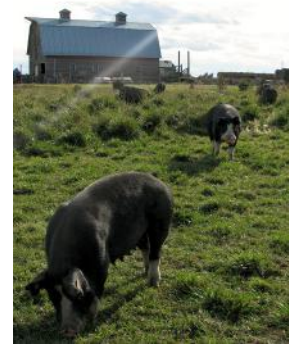
LETHBRIDGE COUNTY NEWSLETTER ★ SPRING 2025



FARM FAMILY SPOTLIGHT: BROEK PORK ACRES

Submitted by:
Brian Vanden Broek

Farming has always been a part of Allan & Joanne's lives. They both grew up on family farms in the Park Lake area, raising hogs and were able to realize their goal of raising their 9 children on a family farm as well. They are now celebrating 20 years of running their Direct Marketing family farm Broek Pork Acres.

In 1994, they purchased their own 100-acre grain farm, and after a few years, some hogs were added. In 2005, they put some hogs on pasture and fell in love with the result of grass-fed pork. It's amazing how much joy there is in seeing how the pigs roam the pastures, sunbathing and rolling in the mud puddles so they can cool off when it's hot.

They started direct marketing at Farmer's markets and the back doors of high-end restaurants. Our number one comment was, 'THIS IS THE WAY PORK USED TO TASTE.'

Early on in their direct marketing journey, they converted a garage into a provincially approved meat shop so they could control another aspect of the pasture-to-plate chain. Together with their children and staff, many hours were spent processing and packaging. As YouTube wasn't available at that time, they relied on personal feedback from customers and chefs for much of our training. At one time, they even had a chef direct them over the phone (as the carcass was lying on the table) on how he wanted it cut, and the same

afternoon, they personally delivered it to the restaurant for approval.

In early 2007, they were introduced to the Berkshire Hogs, a Heritage breed. They very much enjoyed how well they adapted to a pasture environment, the cold winters, and the hot summers. The Berkshire breed, originating in England, has been revered for over 300 years. They are known for the richness, texture, marbling, juiciness, tenderness, and overall depth of flavor—the Kobe beef of the pork!

They are no longer solely farmers but a dedicated Pasture to Plate operation striving for outstanding quality in their wide range of meat products. Their hands-on approach in every aspect of the business has continued to provide customers with a superior and nutritious product, one without GMOs, fillers & water, and gluten for the past 20 years.

Due to the increasing demand for their products, they outgrew their small butcher shop in 2018 and were able to build a larger facility. This gave them further opportunities to provide more products to many different locations across Alberta, including local grocery shops, a wide range of restaurants, and personal customers. Custom Processing is another area in which they dedicate their time and effort. Their facility also is home to a

'Store Front' allowing anyone interested in the experience of shopping locally!

Moving forward this year, Allan hopes to focus more of his time on the refined aspect of farming and continue to provide excellent care for the pigs while handing over the butchering portion to his oldest son, Brian.

Brian has recently started a mobile butchering service called 'The Meatsmith,' which serves many different farms in the area with on-farm slaughters focusing on beef while also being heavily involved in the different operations of the butcher shop. Together with their dedicated team of staff members, they are committed to provide their customers with the best products which have made their farm and brand sustainable.

LETHBRIDGE COUNTY

Lethbridge County Agriculture Services Department

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WHAT'S *in this* ISSUE?

Photo courtesy of Galt Museum and Archives

Early Women Homesteaders of Lethbridge County

Submitted by: Belinda Crowson

I recently came across this article in the 1914 newspaper:

"Sunnydale Farm will shortly pass into the hands of its new owner, J. De Vries, who has purchased same for $2,500. Our local wheat king, who generally manages to raise a big crop, will cultivate it on the Campbell system and raise big crops as all Campbell farmers can and do. The present owner, who has managed to make things rather interesting for the district whenever times were dull, will have the best wishes of her neighbors on her departure." (18 May 1914, *Lethbridge Daily Herald*)

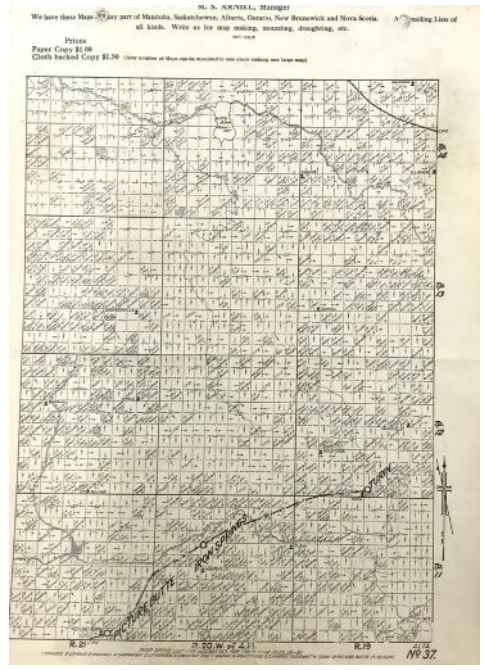
The paragraph was included with information from the Picture Butte area, so we know this took place in that district. Unfortunately, the newspaper didn't identify who she was and prior to the deadline to submit the article, I haven't had any luck in discovering her name. So, if anyone knows her identity, please reach out and let me know.

It does mean, though, that as early as 1914 there was at least one woman farmer/homesteader in Lethbridge County. Were there others?

Looking through early homestead records, there are several women who show up in the homestead archives. In some cases, a husband and wife acquired land next to each other so that the family could claim more acreage and both of their names show up in the homestead records.

There are also cases where the homestead was first registered in the husband's name, but the wife proved up the homestead after her husband passed away.

One such women was Mary Elizabeth Singer Burgess. Mary Elizabeth was born in Brooklyn, New York, and came to Lethbridge in 1905 with her mother and sister. Not long after her arrival in the area, she married Francis 'Frank' Singer and they settled on land in the Lethbridge Northern area. Frank Singer was killed in a wagon accident in 1907. Mary Elizabeth kept the land following her husband's death and was awarded title to the homestead in 1909. Proving a homestead meant building a house and cultivating so many acres within a specified time. The early years on the land were very grueling and families sometimes found it easiest for the children to remain in Lethbridge. Mary Elizabeth appears to have done this with her son, William Singer, who was living with his grandmother in Lethbridge when he died of Bright's Disease in 1909. We know from the 14 June 1909 *Lethbridge Daily Herald* that his mother was away at the time of his passing as she was out on the homestead.



(Right top) F.H. Singer and W.R. Singer headstone, Mtn View Cemetery. (Above) Picture Butte, Iron Springs, Turin, Cummins 1927 map

After proving up the homestead, Mary Elizabeth Singer married Louis Herbert Burgess. In 1920, the Burgesses moved to Vauxhall, where once again Mary Elizabeth was part of settling in a new area. Mary Elizabeth Singer Burgess passed away in Vauxhall in 1983.

Other women were identified as farmers in their own right or at least in some documents. In 1933, Anganeta Vogt applied for her citizenship. She was identified in the newspaper as filling in her citizenship form as "spinster, farmer," from Lethbridge and a subject of Russia. (22 September 1933, *Lethbridge Herald*). The 1931 census identified her as 23 years old (so born around 1908). The census didn't identify her as a farmer but as a helper, perhaps identifying her as such as her brother farmed nearby.

Whether they were homesteading on their own or choosing to get land to expand the family holdings, there is little recorded information on many of the women who homesteaded in Lethbridge County.

We are fortunate that Clara King, who homesteaded SW 6-11-20-W4, wrote down her story and the adventures she had in the early years. Clara King filed on her homestead in March 1907. It was next to the homestead filed by her future husband, Erwin Kane.

It was a few years between her taking on the land and marrying, and Clara King shares information on what it was like to be a woman alone on her homestead. She shared her experiences in the Coyote Flats book:

After coming to Alberta in March 1907 to file, she returned to Minnesota to teach for a year and returned to Alberta in March 1908.

"Never having been alone for one night in my life I found six months a long time. My only means of transportation was a bicycle, and my nearest lady neighbor was one and a half miles distant, with the store and Post Office four miles distant. In 1909 I walked four miles night and morning to teach [at] the Huntsville School. In 1910 and 1911 I also taught, but by then I had a pony to ride…. In 1910 our crops came up after the August rains, in 1911 we were hailed just before harvest and in 1912 cutworms took almost everything (three tough years)…. One bright spot in my first six months of homesteading was the company of Miss Estelle Black of Detroit, who came and lived with me for one month. One day we expanded our purchases and returned with a five pound lard pail of sweet milk, the same of buttermilk, a pail of eggs, some butter and a live rooster. Boy! Did that load ever get heavy before the trip was over?"

Hopefully as we keep looking, we can find more stories of women homesteaders in the area. If you know of any stories, please send them my way.

[For those wondering, the Campbell system of farming was a system developed by Hardy W. Campbell for dryland farming and involved preserving soil moisture by appropriate tilling.]

WINNER'S CIRCLE

Are you looking to be the next winner? Be sure to complete this edition's wordsearch puzzle on page 6 for a chance to win 1 of 3 amazing books written by the one and only Scott Gillespie!

University of Alberta Calf Barn

ANIMAL WELFARE is an investment with a RETURN

Submitted by: Walt Curilla, P.Eng.
President, SureBond Safe Floors
solutions@surebond.ca • 403 269 6888

My firm has been working in the farm, food, and heavy industrial environment for 19 years related to industrial-grade, specialty flooring. Some of the most rewarding work we have completed has been animal welfare in farm production environments. That animal welfare work was not just a cost to the farmer; animal welfare implementations have produced a return on investment for our clients as our implementations reduced culled animal costs, veterinary bills, and protected the Farm family and employees from on-the-farm injuries.

Specifically, dairy and beef cattle operations can benefit by measures to reduce risks associated with slippery floor surfaces. I will focus on dairy in this article.

Floors are important in dairy for not just hygiene in the milk house, but also animal welfare for the herd plus farm family and employee safety. Slip and falls around dairy and beef cattle can cause injury or death to both animals and people. Those falls can also injure workers with permanent ramifications.

We have helped reduce animals from being culled because of injury, or the farmer receiving expensive vet bills. In one case, about 19 ish dairy cows in a year at one dairy farm were culled due to slips and falls, after falling on a 5% holding area grade. After we implemented our flooring solution, we immediately reduced that cull rate to a reported 0 animals per year over the past 10 years, according to the Dairy Farmer. But, that implementation success could also have provided risk reduction to the milkers as well.

Hazardous events where specialty flooring with appropriate traction can achieve risk reduction benefits, include:

- Dairy or Beef cow-calving complications in a slippery environment, impacting the farmer or worse, the Vet.
- Preg testing by the Vet.
- Dairy cows that slip and fall on sloped holding area floors in parallel or rotary parlors. (That sloping for drainage we have measured can be unnecessarily high, at 2 – 5%. The high slope with wet manure makes for a dangerous combination.)
- Dairy cows that get agitated and somehow find themselves falling and joining the milkers in the pit area in an uninvited fashion. (One farmer told us that Oxytocin usage for a couple of cows decreased with problem cows being "calmer" / the farmer credited the improvement due to the floor being improved in the parlor.)
- Dominant dairy cows bolting / pushing their way into parlor areas.
- Cows walking across feed alley areas that are smooth, spun concrete, and without any transition flooring / lack of gating
- Cattle movement to / from trucks on slippery, smooth floors, and up / down ramps.

These are specific hazardous activities that farmers and Veterinarians have presented to us, and we have helped solve these issues for dairy farms as well as many Veterinarians in their large animal practices.

Lakeview Colony Dairy AFTER

The best part is the solutions have been in-place for 12+ years for some of the farms, with no failure or maintenance required. And, most of our work has been occurring in-between milkings or in live-robot rooms. (The robot rooms were a wee bit of a challenge, but we managed.)

Traditional solutions to improve traction in parlors that we have limited success or limited life cycle with farmer feedback that I have heard, include:

- Rubber mats (complaints: slippery, manure under the mats, weld failures, trip hazards, excessive flies.)
- Inappropriate epoxy / urethane / polyaspartic (ie. garage floor) resin floors, with random broadcasting of sand. (Too slippery, bond failure, short life time, peeled quickly, infant mortality failure for live barns.)
- Grooving (ie. slip and catch). Quite effective, but at some point the groove edges "round", reducing the "catch" of hoof on the edge. This solution has been a good one, but has life cycle limitations. We have had to fix the concrete and install our floor to re-establish anti slip protection.)

Grooving / tractioning has worked as a cost effective option, but it has a defined lifetime depending on traffic, slope, state of your concrete. The diamond pattern does wear around the edge, and the "slip and catch" effect of grooving to create traction is lessened as the diamond pattern wears. The wear of the concrete from traffic, especially on entry into parallel parlor areas or perhaps into robot setups.

SureBond has used a special German resin approach from Silikal® GmbH, with the resin curing in less than 1 hour typically. We have been very successful even on 30+ year old, contaminated dairy slabs. The key to our success involves 3 important criteria: surface prep, surface prep, surface prep…and then coupled with a proven, quick curing resin system. If a system does not cure and bond in between milkings, then resin solutions are just an experiment that will fail. We have not failed.

How many dairy farmers have I met at Ag Shows that have had a broken hip as a result of an animal accident in the parlor, or maybe during a difficult calving? How many have missing fingers? More than a few. These events have happened, and these events will continue to happen if the farm attitude is taken that "it has not happened here…yet".

SureBond Safe Floors
Tough Surfaces To Grow On

Certainly, robot barns have lessened the risk of these types of injuries. But there are some large parallel and rotary operations that remain in-service. We have actually installed our floors in between milkings for twice-a-day operations.

Robot rooms never shut down. Having an anti slip AND hygienic / easy to clean floor that lasts is critical. You have one chance in a new build to install a floor that will last the life of the robot barn. In one case, so far, our floor outlasted the robots. We were not even called to do any touch up maintenance after 10 years of operations.

Whether beef or dairy, a maternity or hospital area is a candidate for our SureBond Silikal® flooring. We can tailor our floor anti slip for cows as well as calves. (We designed and installed the specialty flooring in the calving room at the U of A many years with a slightly less aggressive floor than we would use for the mature herd. Our floors can also be bleached for bio security in these maternity / hospital environments, to help with scours or other health out break situations.

Stairs, operation pits, milk tank areas, robot rooms, walkways… anywhere wet can result in a fall. Tiles, especially, are slippery when wet and covered with manure slime.

So, if someone is proposing a solution to your animal welfare or people safety problem for the large animal dairy and beef industry, the simple mantra is "Show Me, I'm from Missouri". Then, check out their references, and age of implementation. Visit the oldest implementation and verify that they did the work…and not someone else, with appropriate consideration for farm bio security. Don't be that guinea pig for a specialty flooring solutions provider experiment on your farm. Avoid the flooring provider that only has a warranty that lasts as long as you can see the tail lights of their truck.

Did you know?

Managing soil erosion

Submitted by: Gary Secrist, Manager, Utilities and Agriculture Services Lethbridge County

The Lethbridge County Agriculture Service Board is responsible for administering the Soil Conservation Act, and it is our duty, as stated in the legislation, to prevent or stop soil erosion from occurring. All known instances of soil erosion are inspected, and the first course of action is always to work with the producer to get things under control. Most producers respond to requests to act, usually in the form of spike cultivation perpendicular to the direction of the wind, which can stop a quarter of land from eroding in just a few hours.

If producers are stuck on a course of action, Lethbridge County can assist with information on best practices and even provide equipment if necessary. Equipment available includes cultivators with lister shovels and heavy equipment, including tractors, graders, and cats, which are charged out at specified rates through the Alberta Roadbuilders and Heavy Construction Association.

When soil erosion has caused deposits to accumulate in county-owned ditches or drains, producers will be asked to remediate the issue through an agreement with the County. In cases of non-compliance, a Soil Erosion notice will be issued, and any associated costs will be charged back to the producer, with any outstanding invoices added to the tax roll.

In my experience, the quicker you respond to a soil erosion event, the easier it will be to control. When possible, soil erosion prevention through best practices should be the goal of every producer. Lethbridge County has produced a video that explores the complexities of soil erosion and the steps producers are taking to manage it. Please take the time to watch the video, which can be found by scanning the QR code. If you have any questions, please get in touch with the Agriculture Services Department at 403.732.5333.

Apply Now for No Spray Agreements

Lethbridge County's Agriculture Services roadside spraying program for weed control will commence any time after May 1, 2025.

Weed spraying is done during the summer on County roads, as well as numbered highways. Pre-emergent herbicide is applied on some low use roads. Spray trucks are equipped with low-drift nozzles to greatly reduce off-target application, and applicators constantly monitor wind speed and direction.

As per the Agriculture Services Level of Service Policy – Appendix A "NO SPRAY ZONE" signs are available for landowners.

If you do not want roadside spraying done next to your property, you can enter into an agreement with the County in which you will put up a "No Spray Zone" sign (supplied by Lethbridge County). You will also be responsible for weed control in that area.

The signs are now metal and can remain in place each year; however, you must renew the agreement annually. If the agreement is not renewed, the sign must be removed.

Signs must be picked up by May 1, 2025, from the Lethbridge administration office (#100, 905 4 Avenue S). Office hours are Monday to Friday from 8:30 a.m. to 4:30 p.m.

"No Spray Zone" agreements must be renewed yearly.

To fill out the agreement, visit https://www.lethcounty.ca/p/no-spray-agreements or scan the QR code. For more information, please contact the Agriculture Services Department at 403.732.5333.

A Message from your ASB Chair

Submitted by: John Kuerbis, ASB Chair and Deputy Reeve, Division 4

Since its inception in 1945, agricultural services boards have been pivotal in ensuring the implementation of positive agricultural policies and lobbying for legislation that supports the agricultural producers in the province. As chair of the agriculture services board for Lethbridge County, I'm honored to continue this tradition. Our agricultural services board committee is comprised of seven members, four elected counselors, and three appointed members at large.

Our local board is responsible for five key pillars:

1. to act as an advisory body in assisting the Council and agricultural minister in matters of mutual concern
2. to advise and help organize direct weed and pest control as well as soil conservation programs
3. to assist in the control of animal diseases under the Animal Health Act
4. to promote, enhance, and protect viable and sustainable agriculture to improve the economic viability of agricultural producers
5. to promote and develop agricultural policies to meet the needs of our municipality

In fulfilling this role, the committee meets regularly to review and discuss emerging trends and issues that impact the programs. This helps develop timely and effective responses and adaptations to ensure the programs remain relevant to the times and community.

The ASB is an advisory group to the Elected Council. That is, they review and debate issues and make recommendations to the Council, which is then responsible for adopting, changing, or dismissing the recommendations. As the ASB recommendations are generally well vetted and debated, they rarely get changed or dismissed, but it does happen on occasion.

In addition to our regular meetings, the board members are responsible for attending our annual provincial conference. The conference is full of information sessions on topics and emerging trends. This year's conference had sessions on using geofencing & drones for pasturing livestock, a wetlands policy overview, information on ag-waste recycling, conservation easement strategies, and much more. In addition to the information sessions, resolutions on issues affecting the province are reviewed and debated, and those deemed worthy by the voting members are advanced to the provincial board for them to lobby the ministerial departments.

These resolutions range from weed and pest control to irrigation rights, farmer mental health, and animal husbandry, to name a few.

This year, there has been a significant shift in the mindset of the Alberta board regarding resolutions. Traditionally, resolutions stayed active for three years, and we have an average of 15 per year, which makes for a long list of issues. This has heavily diluted the lobbying ability of the ASB, so resolutions are now being rated on importance, and the top three are being concentrated on when having face-to-face meetings with Ministers.

This allows the ASB to put the most effort into the most important issues—a key step toward ensuring the most pressing issues get the most visibility!

Over and above the basic regulatory requirement, Lethbridge County ASB does important education extension work that is focused on 3 areas:

- Helping producers stay informed on legislation
- Improving farming operations, and
- Promoting sustainability

In support of these mandates, we build and provide valuable resources through workshops, webinars, videos, organized meetings, and newsletters, all while continuing our ongoing efforts to assist producers with their EFPs.

For 2025, our upcoming events and activities include:

- **Growing Opportunities Workshop** – March 12 at the Agri-Food Hub & Trade Centre, covering funding, stewardship, and producer resources.
- **Shelterbelt Workshop** – April (date TBD, so stay tuned).
- **Educational Videos** – Collaborations on Clubroot, water-saving techniques for trees and shelterbelts, white pine weevil, Ferruginous hawk platforms and their benefits, and more.
- **Newsletter Releases** – July and November (first Tuesday of each month).
- **High School Presentations** – dates TBD, so stay tuned.

Our workshops, presentations, and videos are nationally recognized for their content and production value. They help drive visibility to the region, which in turn helps drive expanded economic activity to the region. All this helps solidify Lethbridge County as an agricultural keystone for Alberta and Canada.

Anyone interested in being on the ASB can reach out to myself or ASB management.

Board members at large typically serve a two-year term, and it is a wonderful way to contribute to the area if you are passionate about the future of agriculture.

Agri-Invest Update Relating to EFP

Do the new Agri-Invest requirements apply to me?

If you are an operation that has an average (last 3 years) of Allowable net sale (ANS) of greater than or equal to 1 Million dollars then you are required to complete an eligible Agri- environmental risk assessment.

What is an Agri-Invest risk assessment?

It's an assessment that identifies agri-environmental risks on farming operations and includes sustainability tools that support a producer in mitigating measures. The assessment gives producers direction on how to improve their farm's health and safety, add value to their property, reduce costs and improve competitiveness.

The following is a list of applicable standards that are recognized as agri-environmental risk assessments:

- Canadian Roundtable for Sustainable Beef (CRSB) Sustainable Beef Production Standard
- Certified Organic
- Environmental Farm Plan (Alberta EFP)
- Nutrient Management Plans (such as manure management)
- Nutrient Management Plans from 4R Designated or Certified Experts

Does each Agri-Invest account need a separate EFP?

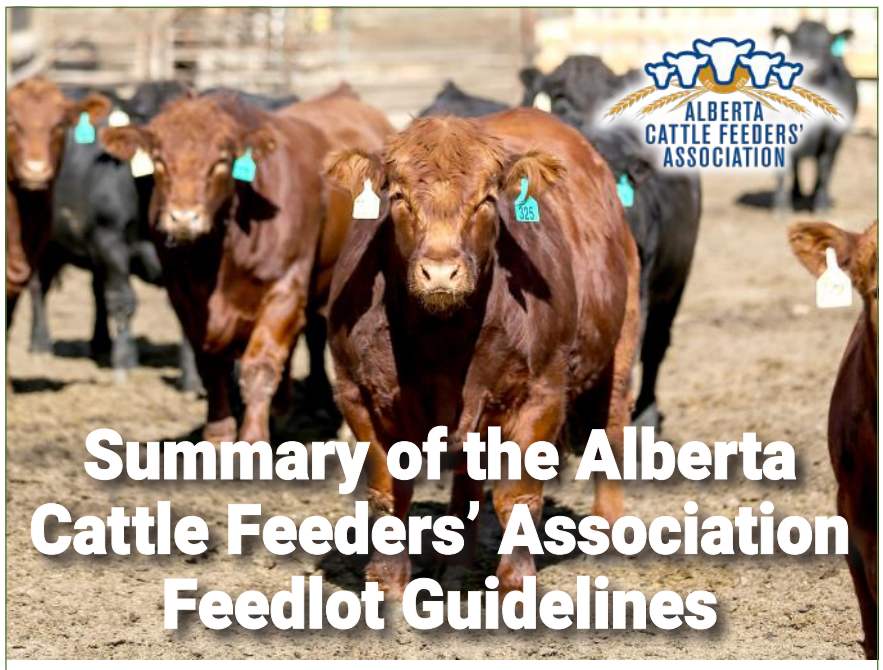
Each operation only needs one EFP – the letter of completion or certificate should list ALL the members associated with Agri-Invest accounts that intend to use the EFP as their agri-environmental risk assessment. Under the additional contacts box on the Personal Information tab, folks can list as many additional contacts or company names as they need, separating the names with commas when completing their EFP. If updates need to be made, please contact your EFP Technician to request changes or start a renewal!

What if the name on the certificate does not match the name on my Agri-Invest account?

Contact Matthew Wells at 403.634.0 147 or mwells@lethcounty.ca

Where can I find more information?

Agri-Invest 2025 Update:



Summary of the Alberta Cattle Feeders' Association Feedlot Guidelines

Submitted by:
Alberta Cattle Feeders' Association

The Alberta Cattle Feeders' Association (ACFA) developed comprehensive guidelines to help feedlot operators prepare for disease-related emergencies. These guidelines, created in partnership with the Alberta Livestock and Meat Agency, outline key practices, protocols, and tools aimed at mitigating risks associated with animal disease outbreaks.

Purpose and Scope

The document focuses on disease-related sector-wide emergencies, particularly outbreaks of Foreign Animal Diseases (FAD) like Foot and Mouth Disease (FMD), which could disrupt the beef industry across Alberta, Western Canada, and potentially nationwide. It outlines a strategic framework for feedlot operators to respond effectively to such crises, reduce financial losses, and speed up recovery.

Overview

1. Self-Assessment

Feedlot operators are encouraged to evaluate their preparedness through a series of checklists addressing critical areas such as biosecurity protocols, animal health monitoring, and emergency contacts. This proactive approach ensures that potential vulnerabilities are identified and mitigated.

2. Emergency Framework and Expectations

The guidelines explain the stages of an animal health emergency, from suspicion to recovery, emphasizing timely detection and response. Operators must understand the triggers for emergency declarations, such as Notices of Suspicion and Confirmation by veterinary authorities, which activate mandatory disease control measures.

3. Operational Protocols

The operational protocols cover:

- **Biosecurity Measures:** Guidelines for normal, elevated, and high-risk biosecurity protocols. Feedlots should restrict visitor access, enforce hygiene protocols, and isolate sick animals.
- **Mass Vaccination and Depopulation:** Procedures for large-scale vaccination and depopulation efforts, with roles clearly defined for feedlot staff and regulatory agencies.
- **Voluntary Cease Movement (VCM):** Recommendations for suspending livestock movement during disease outbreaks to prevent further spread.
- **Compensation and Valuation:** Details on government-provided compensation for livestock ordered to be destroyed, including evaluation and payment processes.

4. Preparedness Tools

The guidelines offer practical tools, including templates for creating feedlot plans, inventory lists, emergency contacts, visitor logs, and risk assessments. Operators are advised to establish relationships with local emergency response agencies and regularly update these records.

5. Recovery Considerations

Post-emergency recovery protocols focus on cleaning, disinfecting, and restocking procedures to ensure safe and compliant farm operations. Financial recovery options and assistance programs are also discussed.

Important Takeaways

- **Human Safety First:** Operators must prioritize human safety while managing livestock during emergencies.
- **Legal Compliance:** Adherence to federal and provincial health regulations is mandatory.
- **Communication and Training:** Feedlots should train staff and communicate regularly with cattle owners and authorities.

The ACFA's Feedlot Guidelines equip feedlot operators with a structured, actionable framework for managing disease-related emergencies. By implementing these guidelines, feedlots can reduce the impact of outbreaks, protect animal health, and ensure a faster return to business continuity.

www.cattlefeeders.ca

WHAT WOULD YOUR FARM LOOK LIKE WITHOUT YOU?

Preparing for the worst sets farms up for safety success

Submitted by: Lorne Prins

What would your farm look like without you? That might seem like a strange question, considering how farming is just as much of an identity as it is a job and how integral most farmers are to the success of their operation, but bear with me, as it's an important one.

Other than you, who knows how to manage your farm and how much do they know? If you were to go missing, get laid up with an injury or pass away unexpectedly, how would your family or employees handle your absence?

Spring is on the way, and with it the start of the busy season for many of us in agriculture, whether our business is crops, livestock or, in my case, honeybees. This "calm before the storm" is a great opportunity to pause and consider these uncomfortable questions, which have both practical and emotional implications for the future of your operation.

First, let's address the emotional aspect. It's important to recognize that we're all one serious farm safety incident or unexpected health emergency away from being removed from the picture – for only a short time, an extended period or permanently. These types of incidents can leave your family and employees adrift, left to pick up the pieces and keep things running while dealing with the trauma and stress of the incident that has occurred.

Then there's the practical aspect. Considering what your farm would look like without you and ensuring things continue running smoothly in your absence is a crucial part of business planning. Often, we think about this in the context of succession planning, where the transfer of the farm to a family member or business partner is a highly choreographed process with a specific timeline. However, it's just as important to prepare for unplanned situations that would require the same transfer of responsibilities.

This is why it's crucial that farmers involve their family members and employees in the safety planning process. This can be as simple as ensuring everyone involved in the operation possesses key pieces of safety knowledge, such as the location of the closest hospital and the operating hours for its emergency room, up-to-date CPR training, and awareness of available safety equipment on the farm, including first aid kits, fire extinguishers and personal protective equipment.

This is a very serious subject, and one many are reluctant to discuss or even think about, but it's not all doom and gloom. Considering the safety risks at play on the farm is the first step in making that farm safer for you, your family and your employees. The next step is coming up with a plan to lessen those risks, and AgSafe Alberta is here to help if you have questions or need support at any step of the way.

An easy way to kickstart your farm safety planning is by completing FARMERS CARE. This free, introductory farm safety program is one of the fastest and easiest ways to foster a culture of safety on your farm and protect its most important assets: the people who live and work there. No prior safety knowledge is required to sign up and you can complete all four levels of the program at your own pace. Visit agsafeab.ca to learn more and get started.

Remember, no one can take your place, and hopefully no one will have to try anytime soon. But making sure that plans are in place, considering the worst-case scenarios so you can better avoid them and ensuring farm safety knowledge is shared among all members of your farm team can make all the difference.

Lorne Prins is the chair of AgSafe Alberta. Lorne and his wife Alida own and operate Gull Lake Honey Co., near Lacombe, AB.

Vigilant against cybercrime

The IT and Agriculture Services department would like to remind you to stay vigilant against cybercrime. As one of the fastest-growing crimes globally, cybercrime continues to affect businesses across all industries. To help protect yourself and others, we've compiled a list of cybersecurity tips and best practices for you to follow and share. By staying alert and following these recommendations, you play a crucial role in safeguarding your information.

1. Protect Your Credentials

- Never share your username or password with anyone. If you suspect your password has been compromised, change it immediately.

2. Practice Strong Password Management

- Managing multiple passwords can be challenging, but it's important not to reuse passwords. The longer your password, the more secure it is.

3. Be Cautious When Clicking Links

- Email links can easily be disguised to look legitimate, so always verify the link before clicking. Hover over the link in the email to view the target website and check its authenticity.

4. Beware of Email Phishing Scams

- Phishing scams are constantly evolving and attempt to trick you into sharing personal details, such as login credentials or financial information. Be cautious of unsolicited messages or calls asking for personal or financial information, especially if they seem to come from legitimate sources.

5. Enable Two-Factor Authentication (2FA)

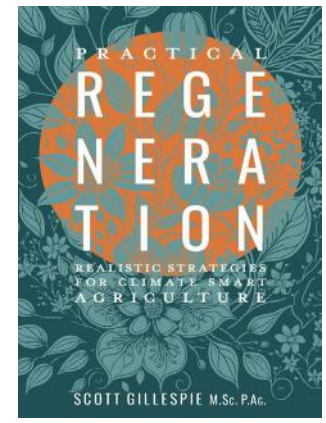
- Two-factor authentication adds an extra layer of security to your accounts. It's highly recommended for services related to banking, utilities, online shopping, and any platform that stores sensitive financial information.

6. Secure Your Devices

- Physical security is just as vital as digital security. If you need to step away from your phone, laptop, or tablet, be sure to lock it to prevent unauthorized access.

By incorporating these practices into your daily routine, you can help protect both yourself and those around you from cyber threats.

County Wordsearch: *Beef Edition*



Can you find all the hidden words? Send a picture of the completed wordsearch to mwells@lethcounty.ca or text to 403.634.0147 to be entered for a chance to win 1 of 3 amazing books written by the one and only Scott Gillespie! Completed wordsearches can be submitted until April 8th. Good luck!

B A S L R F N R T W W U A H Z E L N X A E A Z
N M D A B C G N I D N A R B O B O D F N G I V
C E Q T N Z A U K T E E G W K G Y P V G Z G N
B F P N A B G S Y J D S G A F Q H Z T U I A O
M G B E G R A Z I N G U U L C N E Y Z S A O Z
O P F M X X D S X U U N F U H R N X C A H I S
D K L M G M A R R T E T Y A H F R U L R G N O
X D A I T T A D B W B G C O A E G H E L O L D
B B M S W R X Z C S E F J J A E G P E B I N E
U Y C R N D C A R H L O Y T Y D A E Z N D Z L
L T N Z H K L E A M R Z O R H L H H C N D H H
L D A T I B E E F J T P E E N O Z O S T E L Q
W B G E T I F G I P M I Q G Y T K R I B N H C
B D F R A S I A L O R A H C R F G G P E E Y N
S S R E R Z G R M A G U M D E E N Z N F L A C
P D H X T X F O D E T B U E E F M A E R F Y K
W R O Y T U T F P R O F N B T H I L R B G T Y
F O P E U Z F S T E I D P L S I C T I Z T N H
C F O D H R G E R R T H W D O R F A T Z A A E
B E E M O H G R A A F S S R E F I E H O E N T
S R K E I F E N C I N G J P T T M R K L U I U
N E S F K W Z Z N M P G A C K W A R Z R I M Q
I H P I F P E H Z N M P J P Q Z I F Z A I U I
P W F T Y T O N I L D C B A G N I H C N A R B

Bull
Calf
Fencing
Charolais
Forage
Hereford
Heifer
Ranching
Branding
Feedlot
Angus
Grazing
Simmental
Ruminant
Beef
Steer

Lethbridge County Equipment Available

Producers wishing to rent or borrow equipment can call the Agriculture Services at 403.732.5333. Some equipment is available for delivery – please call for more information.

For Rent (Includes Delivery and Pick Up):

Please call for current rental prices

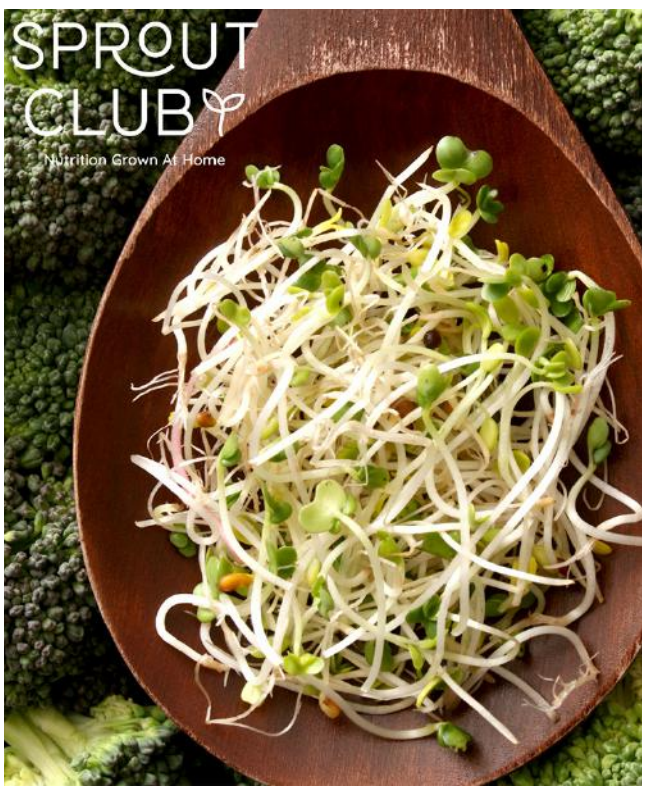
2x8 foot Brillion drills (appropriate for seeding grass and Alfalfa on land that has been previously worked) - $210.00 minimum or $7.00 per acre over 30 acres.

To Lend:

(Left) Kirchner Ag Plastics roller for grain bags or silage plastic. (Right) Skunk Traps

(Clockwise from top) Magpie Traps. Chisel Plow with Lister shovels for emergency soil conservation. Tree Planter for seedlings. Mobile Solar/Wind Turbine Trough. Plastic Mulcher for seedlings or strawberries (does not include mulch).

- Local Spotlight -



SPROUT CLUB

Nutrition Grown At Home

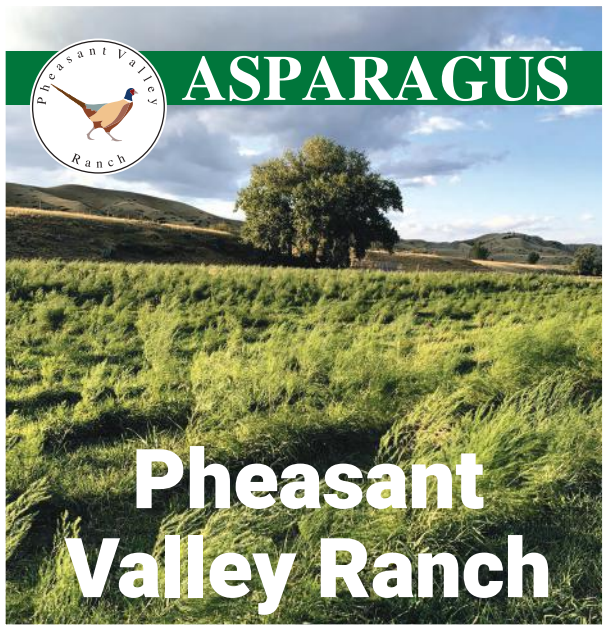
The question we often get asked is, "Why on earth did you decide to set up a sprout seed business?" As avid sprouters of alfalfa, clover, broccoli, and even radish, we are convinced that home sprouting does not receive the attention it deserves. With the increasing cost of groceries, long transport times, pesticide-laced vegetables, home sprouting offers a sustainable, environmentally safe, and organic food supply.

Having tried numerous home sprouters and different seed varieties for better germination, we became increasingly aware of the difficulty of obtaining great seed, sprout supplies, and sprouting advice from one reliable source. Armed with years of business experience and a background in the sciences, we offer you great products as well as a handful of natural, healthy recipes and tips on our website. Our best seller is our complete sprout kit, which has everything one needs for home sprouting, even the seed! We also have mung bean and micro green sprout kits available. All these are very easy to grow in the comfort of your home, and without soil!

If you are serious about embracing a healthier lifestyle, sprouting is the most affordable, easy solution. The products we offer are sourced from reliable suppliers and tested in-house to assure the quality of both seed and sprout supplies. And by packaging our seed in completely bio-degradable bags and recyclable boxes, you can feel good about the environment as well!

Sprout Club brings you the basic simplicity of growing sprouts at home with various starter kit options. Our assortment of sprout seeds and mixes are also for purchase to ensure endless health benefits along with many delicious flavours for sprouting years to come!

You can often find us at home and garden trade shows or reach us through our website SproutClub.ca . Happy Sprouting!



Have you ever had God tap you on the shoulder directing you to start something? Something you have never done and know nothing about?! We purchased some land below Diamond City in 2011 and had dreams of building a home and growing Asparagus to sell locally. This sounded simple enough. How hard can building and farming be?! Those of you who have endeavoured to do either are laughing right now.

The building project began in 2012. By 2015 we were living down in the Valley and loving it! Now to tackle how to grow a successful crop of Asparagus. I began researching and reading everything I could get my hands on. I reached out to established Asparagus growers from BC to Ontario. The help I received from so many was humbling! Things were falling into place, the last thing we needed

were neighbors who had farm experience and were willing and able to help. Roll forward to 2020. As we all can recall the world shut down in March of that year. Global Pandemic? Seems like a good time to grow some food! By April the Non-GMO Certified Organic seed was ordered and the community helped us prepare the field. We planted a cover crop of Fall Rye and by June thousands of Asparagus seeds were sown. Asparagus seeds are the size of a peppercorn and take 30 to 40 days to germinate. When the seedlings do emerge, they look like an Asparagus spear that you eat- only they are the size of a toothpick. It takes four years before you can harvest as the root system needs to be hardy enough to produce healthy spears for the six-week season from May to mid June.

Our first harvest began May of 2024 and was a steep learning curve. Much thanks to all the harvesters and processors, what a fantastic crew! The response from the community for the fresh asparagus was overwhelming. Thanks to all the restaurants, local wholesalers and public who came by the trailer at the Popeyes parking lot on Mayor Magrath Drive South. Look for us this May and June at the same location. We also had ladies come to Pheasant Valley to pickle the Asparagus, who knew this would be so popular at the Markets! Another product we produced was powdered Asparagus. The Asparagus is blanched, put in a commercial dehydrator then ground to a powder; great for soup, dips, smoothies or sprinkled for seasoning on just about anything from potatoes to eggs. We will make more of these highly nutritional products this year as we sold out of everything by Christmas 2024. We are looking forward to many more years of providing Asparagus to Southern Alberta.

I am so grateful to God who goes before me, great neighbours who work alongside me and a faithful husband who bankrolled the entire Pheasant Valley dream believing in the tap on the shoulder...

4th Annual Nutrient Management Webinar Series

Missed the Webinar Series! No worries, scan the QR code to watch the live recordings on our YouTube page. If there is a specific topic you would like to see in the future, be sure to message mwells@lethcounty.ca.

Mapping Soil Health

Submitted by: Scott Gillespie

PLANTS DIG SOIL™

For the past decade, soil health has been at the centre of every conversation in agriculture. Researchers, policymakers, and industry leaders have all thrown their weight behind it, pushing farmers toward "regenerative," "carbon-neutral," and "climate-smart" practices.

It is one thing to talk about soil health, but in the real world, decisions have to be based on hard data, not just good intentions. Right now, soil health testing is still in its "wild west" phase. I liken this to the post-WWII era when chemical soil tests were being developed. Advances in chemistry allowed for the measurement and quantification of nutrients in the soil, but it took decades before scientifically based recommendations were developed.

The idea of testing soil health is not new. Scientists have been trying to measure soil quality since the 1980s, evolving from basic soil conservation efforts to today's focus on biological activity and carbon storage. Recent developments in biological soil testing, largely spilling over from human health research, allow us to measure biological indicators that were not possible before. Private labs are offering all sorts of proprietary tests, pushing different soil health indicators. But unlike traditional nutrient testing—where you can get a clear recommendation like, "you need 30 lbs. of phosphorus to hit target yields"—most soil health tests do not give direct answers.

The current challenge is that there is no standardization, and most tests do not link directly to economic decisions. A farmer might get a lab report that says, "Your soil is not biologically active." But what does that mean in practical terms? Should you apply compost? Plant a cover crop? Change your tillage? And if you do those things, will they actually change the test score? Most importantly, will you see a return on investment (ROI) from your efforts?

Despite all the confusion, some clarity is emerging. The Soil Health Institute (SHI) took nearly a decade to identify potential soil health tests, eliminate the ones that were not scalable, cost-effective, or easy to do, and then evaluated the final set across North America, including Western Canada.

Their recommendation is a minimum set of three soil health indicators that could be added to standard soil tests:

1. Organic Carbon – We are all familiar with organic matter, but this gets more precise. Organic carbon is typically about 58% of organic matter, and measuring it directly allows for better calculations of nutrient cycling and carbon sequestration.

2. Carbon Mineralization Potential – This one excites me because it could help us get a better handle on the wild card of organic matter nutrient release (or tie-up) in fertility recommendations.

3. Aggregate Stability – Think of this as the soil's report card. Strong soil aggregates help prevent erosion, improve root exploration, increase water infiltration, and store water for plants when they need it most.

These tests are not widely commercially available yet, and different methodologies don't allow for comparison between labs, but they are moving in that direction. In the meantime, we should be using the tools we already have to assess soil health. Over the past few years, I have gained experience with soil mapping, with the help of the On-Farm Climate Action Fund (OFCAF), which has offset the initial mapping costs for farmers. There are two key technologies—originally developed for geological, environmental, and mining surveys —that are now being applied to agriculture:

1. Electrical Conductivity (EC) Mapping

EC mapping helps identify soil texture (sand, silt, & clay percentages) based on how well the soil conducts electricity. Clay conducts electricity better than sand, so the differences can be measured across a field. Each measurement is GPS-marked, so we get a precise map of soil texture variability across the landscape. As an added benefit EC mapping also detects saline areas, since salt significantly increases conductivity. (These are often incorrectly called alkali patches—for an in-depth look, refer to my article in this newsletter from summer 2024.)

2. Gamma-Ray Spectrometry

Gamma-ray mapping achieves similar results to EC mapping but works by measuring natural radiation signatures from minerals in the soil. Different soil types have unique caesium (Cs), potassium (K), uranium (U), and thorium (Th) signatures, which can be mapped to determine productivity zones. While gamma-ray mapping does not directly measure salinity, like EC does, it can help identify soil formation patterns and areas that may be more prone to salinity issues based on mineral content.

So how do these tools connect back to soil health? Simply put, the health of the soil is directly tied to its physical and chemical structure. I think most farmers and agronomists would agree that topography and soil texture drive productive capacity. Soil health is not just about biological activity—it is also about water availability, compaction, and fertility. Take a look at a grassland hilltop, an old buffalo wallow, or a depression in the landscape. The soil texture and its elevation in relation to neighboring areas determine what can grow there and how water moves through the system.

University of Lethbridge

AGRICULTURAL RESEARCH AT THE HEART OF NEW COLLABORATION BETWEEN UNIVERSITY OF LETHBRIDGE AND COUNTY PARTNERS

The University of Lethbridge has partnered with Lethbridge County, the St. Mary River Irrigation District (SMRID) and the Lethbridge Northern Irrigation District (LNID) to conduct research into local agricultural priorities.

The funding, $50,000 per year, will support five ULethbridge researchers over four years.

"This research partnership, thanks in large part to the efforts of Professor Emeritus Dr. Jim Byrne, will provide information and results that are extremely relevant to our area," says Dr. Dena McMartin, vice-president of research. "By helping to identify opportunities to improve efficiency in agricultural operations, evaluating and advising on the viability of new crops and improving soil health, these projects will contribute to a more robust and sustainable agriculture sector."

Lethbridge County contains more than 297,000 irrigated acres, allowing local farmers to produce a multitude of crops. The County is also home to rich pasture and grazing lands which serve livestock industries such as feedlots, dairies, and meatpacking and poultry processing facilities.

"As the most productive ag community in Alberta, we recognize that collaboration and sustainability are critical to success," says Cole Beck, Lethbridge County CAO. "We're proud to partner with the University of Lethbridge, LNID and SMRID to support research projects that will move the ag industry forward by seeking innovative solutions to challenges. We also appreciate the willingness of local producers to participate in research that will impact the future of agriculture in southern Alberta."

"The St. Mary River Irrigation District is happy to collaborate with the Lethbridge Northern Irrigation District and Lethbridge County to support innovative research from the University of Lethbridge that will benefit farmers and livestock producers in southern Alberta," says David Westwood, SMRID general manager.

"LNID shares an interest in supporting local researchers who can answer local questions applicable to stewardship of water within irrigated southern Alberta," says Chris Gallagher, LNID general manager. "LNID recognized the value of partnering with Lethbridge County and SMRID to support University of Lethbridge research projects that target our mutual interests and that of our constituents/irrigators. Having input into the selection of project areas of study, and some of the research questions to be answered, gives us a vested interest in the outcomes. The LNID Board is pleased to demonstrate a financial commitment to finding solutions to our mutual challenges as we continue to strive toward sustainable growth of irrigated agriculture in Lethbridge County."

PUBlic Professor SERIES

Learn more about the exciting research taking place at ULethbridge. Everyone is welcome to our free community lectures.

go.uleth.ca/public-professor

RESEARCH INSIGHTS

Dr. Neha Vaid,
an assistant professor in the biology department, will study the potential for millets as a sustainable crop for marginal lands and as an aid in carbon sequestration and prevention of soil erosion in southern Alberta.

Dr. Michele Konschuh,
an associate professor in biology, will evaluate soil health in newly irrigated land parcels and compare it to land irrigated for longer periods.

Dr. Dan Johnson,
a professor in the geography and environment department, hopes to improve the forecasting of drought-related insect pests like grasshoppers.

Dr. Hardeep Ryait,
a professor at the Canadian Centre for Behavioural Neuroscience, will work on a project to improve sustainability and reduce the environmental impacts of livestock operations.

Dr. Paul Hazendonk,
a professor in the chemistry & biochemistry department, will explore the production of biofuels from algae using hydrothermal liquefaction (HTL).

Funding Opportunities for Alberta Farmers

Sustainable Canadian Agricultural Partnership

Eligible Applicants
- Primary producer responsible for the day-to-day management of an agricultural operation (crop, bee, or livestock) that produces at least $25,000 worth of farm commodities annually.
- Indigenous applicants (First Nation, Métis Nation, Inuit).
- Groups such as Grazing Reserve Associations and Community Pastures (Pertains to ***Resilient Agricultural Landscape Program***).
- Owns an irrigated agricultural operation in Alberta (Pertains to ***On-Farm Irrigation Stream***).
- Is liable to pay Alberta income tax or corporate tax (or claim losses) on income from production of farm commodities under the Income Tax Act (Canada) or the Alberta Corporate Tax Act (Pertains to ***On-Farm Water Supply Stream***). and
- Has current Environmental Farm Plan (EFP) certificate or letter of completion, or will obtain and submit one with their final report (Pertains to ***On-Farm Efficiency, and Resilient Agricultural Landscape Program***).

SCAP Funding April 1, 2023 - March 31, 2028

On-Farm Efficiency Program – **Currently closed *will re-open to applications April 1, 2025***

The program aims to support the adoption of innovative technology that optimizes farm efficiency, minimizes agricultural waste, advances the digitization of an operation, and/or gathers information that will help the producer knowledgably enhance their operation. New technologies that are progressive, commercially available, and that have been successful in Alberta are most likely to be successful applications.

Funding List
- Supported activities fall under four streams:

❖ **Smart Farm technology** ❖ **Farm security** ❖ **Energy Efficiency** ❖ **Efficient Grain Handling**

Funding
- Grants will be funded at a cost-share rate of 50% and paid in one lump sum reimbursement after item(s) are determined to be eligible and approved.
- Funding maximum per Applicant is $150,000 over the duration of the Program (2024-2028). Funding minimum per applicant is $500.
- The maximum funding per stream over the duration of the Program is:
  - ❖ Maximum grant of $50,000/applicant for Smart Farm Technology Stream
  - ❖ maximum grant of $2,000/applicant for Farm Security Stream
  - ❖ maximum grant of $50,000/applicant for Energy Efficient Stream
  - ❖ maximum grant of $100,000/applicant for Efficient Grain Handling Stream

There is limited funding in the program. Applications are evaluated on a case-by-case basis according to the eligibility criteria and funding availability

Email questions to OFEP@gov.ab.ca or call 310-FARM (3276)

Note Some eligible items have their own maximum grant amount, which is detailed in the Funding List

Resilient Agricultural Landscape Program – **Currently closed**

The program aims to accelerate the adoption of Beneficial Management Practices (BMPs) that maximize provision of Ecological Goods & Services (EG&S), particularly increased carbon sequestration and enhanced climate resilience.

Funding List
- Supported activities fall under four funding categories

❖ **Pasture Management** ❖ **Cropland Conversion** ❖ **Tree Establishment** ❖ **Wetland**

■ Note: Wetland funding is available to agricultural landowners participating in Alberta Environment and Protected Areas Wetland Replacement Program (WRP). All grants are subject to WRP terms and conditions.

Funding
- For the three categories (Pasture Management, Cropland Conversion, and Tree Establishment), funding is determined using the calculation below and is paid over a three-year term.
  - ❖ **Implementation Costs + Opportunity Cost** (if applicable) **+ Impact Adjustment**
- For the Wetland category, funding is a flat rate payment of $1,000 per acre for a term of three years.
- For all four categories, approved projects will be funded to:
  - ❖ minimum grant of **$2,000**
  - ❖ maximum grant of **$150,000** for Primary Producers
  - ❖ maximum grant of **$300,000** for Indigenous (First Nations, Inuit, Metis) and groups such as Grazing Reserve Associations and/or Community Pastures

Note: the Wetland funding category has a different schedule than that of the other beneficial management practices (BMPs).

Intake Cycle
- Pasture Management, Cropland Conversion, and Tree Establishment
  - ❖ Year 3: February 1, 2025 – November 20, 2025
- Wetland
  - ❖ Year 3: February 1, 2025 – January 31, 2026

Email questions to RALP@gov.ab.ca or call 310-FARM (3276)

List of other Programs Available
- On-Farm Climate Action Fund
- AAFC Agricultural Clean Technology Program
- AAFC Living Labs
- ECCC Nature Smart Solutions Program
- NRCAN 2 Billion Trees Program (2BT)
- RDAR Producer Research and Evaluation Program

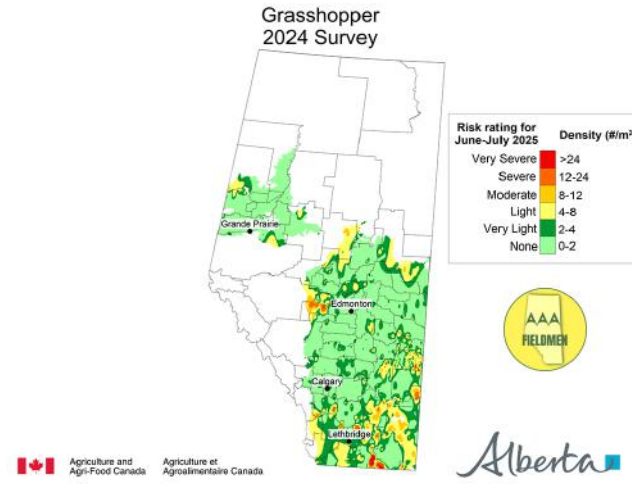
Water Program – **Currently accepting applications**

This program aims to support primary producers enhancing agricultural water management to support continued growth and long-term success of the agriculture industry.

Funding List
- Supported activities fall under 2 streams:
  - ❖ **On-Farm Water Supply Stream** – Maximum of $40,000/applicant over program term
    - ■ Standard incentives for New or Expanded Water Source Developments – eligible expenses cost shared at 50% for a maximum of $20,000/applicant over program term.
    - ■ Special Incentive Projects – eligible expenses cost shares vary and are project specific. Maximum grant of $20,000/applicant over program term.
  - ❖ **On-Farm Irrigation Stream** – Maximum of $35,000/applicant per fiscal year of program
    - ■ On-Farm irrigation system purchases – eligible expenses cost shared at 50% for a maximum of $17,500/parcel.
    - ■ On-Farm irrigation system upgrades – eligible expenses cost shared at 50% for a maximum of $6,000/parcel.

Email questions to irrigationefficiency@gov.ab.ca or call 403-381-5532 for more information regarding On-Farm Irrigation Stream

Email questions to farmwatersupply@gov.ab.ca or call 310-FARM (3276) for more information regarding On-Farm Water Stream



Alberta Insect Pest Monitoring Network

Provides timely, accurate insect management resources to help monitor crop pests in Alberta ensuring crop quality and market access.

Prepared by: Alberta Agriculture and Irrigation

Overview

Quality assurance, market access and yield are key to the success of Alberta's agriculture industry. Surveillance and monitoring for insects provides a key piece to this success by gathering information about established species populations and new invasive threats to the cropping industry. This information can play an important piece in support of pest related trade discussions.

This work helps us to understand insect populations and range expansion of the targeted insects so that industry can understand the risk and potential damage. The information gathered from pheromone traps, field insect collections and counts or damage assessment is used to create forecast maps and make control recommendations. The data from the surveys is used for more than just creating forecast maps though, it can be used to direct insect pest research priorities or researchers can use the collection of samples in their studies.

The Alberta Insect Pest Monitoring Network coordinates, manages and carries out 7 insect surveys provincewide in Alberta's field crops to assess presence, abundance and impact to the agriculture industry. The Network also conducts smaller targeted surveys on new and emerging pests working with Universities, Agriculture and Agri-Food Canada and Canadian Food Inspection Agency.

The success of the network depends on its dedicated partners that assist with surveillance, including:
- Agriculture fieldmen
- Agronomists
- Producers
- Plant and Bee Health Surveillance Section, Alberta Agriculture and Irrigation

For more information, please scan the QR code or visit https://www.alberta.ca/alberta-insect-pest-monitoring-network

Update from SMRID

Submitted by: St. Mary's River Irrigation District

Snowpack and Water supply: The 2024 irrigation season saw a reduced allocation of 8 inches at the beginning of the season, which was later increased to 9 inches in June. This reduced allocation, an overall reduction in irrigation demand, and sufficient rainfall throughout the district resulted in an additional 244,000 acre-feet of water added to the combined storage in the Headworks and District reservoirs. At the time of writing, District and Headworks storage is at a combined 84% of targeted winter volumes. Snowpack increased steadily in November, to mid December but is below average. The majority of snowpack typically accumulates from February – April. It is still too early to predict what the water allocation will be for the 2025 irrigation season; however, we will continue to closely monitor the snowpack and precipitation levels in the coming months and provide monthly updates on the website, SMRID.com/announcements.

Modernization Program: SMRID is continuing its work on several modernization projects in 2025. This spring, the District will continue to its efforts to convert open canal systems to buried pipelines which improve water-savings and increase efficiencies. This is the 5th year the SMRID has participated in the AIM program, with AIM projects expected to continue through to 2028/2029. SMRID budgeted $36.3 M towards buried PVC pipeline projects this year, including the Cameron Extension pipeline system ($9.75 M). The Cameron project will add approximately 10 km of pipe ranging in size from 1,500 mm (60 inch) to 100 mm (4 inch) diameter and includes the reclamation of several kilometres of canal, including 3.2 km of deteriorated, concrete lined canal. This is the only major SMRID pipeline in the County of Lethbridge this year, although SMRID is also constructing Lateral 1B Barnwell ($1.1 M) and Horsefly Lateral 6 ($1 M) in the MD of Taber and Yellow Lake Laterals 8-10 in the County of 40 Mile. These projects are being carried out through the Alberta Irrigation Modernization (AIM) Program. Through the AIM program, the Province is contributing 30% upfront. The SMRID is contributing a total of 70% with 20% upfront and the remaining 50% financed through a low-interest loan with the Canada Infrastructure Bank.

Chin Chute Rehabilitation: The new chute is complete and SMRID is excited to commission the new structure for the 2025 irrigation season. Construction of the $24.5 Million Chute continued throughout the 2024 irrigation season with decommissioning of the old chute taking place in December-January 2024. The new Chute has a 100-year design life and replaces the 70-year-old structure,

Horsefly phase 3

constructed in 1951, which had reached the end of its service life due to its condition, design deficiencies, and flood handling capacity. The new chute was designed to handle a normal flow of 65 m³/s, but with sufficient freeboard capacity to manage up to 115 m³/s (3,800 cfs) in the event of floods exceeding the full bank capacity of the upstream SMRID main canal. This design will ensure tangible improvements to water management, particularly during significant precipitation events, as the new chute's design and flood handling capacity will reduce spillage during heavy rainfall events.

Stormwater Management projects:

Horsefly Spillway: The Horsefly Regional Emergency Spillway began in 2020 and is being administered by the MD of Taber on behalf of the Southern Regional Stormwater Drainage Committee (SRSDC), which includes Lethbridge County, the Towns of Coaldale, Taber, and Bow Island, the Village of Barnwell, the City of Medicine Hat, the Counties of Forty Mile and Cypress, the Municipal District of Taber, and the SMRID. Phase 1 of the project is complete. Although operational capacity remains at 7.5 m3/s, maximum capacity has been increased to 55 m3/s as a result of construction to handle flood flows. At the time of writing, Phase 2 of the project is in its design phase and Phase 3 is under construction.

Malloy Drain: Phase 2B of the project began in January 2025. This project will enhance flood protection in the Town of Coaldale and improve regional water management. The partnership between the SMRID, Town of Coaldale and Lethbridge County and will see the implementation of infrastructure to help protect south Coaldale from 1 in 100-year storm events and improve management of regional floodwater. The project will also allow for the controlled release of stormwater into SMRID's works, supporting the irrigation needs of users downstream of Coaldale. The Province of Alberta and the Government of Canada have provided $4.2M in combined funding. Phase 2B will see the installation of a 1200mm storm pipe over 1.6km to carry runoff from Pond in the Cottonwood and the future Stormwater Management Facility south of Cottonwood in (set for construction in 2025/2026) to the Town's newly reinstated raw water reservoirs.

Update from LNID

Submitted by:
Lethbridge Northern Irrigation District

This is the start of a new irrigation season, and the Board and Staff would like to thank all water users, partners, and community members for their efforts in sharing water throughout the 2024 irrigation season. We value the cooperation that was demonstrated in navigating the drought conditions and limited water supply in the four Watershed Basins in southern Alberta.

As of February 10, 2025 the Oldman Reservoir is at 56% of full supply level. Snowpack remains below the lower quartile; however, the water supply outlook calls for cooler than normal temperatures and higher than normal precipitation through the remaining winter and into early Spring. Although voluntary water conservation will make every drop count in filling our reservoirs as we share this valuable resource, we do not anticipate significant restrictions similar to the start of last year at this time. Please continue to check lnid.ca for updates.

Capital Projects

The LNID continues to move forward with capital project plans, as well as maintain the existing infrastructure, and remain committed to increasing operational efficiencies in delivering non-potable water throughout the District.

The Lateral A3 Gravity Pipeline, serving approximately 223 irrigation acres northwest of Fort MacLeod, is nearing completion.

The Lateral 61C Gravity Pipeline, serving a total of 7,437 irrigation acres south of Park Lake, is currently under construction and will be ready for the 2025 irrigation season.

The Lateral A20 Gravity Pipeline, which will serve approximately 4,050 irrigation acres west of Nobleford, is currently in the preliminary design phase with construction scheduled to commence in Fall 2025.

Annual General Meeting

The District's Annual General Meeting is planned for Wednesday, April 16, 2025 at 1:30 pm at the Coalhurst & District Community Centre. Please contact the office, or refer to the LNID website, for details.

If you would like a copy of the 2025 Annual Report, it can be viewed on the LNID website, or call the Office and a copy will be forwarded to you.

Board Elections

There will be a Board election this year for Division 5. The close of nominations for this electoral division is 4:00pm Friday, April 11, 2025. The election date is set for Thursday, May 8, 2025, if one is required.

Stay up to date with LNID news at www.lnid.ca, and subscribe to the LNID email list by contacting the Office.

The Board and Staff of the LNID continue to do their best to support all Water Users!

Upcoming Events

For more information for a particular event, scan the QR code.

Advancing Women Conference
- Event Date: March 16th – 18th
- Event Type: In-person
- Location: Hyatt Regency Calgary

Farming Smarter Summer On-Farm Field Tour
- Event date: July 16th
- Location: Lethbridge
- Time: 1:00 pm to 3:00 pm
- Event type: In-person
- Cost: **FREE**

Farming Smarter 2025 Pesticide Applicator Workshop
- Event Date: March 20th
- Time: 8:00 am to 4:00 pm
- Event Type: Virtual
- Starting Price: $250.00

Farming Smarter Alberta Open Farm Days
- Event date: August 16th
- Location: 211034 Hwy 512 Lethbridge County
- Time: 11:00 am to 3:00 pm
- Event type: In-person
- Cost: **FREE**

Lethbridge County Shelterbelt Workshop
- Event Date: April 2025
- Event Type: In-person
- Location: TBD
- Cost: **FREE**
- More information coming soon

Alberta Open Farm Days
- Event date: August 16th and 17th
- Location: Province wide open house
- Event type: In-person
- Cost: **FREE**

Farming Smarter 2025 Field School
- Event date: June 25th to 26th
- Location: 211034 Hwy 512 Lethbridge County
- Time: 8:00 am to 4:00 pm • Event type: In-person
- Cost: $199 for single day or $299 for both days

Have an upcoming ag-related event you'd like to showcase? Please submit to mwells@lethcounty.ca to include in future newsletters.

(Top left) Early Symptoms of DED – green, wilting leaves. Credit: Joseph OBrien, USDA Forest Service, Bugwood.org. (Top right) Mid-Summer – Clinging, brown, wilted leaves. Source: Minnesota Department of Natural Resources - FIA , Minnesota Department of Natural Resources, Bugwood.org. (Bottom) American elms showing flagging. Source: Fred Baker, Utah State University, Bugwood.org.

DUTCH ELM DISEASE

Symptoms, life cycle, spread, control and prevention of this deadly disease that can affect all species of elm trees in Alberta

Prepared by:
Alberta Agriculture and Irrigation

Dutch elm disease (DED) is a costly, deadly disease that affects all species of elm trees in Alberta. It is caused by a fungus that clogs the elm tree's water conducting system, causing the tree to die. The fungus is primarily spread from one elm tree to another by 3 beetle species. The beetles are attracted to weak and dying trees, which serve as breeding sites. Once the beetles have pupated and turned into adults, they fly to healthy elms to feed, transporting the fungus on their bodies from one tree to the next.

Under the *Alberta Agricultural Pest Act* (APA) Pest and Nuisance Control Regulation, both DED pathogens *(Ophiostoma ulmi and Ophiostoma nova ulmi)* – and the European and native elm bark beetles that carry them – are named declared pests.

Impact in Alberta

Alberta has the largest DED-free stand of American elm in the world. In addition to bringing beauty to communities and adding to our quality of life by providing vital environmental protection, our elm trees are an important agricultural industry. The economic impact of keeping them disease-free is significant. The nursery industry estimates 50 to 60 million dollars in annual elm sales.

With no suitable replacements for shade trees on a massive scale, introduction of DED in Alberta could cause massive crop loss in the short term and eliminate the market completely. The Canadian Food Inspection Agency (CFIA) administers the Plant Protection Act which regulates the movement of DED from an infected province to a DED free province. Once a province is infected with DED, CFIA prohibits industry from selling or moving elms out of the province. The impact of this would be severe for local tree nurseries who combined have tens of millions of dollars in inventory.

A province-wide 2017 American elm inventory identified at least 600,000 elms growing in Alberta municipalities, rural properties, shelterbelts and provincial parks, valued at over $2 Billion dollars.

Removing and replacing DED-infected trees elevates the costs associated with losing valuable trees; it can cost over $500 dollars to remove a tree (an estimated $300 million for tree removal alone in Alberta), with the additional cost of replacing the tree.

Report all suspect infected trees immediately to the STOPDED Hotline at 1.877.837.ELMS (3567)
Annual pruning ban in effect: April 1 to September 30

Where it's found

Alberta has the largest DED-free stand of American elm in the world. Alberta and British Columbia are the last 2 locations in North America that are free of DED. A province-wide 2017 American elm inventory identified at least 600,000 elms growing in Alberta municipalities, rural properties, shelterbelts and provincial parks.

In 1998, one elm tree in Wainwright was confirmed to have DED. The tree was immediately removed and burned. And in July 2020, the City of Lethbridge had 2 elm trees that tested positive for the disease; they were immediately removed and city staff surveyed all elms trees and elm firewood in the area for DED symptoms. This is considered an isolated case and eradication was successful.

Since 1994, however, the European elm bark beetle has been found throughout Alberta. And in 2006 the banded elm bark beetle was first found in Medicine Hat. The BEBB is now found in low numbers in municipalities across the province.

Key symptoms

Dutch elm disease is a fatal fungus that can affect all elm species in Alberta. The fungus clogs the elm tree's water conducting system and will cause the tree to die quite quickly, usually within one or 2 seasons.

- Leaves on one or more branches suddenly wilt, droop and curl.
- Leaves turn yellow, then brown and shrivel, but stay on the tree; this is referred to as flagging'.
- DED symptoms can also be seen under the bark of infected branches. When the bark is peeled back, healthy elm wood is cream coloured. But when a tree is diseased, dark brown or red streaks can be seen in the infected sample.
- DED advances quickly and the affected branch will die as more of the tree becomes infected. You might see dead leaves falling out of season.
- If the tree is infected later in the summer, the leaves on the infected branch or branches will droop, turn yellow and drop prematurely. Late season infections are easily confused with normal seasonal changes in leaf color.
- Two other vascular diseases which are not as serious as DED (Verticillium wilt and Dothiorella wilt) can mimic the symptoms of DED so a sample from the infected area of the tree must be sent to the Alberta Plant Health Lab to confirm if DED is present.

Take action

Alberta's response plan

Together, government and Albertans play an important role in preventing DED from destroying our elm trees.

- **Provincial government** – the Alberta government supports this critical effort by administering the Act and Regulation and enforcing provincial DED prevention and control.
- **Local governments** – under the APA, all municipalities, counties and MDs in Alberta have the responsibility and authority to prevent and control DED by implementing the Alberta Dutch Elm Disease (DED) Response Plan. See also Responsibilities and authority.
- **Society to Prevent Dutch Elm Disease** – STOPDED helps foster and promote the survival of American elms in Alberta by raising public awareness and administering the DED Provincial Prevention Program.

How you can help

Albertans can help prevent and control DED:

- Learn to identify an elm tree and recognize the signs and symptoms of DED.
- Follow best practices to keep your elm trees healthy and less susceptible to DED.
- Know the laws that help prevent DED, and take preventative measures.
- Report all suspect infected trees immediately to the STOPDED Hotline at 1-877-837-ELMS (3567).
- Support STOPDED by becoming a member.

XERISCAPING:

Landscaping for Southern Alberta

Submitted by: Steve MacRae
M.Sc., P.Ag., Prairie Xeriscape Designs

One of our most valuable natural resources and especially in southern Alberta is water. As the spring season nears and the hot, dry summer approaches, we have an opportunity to be proactive and look at ways of conserving this most precious resource.

One of these is xeriscaping. The term xeriscaping is derived from the root words xeric which means dry and scaping from landscaping: therefore, drought tolerant landscaping.

I would be remiss if I did not highlight a common and often misnomer regarding xeriscaping. Some mispronounce the term or describe it as zeroscaping. This suggests the absence of plants within the landscape design, and nothing could be further from the truth. A well-designed xeriscape property will often be teaming with plant diversity reflecting a mass of color, shape, texture, and size.

Most of southern Alberta is within the grassland Natural Region of the province. These native grasslands possess an abundance of drought tolerant plant species, including wildflowers (forbs), graminoids (grasses and sedges), and shrubs. Trees are not typically thought of in the same light as forbs and graminoids for their xeriscape value but serve as an important attribute to any landscape. There are certainly tree species that are more drought tolerant than others and would be better suited for xeriscape applications. Regardless, trees often play an important role as part of your xeriscape design.

Some of these species can be found at your local plant nursery. However, often what you find at the nurseries rather than the native species is a cultivar of the native plant. The cultivar has been developed and propagated to meet certain agronomic or landscape characteristics, and thus will not share the same genetic makeup of the native species. Further, there are many non-invasive, introduced plant species that can be used for xeriscape design. It is important to do your research to ensure that any cultivar, and all non-native species are 'well-behaved' and do not pose a threat to become a weedy, invasive species.

There are several benefits to a xeriscaped yard, these include water conservation, lower maintenance, reduced to no fertilizer use, low herbicide & pesticide use, ecologically sustainable, and distinctive & unique property aesthetics.

Xeriscape is often described by seven underlining principles: planning & design, soil assessment, plant selection, limiting turf areas, mulching, watering, and maintenance.

Winter, fall and spring seasons provide an ideal time to plan and design your xeriscape yard. This is time to set project objectives, budgets and timelines. It allows you to obtain the necessary site assessment and planning without feeling rushed when the summer season is upon us. Your site assessment will include attributes such as slope, aspect, light, exposure, travel patterns, existing hardscape elements, and proposed new elements. Modification and changes to the design are much easier and cheaper when they are made early in the planning phase as they essentially involve only a 'paper exercise'. You want to avoid as many of these alterations as possible during the implementation and construction stage of your plan.

Before you decide on the plants you need or want for your property, you must evaluate the soils that these plants will be living within. A detailed classification (profile, horizons) is required along with soil attributes of texture, structure, salinity, pH, and organic matter. I believe that it is far better to know your soils and then select the appropriate plants to match the soil conditions rather than trying to add soil amendments to meet an arbitrary plant selection list. The latter is often only a temporary and failed attempt to modify natural soil forming processes.

As a rangeland ecologist I am most enthusiastic when selecting the plant species for the xeriscape design. It requires an in-depth knowledge of the plants themselves and their primary requirements such as soil type & conditions, moisture regime, light requirements, inter/intra species competition, wind & chinook tolerance, hardiness, origin, plant phenology, and photosynthetic pathway. The proper selection of plants will ensure the ecological sustainability of your xeriscape design. To this point, I have only addressed microsite requirements when selecting plants for your design. Your xeriscape design must also be aesthetically pleasing, and plant selection also entails those plants best suited to meet those design elements of scale, form, color, texture, balance, variety yet with simplicity, and the compatibility of these elements together. The combination of plant habitat and design provides for a sustainable and attractive xeriscape.

Limit turf areas as they tend to represent higher water requirements. Or better yet, replace your existing turf. Most often sod or turf is comprised mainly of Kentucky bluegrass (Poa pratensis) which is a species of high-water demand. Replacement with a native drought tolerant species such as Blue grama (Bouteloua gracilis) can still provide the sod or turf appearance you may desire, but with far less water demand. If you choose to retain your existing sod, then you should at least raise your lawn mower blade to one of its highest positions (9 – 10 cm) or (3" - 4"). This will improve the grass root:shoot ratio and reduce the watering requirements of your Kentucky bluegrass turf.

Areas that are comprised of wildflowers, graminoids and shrubs that do not have a contiguous ground cover should be mulched amongst the life forms. This mulch can be bark, or aggregate. If you live in an area highly susceptible to chinook winds you may only have aggregate as a viable option. The alternative bark mulch often gets wind-blown to your neighbors. The mulch, either bark or aggregate protects against water loss and reduces weed establishment.

During the establishment phase of your xeriscape, you should expect to water your plants like any other landscape for at least the first year. During the second year you can reduce your watering regime and provide water supplementation only when the weather conditions dictate. After the second year you can assume the plants have produced a well-developed root system, enough to be considered drought tolerant.

The final principle of xeriscape is maintenance. Xeriscape should be thought of as low maintenance but not no maintenance. Your xeriscape yard will require annual clipping and cuttings to mimic natural grassland herbivory (grazing). Herbivory provides for a natural disturbance, that will help rejuvenate, support and promote the ecological sustainability of your xeriscape yard.

UPDATED GUIDELINES PROVIDE CLARITY WHEN MONITORING LIQUID MANURE STORAGES

Leak detection sampling and monitoring guidelines help agricultural operators when monitoring liquid manure storage facilities for leaks.

Prepared by:
Alberta Agriculture and Irrigation

Under the Agricultural Operation Practices Act (AOPA), the owner or operator of a liquid manure storage facility may be required to install a leakage detection system. This system will use either groundwater monitoring wells or leachate collection systems to monitor for leaks or seepage.

"When required, leakage detection systems using groundwater monitoring wells must have at least one monitoring well upgradient and two monitoring wells downgradient," says Vince Murray, AOPA engineer and co-chair of the Technical Advisory Group. "Leachate collection systems are typically associated with above-ground tanks with concrete floors and include wicks or drains that channel leachate to a point where it can be monitored or sampled. The Natural Resources Conservation Board (NRCB) determines how often monitoring and sampling occurs."

The Technical Advisory Group, made up of Alberta Agriculture and Irrigation, NRCB and agricultural industry representatives, has published two updated technical guidelines to clarify AOPA requirements for owners and operators. These guidelines focus on sample collection and the necessary parameters for monitoring to ensure accurate information is available to the operator and the NRCB when assessing liner performance.

The Leak Detection Sampling Technical Guideline explains how to collect samples correctly and consistently from groundwater monitoring wells or leachate collection systems. Procedures for groundwater monitoring include measuring groundwater elevations and purging wells before sampling. For leachate collection systems, there is guidance for monitoring and sampling leachate. Finally, the guideline covers how to prepare samples for specific analyses.

To ensure accurate assessment of the facility's performance, the Leak Detection Monitoring Parameters Technical Guideline outlines key monitoring parameters, including nutrients and other substances commonly found in manure. Samples must be sent to an accredited laboratory for analysis. To assist with reporting, the guideline includes a checklist to ensure all required information is submitted. The NRCB can provide a digital reporting template upon request.

In some cases, the NRCB may adjust the sampling frequency and monitoring parameters for a specific site or circumstance. If this happens, the NRCB will provide a written decision explaining the changes. To verify the monitoring requirements for a particular facility, contact the NRCB or email info@nrcb.ca.

These guidelines were updated by the Technical Advisory Group to clarify AOPA regulations and are available on the Open Government Portal, on the Manure management guidelines and legislation webpage and the NRCB's website under Documents.

Contact
Connect with 310-FARM for more information.
Phone: 310-FARM (3276) • Email: 310farm@gov.ab.ca

Photo credit: Government of Saskatchewan, [Control of Richardson's Ground Squirrel], n.d.

Strychnine Alternatives for Richardson's Ground Squirrel Control

Submitted by: James Tansey
PhD. Saskatchewan Ministry of Agriculture

Richardson's ground squirrel (RGS) is a burrowing rodent native to and widespread on the Great Plains of North America. This species is an essential component of grassland systems, an important food source for many predators, and consumer of large insects like grasshoppers. However, when they become numerous, they can be damaging to crops, pastures, and rangeland, and their burrows can injure livestock and damage equipment. In locales where they are very numerous, control can be necessary. Although shooting and drowning are used to limit populations, the most efficient means is poisoning. RGS and other rodents lack a vomit response, so poison baits are particularly effective.

A mix of 2% liquid strychnine concentrate with an attractive grain bait is an effective rodenticide for control of burrowing rodents, including RGS. However, the Pest Management Regulatory Agency (PMRA) of Health Canada (the body that regulates pest control products for use in Canada) issued a final decision to deregister strychnine for burrowing rodent control, based in part on the potential to impact non-target species. Given the great damage this pest can cause, its status as a regulated pest in Saskatchewan and Alberta, and loss of an effective control product, solutions for RGS control were needed.

Several products are currently registered for the control of Richardson's ground squirrel. They include the anticoagulant baits chlorophacinone (Rozol RTU), and diphacinone (Ramik Green), and the zinc phosphide-containing baits, Burrow Oat Bait and ZP Rodent Oat Bait AG. Specialists from the Saskatchewan Ministry of Agriculture and Alberta Agriculture and Forestry conducted a comparison in Southwest Saskatchewan and Southeast Alberta in 2022 and 2023. We examined the efficacies of these products and assessed non-target mortality associated with baits. Alternatives to strychnine for this comparison were chosen based largely on ease of use. None of the products tested require specialized licensure or training in Canada, are commercially available, and can be used with bait stations.

Significant reductions in RGS populations were seen for all the products tested. However, the zinc phosphide products performed numerically better than anticoagulants in Saskatchewan in 2022 and 2023 and were statistically similar to strychnine in both provinces in both years. Some inconsistencies were found with anticoagulant baits: Ramik Green resulted in significant reductions in RGS populations in Saskatchewan but not Alberta and Rozol RTU performed better at Alberta sites than in Saskatchewan. However, all the tested products reduced RGS populations.

An economic analysis of the costs of RGS control was conducted and is presented as per acre values based on 2023 commercial prices. The zinc phosphide treatments were the most cost-effective, followed by strychnine and then the anticoagulants. When multiple applications were considered for the anticoagulants (two for Rozol RTU; as many as three for Ramik Green), the cost of control could be high.

Like many pests, an Integrated Pest Management (IPM) approach is recommended for control. That is, base control decisions on potential losses balanced against the cost of control. The economic threshold (ET) for a pest is the population density where action should be taken to avoid economic damage. For RGS, one occupied mound every four metres or 20 per cent crop damage over 100 metres has been proposed. With more expensive products, tolerance for pest numbers should increase.

Product	$ per acre (2023 prices)
2% Liquid Strychnine Concentrate	13.28
Burrow oat bit	8.46
ZP Rodent oat bait AG	6.74
Rozol RTU Field Rodent Bait	21.86
Ramik Green	12.34

An integrated approach should also include tolerance of predators like raptorial birds, badgers, coyotes, foxes, and weasels. Ferruginous hawk feeds extensively on RGS. Badgers can significantly reduce RGS populations. Although badger burrows are large, some tolerance of these should be granted given the benefits. In keeping with an integrated approach, the Saskatchewan Association of Rural Municipalities (SARM) Gopher Control Program in Saskatchewan subsidizes the purchase of baits, raptor platforms for large birds, and boxes for smaller predaceous birds.

Application of baits is recommended as soon as RGS becomes active in the spring, preferably before green up. Efficacy of anticoagulants can be greatly reduced if baiting is late and RGS has green plant material to feed on when baiting occurs. The mode of action of Rozol and Ramik active ingredients is inhibition of recycling of vitamin K1. This reduces blood clotting. Vitamin K1 is the antidote for these compounds and alfalfa and grasses are particularly high in it. Neither zinc phosphide nor strychnine have effective antidotes, but effects of these baits can also be reduced if there are alternative food sources when application occurs.

Non-target effects can occur with baits. Strychnine kills quickly: onset of symptoms occurs in 15 minutes and poisoned animals often die in less than an hour. Rapid death means that almost all the strychnine consumed is concentrated in the gut. This may present a hazard to scavengers, but several predators and scavengers will eviscerate poisoned RGS to consume non-poisoned tissues. The bitterness of strychnine is thought to contribute to this effect. Anticoagulants can take several days to kill. This can allow movement of the toxin throughout the animal and represents a greater risk to predators and scavengers. Poisoning with anticoagulants also weakens and makes rodents more susceptible to predation. Zinc phosphide kills quickly and breaks down rapidly in the gut to release phosphine gas that escapes the poisoned animal reducing the potential for secondary poisoning.

Zinc phosphide breakdown requires weakly acidic conditions like a rodent's gut so is relatively stable, unlike aluminum phosphide that will break down in the presence of atmospheric water. Neither the Borrow Oat Bait nor ZP Rodent Oat Bait AG labels indicate the need for special considerations for wet conditions, but these products should still be stored in dry conditions. Zinc phosphide also degrades completely and slowly in moist soil to form phosphine and non-toxic zinc phosphates. This means that significant toxic residues are not left in soils or water.

Overall, all the products tested provided control of RGS on the study sites. However, given lower costs, reduced potential environmental contamination, and reduced non-target risks, zinc phosphide products are recommended. Keep in mind that all these products are toxic and should be used carefully and according to label directions. These are intended to be inserted into a rodent burrow or presented in bait stations. Broadcasting any of these products puts non-target animals at risk and is not permitted.

FIRE *and* OUR GRASSLANDS

Submitted by: Rick Arthur, CEO Driptorch Consulting Inc.

The early settlers coming across the prairies and to the foothills of the Rockies found vast natural grasslands previously inhabited by the Indigenous peoples. While much of the native prairie grasslands were broken for cereal and hay crops, large areas were primarily used for grazing and left relatively untouched. In the southwestern foothills of Alberta, the grasslands reached deep into the mountain valleys in the Montane Sub-Ecoregion.

These landscapes were described as "natural," having evolved for the most part without human intervention. The Indigenous peoples were seen, for the most part, as being relatively benign and having had little impact on these landscapes. They were considered primitive nomadic people who followed herds of animals for subsistence. It was a narrative that evolved from early romantic era writings of a stock character. The mythology was that these people were uncorrupted by civilization, lived in harmony with nature and had neither the tools nor skill set to change or impact the broader landscapes they inhabited.

Early Anthropologists often repeated that narrative. They considered hunter-gatherer societies environmentally benign and incapable of influencing the productivity and availability of natural resources. Their knowledge of the use of fire was pretty limited, and they did not understand that the "simpler societies" possessed sophisticated technological knowledge about the use of fire or understood the ecological consequences of fire.

Omar Stewart, Henry T. Lewis, and a few others were notable exceptions. Stewart was considered radical in his thinking; his research demonstrated that Indigenous peoples used fire frequently across the landscape. Their knowledge of the response from both flora and fauna developed over millennia of trial and error passed on through generations. Lewis documented over 70 reasons why Indigenous peoples were using fire, as well as when and how they were using it.

European settlers documented the aboriginal use of fire. Journals from virtually every trader or expedition recorded incidents or observations related to wildfire. Settlers on the eastern coast described being able to "race with horse and buggy unimpeded through the tall oaks." After 20 years, the forest undergrowth removed through frequent fires began to fill in.

Peter Fiddler travelled from present-day Elk Point to Livingston Gap and back from November 1792 to March 1793. In his journals, he mentions over 30 fire events, which is somewhat remarkable considering this was during the winter period.

Paul Kane, the artist, travelled west from 1848-52. Fire is often seen in the background of his paintings and sketches. He had observed 3 Indigenous men caught in front of a fast-moving prairie fire near Fort Edmonton and had expected that they would be burnt to death. As the fire drew closer, they quickly came together and lit a line of fire that burned back toward the oncoming fire. They then stepped into the now safe burned area. Kane described the use of a backfire, which, even today, is a tactic used only by the most skilled fire practitioners.

In his 1857-58 journey, John Palliser referenced several fire events started by his own party, both from campfires. One was a large prairie fire while he was travelling between Fort Edmonton and Rocky Mountain House in January. In another instance, a crown fire started by their campfire chased his party north down the Kananaskis River.

Our grassland ecosystems developed over thousands of years through bison herbivory and the frequent use of fire. Many species, both flora and fauna, evolved and are dependent on frequent fire for their health and well-being.

Fire was used on the prairies to renew grasslands with a 3 to 5 year window between burns. Bison have been noted to prefer recently burnt areas over unburnt areas. Fire would have been used to renew grasslands, which bison would then favour, and to draw bison to utilize a more manageable area to hunt in.

The Valley bottom in the Bow Corridor between Lac Des Arc and Banff saw a fire return interval of 5-7 years. Bison were driven into the corridor and camp set up near Lac Des Arc or Deadman's Flats, which would have blocked the bison from leaving the area. The frequently burnt valley bottom was primarily open grasslands, a landscape maintained by frequent fire and a preferred choice for bison. They had fresh grass, good visibility, and a water supply. Hunting would have been simplified. This changes the narrative from primitive stone-aged people following herds of animals for subsistence to an intentionally managed landscape and a semi-domesticated bison herd.

Frequent fire benefited many other species. Sharp Tailed Grouse, sometimes known as "Fire chickens" by the Blackfoot, were often found in recently burnt areas. As a species, they thrived with frequent fire. Fire removed the dense grass mat, enabling the grouse to peck and scratch for seeds and insects. It kept their leks open, necessary for mating. Small shrubs survived, providing hiding cover and nesting areas. Tick populations were maintained at lower levels in frequently burnt areas. Recent research has found 20-25 ticks on individual Sharp Tailed Grouse, perhaps not enough to directly cause mortality but sufficient to weaken the bird.

Today, 80% of Alberta's threatened, endangered, at-risk, or extinct species are in Southern Alberta's grassland ecosystems. The Black Footed Ferret, Sage Grouse, Burrowing Owl, and Rough Fescue are just a few of many species found in the Grassland Ecosystems that have adapted and thrived from the frequent use of fire.

We have developed a great fear of fire as a society, and rightfully so. Most of our exposure has been through horrific and destructive wildfire events, but we also need to understand the importance of fire in maintaining the health and viability of our ecosystems. There is an old saying that "Fire is a wonderful servant but a terrible master." We must slowly and carefully return fire to these landscapes if we want healthy ecosystems.

UNTOLD Stories

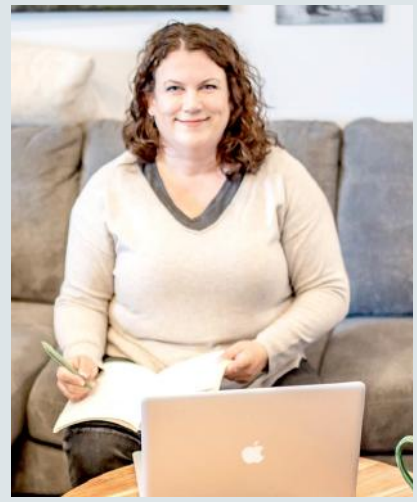
Submitted by: Billi J. Miller

Since 2010, I've lived on one of Alberta's century farms after living decades in the city. Since 2016, I've written four books celebrating farm life and the amazing people on them. The people profiled in my books have spent decades keeping their families, farms, and rural communities running - not to mention feeding the world.

The more time I spend writing about people on Canada's family farms, the more I recognize a powerful truth: resilience is woven into the fabric of this life. It's in the land, the people, and the storied history that has shaped generations of farming families.

Since writing my last piece for this newsletter, our world continues to change, as does its politics. What hasn't changed is that I've continued to meet and write about extraordinary people from Canada's family farms, and their stories never fail to inspire me.

Our industry changes by the day, the season and the year. Farming has always been about adaptability, but today's farm families are navigating more change than ever. Rising costs, shifting markets, unpredictable weather, and politics—these challenges affect every aspect of rural life. Yet, time and again, the landscape of rural Alberta is made up of resourcefulness, strength, and an unbreakable spirit.



When I speak to women at conferences or interview them for my books, I hear again and again that they wear multiple hats. They manage finances, work in the fields, run side businesses, and still find time to volunteer in their communities. Many manage the finances of their family farms, others run entire companies of their own, and most manage key business relationships and use technology to revolutionize how family farms operate. These women are not just sustaining tradition; they are shaping the future of farming.

Outside of all the hard work, long hours, bountiful seasons, drought seasons, and winter storms, one common thread remains: the deep commitment to family and community. The rural way of life thrives on connection—neighbours helping neighbours, meals shared after long days in the field, and generations passing down knowledge that can't be found in books. This is what makes farming life so unique, and it's why I continue to tell these stories.

As I focus on the next year, I focus on writing more freelance stories for newspapers and magazines. Understanding and learning from each other is key, and I am continuing to learn more about the people, faces and communities that shape the amazing country that we live in. I love sharing heartfelt stories about extraordinary people.

I'm grateful for the opportunity to share these incredible people and communities with you. For those of us lucky enough to call a family farm home, let us never forget the incredible contributions farm women and men make every day.

Until next time, thank you for reading.

— Billi J. Miller is a published author, photographer, and speaker from east-central Alberta. She freelance writes from her home office, where she can be reached through her website at billijmiller.com. To read more of her stories, visit billijmiller.com/articles or subscribe at www.billijmiller.com/subscribe

Not 'Just' a Farmer's Wife

Submitted by: Matthew Wells, Rural Extension Specialist Lethbridge County

Have you ever celebrated International Women's Day on March 8th? You should. The date is a significant one as we globally celebrate and recognize women's and girls' achievements and bring awareness to gender equality. There are organizations, groups, and individuals that have made great strides in recognizing women and their accomplishments, but I think it's important that we take time to acknowledge and appreciate the strong women in our own lives.

As we approach International Women's Day, I want to take a moment to recognize a very important woman in my life. She is a nurse, farmer, grandmother, and my mom. Her work ethic, perseverance, selflessness, and the joy she brings to my life and others cannot be overstated. She has played a significant role in my life, not only as a parent, but someone that I idolize, appreciate, and above all, aspire to emulate.

I've heard many folks mention that women are the backbone of farming. For my mom, she truly was and still is to this day. Growing up, she worked as a full-time nurse, working 12-hour shifts, driving over an hour each day to work, and would bring us out supper and help move equipment when she could. She never had off days, transitioning from nurse to farmer with ease as she helped rock pick, combine, manage the finances, maintain a clean farmyard and house, and was pivotal in making important decisions that have shaped the practices on how the farm operates today. Moreover, she raised three rambunctious boys who played various sports, with hockey requiring the most time commitment. In reflecting on this, not once has my mom ever asked for anything in return and it's mind-blowing to look back and realize just how integral she has been to the farm operation and my upbringing.

As we kids grew older, the operation expanded, and we took on custom work for spreading and spraying. There were times when the family was spread out, 100 kilometers separating us and my mom was the glue that kept us together and the whole farm operating, bringing us tools, helping with breakdowns, keeping us well fed, and lending a hand to whomever needed it.

One of the brightest moments I can remember growing up is sitting in the tractor, air drill behind me, and seeing the cloud of dust approaching. My mom would roll up, food and drinks in hand with her faithful companion, Ginger. Our dog loved our mom more than anyone else, and when those two showed up, your day instantly brightened.

A keeper of the peace, she always found a way to meet the needs of us kids, whether through the hardy meals she provided, the time she spent conversing with us, consoling us when something had gone wrong, or helping us during a time of need.

In writing this article, I've realized that while I have been aware of my mom's contributions, putting them into words has given me an even deeper appreciation and love for all she has done and continues to do. Today, she is a retired nurse who has taken on a greater role on the family farm and enjoys spending time with her grandchildren. I hope to be just like my mom, because she exudes strength, resilience, hard work, and the importance of family – a true representation of what a farmer is in today's world, not just a farmer's wife.

In recognizing my mother, I would also like to take a moment to recognize the impact women have had on every corner of the agriculture industry. Whether on the farm, in research, agri-business, government, or advocation for agriculture, women are imperative in improving and shaping the agriculture industry and are an inspiration to many, whether it be your children, young women interested in the industry, or people like me.

If you weren't aware, I wanted to highlight some important initiatives recognizing women in agriculture today.

- The 41st Annual Celebrating Rural Women's Conference (formerly the Farm Women's Conference) which occurred on February 6th this year hosted by Athabasca County
- International Women's Day (March 8)
- National Women in Agriculture Day (March 21, United States)
- Advancing Women in Agriculture Conference (March 16-18, 2025 in Calgary)
- The annual Southern Alberta Grazing School (July 16-17) hosted by Cows and Fish
- Agriculture Financial Services Corporation (AFSC) Women in Ag Award (having been introduced in 2022)
- AWC Spotlight on Women Magazine
- The Women in Ag Grant through Credit Unions of Alberta and Alberta Central
- Local resident Katelyn Duban's Rural Woman Podcast, which highlights women's contributions to agriculture through interviews
- Alberta resident Billi J. Miller's books showcasing farm families and in particular, untold stories of women in the agriculture industry

While we've made progress in recognizing women, there is room to grow in ensuring they receive equal opportunities, respect, and representation. I encourage others to reflect on and appreciate the hardworking women in their lives, whether on the farm, in agriculture, or elsewhere.