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AND GRAZING ASSOCIATION**

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GRASSROOTS NEWS & VIEWS

March 2022

Vice Chairman's Note — Daniel Doerksen

Hello,

After a bitter cold January, I was starting to get worried about our feed supply through the rest of the winter if the extremely cold temperatures continued much longer. February however brought beautiful weather for the most part in our area. At times we were in the plus 15 range. It melted what little snow we had but it also opened up some winter grazing and allowed us to clean up some cover crops which had been iced under. I have heard of hay prices as high as \$400 a ton this last week so every day we can graze is money saved. The lack of snow in southern Alberta has some concerned about the potential lack of runoff to fill dugouts. We need a good heavy wet snow in March to help with this issue. Hopefully it comes before many start calving.

Over the last month we have been working on our seeding plan for next year. Watching commodity prices climb it's hard not to want to grow more cash crops. Over the last few years we have tried to maximize the growing days on our farmed land by growing a cash or feed crop and having another under seeded crop coming behind it for fall and winter grazing. This has allowed us to reduce the feeding days on our cow herd and improve the soil health by keeping a living root and putting manure back on the fields. Weed control has been something to consider for us when choosing which crops work well together. We have found that simple works best. A 20 species blend is nice and all,

but if weeds take over it's a lot of expensive seed gone to waste. With the record high prices that we have been seeing for commodities I am hopeful that cattle prices will soon start to follow that trend.

With the lifting of restrictions being announce in February and more to come in March we look forward to putting on more in person events. I have had a hard time getting motivated for Zoom meetings and Webinars and look forward to getting out and visiting at field days again. Make sure to check out the Foothills Forage website to get a complete listing of events that are being planned for this spring and summer. Don't forget about the Foothills Forage AGM March 29, 2022, in High River. We look forward to an in-person meeting with guest speaker Danielle Smith.

Hope to see lots of people out at events this year!

Daniel

*Rye grass under seeded to a barley crop for fall grazing.
Photo: Daniel Doerksen*



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Soil & Grazing: Biology Not Geology



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On the cover: New born Calf. Photo: Lee Gunderson

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Soil tests more valuable than ever



Oftentimes, finding the right formula for applying fertilizer can be a delicate balancing act for farmers. Apply too much or in the wrong place, you've wasted some money. Apply too little or not where it'll benefit most, and you can lose money by failing to maximize your yield potential.

And as soil fertility expert Don Flaten points out, with prices continuing to climb, it's more important than ever to be stringent with your fertilizer dollars.

"Fertilizer that's overapplied is a waste of resources," he says. "But if it's underapplied, then you don't reach the crop yields you're hoping for, and you can't capitalize on these exceptionally high crop prices."

Flaten, who retired last year after 33 years as a member of the University of Manitoba's department of soil science, says he believes the high cost of fertilizer means the penalty for overapplying can be severe as well.

"We've got this double-edged sword situation, where the combination of high crop prices and high fertilizer prices make it very important to hit the target in terms of the optimum rate of fertilizer," he says.

The fact that Prairie farmers are coming off of a drought year complicates matters even more.

"One of the most important steps in any fertilizer program is estimating the yield potential of the crop so you can match its nutritional requirements with a combination of the soil's reserve of nutrients and the applied fertilizer," says Flaten.

"If you don't know whether you're going to get a 30-bushel wheat crop or a 90-bushel wheat crop because your

moisture reserves are pretty scarce, that makes the decision even more difficult."

There can be a silver lining though. Many fields will likely have plentiful soil reserves of nutrients like nitrogen and sulphur due to last year's drought, which reduced crop growth and nutrient uptake as a result.

"If there wasn't sufficient rainfall to cause nitrogen to be lost by leaching or denitrification, we end up with, typically, high concentrations of leftover nitrate nitrogen, for example," says Flaten.

"This means if we capitalize on that going into this year's crop, we don't have to apply as much nitrogen fertilizer because there is already a reserve of leftover nutrients."

Ross McKenzie, who conducted soil and crop research with Alberta Agriculture for 38 years and is currently a Grainews columnist, agrees. He believes most Prairie farmers who saw a significant yield reduction in their cereal and oilseed crops last year "can probably cut their nitrogen fertilizer rates back by 20 to 50 per cent, or perhaps even more."

Consider soil testing

Nitrogen levels can also vary widely within fields after a dry year, especially those with undulating terrain and variable soils. A field's management history can also contribute to nutrient variability, Flaten notes.

"If one portion of a field has a different management history — for example, it was in perennial forage or it received manure many years ago — we can see the impact of that, even in situations where the soil itself and the topography seems to be uniform," he says.

Of course, the best way to know where and how much nutrients are available to crops is to soil test your fields.

McKenzie maintains the more variable the soils or the landscape within a field, the more important it can be to consider soil testing for variable-rate fertilizer applications. He says agronomists can help farmers identify different management zones — upper slopes, mid-slopes, lower slopes and depressional areas, for instance — which can be sampled separately.

"Then you can develop a different fertilizer recommendation

or blend for each of those uniquely different areas in your field, and that becomes a much more efficient way to spend your fertilizer dollar," says McKenzie.

Flaten points out soil testing serves another useful purpose by helping farmers decide where to best grow their crops.

"After a drought like last year in many areas of the Prairies, soil testing can be a very useful tool to guide the selection of crops for different fields," he says.

"Crops like canola and wheat that use up large amounts of nitrogen can be a more profitable crop to put on a field that's high in nitrogen (rather) than a legume crop like soybean or lentil, especially in a year when fertilizer prices are high."

Most farmers prefer to do soil sampling after harvest because there's more time to make fertility plans and there's simply too much to do in the short time before seeding. However, there could be a case made for doing some soil testing this spring.

"If you come out of a drought year and you sample in early September, as long as it stays dry (until) freeze-up, you're not going to see much change," McKenzie says. "But if you do get some significant rains after you soil sample, then the nutrient status can start to change, particularly nitrogen and sulphur."

Flaten also sees some benefits to soil testing in the spring, in certain situations.

"The challenge with any kind of spring testing is, first of all, you have a very narrow window between the thawing of the soil and planting, and that makes it quite challenging to squeeze in the sampling," he says.

"But it can still be helpful, especially in areas which might have excess moisture, like depressional areas of a field or in regions where they had lots of fall rainfall ... or there's ponding in the spring."

If you're worried about seeding your crops in time, one strategy Flaten suggests is to soil sample just prior to planting and then apply a moderate rate of nitrogen even though you're lacking

(Continued from page 3)

information on nutrient levels. Then, you can do a followup application of nitrogen if soil tests determine it's needed and if the weather co-operates.

"There are ways of squeezing in spring testing without compromising timely planting of crops, but it is tricky," says Flaten.

"That's why the logistics of spring sampling are challenging and, furthermore, applying nitrogen fertilizer after planting will only be effective if you have rainfall to move the nitrogen into the root zone. If the weather stays dry after the nitrogen is applied on the surface of the soil, the fertilizer is not going to be very effective."

Focus on nitrogen and sulphur

If you do decide to go ahead with some soil sampling this spring, what types of tests should you get?

McKenzie says he believes your basic tests for nitrogen, phosphorus, potassium and sulphur should be sufficient in most cases. He says nitrogen and sulphur are the nutrients you want to pay closest attention to, since they're much more mobile in the soil than either potassium or phosphorus.

"Typically, phosphorus and potassium are relatively stable. You don't see a lot of change in those numbers from one year to the next," he says. "Nitrogen levels can change quite dramatically. That's the one I'd be most interested in."

McKenzie says you'll generally find good sulphur levels at depth in Prairie soils, particularly in the brown and dark brown soil zones, but it's not uncommon to see sulphur deficiencies in surface soils.

Both McKenzie and Flaten recommend sampling soils down to a 24-inch depth when testing for nitrogen and sulphur.

"There are some people who recommend sampling to shallower depths, but the data we have has shown that doesn't work very reliably," says Flaten. He maintains for potassium and phosphorus, sampling surface soil at the zero- to six-inch depth is usually just fine.

McKenzie points out that most soil test correlation research across the Prairies with phosphorus and potassium is with the zero- to six-inch soil depth.

There are also soil tests for other macronutrients like calcium and magnesium, micronutrients, such as copper, iron, manganese, zinc and boron, and

soil characteristics like soil pH, electrical conductivity (EC), organic matter (OM), cation exchange capacity (CEC) and base saturation (BS).

For McKenzie, that doesn't mean you necessarily need them. "When the same locations are soil sampled each year, soil texture, cation exchange capacity and base saturation don't change and do not need to be analyzed every year," he says.

"A lot of agronomists and labs, they like to do a whole suite of analyses, and many of those just aren't required. For example, if a farmer has been doing testing of micronutrients every now and then and seeing that his micronutrients are all adequate, there's no point in doing that next spring," McKenzie adds.

"Odds are if we had a drought year, there's going to be a certain level of nutrient carryover and maybe a bit more release of organic matter, so you're probably less likely to run into micronutrient problems."

Flaten says given the high cost of fertilizer, he recommends farmers be conservative with their supplemental applications of micronutrients and to apply them only if they're required, according to provincial recommendations.

"It's difficult enough financially to supply adequate N, K, P and S without spending money on nutrients that are unlikely to be required," he says. "At the same time, if a soil is low in micronutrients, that information is important to acknowledge and deal with that deficiency, just like any other nutrient deficiency."

Flaten says he believes if producers can manage it, getting a full assortment of soil tests done can be beneficial for their farms as it allows them to track soil health over time.

"Getting a complete analysis is probably a sensible thing to do, because the whole package is not that much more expensive than getting only a few tests done," he says. "Once the samples are ready to go, the analysis doesn't take long."

"Taking samples from different parts of your field on a year-to-year basis will supply data for tracking things like organic matter, salinity, pH — measurements that don't change too much from one year to the next. If you sample them every year, you have a better idea of what general trends you're

dealing with in terms of soil quality," Flaten adds.

"For example, I know some agronomists and farmers who have been tracking their soils quite carefully over the last 20 or 30 years, and they are noticing that their soil pH is dropping. They started off with soils that were neutral, and now they've got soils that are becoming acidic, and they're having to confront some of those challenges of dealing with acid soils."

Select the right lab

Cost shouldn't be the only consideration when choosing a lab for soil testing, McKenzie stresses. You also want to make sure your soil samples are being tested and analyzed the right way, using the same soil test methods year after year for consistency.

Most soil-testing labs in Western Canada, says McKenzie, "tend to be fairly reasonably priced and do a fairly good job." If the soil samples are going to a lab outside of Western Canada, farmers must ensure they are assessed according to local and regional fertilizer research and recommended fertilization practices and standards for each Prairie province, he adds.

As an example, McKenzie cites the different tests for measuring phosphorus — in Alberta and Saskatchewan, the recommended technique is the modified Kelowna method, but in Manitoba it is the sodium-bicarbonate method, due to differences in predominant soil types in the Prairie region (also see McKenzie's column on page 18). Producers should ensure the recommended method for their province is used for best interpretation and fertilizer recommendations.

McKenzie says it's also important to have a trusted and skilled agronomist to work with to help with sampling, lab selection and soil test result analysis.

"You want to make sure the agronomist you're working with has been very well trained and is very knowledgeable and, hopefully, has at least five or 10 years of experience working with farmers in terms of making fertilizer recommendations," he says.

Reprinted from Grain News

Author: Mark Halsall

Original Article: <https://>

www.grainnews.ca/news/soil-tests-more-valuable-than-ever/

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Perennial Forages for Saline Seeps



Planting perennial forages into saline seep areas is one of several recommended practices for salinity control.

Saline seeps result when salt-laden groundwater rises to within a few metres of the soil surface. Once the water is in the soil's capillary zone, evaporation as well as cohesive and adhesive forces act like the wick in a kerosene lamp to draw saline water into the root zone or topsoil. Water then evaporates and the salts remain, gradually accumulating over time.

Forage establishment is especially tough in saline environments because of the harsh soil conditions for germination and emergence, along with heavy competition from salt-tolerant species like kochia or foxtail barley.

Forages differ in their salinity and flood tolerance, with several appropriate species available depending on the specific farm situation.

How these controls work

Perennial forages help control salinity by lowering the existing groundwater, which allows salts to flush downward in the soil profile, depending on the dynamics associated with groundwater recharge.

The forages also provide soil cover and shading to help reduce evaporation, thereby reducing the capillary rise of salty water compared with bare soil areas. These controls are only possible when the salt concentration in the seep is not so high as to completely prevent all plant growth. Perennial forages are an effective way to help control seep expansion, but they cannot reclaim the area for annual crop production unless the groundwater source is controlled first.

Plant species

The choice of which salt tolerant forage or forage mixes to grow will depend

on the desired land use for the affected area. For example, species like tall wheatgrass or Nuttall's salt grass may be suitable for reclamation or wildlife habitat, but if livestock production is the goal, then forage mixes should include productive, long lived and relatively palatable species more suitable for grazing or hay production.

Forage mixes are often recommended because of the extreme variability and dynamic nature encountered within typical saline seeps. Some forage species can establish in strongly saline zones while others are more suitable as livestock forage with moderate salinity tolerance. Soil testing will give a good indication of the range of salinity in terms of electrical conductivity (EC). Table 1 shows the relationship between the salinity rating and EC values.

Table 2 lists the characteristics of various salt-tolerant grass species recommended for seeding into saline seeps. A degree of flood tolerance is usually a requirement because saline areas are often temporarily saturated in the spring.

Some of the sod-forming species like green wheatgrass and creeping foxtail, once established, have the ability to creep into adjacent areas and can also choke out salt tolerant weeds like kochia or foxtail barley. Note that creeping foxtail is only moderately salt-tolerant in the seedling stage and, thus, may be difficult to establish. It also has poor drought tolerance.

Slender wheatgrass is recommended only when mixed with another grass species. It is quick to establish, so it provides good cover while the main grass species becomes

established. However, slender wheatgrass will die out within two or three years, once the main grass is established. If possible, plant slender wheatgrass and the main species in separate rows.

If the area is severely saline, very salt-tolerant forages like Nuttall's alkali grass can be established for reclamation purposes. However, this species is not suitable for livestock forage production.

Note that alfalfa seedlings are only slightly to moderately salt-tolerant, even though mature alfalfa can be moderately

to strongly salt-tolerant. Thus, alfalfa is not suitable for planting into saline seep areas. Many of the common seed industry mixes include some alfalfa, but it will usually only establish on the slightly saline seep edges.

Forage nutritional issues

Care should be taken when feeding crops grown in saline seeps to livestock. Research by Agriculture and Agri-Food Canada has shown that high levels of sulphate and trace metals are common in plants grown in saline seeps. If there is any concern about forage quality, the feed should be tested and reviewed by a livestock nutritional specialist.

Hay mixes

When selecting a mix for hay production, choose grasses that can be harvested easily. Low growing or basal growth grasses are difficult to swath and bale.

Grazing mixes

Select forage species that are suited to the conditions in the seep and to your grazing needs. Wheatgrasses are good choices for spring pasture due to their lush spring growth, but become coarse and rank in the late summer and fall.

Wildrye grasses are good choices for fall pasture because they usually start slowly in the spring, but produce good forage and cure well on the stem.

Stand establishment

Establishing vegetation on a saline seep can be very difficult. One option is to seed in the fall when the seeps are dry and accessible. Seeding rates for saline seeps should be double those for non-saline areas. Several salt-tolerant forage mixtures are available from different seed suppliers, each with suggested planting rates.

For all types of saline seeps, plant salt-tolerant grasses in an area larger than the visibly saline area to ensure good control. For saline sloughs and depression bottom seeps, plant salt-tolerant grasses in a band around the saline wetlands. This band should cover the visibly saline area and extend an additional 20 to 60 meters further.

(See next page 7 reference tables)

Author: Agri-Facts

Original: Alberta Ag-Info Centre

Table 1. Salinity rating and electrical conductivity value for upper soil layers

Soil depth (cm)	Non-saline	Weakly saline	Moderately saline	Strongly saline	Very strongly saline
0 - 60	<2 dS/m*	2 - 4 dS/m	4 - 8 dS/m	8 - 16 dS/m	> 16 dS/m
60 - 120	<4 dS/m	4 - 8 dS/m	8 - 16 dS/m	16 - 24 dS/m	>24 dS/m

* dS/m = deciSiemens per metre, a unit of measure for electrical conductivity within a saturated soil paste extract from the soil.

Table 2. Grass species recommended for seeding into saline seeps

Species	Salinity tolerance*	Sod or bunch	Rate of establishment	Longevity	Winter hardiness	Flood tolerance	Drought tolerance	Livestock palatability
creeping foxtail	high	sod	average	long	good	high	poor	good
meadow foxtail	medium	sod	average	long	good	high	poor	fair
smooth bromegrass	medium	sod	slow	long	excellent	medium	good	good
meadow bromegrass	medium	sod	slow	long	excellent	medium	good	good
slender wheatgrass	high	bunch	very fast	short	good	medium	good	fair
intermediate wheatgrass	medium	sod	fast	short	excellent	medium	good	good
pubescent wheatgrass	medium	sod	fast	short	excellent	medium	good	good
tall wheatgrass	high	bunch	fast	long	excellent	high	poor	poor
western wheatgrass	high	sod	fast	long	excellent	high	good	good
NewHy wheatgrass	high	sod	average	long	excellent	medium	good	good
green wheatgrass	high	sod	average	long	excellent	medium	good	good
Russian wildrye	high	bunch	very slow	long	good	poor	good	good
altai wildrye	high	bunch	very slow	long	excellent	medium	good	fair
beardless wildrye	very high	sod	very slow	long	good	medium	good	fair
Nuttall's alkali grass	very high	sod	average	long	good	medium	good	very poor

* Salinity tolerance: medium - tolerates up to 6 to 8 dS/m, high - tolerates up to 8 to 12 dS/m, very high - tolerates greater than 12dS/m. Source: Adapted from original by Henry Najda, Alberta Agriculture and Food.

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2022 Annual General Meeting



MARCH 29, 2022 | 11:45 AM
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- AGM Business Meeting will begin at 12:45pm
- Keynote Address from Danielle Smith to begin at 2:00pm
- Cost - \$20.00 for FFGA Member
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*** Please note, you must be a member in good standing to vote during the Business Meeting. Memberships can be purchased online at*

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Danielle Smith

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Biometrics and artificial intelligence may be coming to a ranch near you



Photo: Courtesy OneCup AI

Like the facial recognition technology now used on smartphones, a new livestock identification technology is using artificial intelligence to keep tabs on cattle.

Created by Canadian company OneCup AI, Bovine Expert Tracking and Surveillance, or BETSY, uses artificial intelligence to identify and monitor cattle through facial recognition technology.

Mokah Shmigelsky, founder of OneCup AI, grew up in the ranching community and got the idea for this technology during a family reunion. When a beef producer cousin mentioned the annoyance of losing ear tags and asked if computer vision could be used to identify cattle, Shmigelsky's husband Geoffrey, a computer scientist specializing in artificial intelligence, asked for videos of the cattle to try it out.

Using that footage, the Shmigelskys created preliminary algorithms on the cattle in the fall of 2019. "We discovered that you could identify Black Angus just off the get-go with up to 95 per cent accuracy," says Shmigelsky, noting that cattle with variances in hide colour and patterns are easier to identify accurately. "Since modifying our algorithms, we're reaching 100 per cent accuracy on Black and Red Angus cattle."

Using its 360 Live ID platform, BETSY can identify cattle "from almost any angle and at a considerable distance," as stated on its website, using the individual animal's appearance to create a visual ID in its system. The facial recognition ability can link to existing identification systems by reading tag numbers, and there are plans to be able to read RFID tags and link to the individual animal's profile in the future.

Beyond animal identification, discus-

sions with producers and industry partners helped them to determine other useful metrics to monitor, such as calving, estrus detection and health indicators. "We discovered because computer vision is a scalable product with very little additional hardware required, just more training and algorithms, that there was more that can be done with using BETSY," she says.

BETSY tracks different animal activities and duration of activities, including monitoring newborn calf activity. It also checks health indicators, including coughing, visual signs of depression, lameness and arching of the back. The technology also monitors nutritional intake and animal growth, and it can even be used to automatically fill out shipping manifests using an animal's data on file.

Producers are sent four to six security cameras, based on their operation's needs, a Wi-Fi upgrade kit and the BETSY Box, which is a tiny computer. "The cameras send their output to this box, and that's where the brains of BETSY lie. So she either analyzes the footage right on-site with this little tiny computer, or if it needs more analyzing, then she sends that data to the cloud," says Shmigelsky.

"We wanted to make it very easy for all producers, regardless of the technology level, to be able to use it. So all they need to do is plug it in, turn it on and she starts identifying their cows."

Producers can access the information through their phone or computer, including live video feeds, historical video and datasets for individual animals and the entire herd. The program will send the producer text or email alerts in the event of something urgent, such as a calving issue or animals getting out.

The company has tested the technology at 20 beta sites across Canada, with some sites using this technology to monitor bison, sheep, horses and elk, and are now launching an early adopter program.

"We're limiting it to about 100 ranches in Canada, and basically you get a discount on the system to run it for a year," she says. "Throughout the year we'll be adding other features that pro-

ducers have identified to us as of importance, and then those will automatically get downloaded to those systems."

Shmigelsky anticipates the full commercial launch of BETSY will take place in late 2021.

Shmigelsky is hopeful that BETSY's monitoring abilities will be beneficial to producers throughout the year. "Because it's so easy to implement on the ranch and there's very little risk involved, I think it's going to enable producers to see what's possible in getting data and analytics on their herd and then making choices later on as to how to optimize their herd," she says.

"Most of our producers that we've spoken with don't have a lot of analytics on their animals, and this is a way where they can benefit from those analytics without having to put in the man-hours to analyze their herd themselves."

Using biometrics to track growth

Behan's work with infrared and multispectral cameras for livestock identification, health and growth tracking in Europe and China provided the expertise for Alpha Phenomics, a new imaging technology company.

"I said, 'I know what we can do, we can actually look at the use of these cameras to help determine the residual feed intake, lean tissue growth rate, so that we can actually end up with more sustainable beef, converting less plant protein to more animal protein,'" says Behan, the CEO of Alpha Phenomics, who jumped at the chance to work in Canada.

Alpha Phenomics' imaging technology allows producers to collect biometric data on livestock, including "a real-time assessment of weight, weight change over time, genetic potential of a phenotype, muscle mass index, body composition, carcass composition, indication of thermal efficiency and more," as stated on its website.

Behan began working with this technology for a swine-related project in China, using infrared cameras "to identify when pigs were hot, and we then utilized those algorithms to dictate the ventilation rates within the buildings," he says. This led him to work with similar cameras for swine identification, using laser point cloud grab. He describes this as "effectively grabbing a laser point image of an animal to identify it without a tag."

(Continued on Page 11)

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Behan then explored this technology for cattle in his native Ireland, hoping to use it to accurately estimate individual animal weight. This involved the development of multispectral cameras, capturing a start-stop video of an animal moving.

“This is very important, this type of image, if you’re looking at colouration of an animal, of course, and markings and physical effects of the face or physical anomalies within the bone structure,” he says.

This also uses laser point cloud grab technology, which has one million laser points capturing 30 frames per second each when filming an animal. “Then we can actually estimate the distance between certain points on the animal linearly, so we can check the size of the animal, and then we have a very good estimation of the weight,” says Behan.

The laser point clouds build an avatar of the individual animal that provides three-dimensional, full-body biometrics to be used to track growth. “The beauty of this technology is we can measure bone — fat and lean — so we can tell you on the graph when the optimal slaughter weight is.”

In addition to research trials with the University of Saskatchewan and other groups to assess the weight of feeder

cattle and increase accuracy with greater numbers, Alpha Phenomics is working on a project examining the individual growth of calves over time.

While the focus was originally growth-related, the cameras’ capabilities extend to other metrics, such as detecting disease in cattle. Infrared technology, Behan explains, can be used effectively to identify the onset of health issues.

“With cattle, we can quite easily tell you that the animal is under attack from something, and generally many days before a stockman sees clinical signs,” he says.

While the systems designed for beef are ready to go in Europe, the company is currently testing the cameras for North American use. In adapting this technology, a couple of challenges arose. One is limited internet service in parts of Western Canada not allowing for uninterrupted real-time information. Another is the cameras needing to work in extremely cold temperatures.

To remedy this, Alpha Phenomics teamed up with a Calgary-based engineering company that works in infrared measurement to rebuild the cameras to operate in these conditions. The cameras are currently being tested at academic research facilities across Canada, as well as at a farm in Ontario and in the U.S.

Behan predicts the product will be launched in January 2022. Alpha Phenomics plans to offer the technology as yearly subscription packages that include monitoring the metrics that the producer wants to measure. The technology will work with the AgSights Go360 bioTrack livestock management software, where producers can access data on their cattle in an easy-to-interpret format.

Ensuring that the technology offers value to producers in the biometric data it collects is important to Behan, who sees benefits in accurately knowing when feeder animals are ready to slaughter or when the first signs of disease in cattle appear.

“We were originally working with animal identification, identification of weight, growth curves, but we think for the beef ranchers we need really simple technologies that he will use and will get a value from.”

Reprinted from Canadian Cattlemen, September 2021.

Author Piper Whelan

Original Article: <https://www.canadiancattlemen.ca/livestock/biometrics-and-artificial-intelligence-may-be-coming-to-a-ranch-near-you/>

Environmental Farm Plans

Maintaining a healthy environment is essential to the success of Alberta’s agricultural producers. The Environmental Farm Plan (EFP) program helps you identify and address environmental risks in your operation. It will also increase your understanding of legal requirements related to environmental issues.



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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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