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AGRICULTURE AND FORESTRY

*Office of the Minister
MLA, Innisfail-Sylvan Lake*

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OCT 16 2019

Her Worship Sandra Cherniawsky, Mayor
Mr. Bob S. Mitchell, Chair
Yellowhead County
2716 1st Avenue
Edson, AB T7E 1N9

Dear Mayor Cherniawsky and Mr. Mitchell:

Thank you for your recent letter regarding Ropin' the Web and Agriculture and Forestry's hay and livestock listings. I appreciate the opportunity to respond.

Alberta Agriculture's former website was migrated to Alberta.ca to ensure a consistent approach across Government of Alberta ministries. As part of this work, the decision was made to exclude directories and the General Store. However, during the *Farm Freedom and Safety Act* engagement sessions I attended this summer, Alberta farmers were clear about how vital these resources are to their day-to-day business. As such, I am committed to making the hay and livestock listings available again. I have directed the department to explore options for how to improve the accessibility of the information and expect this service to resume in the coming months.

Thank you again for taking time to send me your comments on this issue.

Sincerely,

Honourable Devin Dreeshen
Minister, Agriculture and Forestry



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

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OCT 25 2019

Her Worship Sandra Cherniawsky
Mayor
Yellowhead County
2716 1st Avenue
Edson AB T7E 1N9

Mr. Bob Mitchell
Chair, Agricultural Services Board
Yellowhead County
2716 1st Avenue
Edson AB T7E 1N9

Dear Madam Mayor:
Dear Mr. Mitchell:

Thank you for your letter of September 19, 2019, regarding proposed changes to the livestock identification and traceability requirements in Canada under Part XV of the *Health of Animals Regulations*.

The Canadian Food Inspection Agency (CFIA) is considering seeking approval to consult on draft regulations to strengthen the traceability system in order to enable effective and timely disease control investigations, better manage animal health, and help improve Canada's capacity to maintain market access as well as consumer confidence.

The CFIA appreciates the beef cattle sector's collaboration with government to develop a full livestock traceability system in Canada. While developing the livestock traceability regulatory proposal, the CFIA consulted with the livestock industry as a whole in 2013 and 2015, and specifically with the beef cattle industry a number of times. After listening to their concerns, the CFIA revised certain elements of the draft regulatory proposal. The proposed regulatory requirements align with the Cattle Implementation Plan (CIP) that is supported by the beef cattle sector. For example, operators of auction marts and community pastures would not be required to report the identification number of approved tags applied to animals they receive.

The current and proposed livestock traceability regulations have no prescribed method by which regulated data is provided to the Responsible Administrator - the Canadian Cattle Identification Agency (CCIA) - and no prescribed method by which the identification number of tags must be read and reported. It is the understanding of the CFIA that the CCIA and the Canadian Cattlemen's Association are currently exploring the use of ultra-high frequency (UHF) tag technology and the associated implementation challenges.

.../2

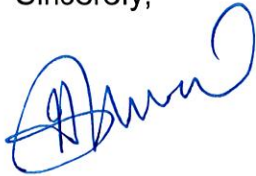
Canada

The CFIA has also established a regulatory implementation committee, consisting of representatives from industry and the provinces. The committee's goal is to share information with all beef cattle stakeholders, and set the stage for compliance with the newly proposed regulatory requirements.

If approved for consultation the proposed amendments to the *Health of Animals Regulations* are anticipated to be published in Part I of the *Canada Gazette* (CGI) in winter or spring 2020 at the earliest. All stakeholders will have an opportunity to comment on the proposed requirements during a formal 75-day consultation period upon publication in CGI. This 75-day comment period following CGI is the most effective way to raise issues with the proposed regulations and potential solutions.

I trust that this information is of assistance. Thank you for writing to share your concerns.

Sincerely,



Dr. Jaspinder Komal
Vice-President, Science Branch
Chief Veterinary Officer for Canada
OIE Delegate for Canada

c.c.: The Honourable Marie-Claude Bibeau, PC, MP, Minister of Agriculture and
Agri-Food Canada
The Honourable Devin Dreeshen, MLA, Minister of Agriculture and Forestry,
Alberta



THE ASSOCIATION OF ALBERTA AGRICULTURAL FIELDMEN

December 16, 2019

Jason Wilson
Wheatland County ASB Chairman
242006 Rg. Rd. 243
Highway 1 RR 1
Strathmore, Alberta T1P 1J6

Dear Mr. Wilson:

RE: Hosting of the 2022 Provincial Agricultural Service Board Tour

This letter is to inform Wheatland County Agricultural Service Board that we have received your expression of interest in hosting the 2022 ASB Provincial Summer Tour and that we anticipate attending it.

We look forward to Wheatland County's event and we are confident that we will find the experience to be a valuable opportunity to learn about agriculture and many other attributes uniquely found in your county. We look forward to celebrating our provincial agricultural industry successes with you.

In service,

Sebastien G. Dutrisac
AAAF President

cc: Provincial ASB Committee
Russel Muenchrath, Manager of Agriculture & Environment



DIRECTOR'S NOTE— ROD VERGOUWEN

Howdy folks;

Changes and challenges have always been a part of agriculture. It is great to see that the Western Canada Conference on Soil Health & Grazing sold out early. This shows the need and desire for producers, consumers and government to educate themselves about soil, plant, animal health and the regenerative impact agriculture can have on the environment.

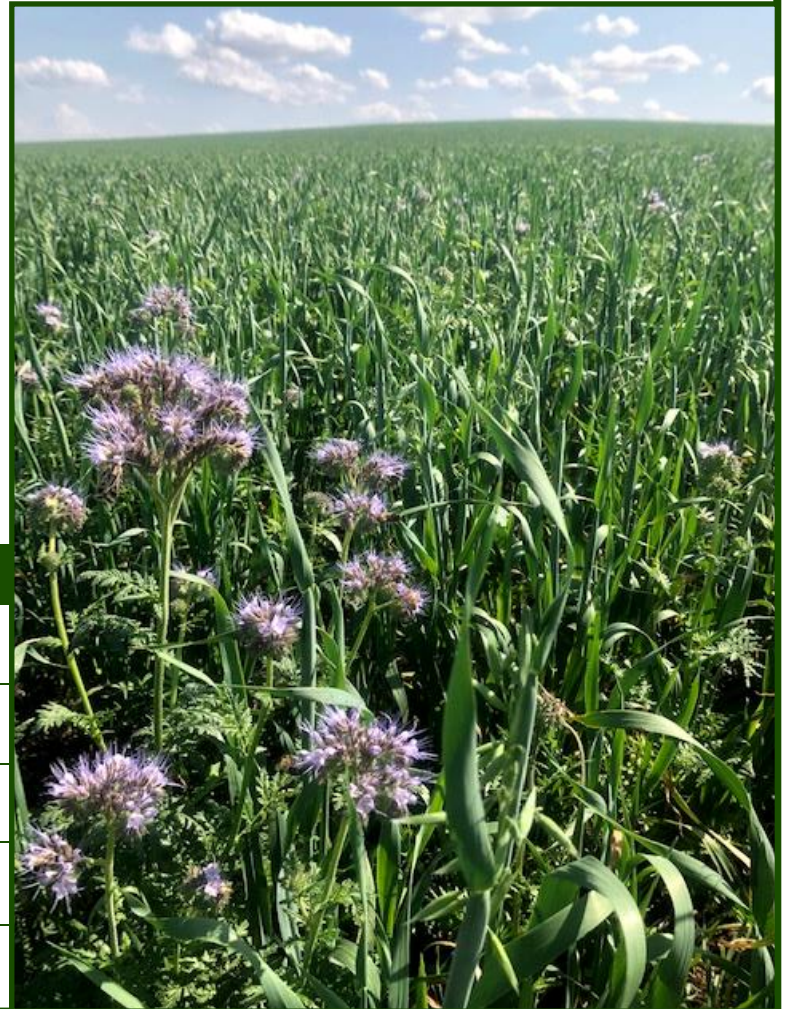
Some challenges we face are out of our control (such as weather and markets), but we can make changes to our operation that affect the impact. Calving dates, grazing plans, crop rotations, and feeding strategies can be changed to address issues we can't control.

At home are working on changing crop rotations and have incorporated cover crops to address soil and plant health concerns including; moisture (too much or too little), disease, and the efficient use of our growing days. This year we used a cocktail mix seeded with oats to improve feed quality and saw very good results. The September and October snowfall made baling green feed interesting but had little effect on swath grazing quality.

Beth found an unexpected market for the flowers in the cocktail mix to a wholesaler supplying fresh flowers for weddings, grad, etc. The economic margins for fresh flowers is way better so it will interesting to see what color of flower will be found in the oats next year.

Rod Vergouwen

Cover crop found at Vergouwen Farm with Oats and Phacelia



IN THIS ISSUE

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Feedlots to be put to the test—and that's what they want



Thwarting resistance and reassuring consumers behind antimicrobial monitoring.

A new pilot project will give Canada's cattle industry some long-overdue and much-needed data about antimicrobial use and resistance on Canadian beef farms.

"Antibiotic resistance is a really, really big deal, both for human and animal health," said Reynold Bergen, science director for the Beef Cattle Research Council.

"If bugs get resistant to antibiotics, the antibiotics won't work anymore, and then we've got big problems.

"Ultimately, for producers, we need these tools to continue to be effective so that we can maintain animal health and welfare."

But it's not just farmers who are worried about antibiotic resistance in their animals, said Bergen. Increasingly, retailers are setting targets for antibiotic use in the meat they sell or shifting to antibiotic-free meat altogether.

This trend, driven largely by consumer demand, has already influenced government policies around antibiotic use in livestock. Last December, the

federal government increased veterinary oversight on on-farm antibiotic use, requiring a prescription for around 340 antimicrobials that had been previously available over the counter.

The problem with these types of regulatory changes, said Bergen, is that there isn't much science around the actual rates of on-farm antibiotic use and resistance in beef cattle.

That data exists in other livestock sectors, though.

Since the early 2000s, the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) has been monitoring antibiotic use and resistance in all livestock. But its on-farm component has largely been limited to pigs and broiler chickens, as those were the animals considered at highest risk for antibiotic resistance.

In the last year, its on-farm services have expanded to dairy cattle and turkeys, but because of budget constraints, beef cattle had been put on the back burner, said Bergen.

"But what that means is that, as an industry, we've got no data to back up that we're using antibiotics responsibly on farm," said Bergen.

"So we need facts — partly to defend our production practices and to reassure consumers we're doing things right, but also to identify where we can do better."

On-farm surveillance

And those facts are coming, thanks to additional government, beef industry, and pharmaceutical sector funding.

Over the next three years, CIPARS will be partnering with feedlots and feedlot-focused veterinary practices in Alberta, Saskatchewan, and Ontario on a three-year pilot project looking at antibiotic use and resistance in these three major cattle-feeding provinces.

"This is not the first project of this type, but it's one of the most comprehensive because it ties use in with resistance," said Dr. Craig Dorin of Veterinary Agri-Health Services in Air-drie, one of the practices involved in the project.

The first piece of the project will focus on determining which pathogens exist in the feedlot, said Dorin.

"I think we already have a good handle on that, but part of surveillance is looking at the same thing over and over again to see if there have been changes over time."

That ongoing surveillance will also compare resistance in geographic areas relative to how antimicrobials are used in those areas, he added. This will allow the beef industry to monitor trends around antimicrobial use and resistance — particularly for antibiotics that might also have an impact on human health.

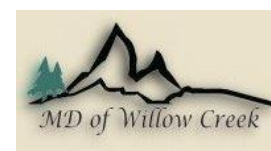
"What this will help us do is identify trends over time — are we seeing an increase in use or an increase in resistance?" said Bergen.

"Either way, knowing helps us see whether we're on the right track or if we need to make some adjustments."

For Dorin, that's the most important piece of this study.

(Continued on page 5)

Thank you for your support!





GRAZING WORKSHOP

featuring *Jim Gerrish*

Wheatland County & Foothills Forage and Grazing Association present renowned grazier Jim Gerrish for a full day Grazing workshop!

Details

February 14th, 2020

Wheatland County Office

9:00am to 3:30pm

FFGA Member - \$75.00+ GST

Non Member - \$85.00+ GST

Register at <https://jimgerrishwheatland2020.eventbrite.ca> before February 7, 2020



WHEATLAND COUNTY

Where There's Room to Grow

Itching and rubbing in your herd? Lice treatment may be necessary



The coming of winter means the coming of lice. Now is the time to treat.

Lice infections in cattle are not anything any rancher wants to see; the pests hurt profits. The sad fact is that every herd has some level of infestation. Lice affects cows, stockers and feedlot cattle, hurting their performance from December through March.

Ranch losses because of lice

The USDA has estimated that livestock producers lose up to \$125 million per year due to effects of lice infestations. Not only can they be the cause of direct animal performance losses, but also increases wear and tear on facilities and fences. The direct losses to cattle come in forms of decreased average daily gains (documented 0.25 pounds per day reduction in growing calves), skin infections, and potentially blood loss and anemia.

Two types of cattle lice

There are two different types of lice that infect cattle. Biting lice feed on the skin and secretions on the outside of the animal. The other type is known as sucking lice. These species are blood feeders and pierce the skin.

Both types of lice spend their entire lifecycles on the cattle hosts. Off of cattle they survive very poorly and generally only last a few days. However, they can live up to 10 days off host in the right environment, leading

to reinfection in groups of animals.

It is important to note that lice are host species specific. This means that cattle lice cannot affect people, horses, or any other species.

In general, every herd has some level of lice infestation. Lice are carried from season to season by a small percentage of the

herd that act as reservoir hosts.

Adults lay eggs on the hair of infected animals. Overall lifecycle for an egg to mature into an adult, and lay eggs is roughly 28 days. Most females lay one egg per day.

Lice symptoms

Clinical signs of lice infected cattle generally begin with constant rubbing and scratching within the herd. Fences, posts, water troughs, trees and any other stationary object could be subject to damage from this rubbing. As the infection and irritation continues, large hairless patches will become evident on animals.

Further diagnosing the issue beyond the clinical signs requires seeing the adult lice on the skin. Parting the hair will reveal the lice. They are very small but can still be seen. They are roughly the size of a grain of sand. The economic threshold for treatment is roughly 10 lice per square inch.

Lice treatment

There are several options when it comes to treatment of lice in cow herds. One option is the macrocyclic lactone class of endectocides. Examples of products in this class include ivermectin, doramectin, eprinomectin, and moxidectin.

These products come in pour-on and injectable formulations. Macrocyclic lactones treat internal intestinal nematodes, but also work on external parasites such as lice. It is important to note that the injectable formulations do not work on biting lice since

they do not blood feed.

These products are most often used on a herd basis at the end of summer grazing going into winter. Even with herd treatment in the fall, later season lice infections can still occur. This can be due to fence line contact with other animals, or introduction of new animals.

The other option is topical treatments that are non-systemic. These products are typically pyrethroid products similar to what is commonly used to control horn flies during the summer months.

These products are very effective against the adult lice, but to not affect the larvae or eggs. Retreatment is often indicated 14 days after initial treatment.

There is a product available that is a pyrethroid in combination with an IGR (insect growth regulator) that not only works very well against the adults, but also works against the eggs and larvae. Use of this particular product eliminates the need to retreat in 14 days.

Since these topical formulations kill lice by contact, it is extremely important to apply them appropriately to cattle. Most formulations call for the pour-on to be applied with full coverage on the topline of animals, from poll to the trailhead.

When treating cattle, it is also important to treat the entire group. Missing one animal could serve as the reservoir for reinvesting the entire herd.

The same thought should be given to new additions to the herd from an outside source. Basic biosecurity such as treating and segregating new additions for 30 days is not only good to reduce risk of lice, it is also a great tool in decreasing introduction of other diseases.

Author: A.J Tarpoff; Extension veterinarian with Kansas State University. Article can be found at <https://www.beefmagazine.com/animal-health/itching-and-rubbing-your-herd-lice-treatment-may-be-necessary>

(Continued from page 2)

“We are producing food, and the people who consume the beef that we produce need to have a high level of confidence that the products we use on these animals are used prudently and appropriately,” he said.

“Part of prudent use is selecting the right antimicrobial for the right situation — using not only an antimicrobial that will be effective against the disease you’re trying to prevent, but one that will also have minimal impact on the potential resistance that might be transferred into the human population.”

But this study will also give retailers a baseline to create science-based targets for antibiotic use in the meat they sell.

“Some retailers are going antibiotic free and others are wanting to set targets to reduce antibiotic use,” said Bergen. “And with data like this, they’ll have a sense of where they can make a meaningful difference.”

Rapid diagnostics

That will be particularly important for respiratory pathogens such as bovine respiratory disease, Bergen added.

“That’s why a lot of these antibiotics are being used — to manage respiratory disease,” he said. “So if you can get a sense of why they’re being used for respiratory disease and what degree of resistance is there, you’re tying it much more closely to management decisions than you would with any other retail meat.”

But it will be tricky for a study like this to actually drive on-farm management decisions in the short term, Dorin cautioned.

“That’s going to be a part of it — to make sure that the antibiotics that we’re using are still the correct choices — but it’s not going to drive day-to-day decisions,” he said.

“Day-to-day decisions happen very quickly, and this is a study where we’ll be looking at annual results. We’ll be able to look at year-to-year changes, but we won’t be able to get down to the level of week-to-week change at a particular farm.”

But that technology is coming.

Another study, set to start in the next year, will explore rapid genetic testing for respiratory pathogens.

Right now, the turnaround time for samples sent to the lab can be anywhere from a few days to up to a week — and a lot can change in a week, said Bergen.

“Those results tell you what you should have done a week ago if you had known at the time,” he said. “But between a week ago and today, that animal could have got way sicker, and it could be way different bugs that are causing the problem now, and they could have a different antibiotic-resistance profile.”

But as genetic testing technologies improve, rapid diagnostics could change that, Dorin said.

“This new genetic testing would allow results to be back within hours instead of days,” he said.

“Our hope is, over time, those hours will turn into minutes, and then when a sick animal comes in, we can test it and know exactly what antibiotics should be used on that animal on that day.”

That will go a long way toward maintaining the antibiotics available to cattle producers.

“We have a limited number of products available for use in the beef industry,” said Dorin.

“It’s expensive to bring these products to market, and it gets more expensive as time goes on. We’re worried that resistance may be developing faster than our ability to produce new products, so reducing our antimicrobial use in favour of other management practices — like low-stress weaning — is important.”

Bergen agrees.

“Antibiotics have been so effective for so long that they’ve become a valuable tool, but because they’ve been so effective, there’s been a little less need to find alternatives,” he said.

“There’s a chance — and not a remote chance — that 50 years from now, the antibiotics we’ll have available to treat animal diseases might be the same ones we have now.

“So we’d better use the ones we have now responsibly so that they

keep working down the line.”

Author: Jennifer Blair, report with Alberta Farmer Express. Original article found at <https://www.albertafarmexpress.ca/2019/11/06/feedlots-to-be-put-to-the-test-and-thats-what-they-want-2/?module=under-carousel&pgtype=section&i=>

Canadian Agricultural Partnership

**Environmental
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Purpose of this program is to support producers in reducing negative impacts on the environment while enhancing sustainable production, managing climate change and increasing profitability on farm.

*** Having a current Environmental Farm Plan is a Prerequisite for this funding program***



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WORKSHOP DETAILS

Thursday January 9th, 2020
Fort Macleod Community Hall
8:30am to 4:00pm
Lunch is included in registration

REGISTRATION

FFGA Member.....\$30.00 + GST
Non Member.....\$40.00 + GST



Researchers make case for grassland benefits



Carbon sequestration, soil health, water quality and pollinator habitat could be used to justify paying producers.

A stronger case for maintaining Canada's shrinking grasslands is being made by researchers.

"Our long-term goal is to recognize and quantify the magnitude the ecosystem goods and services these grasslands supply," said Ed Bork of the University of Alberta and Mattheis Chair in Rangeland.

An army of scientists is working on the benefits beef production lends to carbon sequestration, soil health, water quality and pollinator habitat on Canada's grasslands.

"We are trying to make the argument that grassland managers and cattle producers should be paid for some of the lesser known environmental goods and services other than forage production or beef production," he said.

Researcher Denis Angers of **Agri-culture Canada** in Quebec focuses on Eastern Canada, where carbon stores

are being rapidly depleted. Before European settlement and land cultivation in North America, soil carbon content was in balance in the forests of the East and prairies in the West, he said at the recent Canadian Forage and Grassland Association conference held in Moncton. Cultivation caused a loss of 20 to 30 percent of the soil car-

bon.

"In the East, our carbon content is going down in general and that is basically because of cultivation of pasture and hay land," he said.

More corn and soybeans are planted and 2.5 to five million acres of pasture and hay land have been lost in Eastern Canada in the last 50 years.

When perennial forages go back into the mix the carbon starts to rebuild.

"If you rotate perennials with annuals, you see an increase in carbon with long-term perennial crops, but it depends what you have in your rotation," he said.

In Prince Edward Island, researchers established tall fescue stands and seven years later saw an improvement of about two tonnes of extra carbon per hectare (0.81 tonnes per acre) per year. Carbon was accumulated at fairly deep levels at about 50 to 60 centimetres.

Perennial forages aggregate the soil with dense root systems and microbial activity increases.

"It only takes two to three years to see a fairly dramatic effect," he said.

Yields also improve, especially when mixtures are used because a diversity of roots develop at various depths.

"There is limited information on the effect of different species on soil organic carbon. We know putting in perennial systems will improve soil carbon but in terms of telling apart different species, we don't know," he said.

Perennials are well-suited to transfer carbon to the soil. They capture more solar energy annually because they start growing early in the spring and grow longer in the fall. They fix more carbon and release more into the soil.

Applying cattle manure on grasslands has a positive effect for soil carbon but grazing benefits are up for debate.

"Grazing is a tough one on the effect on soil carbon. We don't have much data on the effect in a temperate climate," he said.

International literature says decreasing grazing intensity can increase soil organic carbon but most data comes from tropical climates.

Bork's results from research in Canadian plots have been different. He has 100 research plots in Alberta on public land and has also conducted research on former PFRA pastures in Saskatchewan, although most of the work is based in Alberta. He is investigating the effects of grazing and plant species.

In grasslands, the vast majority of the biomass is below ground. The root

(Continued on page 8)

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(Continued from page 7)

systems tend to be much larger than the shoot system above ground. It is the turnover of those roots over time that builds up large amounts of organic matter and carbon.

The vegetation removes carbon dioxide from the atmosphere via photosynthesis. The more plant biomass grown, the more carbon is removed from the atmosphere and oxygen is released.

Photosynthesis occurs for about three months on the Prairies and six months in wetter areas.

“We are really removing CO₂ from the atmosphere three to six months of the year. The rest of the time, the ecosystem is sleeping,” Bork said.

Grasslands cover about a quarter of the land base and store up to 30 percent of the world’s soil carbon.

About 300 gigatonnes of carbon are stored in the temperate grasslands of Western Canada, South America and central and northern China.

His research team worked on 100 sites across Alberta and Saskatchewan to see how much carbon they store based on tonnes per hectare.

“Even our most arid environment of dry mixed grass of southeastern Alberta around Medicine Hat store roughly seven tonnes per hectare of carbon. That is not a full accounting because we are not looking even deeper below 30 cm,” he said.

The wettest grasslands of southwestern Alberta store as much as 180 tonnes of carbon per hectare (72.9 tonnes per acre).

“Our wet grasslands are comparable to the boreal forest, which is shocking when I tell people that. Most people think forests hold more carbon — not true,” he said.

When a prairie soil is cultivated, a third to half of the carbon is lost to erosion or the furnace effect.

When a soil with lots of humus is cultivated, the insulation is lost. The surface is exposed to more sun and oxygen. Oxygenated soil allows the microbes to break down the carbon and release it.

Land-use conversion worldwide is contributing to rising CO₂ levels in the atmosphere.

Long-term plots at Stavely, Alta., south of Calgary showed 30 percent of the carbon disappeared from the soil after three years of cultivation.

Perennial forages are preferred over other crops to restore carbon. Tame forages are also bred to produce more above ground to feed cattle but they do not put enough carbon back into the soil.

Annual crops are bred to produce everything on the surface and put very little below ground and do not have vast root systems. They are not adding carbon back into the deep soil profile.

Some of Bork’s work focuses on refining grazing to enhance soil carbon and provide an incentive to producers to increase soil carbon.

There is no clear consensus on the value of managed grazing but his analysis showed benefits where the presence of grazing animals tended to boost and maintain soil carbon.

“With this overall grazing effect, we were very pleased to find with long-term exposure to grazing we found an increase of soil carbon of 12 percent,” he said.

Most was concentrated in the top 15 cm of soil.

These soil carbon increases were not uniform everywhere. The dry, mixed grasslands did not show much change but the other regions did.

Further research is asking why these changes are happening. It is not known for sure if cattle change soil microbes or enzyme activity in the soil. Other studies are looking at litter turnover and rates of decay. Grazed areas have more rapid litter decay and cattle may help incorporate it back into the soil with trampling.

Other work is examining plant species.

They found introduced plant species like timothy, brome, bluegrass and dandelion actually increased soil carbon. This causes a conflict among the grazing purists.

“I am going to argue they are good. Many of them are very high in forage quality,” he said.

Another data set from nine former Prairie Farm Rehabilitation Administration pastures in Saskatchewan

showed stocking rates have an effect on carbon sequestration.

“As you increase stocking rate, carbon increases,” he said.

Another unexpected result was the introduction of new plants.

Kentucky bluegrass litter decomposes rapidly and may contribute to carbon storage.

“Kentucky bluegrass appears to be adding something to these plant communities and it is introduced primarily through the presence of ongoing grazing,” he said.

A \$2 million project is looking at the effect of adaptive multi-paddock grazing. This is intensive grazing in a large area, divided into small paddocks with quick rotations. There is a long recovery period to restore the leaves and rebuild roots.

Sites in Alberta, Saskatchewan and Manitoba are being studied for plant communities, carbon sequestration and biodiversity.

Bork argues carbon losses and gains have a measurable value.

Carbon in Alberta is priced at \$30 per tonne based on the tax imposed on industrial emitters when they are above a certain threshold of CO₂ equivalents.

He estimates carbon retained in the existing grasslands is worth about \$9 billion based on the \$30 tonne equivalent.

“When you look at the carbon already lost because of what we have done to our landscapes, these numbers are staggering. The area of land in the Parkland that has been converted, and attach that \$30 per tonne CO₂ equivalent, the amount is almost \$23 billion. That is the value of the carbon that has been lost in the soils in the parkland region by converting them in the past,” he said.

Author: Barbara Duckworth—The Western Producer. Original article can be found at <https://www.producer.com/2019/11/researchers-make-case-for-grassland-benefits/>

Environmental Farm Plan Workshop



For Agricultural Producers that:

- Have never completed an Environmental Farm Plan (EFP)
- Have an EFP completed more than 10 years ago
- Wish to be eligible for cost sharing funding with various programs under the Canadian Agriculture Partnership (CAP)

Computer workstations will be available for you to use.
EFP technicians will be on-hand to help you start, complete, or update your EFP.

**Tuesday, January 14, 2020
10:00 AM – 4:00 PM**

**Rocky View County Hall
262075 Rocky View Point
Rocky View County, AB**

This workshop is FREE to attend, and lunch will be provided.
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To Register Visit:

EFP-RVC2020.eventbrite.ca

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Turning common heifer development logic on its head

From my earliest memories of reading farm magazines and attending cattle management conferences or seminars until now, there have been many ideas and opinions about how to develop and select replacement heifers. I am about to offer a perspective that will differ from most of what you have heard or read during these many years. I have interspersed much of it in these articles during my time as a writer. Now I will try to put it in this one piece.

Heifer development not only can be, but *should* be much simpler than we typically make it. Selection and development go hand in hand. They facilitate each other.

Most of you, because of “expert” advice you have received, have been over-developing your heifers. You have selected the biggest and prettiest heifers based on biased and subjective

criteria. I want to suggest that you change that approach.

You will need to start where you are with the cattle that you have; so most of you will want to take a few years to get to the point I suggest. Each step will tell you how big the next step may be.

I think nearly every herd has some good cows. My definition of good—those that get pregnant, deliver and raise a good, not necessarily excellent, calf every year without you ever touching them except for routine immunizations. The rest are inferior. In the long run, you want those cows to be the mothers of your replacement heifers; so raise more of them.

How do you do it? You keep nearly all of your heifer calves. You only remove the few that are obviously challenged or inferior.

This will usually be less than 5%

(maybe not at first, but keep most of them). You then shorten the heifer breeding season as fast as you dare until your bull and/or AI exposure is not more than 30 days, ideally 24.

If you have calving dates from previous years, you can see what percentage bred in 24, 45 or 65 days and can get an idea of how many days to expose this larger group of heifers. Because you will be keeping some later-born heifers and not developing them to gain as rapidly in addition to shortening the breeding season, you will need to expect a lower conception rate.

Now, instead of trying to get the heifers to 65% of expected mature cow weight, 55% will be enough. You may want to take a couple of years to get to that point. However, many have done it quickly.

(Continued on page 11)



Wishing you and
your family a Merry
Christmas!

May your holidays be merry, bright,
and filled with family and friends.

REGARDS,
THE BOARD AND STAFF OF FOOTHILLS FORAGE &
GRAZING ASSOCIATION



(Continued from page 10)

I hope you see how this more moderate or “minimal” development plays into heifer selection. With less input and size, the ones that conceive in a short season are truly the good heifers. They are more closely adapted to your environment.

Now the arguments start to come:

I won't be breeding the best heifers. You don't know which ones are the best. Let the bulls and the environment tell you which ones are best. They are the ones that get pregnant. There are very few, if any, people that can look and tell which ones will breed.

I don't want to keep that many heifers. Why not? Yearling operations are usually more profitable than cow-calf operations; and you should winter these calves like stockers going to grass. The only added expense is use of the bulls or AI.

Open heifers should be nicely profitable. Many people are hesitant to keep more heifers because of the cost of development. If the cost of development is high, that is a problem; and unless you can change that, you shouldn't be raising your own replacements.

Don't tell me that you need to develop your own heifers because they are better. If they were better, you could get a good breeding rate with less development cost. The added value of yearling heifers should be significantly more than the added cost.

I would like to use the genomic tools to evaluate the heifers before breeding them. Why? Those tools might give you some genetic tenden-

cy information, but it won't tell you which ones will get pregnant in the first 24 days. The bulls will.

The average heifer calving in the second cycle cannot live long enough for her lifetime production to catch up with the heifers that calve in the first cycle regardless of other genetic differences.

That heifer's mother isn't good enough to keep the daughter as a replacement. You are selling the wrong one. Sell the mother. If you are using good maternal bulls, the heifer calf should have a good chance of being better than her mother. If you are not using good maternal bulls, you need to find them or raise them or become a terminal breeder.

I might soon have more pregnant heifers than I need. Good. Now you have a marketing opportunity. You may sell the excess bred heifers. Or my recommendation is to keep the bred heifers and sell enough late bred cows to make room for the heifers that are going to calve early.

Many areas have buyers for cows bred to calve later than your calving season. Also, as you remove late-bred cows, your calving season will get shorter and the latest born heifer calves will be older and more likely to breed. You can see how the positive effects begin to multiply.

I don't think those “underdeveloped” heifers will make good cows. Research done by Rick Funston at the University of Nebraska and Andy Roberts at the Land and Range Research Station in Miles City, Mont., plus a bunch of personal practical experience says that they will

make better cows than the ones I am calling “over-developed.”

If you want to help them along a little, do it from the time

they are diagnosed pregnant as a yearling until they are checked pregnant as a 2-year old. That is the most difficult 12-month period of her life. You would much rather sell an open yearling than an open 2-year-old.

Now let's ring up the pluses:

When you start putting many heifers into your herd that will all calve early in the calving season, you will soon be able to shorten the cow calving season by removing late bred (less efficient and less adapted) cows. As your calving season gets shorter, the latest born heifer calves will be older and more likely to breed. Weaning weights will also increase.

In future years, more and more heifers should be eligible breeders.

As more of these heifers come into your herd, you will be able to remove the less desirable cows. Soon you will get by with less supplemental feed and have an increased level of herd health.

New marketing opportunities will show up. Remember the ranchers who are terminal crossing or should be. They need your excess cows. Even though the late calving cows are a little inferior for you, they could work very well for the terminal breeders, especially after a few years into your program.

Two more points: I am convinced that the heritability of fertility, under minimal heifer development and reduced cow herd inputs, is significantly higher than the estimates of low heritability that we usually hear. You need to buy or raise bulls that will not undo what you are trying to accomplish with your heifer development and cow culling.

Author: Bruce Teichert, a consultant on strategic planning for ranches, retired in 2010 as vice president and general manager of AgReserves, Inc. Original Article can be found at <https://www.beefmagazine.com/cow-calf/turning-common-heifer-development-logic-its-head>

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There are extra challenges in wintering cows this year



Early weaning, supplement feed, and feeding vitamins earlier should be considered

With feed quality and quantity “all over the map this year,” producers face challenges weaning calves and maintaining cows, says a provincial beef and forage specialist.

“If calves were not provided with creep feed over the summer, weaning weights will be lower than in most years — as much as 150 pounds per animal,” said Barry Yarem-cio.

He suggests weaning calves 30 to 60 days early if cows have lost condition and are thin.

“The calves can then be put on a good ration to maintain good rates of gain,” he said. “Nutrient requirements for a dry cow

weight prior to the cold setting in. It is much easier for a cow to gain weight in the fall than in the cold winter months.”

Thin cows are another concern.

“If a cow is 200 pounds lighter than normal, a majority of the weight loss will be fat,” said Yarem-cio. “The loss of fat reduces the amount of insulation the cow has to shield itself against the cold. Heat loss increases energy requirements, which in turn requires the animal to eat more feed.”

A thin cow will need an extra 1,400 pounds of hay just to stay warm over the winter.

“For every 10 C drop below -20 C at noon, an additional two pounds of grain above the regular ration should be fed,” he said. “Over a three-week

are 25 per cent lower than for a lactating cow. Having lower requirements may result in the cows gaining back the

cold spell, it is possible for cow weight to drop 100 pounds or more if additional grain is not fed.”

Poor conditions this year may have lowered vitamin levels in hay.

“Instead of waiting until the cows are in the last trimester, feeding of vitamins should start now to prevent deficiencies and nutrition-related problems.”

Another issue is that most forages are very low in protein and energy this year. In addition to supplemental feed, consider “feeding of an ionophore such as Rumensin or Bovatec (that) will improve digestive efficiency and allow the animals to get more out of the feeds they are eating.”

Author: Alberta Agriculture and Forestry. Original article can be found at <https://www.albertafarmexpress.ca/2019/11/21/there-are-extra-challenges-in-wintering-cows-this-year-2/>

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FFGA MISSION & VISION STATEMENTS

Mission: Assisting producers in profitably improving their forages and regenerating their soils through innovation and education.

Vision: We envision a global community that respects and values profitable forage production and healthy soils as our legacy for future generations.

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THE PEST INSIDER

October 2019

Alberta's Pest Control Officers

As a pest control officer in Alberta, there are a few things we suggest you have and know. For most of you, this is merely a reminder and refresher of our training courses offered periodically.

1. You should have a knowledge of how and why Alberta has been able to maintain a rat-free status for over 68 years.

A. We started our rat program in 1950 before rats had a chance to get established in the province. Without a population of rats in the [province](#) we only have to eradicate rats as they migrate or hitch a ride into Alberta from other jurisdictions.

B. Overland migration (rats traveling from one building, farm or feed stack several miles to another) is possible only from the east. Remember, rats cannot live in Alberta's environment without human food or garbage and human shelter.

- I. Our north is too cold for rats to live and prosper.
- II. West is too mountainous for rats; they perish without human food and shelter.
- III. The south is too sparsely populated with people; terrain is either mountains open prairie with not enough continuous human food and shelter.
- IV. Our Eastern border has the famous **Rat Control Zone** where professional pest control specialists check every building, farm, feed stack, bin, and residence that has any possible rat habitant in the first 29 km's west from the Saskatchewan border. When rat activity is found, rat control is implemented.

C. Inside the Province of Alberta [The Agricultural Pest Act](#) requires every county, city, town, or municipality to name a pest control officer (PCO), who must respond to any rat reports or sighting. These PCOs take action to eradicate a confirmed rat sighting. A PCO can ask for assistance with the rat control when needed. Most often these confirmed rat reports are single rats that are displaced, lost, hungry and succumb to control measures quite easily or are killed by a dog, cat or bus. It is the PCO's responsibility to inspect the site for rat activity to ensure there is not more than one rat and the reported rat is eradicated.

2. Alberta has a 24 –hour hotline to report a rat sighting, **310-RATS**. Reported rat sightings are followed up with a PCO inspection when warranted. About two rat sightings a month are confirmed Norway or Roof rats. We get about three to four rat infestations a year, mostly in the Rat Control Zone.

3. "Rat-free" means we have no permanent breeding population of rats in Alberta. At any point in time, Alberta may not be rat-free until we eradicate the reported rats. Then we are rat-free until the next confirmed rat sighting.

4. County, municipal, city, or town PCO'S should have or be ready to purchase necessary Rat Control Equipment as listed below.

1. Rat snap trap	\$5	Suggest a trapper T-Rex
2. Rat bait station	\$20	A Tier 1 bait box (locked, pet proof, outdoor rated)
3. Rat bait anticoagulant	\$5	Single feeding bait suggested

For \$30, you can have the necessary equipment to handle most rat sightings.

"Today coming to work, I saw one of those, only in New York scenes, it was a rat who, had passed out, after choking on a pretzel" – D. Letterman

In This Issue

- Alberta's Pest Control Officers
- Northern Pocket Gopher
- Alberta Rat Update
- Wild Boar Update
- New Ekomille Rat

Some PCO's who live close to a hardware store that handles rat control supplies may prefer not to have the material in their offices or warehouses and purchase supplies when needed, especially if you average one complaint every five years or so. It should be noted that it is the **property owners' responsibility to control rats on their own property**. However, many may not know where to get the proper rat control supplies or how to properly use them. Often the rat is not on their property but in the city or alleyway. For Alberta to most efficiently remain rat-free, assisting property owners with rat control is a good idea.



We are extremely grateful for the many dedicated and excellent PCO's. Alberta couldn't remain rat free without you!! **Thanks!**

Northern Pocket Gopher

Large mounds of fresh earth in forage, pastures, crops, lawns and gardens are an annoyance to landowners but become a real pest problem for hay producers. Many Albertans have never seen one of these small gophers responsible for the mounds of dirt as these rodents seldom come above ground. These dirt pile culprits are usually misidentified as moles. We don't have any species of moles in Alberta, so tunneling, dirt piles, and mounds in fields and yards are a result of a Northern Pocket gopher invasion.

The Northern pocket gopher should not be confused with our better known "gopher," the Richardson's Ground Squirrel (RGS). The pocket gopher gets its name from cheek pouches or pockets that are used for carrying food and nesting materials. They rarely come above ground in the day

light but will occasionally venture out at night to forage close to their hole, and some will fall prey to predators. House cats and owls often prey on the pocket gopher as well as coyotes, foxes and weasels. House cats are notorious for bringing home a pocket gopher, which is then identified by a landowner as a rat. Since both pocket gophers and rats are seldom seen by residents of Alberta they often are misidentified.

The main features that distinguish the pocket gopher from a rat are its shorter tail and large clawed front feet. Pocket gophers are approximately 15 cm in length with a short, lightly furred tail. They are usually brownish-grey in color and have soft fine fur. The front paws have large claws that are used for excavating dirt. They have large incisor teeth and lips that can close behind the teeth to keep dirt out of its mouth while digging.

Often when a pocket gopher carcass shows up at a residence, it is mistaken for a Norway rat and reported to Alberta Agriculture and Forestry's (AF) 310-RATS line. AF staff respond to many such calls in the spring, summer and fall when pocket gophers venture above ground. Unlike the RGS, pocket gophers don't hibernate and stay active all winter. Dirt casing under snow banks are a result of pocket gopher winter activity.



Short tail in relation to 15 cm body length



Check pouches: Sharp claws

Trapping

Trapping is a safe, effective method to control pocket gophers in your yard or in small fields. Large areas of infestation are too time-consuming to control pocket gophers with traps. Several types and brands of pocket gopher traps are available.

To set traps:

Locate the main tunnel with a probe. The dimple in a mound is the entrance to the tunnel. Use a shovel or garden trowel to open the tunnel wide enough to set a trap; set trap as per the directions given.

Prevent light from entering the burrow by covering the opening around the trap with soil, sod or cardboard. Fine soil can be sifted around the edges to ensure a light-tight seal. If too much light enters, the pocket gopher may plug the burrow with soil, filling the traps and making them ineffective. Leave the air hole open at the back of the trap.

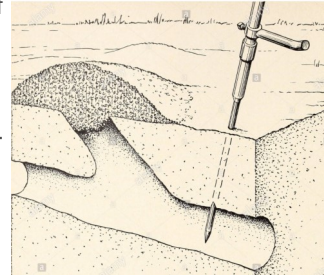
Check traps often and reset them when necessary. If a pocket gopher is not caught within three days, reset the traps in a different location.



Dimple in mound

Probing for Burrows

Successful trapping depends on accurately locating the pocket gopher's main burrow. To locate the burrow, you need to use a probe. Probes are commercially available or can be constructed from a pipe and metal rod. An enlarged tip that is wider than the shaft of the probe is an important design feature that increases the ease of locating burrows. Locate areas of recent activity where fresh mounds with dark, moist soil exists. Fresh mounds that are visible above ground are the plugged openings of lateral tunnels. The main burrow can be found by probing about 25 cm's (10 inches) from the plugged side of the mound (i.e., dimple side of mound). It is usually located 15 to 30 cm's (6 to 12 inches) deep. When the probe penetrates the burrow, there will be a sudden, noticeable drop of about five cm's (2 inches). You may have to probe repeatedly to locate the main burrow.



Poisoning

There are several poisons registered for controlling the Northern Pocket Gopher. Rozol and Ground Force are anticoagulants, Rodent Pellets are a Zinc Phosphide product, and SARM has a RTU strychnine registered for pocket gopher control. Limited success has been found with these poisons mostly due to palatability. Pocket gophers eat roots and limited amounts of forage around their hole and don't eat cereal grains or extruded pellets very readily. Consequently finding a supplier handling pocket gopher poisons for sale in Alberta is difficult. Poisons are administered by a hand probe or through a burrow builder machine pulled by a tractor. Since control has been so poor in the past; these devices are not readily available here in Alberta.

The trapping and probing section was courtesy of Strathcona County

Alberta Rat and Pest Update

This past summer was relatively slow with confirmed rat reports. We had one live roof rat picked up at a residence in Calgary in July and two roof rats confirmed in Medicine Hat in September. All reports turned out to be single rat imports and were disposed of quickly. This quarter we had our first rat infestation within the province since the Bon Accord infestation in 2015. A Paper recycling plant in Calgary had a small infestation this summer that was quite elusive to eradicate. Paper recycling plants are difficult to determine and find rat activity in the mounds of loose paper and baled paper in a large warehouse. Since truck loads of paper brought in from everywhere including other provinces has some pizza, hamburger, and fast food leftovers scattered throughout it is hard to identify the food source and place suitable baits for rats. Once the nest site was located the roof rats readily took our soft pac baits, especially with a smear of peanut butter on the pac. We also resorted to water baits to ensure the eradication. We are not positive on the number of rats destroyed but at least 6 rat carcasses were eliminated. We suspect there were more rats destroyed, but not discovered in the maze of paper. Rat activity at the site has now ceased. Baits will be maintained indefinitely as paper recycling plants that accept paper from out of province are a risk for reintroduction of a dispersing rat.



Agriculture and Forestry is having two urban **rat control seminars** this fall to help PCO's identify and handle rat complaints in their jurisdictions. Recently we had a situation where the City and the County PCO's were not equipped to handle a rat report. We want to train up all our staff to be ready when the call comes. It is understandable that PCO's who don't get a call one year to the next can be caught off guard in rat control. On **Oct. 24** at 10:00 AM in the Provincial building in Airdrie (97 East Lake Ramp NE) and on **Nov. 13** at 10:00 AM at the Vegreville Ag. Society (4753 45 Ave) we will have a 2 hour training in rat control with updates on our wild boar program. There is no cost and all PCO's are invited, we just ask you to send us an email to phil.merrill@gov.ab.ca if you plan on attending.

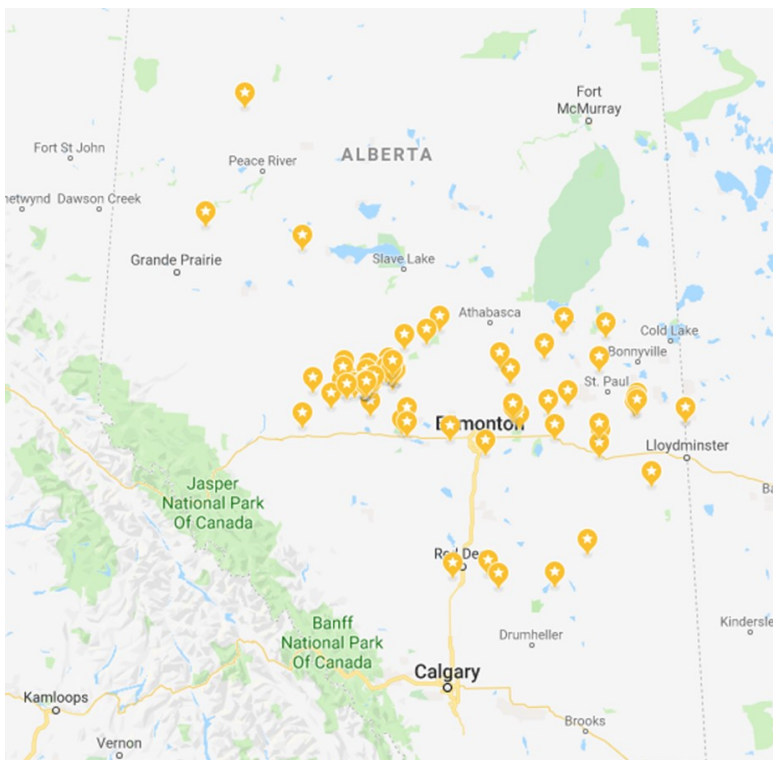
Wild Boar Update

Agriculture and Forestry's Wild Boar Eradication project has teamed up with the Environment and Parks Conservation K9 Unit. Three detection dogs have been trained to locate wild boar scat. Recent field trials have shown that this is a very effective means to survey an area for the presence of wild boar. The dogs will be particularly valuable when doing post-eradication monitoring to help maintain an area to be free of wild boar.

Environment and Parks biologists are also evaluating the use of eDNA as another tool to detect wild boar presence. Water samples are taken in areas suspected of wild boar infestation. The water samples can then be analyzed to detect different species that came in contact with that particular water body. In this case the analysis targets wild boar DNA. This technique has proven valuable in other jurisdictions and will further complement our ability to monitor areas for wild boar infestation.

We are mapping each wild boar occurrence to get a better idea of the extent and scope of wild boar infestations in the province. Please advise your producers that they can call 310-FARM to make a wild boar report or get more information concerning wild boar in Alberta.

Please continue to send reports of wild boar at-large conflicts or sightings to the Wild Boar At-Large Eradication Project lead, Perry Abramenko at 403-627-1177 or email at perry.abramenko@gov.ab.ca.



Map of Reported Wild Boar Sightings in Alberta

New York City's new Ekomille rat trap: A humane and safe rat control solution

New York City is employing the new rat control trap "Ekomille" to try to reduce rat populations in their city. The trap uses no poisons or harmful substances. Rats are attracted to the smell of natural food, then a sensitive mechanism drops the rat into a reservoir of vinegar or alcohol. The trap can be set to allow the rats to feed and get used to eating in the trap before the trip mechanism is activated. Up to 80 rats can be captured before the trap has to be reset. Rats die humanely in a pickle solution.

Ecologically friendly and safe, Ekomille was developed as an organic pest control device from South Africa. Rat Trap Incorporated sell these traps for about \$400 each.

NYC seems to be the never ending jurisdiction that continually fights the rat with limited success. They have been famous for their rat population and even though it was reported there were more rats in NYC than people, the population of rats being estimated at no more than three million would mean rats are outnumbered three to one. The city famous for the pizza thief rat has decided to try a pilot project with the Ekomille rat trap in the Bronx. If it works out they intend to expand the use throughout the city.

NYC has tried many different attacks on the rat. Last year, the Pest Insider reported NYC's pilot project of Dry Ice being placed down rat burrows as a rat control measure to eradicate rat populations. This has been met with limited success. NYC was considering turning loose hundreds of feral cats to reduce rat numbers. With the help of video trail cameras in the City of Chicago, very few encounters were seen between rats and cats. And after reams of video footage only one cat was ever seen killing a rat. Most cats avoided encounters with the rat, as a viscous rat appears to not be easy prey for a house cat. The only reduction in populations when feral cats are released were found in song birds.

Several years back SenesTech sold NYC an expensive trial of a city-wide scale of rodent contraception. Our October 2016 Pest Insider has information on ContraPest, the pink liquid for sterilizing rats sold by the Arizona company SenesTech. Again success has been limited in reducing NYC's rat populations with contraceptives.

NYC has also tried to get rid of rats by using Mint-X rodent-repelling trash bags. This multi-million dollar venture would have been better spent in improving the handling of domestic garbage quicker and more efficiently rather than trying to protect garbage with plastic.

Each year the number of rat reports in NYC seem to soar with a 38 per cent [increase in sightings since 2014](#) . New York's attempts to curb the complaints seems to do nothing more than spur a healthy industry of rat [entrepreneurs](#) . Let's hope this Ekomille trap is a rat-control success.



ECOMILLE the Eco friendly humane and safe rat trap

Contact Us

310-RATS (7287)

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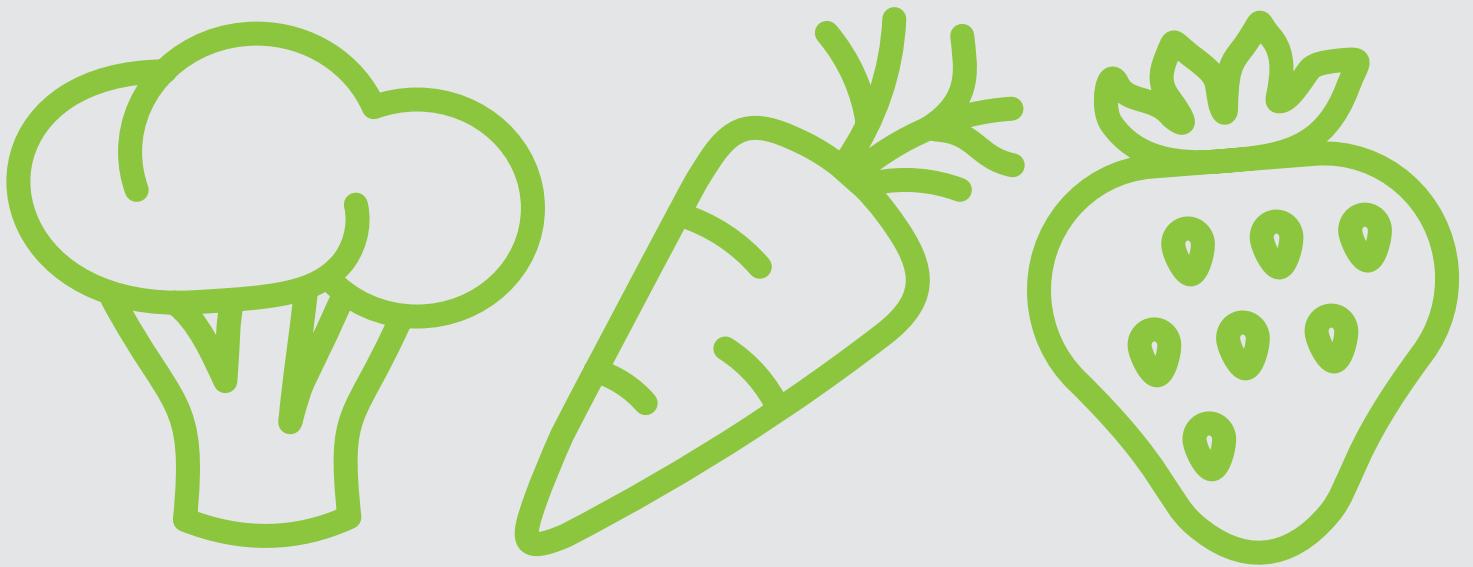
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Safe Food for Canadians Regulations



How does it affect you?

What does *Safe Food for Canadians* mean for fresh produce farmers?

The *Safe Food for Canadians Act* and Regulations (SFCR) came into effect on Jan. 15, 2019. This legislation introduced modern food safety requirements for food businesses.

New regulatory requirements:

- **Licenses:** food businesses that import food, including fruits and vegetables, or grow/prepare food for export or to send across provincial or territorial borders (interprovincial sales) must be licensed.
 - Licenses cost [\\$250](#) and are valid for two years.
 - Fresh fruit and vegetable operations are exempt from Canadian Food Inspection Agency (CFIA) license requirements only if their activities and produce sales are within Alberta.
- **Preventive control plans (PCP):** outline potential risks to food safety and the steps to control them must be in place.
 - Businesses that have one of the accepted food safety programs in place such as CanadaGAP are already meeting the PCP requirements.
- **Traceability:** businesses must trace their food back to their supplier and forward to whom they sold their products. Retailers are the exception to the full traceability requirement, as they will only have to trace the food back to their suppliers, not forward to the consumers purchasing it.



By developing and implementing the preventive controls required under the consolidated regulation, food business will be positioned to produce or import safe products that their customers can trust. Their improved traceability records will also mean more efficient and effective recalls and will minimize economic losses in the event of a recall.

Some of the new requirements are effective immediately, while others will be phased-in. Refer to the [SFCR timelines](#) to find out when you will need to comply.

Small businesses that make \$100K or less in gross annual food sales are required to have preventive controls, such as sanitation and pest control in place, but will not be required to have written preventive control plans. This exemption does not apply to a number of product categories including businesses involved in processed fruit or vegetables.

To determine when your business will need to meet the new requirements under the *Safe Food for Canadians Regulations* check out [Getting started: Toolkit for food businesses](#) on the CFIA website.

The toolkit will help you quickly determine the following:

1. Find out when you need a licence by using the [Licensing interactive tool](#)
2. Find out if and when you need a PCP by using the [Preventive Control Plan interactive tool](#)
3. Find out what traceability requirements apply to you by using the [Traceability interactive tool](#)
4. Review [Understanding the Safe Food for Canadians Regulations: A handbook for food businesses](#)

Examples of produce covered by the SFCR commonly grown in Alberta

Apples • Apricots • Artichokes-globe-type • Broad beans • Broccoli • Brussels sprouts • Cabbages • Chinese cabbage • Cantaloupes • Carrots • Cauliflower • Celery • Cucumbers • Currants • Dandelion leaves • Fennel-florence • Garlic • Gooseberries • Grapes • Green beans • Herbs • Jerusalem artichokes • Kale • Kohlrabi • Leek • Lettuce • Other melons • Microgreens • Mushrooms • Mustard greens • Onions • Parsnips • Pears • Peas • Peppers • Plums • Plumcots • Radishes • Raspberries • Rhubarb • Rutabagas • Scallions • Shallots • Snow peas • Spinach • Sprouts • Strawberries • Summer squash • Swiss chard • Tomatoes • Turnips • Watermelons

7 Key Food Safety Requirements



Water: Water that is intended or will come in contact with produce or food-contact surfaces must be identified and potential hazards assessed. Assess the water quality with inspection and periodic testing requirements.



Biological Soil Amendments of Animal Origin: Consider the types of treatment, methods of application, and time intervals between applications of soil amendments – including manure, compost/compost tea and other by-products – and crop harvest. Knowledge of origin and handling of these amendments is a requirement.



Prevention of Contamination by Animals: Deterrents are used to keep animals away from crop fields and sources of water used for irrigation. Monitor for wildlife intrusion and produce visibly contaminated with animal feces is not harvested.



Training: Training is provided and documented for all employees handling product/packaging materials/food contact surfaces and biosecurity.



Health and Hygiene Practices: All employees follow individual health and hygiene practices, including hand washing, not working when sick and maintaining personal cleanliness. Businesses require written health and hygiene practice SOPs.



Equipment, Tools, and Buildings: Follow all the requirements for equipment and tools that come into contact with produce, as well as those for building and other facilities involved with produce, including sanitation SOPs.



Sprouts: Separate standards for sprout production, including treatment of seed before sprouting and testing of spent irrigation water for pathogens.

Summary of Timeline

SFCR Requirement	Title: Dairy products; eggs; fish; honey; meat products; processed egg products and processed fruit or vegetable products	Fresh Fruits or vegetables	All Other Foods		
			More than \$100K in annual sales and more than 4 employees	More than \$100K in annual sales and 4 employees or less	\$100 K or less in annual food sales and 4 or fewer employees
License	Jan. 15, 2019	Jan. 15, 2019 (N/A for growing and harvesting)	July 15, 2020	July 15, 2020	July 15, 2020
Traceability	Jan. 15, 2019	Jan. 15, 2019 (except growing and harvesting)	July 15, 2020	July 15, 2020	July 15, 2020
		Jan. 15, 2020 (growing and harvesting)			
Preventive Controls	Jan. 15, 2019	Jan. 15, 2020	July 15, 2020	July 15, 2021	July 16, 2021
Written PCP	Jan. 15, 2019 (not required for maple products and honey if annual food sales are \$100K or less)	Jan. 15, 2020 (not required if annual food sales are \$100K or less)	July 15, 2020	July 15, 2021	Not required if \$100K or less (regardless of number of employees)

For Additional Resources, Tools and Information

- [SFCR Requirements for Fresh Fruits and Vegetables](#)
- [Commodity Specific Requirements](#)
- Factsheet: [Growers and harvestors of fresh fruit and vegetables](#)
- [Food Business Activities that require a licence under the Safe Food for Canadians Regulations: 5.8 Fresh Fruits or vegetables](#)
- [My CFIA](#)
- [Canada GAP](#)
- [Canada Horticultural Council](#)
- [Canadian Produce Marketing Association](#)
- [Preventive controls for food – fresh fruits or vegetables](#)
- Links to Question and Answers: [Safe Food for Canadians regulations](#)
- [Agriculture and Agri-Food Canada](#)
- [Alberta Agriculture and Forestry](#)

For more information call the Alberta Ag-Info Centre toll-free at 310-FARM (3276).