle River watershed, whether you have land directly adjacent to the Battle River, or along tributary creeks, lakes or wetlands. Funding is available to support projects such as riparian fencing, installation of livestock watering systems, planting of native vegetation, riparian health assessments, and more. This is a shared investment program; we are aiming to cover up to 75% of project costs.

If you live in the Battle River watershed, we'd love to hear from you to chat about potential projects! Contact program coordinator Sarah Skinner (email sarah@battleriverwatershed.ca or call 1-888-672-0276) to learn more about the program and discuss project ideas.

This program is made possible through the support of the BRWA's partners, including the County of Paintearth, County of Vermilion River, M.D. of Wainwright, Cows & Fish, and the Government of Alberta.



A map of the Battle River Watershed

Why Seed Treatment?

Whether to seed treat or not often comes up in the spring. It should be looked at as an insurance policy to protect against less-than-ideal growing conditions in the spring. If you have high germinating, vigorous seed planted into warm, moist soil, the crop is guaranteed to germinate quickly and be off to the races.

However, the weather rarely cooperates that much. A perfect spring is still only in our dreams. Often spring comes in spurts between winter and summer. Soils warm up only to cool off. Long periods of cool, damp conditions hovering around 5 - 6^{o} C gives plenty of chances for root rots to take hold and kill off the plant. Early plant and root development is a crucial contributor to the overall yield a plant will deliver in the fall. As the roots go, so do the shoots.

Other than weather conditions, what else can increase your risk of seedling losses? Smuts, bunts, ascochyta, and fusarium are seed-borne diseases. Low levels on untreated seed can, under the right conditions, with plenty of moisture and cool weather, take over and cause significant yield loss in the crop. Without treatment and with a series of damp cool years, small pockets of infection can spread and become a field-wide disaster. Treating your seed with fungicide kills off those potential damaging organisms and can protect the seed for up to 2 weeks in the soil. This protection also will extend to some of the common root diseases that attack the crop at the germination stage such as common root rot and seedling blights. Some seed treatments also have insecticides incorporated to prevent early feeding by insects on the seedlings. Seed treatment for flea beetle in canola is standard and recently, treatment for wireworm in cereals is becoming more common. Seed treatment for wireworm control is more as a stalling tactic than pest killer. It prevents feeding by the wireworms but doesn't kill them.

Other farming practices that increase the risk of seedling losses includes slow soil warming, limited crop rotation and seed quality. The majority of seeding done is now zero or minimum till. This is good in so

many ways but it also slows soil warming in the spring. Plentiful crop residues insulate the soil surface and keep soils cooler and moister, ideal for slowing down germination and emergence and giving fungi a chance to affect the seedling.

Another big risk factor is crop rotations with little variety. A common rotation is canola-wheat or canola–barley. Many diseases will overwinter on crop residues left on the soil surface and provide a primary source of infection for surrounding, susceptible crops for the next year or the next couple of years. Blackleg on canola is a good example. Infectious spores are produced on the stubble for 2 -3 years after the crop is harvested. Highest spore production occurs 2 years after the crop which is a problem with a wheat-canola rotation. Recent surveys of canola stubble show increasing levels of blackleg in the canola. Crop yield losses are starting to increase too.

Seed treatments with insecticide in them are essential for a couple of our crops. As canola is a very small seed and the seedlings take some time to get established and begin to grow, insecticide treatment is required to protect the seedlings from flea beetles. There is no hybrid canola sold that is not treated with an insecticide because flea beetles are endemic in the province. Peas are susceptible to pea leaf weevil, which is expanding through all of central Alberta. Larval feeding on pea nodules in the roots can lead to nitrogen deficiencies and reduced yields. In areas with high pea leaf weevil populations or signs of heavy feeding in previous years, seed treatment for the weevils is a matter of course. Seed treatment for pea leaf weevil is the only effective way to reduce damage from these pests.

Another factor to consider when applying seed treatment is the application method. Ideally, you want every seed to be adequately covered by the seed treatment. Drip and gravity feed applicators are not good methods for application as they don't allow for accurate volume control or seed coverage. To improve coverage you need an even volume of fungicide being applied over the whole stream of seed as it travels up the auger. Use an applicator tip with a known volume output and pressure.
Modern seed treatments have lower application rates with less physical product being used. Even if the seed doesn't have as much colouring, the fungicides are still effective if applied properly. This makes seed treater calibration even more important, as a visual inspection of the seed is no guarantee of good coverage.

Seed treatment should never be used to replace good seed. Poor, diseased, low germinating seed will still be poor, diseased, low germinating seed with or without treatment. It is insurance and protection for, not replacement of, good seed quality.

As with any insurance, seed treatment is a way of reducing the risk to the crop at the important, early stages of growth and establishment. With the uncertain nature of weather in the spring and tight crop rotations, seed treatment can be way of ensuring a healthy, vigorous crop stand. Or you can seed into warm, moist, soil. It's all a matter of timing.

Harry Brook
Crop Specialist
Ag-Info Centre
310-Farm

Photo:http://www.croplife.com/editorial/seed-treatment-stays-necessary/

Up Coming Events

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Thursday, May 10:
Alberta Recreational Lakes Forum
9am-3pm
Lakedell Agricultural Society Main Hall, Pigeon Lake.

Thursday, June 14:
Battle River Watershed Alliance Annual General Meeting
Location To Be Determined.
Details will be posted at www.battleriverwatershed.ca once they're available.

BATTLE RIVER WATERSHED ALLIANCE

Agenda

Day 1
- ALUS Tour/Musidora Watershed Project
- Flooding, Wetland Policy, Riparian Projects
- AI Demonstration
- Agro Forestry & Woodlot Ext. Society - Pollinators
- Supper/Build Bee Boxes, Beer/Wine Tasting

Day 2
- Calving Part 1
- Calving Part 2
- Beef Nutritionist & Forage Specialist
- Mental Health
- Succession Planning

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