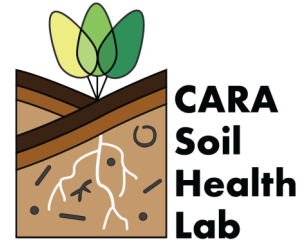




Photo credit Nancy Hanson



Grain, Grass & Growth February 2025



**Broaden your agricultural knowledge
and add great experience to your resume!**
Join our Summer Staff



We are still accepting applications for **2025 Summer Research Technicians** who work closely with CARA Research Team to ensure that demonstration and research trials are of outstanding quality.

Responsibilities:

Assist with the establishment, maintenance, data collection and harvest of various applied research and demonstration projects
Assist with development of tours, field days and other extension events

Qualifications:

Ability to work independently as well as contribute to a team effort
Self-motivated, organized and committed to quality results
Valid driver's license
Agricultural background preferred but not essential

For more information or to submit a resume:
Email: cara-dw@telus.net or Phone: 403-664-3777



Using Your Remaining Feed Wisely

Lacey Gould - Livestock Nutritionist CARA

Many beef producers have cattle well into their third trimester, are starting to see calves on the ground or may already be feeding lactating cattle. Many ranchers might still have some poorer quality feed on hand which they might like to use up but are unsure if it meets the cows' needs.

The energy and protein requirements are higher in late pregnancy and into calving/lactation which means a higher quality feed is needed during this time. Also, 75% of the calf growth happens in the third trimester and as this calf grows it leaves less and less room in the cow's body for the rumen to extend, noting the importance of good quality feed during this time.

Body condition scoring is a great tool to use to determine whether you need lower, higher or average quality feed. Scoring three times a year is optimal, otherwise just whenever you have them in the chute. It is also not about scoring every cow, it is about feeling

the proper areas and scoring to get an average of the herd. The optimal body condition score at calving for mature cow is 2.5-3 (on a 5 point scale) and 3.0 for first calf heifers. The optimal score for breeding is 2.5. Assessing condition 30 days prior to breeding will allow you enough time to increase or decrease condition if necessary.

Beef cattle will consume approximately 2.5% of their body weight in dry matter per day. Knowing the moisture level of your feed through a proper feed test will help you determine how much of that feed a cow can consume. Along with moisture, Neutral Detergent Fiber (NDF) is an important value to analyze in the feed as cattle can only consume 1.25% of their body weight in dry matter of NDF. With feed containing over 60% NDF in mature cow rations you will see a reduction in feed intake as the high fibre content will significantly slow down digestion.

Continued on page 5



Navigating AgriInvest's New Requirements with Alberta Environmental Farm Plan

The recent updates to the AgriInvest program introduce new requirements for certain farming operations. If your farm's average Allowable Net Sales (ANS) over the past three years is \$1 million or more, you'll need to complete an eligible agri-environmental risk assessment to continue participating in the program. While this change may feel overwhelming, it's also a chance to enhance the sustainability, efficiency, and competitiveness of your operation.

At the Alberta Environmental Farm Plan (EFP), we're here to help you navigate these requirements.

Why Alberta EFP?

Completing an Environmental Farm Plan through Alberta EFP does more than meet AgriInvest requirements. It's an opportunity to improve your farm's long-term sustainability, efficiency, and value. By participating in the program, you're taking proactive steps to protect your land, strengthen your business, and contribute to a sustainable agricultural future.

Let us help you stay compliant and competitive. Reach out today—our team is here to support you every step of the way!

Understanding Agri-Environmental Risk Assessments

Agri-environmental risk assessments are designed to identify environmental risks on farms and provide practical tools to mitigate them. By completing an assessment, producers gain guidance on improving farm health and safety, increasing property value, reducing

costs, and boosting overall competitiveness. Several recognized standards qualify as agri-environmental risk assessments, including:
 Environmental Farm Plan (Alberta EFP)
 Canadian Roundtable for Sustainable Beef (CRSB) Sustainable Beef Production Standard
 Certified Organic Standards
 Nutrient Management Plans (including manure management and those created by 4R Certified Experts)

Other provincial or regional agri-environmental assessments, such as Saskatchewan's and Quebec's standards
 If you're unsure which option fits your farm's needs, the Alberta EFP program offers a streamlined and practical solution for producers in the province and can be customized to your operation.

Streamlining Your AgriInvest Participation

One Environmental Farm Plan is sufficient for your operation, regardless of the number of AgriInvest accounts associated with it. Ensure your letter of completion or certificate lists all members linked to the AgriInvest account. Your EFP is valid for 10 years from its approval date. This date can be found on your certificate and letter of completion, both of which are emailed to you upon approval of your EFP workbook. If you need to retrieve these documents, they are accessible in the "My Documents" tab of your EFP account.

Practical Tips for Compliance

When making deposits into your AgriInvest account, you'll need to attest that your

operation has a valid agri-environmental risk assessment. While the certificate itself may not be required during the deposit process, you should keep it on hand, as it may be requested later.

If the name on your EFP certificate doesn't match your AgriInvest account, reach out to Alberta EFP staff to resolve the discrepancy. Our team is ready to assist with updates and

any other questions you may have.

Support and Resources

Your designated EFP technician is your first point of contact for personalized support. Their contact information is available on your EFP webbook account. Alternatively, our staff can be reached at info@albertaefp.com or 587-200-2552.

CARA Staff Members, Lacey Gould and Karin Roen, are the designated EFP Technicians for the Special Areas and MD of Acadia. If you have questions about starting a new EFP or would like one-on-one assistance, please contact the CARA Office by calling (403) 664-3777 or emailing cara-3@telus.net

Resilient Agricultural Landscape Program (RALP) Opens February 1, 2025

Qualified producers can apply for up to \$150,000 of funding towards eligible projects that are reimbursed 100% from 2025–2027, 50% is paid in 2025 after the approved project has been completed and the remaining 50% in 2027 on the condition that the project has been maintained over the three years. This is the last intake of funding for RALP, a program funded by the Sustainable Canadian Agricultural Partnership (SCAP).

Project Categories:

Pasture Management

- Riparian area management
- Rotational grazing
- Adding legumes to existing forage stands

Cropland Conversion

- Annual cropland conversion to tame or native perennial forages
- Seeding perennial forages in crop strips, grass waterways, or saline areas
- Intercropping
- Cover cropping

Tree Establishment

- Shelterbelts
- Eco-buffers
- Pollinator strips

**Do you have a project in mind?
Contact the CARA Office by
calling (403) 664-3777 or email
cara-3@telus.net
Staff are available to assist with
an application!**



**Sustainable Canadian
Agricultural Partnership**

<https://www.alberta.ca/resilient-agricultural-landscape-program>

Deep banding phosphorous in no-till cropping systems

Addressing phosphorous deficiencies to improve stability and drought resiliency in crops.

Sourced from Top Crop Manager—October 22, 2024 By Donna Fleury

Across the Prairies, no-till has been successfully implemented in many farming operations over the last 20 to 30 years. There are several long-term benefits to no-till farming systems, but there's also one potential challenge being observed – the stratification of nutrients such as phosphorus (P) in the shallow surface band. Recently, researchers and industry have been assessing the possibility of deep banding P to address later season deficiencies and improve yields and drought resiliency of crops.

“Generally, no-till operations will side-band P fertilizer at shallow depths at seeding, which stays in the zero- to three-inch surface layer,” explains Maryse Bourgault. “Unlike nitrogen, which is soluble and moves through the soil profile, P is not as soluble and tends to bind to soil particles. In drier, semi-arid environments such as those across the Prairies, when that topsoil layer dries out, the crop roots don't have access to the surface layer of P nutrients, depending on moisture and nutrients lower in the soil profile. This can result in P deficiency later in the season, which can often be confused with symptoms of drought or other issues,” says Bourgault. These symptoms at the vegetative stage in wheat include stunted growth and leaves that appear slightly wilted – symptoms easily confused with water stress.

“Deep banding of P fertilizer could help alleviate this stress when deeper layers have moisture that is no longer present in the topsoil,” says Bourgault. “It might also encourage root growth deeper in the soil profile and help drought-proof the crop. Therefore, we were interested in studying whether periodic deep banding applications of P may be one option to address this later season deficiency, giving crops access to nutrients below that surface concentration of P.”

In Australia, deep banding P is considered as a method to drought-proof crops, as it encourages root growth deeper in the soil. Bourgault notes that some of their early modelling suggests that about 40 per cent of P taken up by the crop is accessed below four inches. That is a significant portion and shows that long-term, no-till fields can be

quite P deficient at those depths. This practice may provide more stable yields, which would help with reducing risks from year to year. In addition, more efficient fertilizer use has obvious benefits for economic and environmental sustainability.

Bourgault initiated a study in Saskatchewan in 2021 to determine if deep banding of P fertilizer is necessary in no-till cropping systems in Saskatchewan. This practice may reduce P loss by distributing the P within the soil profile rather than be concentrated in the top 5 cm. The project initially included two sites, the University of Saskatchewan Kernen Research Farm, near Saskatoon, and Jeff Schoenau's farm near Central Butte, but was expanded to two additional sites in 2023 including the Northeast Agricultural Research Foundation (NARF) near Melfort and the South-East Research Farm (SERF) near Redvers.

Each field experiment will last four years, with the initial deep banding of P fertilizer applied before planting the first year only. The aim of the experiments is to evaluate the effects of deep banding over the four subsequent seasons following one P application at 20 to 30 cm in a canola-wheat rotation. There are nine treatments of P2O5 (MAP) being compared with or without fertilizer at a rate of 40 kg/ha and at different depths, either side banded at 5 cm, deep banded at 20 to 30 cm depths or split between 5 cm and a deep band of up to 60 kg/ha for a multi-year supply of P2O5. The study also includes a control treatment that received the deep-banding operation but no fertilizer to determine the impacts of the operation itself.

“In this project, we are testing deep banding P with some treatments as deep as possible,” says Bourgault. “We modified a deep ripper and had a deep bander custom made that allows us to drop fertilizer into those deeper soil layers. It does take quite a bit of horsepower and can be a bit destructive to the field. Some of our collaborators are addressing that by either harrowing or rolling the field after the application.”

They made the deep band application in the spring prior to seeding in the first year.

However, Bourgault says they're now considering that applying in the fall may be a good option and allow time for the P to weather in the deeper soil layer and for the soil surface to settle over the winter. “It also looks like it seems to take two years before the P weathers enough to become available at depth.”

The preliminary results are promising. The best treatments tend to be with the deeper application of P and the split application tends to be pretty good too. Because they haven't been able to fully measure statistically significant grain yield responses, it's challenging to interpret the data and determine the benefits. “The positive results are occurring often enough with the deep banded P operation that makes us believe there is something there,” says Bourgault.

“We also have collaborations with Montana State University and have two winter wheat trials there that will be contributing data and results. In their preliminary results, there was a response to P when applied deeper in the profile, but the results were only observed after the second year,” says Bourgault. “We are also collaborating with Farming Smarter at Lethbridge who have research data from trials completed six years ago at three sites. The goal will be to combine all of this data to see what kind of benefits are being observed across all of the sites and to be able to draw stronger conclusions about the possible benefits of this practice.”

Bourgault expects that a deep banding P practice would be really helpful in years where there is a bit of drought. There is a strong environmental factor on how available P is to the plants and the benefit of having access to the deeper band of P, particularly to address later season deficiencies. “We are also thinking that a fall application would be best, and that one deep band application every five to six years would be the most beneficial. As well, fields where herbicide-resistant weeds are a concern might also benefit from a bit of tillage periodically.” Preliminary results are expected soon for the first three years at two sites. In the future, there will be a combined report of results from the various projects.

'Using Remaining Feed Wisely' continued from Page 1

Rules of thumb to use while looking at the feed test results of your feed:

PROTEIN (THE BUILDING BLOCKS)

7-9-11 for Cows:

- 7% Mid Pregnancy
- 9% Late Pregnancy
- 11% calving/Lactation

ENERGY TDN (BUILDS THE BLOCKS!)

55-60-65 for cows

- 55% Mid Pregnancy
- 60% Late Pregnancy
- 65% Calving/Lactation

Most hay, especially legume mixes, will have sufficient protein but may lack in the energy needs of cattle during late pregnancy and into calving/lactation. Many producers can overcome this energy need by supplementing some grain source (barley/oats/wheat/screenings) until they go on grass. On the other hand, many cereal based silage and greenfeed will have sufficient energy but may lack the protein needed. Producers can overcome this protein need by supplementing with a pea based silage, good quality legume hay or protein tubs.

Aside from protein and energy requirements, ALL stored winter feeds are deficient in vitamins and many minerals. Vitamin E is often overlooked and not sufficiently met in most commercial Vitamin ADE mixes. Think of Vitamin E as a stress reducer - it assists in helping the animal overcome stressful events by aiding in antibody production for the cows and colostrum antibody production for the calves. A higher level of Vitamin E supplementation before events such as weaning and calving can reduce stress in those animals and in turn have less loss and sickness. Vitamin E is stored in the liver and fat and will only stay for 4-5 days when injected or

consumed so supplementation in the feed is highly encouraged. Vitamin E should be supplemented at 300 IU/day during mid/late pregnancy and increased to 500 IU/day after calving. Calves receiving Vitamin E supplementation have less chance of developing coccidiosis and reduced average daily gain due to the stressful event of weaning. Vitamin A & D are also very important to supplement and most commercial Vitamin ADE mixes are usually sufficient to meet requirements. Supplementation of macro and micro minerals is also very important throughout the whole winter feeding program. Cereal based rations are usually high in phosphorous and need calcium supplementation. Most hay based rations require a 3:1 or 2:1 (Ca:P) mineral supplementation. Higher phosphorus supplementation postpartum can assist the cow with clean up and prepare her better for conception.

It is best to avoid moldy feeds in late pregnancy and into calving/lactation. Fusarium toxins are more likely to occur under cool, wet conditions during growth, harvesting and storage. Hot, humid conditions favor the development of aflatoxins. Both have adverse effects on cattle growth, performance and can lead to abortions, conception issues and mortality. Moldy feed may not contain dangerous mold poisons or mycotoxins, however if there is considerable mold it, in itself, may adversely affect production and health. Digestibility of the ration may be decreased sufficiently to reduce energy content by 5% for ruminants. Thus, it is best to discount energy values by multiplying them by 0.95 when feeds have significant mold. Palatability becomes an issue and may lower the intake of energy, dry matter, and critical nutrients. If mold is colored - get it tested.

At CARA, we can assist you with feed tests and creating rations based on your feed tests. Contact us today to check out if your feed is meeting the requirements of your cattle!

Alberta Beef Producers SE Zone - Producer Meeting

February 13th, 2025 * \$10/producer

Oyen Canalta Hotel Meeting Room

3:00-4:00pm: Chinook Applied Research Association Forage Program
Overview & Pasture Management Discussion

4:00-4:30pm: Meeting Registration

4:30-6:00pm: Producer Meeting

6:00-7:00pm: Supper

7-8:30pm: Meeting cont'd

8:30pm+: Social Hour

Registration: <https://tinyurl.com/3v364huw> or danab@albertabeef.org





GRAZING CLUBS

"Grazing and Livestock Management Networking Nights for East Central AB Producers"

Consort – Tuesday, February 11th (6–9pm)

50th & Main Restaurant

Jack Fisher, Ruminant Nutritionist

AFSC Perennial Crop Insurance

Additional topic TBA

Pollockville – Wednesday, February 25th (6–9pm)

Hardgrass Hub Community Centre

Producer Highlight: Lazy M Bar Ranch

AFSC Perennial Crop Insurance

Additional topic TBA

\$20/person

**Must pre-register by
calling (403) 664-3777 or
emailing cara-3@telus.net**



Rumsey Community Hall
4:00pm - 9:00 pm

Tickets
\$30



Ladies Calving Clinic

Feb 27 2025

Local Livestock Issues- Dr. Molly Rainforth, Maverick Vet Clinic
Colostrum & Peri-natal Care- Dr. Claire Windeyer, UCVM
Calving Basics w Calving Simulators- Dr. Jennifer Pearson, UCVM
Vaccine Handling & Storage- Dr. Tamara Quaschnick, Zoetis
Producer Panel

● **Swagbags | Door Prizes | Activity Booths |** ●
Mocktails | Brisket Dinner

REGISTER

<https://LadiesCalvingClinic2025.eventbrite.com>



Attention CARA Members!

CARA Staff are busy summarizing project information from the past few years into a report booklet that will be available late February or early March. If you are already a member, we will be mailing it to you. If you're not sure of your membership status or wish to become a member, please call the office or email our Office Manager Rae Jorgenson at cara-1@telus.net. If you prefer a digital copy rather than of a paper copy, we can share it on a memory stick.

CARA Soil Health Lab Services

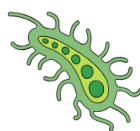
"The Farmer's Lab"

www.carasoilhealthlab.ca // (403) 664-3777

Benchmark Package

Highly recommended as the first step in assessing and monitoring soils (\$210/sample)

Individual Soil Health Indicators:



Biological Indicators

Soil Microbial Respiration (\$20)
 Active Carbon (\$20)
 Total C:N Ratio, Total Organic Carbon, Total C, Total N (\$28)
 Active (\$30) & Total Bacteria (\$25)
 Active (\$30) & Total Fungi (\$25)
 Protozoa or Nematode Functional Groups (\$45 ea.)
 Mycorrhizal Fungal: Spores (\$50) or Root Colonization



Physical Indicators

Soil Texture Test (% sand, silt, or clay) (\$15)
 Wet Aggregate Stability (\$20)
 Bulk Density (Free)



Chemical Indicators

Determine N, P, K, S, micro-nutrient, pH, CEC, sodium, etc.
 (\$60/sample)



\$50/field Custom Soil Sampling Available

For more information on sample collection, the submission sheet, or package pricing & analysis such as the Benchmark, Basic Soil Food Web, Physical & Biological Packages, visit the CARASHL website.

Producers are encouraged to visit the Lab and learn more about their own soil under the microscope!

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