

# FARMING SMARTER



Spring 2022 Edition



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**COVER PHOTO:**  
Summer student Michaela Gates measures and stakes plots to prepare for spring planting in April 2021.

PHOTO: FARMING SMARTER

## Follow a risk taker and win on your farm

BY RYAN MERCER



The potential for another year of drought and high fertilizer prices are top of mind for producers when they call about seed. Farming is a very place-based activity subject to local soil, precipitation patterns, microclimates, cultural norms, crop choices and even product availability from equipment to seed.

But, if you stay abreast of local research and trials, you can start the season ready to improve soil nutrient efficiency and handle another dry year if necessary. And fortunately, southern Alberta has its own well-equipped research network at Farming Smarter. If you haven't checked what the association has been up to over the past decade, you really should visit the website or attend an event for the benefit of your farm.

All Farming Smarter projects take place right here. It does small plot research and field scale projects from Cypress to Cardston County. Its team works with Agriculture & Agri-Food Canada scientists,

post-secondary scientists, industry, and crop growers on their farms.

Some of its research helped shape the pulse and hemp crop practices over the past decade and now its working with quinoa and grain corn to figure out how to get those crops into rotations. These are high value crops that can improve profitability, nutrient efficiency, and soil organic matter. These components can improve water infiltration rates to allow the few showers we do get to enter the soil profile and not run down into low spots.

Farming Smarter also makes a point of putting new technology through its paces or finds new uses for existing technology. Many trials over recent years pitted air drills against precision planters. The planters reduce soil disturbance and improve seed placement and accuracy. Recently, they brought in a strip tiller to see how it might affect the efficacy of the planters. It also gives them an opportunity to find different strategies for residue management.

Their work includes trials with crop

inputs such as pesticide, nutrient, and micronutrient agronomic practices and third-party testing for industry developers. All of these trials look at rates and efficacy of products with the aim to optimize use. It's all about reducing costs while maximizing benefits for the crop and farm.

This makes Farming Smarter a trusted source for regional adaptation of profitable and resilient crops, cropping systems and agronomic practices. They take chances, break rules and push practices to failure points so they can identify risk and provide valuable insights.

If you farm in southern Alberta, Farming Smarter offers huge value to your operation. Take advantage of what they learn the hard way and make your life and farm better for it.

PS — in this issue of our magazine you will find a lot of information about recent projects and what keeps Farming Smarter ticking along. They do a lot of work every year and you could reap the benefits of what they learn. —

### Executive Director Report

## It's time for a Living Lab

BY KEN COLES



Everyone needs a reboot and that includes Farming Smarter. Like many through the pandemic and changing government, I experienced some lows both personally and professionally. So, in response, I did two things that took some courage. I decided to apply for a large federal grant through the Agriculture Climate Solutions (ACS) program to establish a living lab in southern Alberta and, on a whim, applied for a Nuffield Scholarship. Well, a few weeks later we were awarded both and I was left wondering what the heck I was thinking! Nothing like a shipload of work and a change to cure stagnation.

The Living Lab concept is one that really excites me, and it has reinvigorated our entire staff. We were awarded a Phase 1 grant for \$100,000 to build a proposal for a five-year grant worth \$8 million that we submitted on January 15, 2022. This is by far the largest

application that we've ever dared to tackle and one that made me extremely proud. Here's some stats to highlight the effort. The application is 396 pages, has 35 letters of support, five knowledge and technology transfer activities, 10 Field Tested Hubs, seven Farming Smarter research activities, an Indigenous partnership, eight Agriculture and Agri-food Canada science activities, two Socio-Economic activities, and a student focused program with Lethbridge College. We enlisted approximately 20 scientists, 12 agronomists and 50 farmers to deliver 100 field trials and 132 small plot trials. On the extension front, we'll host 150 events, 500 one-on-one meetings, five magazines, 25 podcasts, 250 newposts, 125 plot shot videos, install 300 field signs, 1000 social media posts, 60 press releases and 250 popular press stories. That is if we get it funded so fingers crossed, please.

If successful we will be part of network of living labs across the country and naturally our goal is to be the best! The Living Lab core principles include focusing on farmers' needs, testing in real life context, and using broad and diverse partnerships. The good news is we feel that we've been operating as a living lab for many years but there's always room for improvement. The security and flexibility this grant provides will help grow our capacity and ability to move our efforts more onto working farms. We will endeavor to build more meaningful relations with different types of farms in different eco-regions across southern Alberta. We will expand and enrich our partnership with AAFC scientists, Lethbridge College and the Black-foot Confederacy. Overall, we will do more

See **LIVING LAB** on page 5 ▶

► *LIVING LAB* from previous page

meaningful, practical, and adaptive work that provides true benefit to industry while building rapport with government, consumers and trade partners.

The ACS program goal is to sequester carbon and reduce greenhouse gas emissions in agriculture. They hope to accomplish this through the co-development and adaptation of best management practices that make sense to farmers. We've already co-developed a number of innovative projects looking to reduce soil erosion in irrigated crops including cover crops and strip-tillage, re-cropping options after hail, developing farm specific nitrogen response curves, double cropping for feed, hemp biomass and retting, fall seeded crops, fertigation, inter-cropping, pulse disease crop sequences, salinity management with willows, precision planted pulses, forages on marginal lands, shelterbelt impacts on beneficial insects, variable rate irrigation and more.

The main goals of the program will look for ways to enhance and maintain soil organic matter, increase yields and biomass production, improve energy-efficiencies, reduce reliance on agrochemicals and improve nutrient and water efficiencies with digital agriculture. No small task but one that we should all be working toward anyway.

To top it all off, my Nuffield project requires global travel where I will study farm groups engaged in similar objectives. I will be building a global network of like-minded people and organizations hoping to help each other with the goal of advancing agriculture. This two-year program requires 10 weeks of travel, and my first leg begins this March where I'll visit Scotland, England, Ireland and France. The one thing I've learned already is that we are a part of global community, and that true connection really matters! I hope that you have a great year and that it rains a lot! —



**Ken Coles**  
*Farming Smarter Executive Director*

## Partnerships foster field scale trials

BY KRISTI COX



Preparing to use a Great Plains precision planter to plant canola for a field trial near Lethbridge, Alta.

**F**arming Smarter Field Tested research takes agronomy practices, novel crops, and products to field scale trials on partner farmer lands. The project ideas come from farmers, companies, or Farming Smarter and the partnerships ensure that the scientific method leads to clear results.

“We bring the scientific focus to the projects and the time and technicians to make sure data collection happens at the right time,” says Lewis Baarda, Field Tested Manager. Some projects, Spornado testing for example, involve an industry partner and take place at the Farming Smarter research site and/or on partner farms.

“We’re experiencing accelerated growth in this part of our business,” says Baarda. He attributes that to regional farmers embracing the innovation assistance Farming Smarter offers through this program. Below are a sample of projects for 2022.

### Glyphosate Resistant Kochia

This is the final year of a four-year trial examining precision agriculture technology and varied control measures for glyphosate-resistant kochia. Technicians use drone and satellite images to create a detailed map of where kochia patches are located in each field. That data uploaded to on-board guidance systems enables a site specific strategy to target kochia.

“The outcomes change from year to year with different weather conditions and different crops in each field,” said Lewis Baarda. “Even though we’ve got three years under our belts, I’m sure there will be something new and interesting coming up in 2022.”

### Canola Planters

While farmers typically use planters for wider row crops like corn or soybeans, producers who have them were trying them for small grain crops. Farming Smarter tests

planters with the narrower rows for canola. Early results show promise.

2022 is year four in what was meant to be a three-year trial. “We added an extension to this field trial to address challenges due to adverse conditions like hail and drought,” Baarda explained.

### Spore Trapping Location in Irrigated Fields

Passive fungal spore collectors in a field enables farmers to send cartridges for testing to determine whether the field has pathogens present. This study will determine the best placement of the traps in irrigated fields. There is one year left on this trial that started in 2020.

“A farmer can send them in for testing once a week, or at certain stages where disease risk is high,” said Baarda. “Results can be back from the lab in 24 hours. Farmers can use the results to make better decisions on whether to apply fungicide, rather than using it prophylactically.”

### Variable Rate Irrigation

Farming Smarter has two studies aimed at developing technology for variable rate irrigation in 2022. Between the two, Farming Smarter will have five fields under variable rate irrigation.

“We’ll evaluate how well it works and what are the benefits,” said Baarda. “How easy is it for farmers to increase land area and possibly increase yields by irrigating appropriately.” These are complicated trials because of technological hurdles of installing sensors and ensuring they are working and communicating properly.

“It will be a big step forward from a coarse level variable rate, which would be just turning off your pivot over a low spot. The goal is to have a system autonomously decide to turn off around a low spot. But if it’s been dry, it will sense that and irrigate a little bit more,” Baarda explained. —

## Agronomy research

*We change the way people farm through experimentation and collaboration*

Our Agronomy Research Program brings together farmers, agronomists, scientists, and other collaborators to co-develop project ideas. The program focuses on agronomic management practices of crop production systems in southern Alberta and addresses regional agricultural issues to provide practical and innovative science-based solutions tailored to southern Alberta's growing conditions.

We are experts and leaders in the adoption of novel and high-value specialty crops in southern Alberta and western Canada. Hemp, quinoa, grain corn, and winter crops such as lentils, peas, durum, oats etc. are some of the most recent examples.

We conduct up to 75-80 trials annually, including up to 25 regionally important research projects in collaboration or led by Farming Smarter. We ensure top-quality research through regular staff training, effective protocol development, and trial audits. We have a dynamic team of staff undertaking these trials including Dr. Gurbir Dhillon, research scientist, Mike Gretzinger research coordinator, and a team of students. We also employ research technicians and interns through our collaboration with Lethbridge post-secondary institutions.

Trials for 2021 included:

- Perfectly placed: adapting row-crop planters for enhanced crop production in Alberta (Farming Smarter) 2019-22
- Effect of strip tillage and precision planting on canola emergence, seed yield and quality (Farming Smarter) 2020-23
- Comparison of traditional crop inputs and biostimulant applicant on wheat, canola and peas in Alberta (Farming Smarter) 2020-23
- Agronomic influences on fiber and grain yield in industrial hemp (Farming Smarter) 2019-21
- Introducing high value specialty crops to western Canadian crop rotations (InnoTech) 2019-22
- Development of decision support tools for fusarium head blight management in Western Canada (University of Manitoba) 2019-22
- Saskflax variety trial (Sask. Flax Development Commission) Ongoing
- Hemp variety trial (Canadian Hemp Trade Alliance) Ongoing
- Canola Performance Trials (CCC) Ongoing
- Testing the cover crop hypothesis across Prairie Canada (University of Manitoba) 2018-22
- Crop sequence study of Fusarium head blight of cereals (University of Saskatchewan) 2018-22
- Other industry demos and trials (FMC, Pioneer, NorQuin Quinoa, SeCan) Ongoing

### Comparison of traditional crop inputs and biostimulant applicant on wheat, canola and peas in Alberta (Farming Smarter) 2020-23

This study uses a full product packages approach from various companies by applying crop specific seed treatments, micronutrients, starter fertilizers, soil amendments and other biostimulant products. It is a three year, fully phased rotation of peas, wheat and canola in Lethbridge, Forestburg and Fahler, Alta.



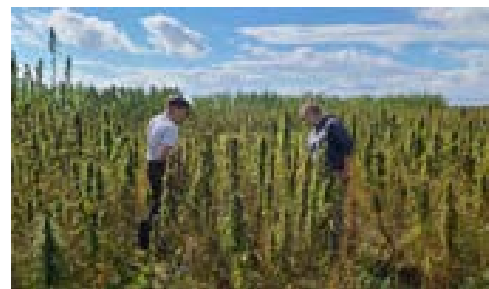
Aiden organizes pea, wheat and canola seed by treatment and plot getting ready to seed the biostimulant trial.



Lewis poses with a trident shaped hemp plant during the annual biomass collection.

### Agronomic influences on fiber and grain yield in industrial hemp (Farming Smarter) 2019-21

It's time to wrap up the most recent hemp agronomy trials. In this project, we looked at the impact of seeding rate, seeding date, and N and P fertilizer rates on hemp grain and fiber yield. Next up, we hope to tackle retting straw management for arid southern Alberta and variety development for bioepoxy resins.



Brendan and Sara take stem measurements on the hemp agronomy trials for stem thickness and plant heights. We measure physiological response such as biomass, height and stem thickness, to seeding rate and date as well as N and P fertility treatments and foliar in crop treatments.



Carlo practicing his track skills harvesting quinoa on the Classic combine. For quinoa, we set it with a tight concave, max rotors and canola air settings. Needs to get 99.7 per cent pure sample from an average dockage of >30 per cent.

**Introducing high value specialty crops to western Canadian crop rotations (InnoTech) 2019-22**

Dr. Jan Slaski from InnoTech AB leads the novel cropping matrix. The project looks at the best way to integrate novel crops such as hemp, quinoa, dry bean and grain corn into crop rotations specific for the various regions across Western Canada.



Spreading the straw on the winter wheat feasibility demo for Ducks Unlimited.

**Other industry demos and trials (FMC, Pioneer, NorQuin Quinoa, SeCan) Ongoing**

Part of spreading the good news on winter wheat is literally spreading the straw on a demo to compare establishment under different seeding rates and stubble practices. This demo compares fall and spring cereals.



Our rockstar cover crop treatment the fall rye and winter peas.

**Rockstar Cover Crop**

Dr. Yvonne Lawley (University of Manitoba) is leading this study that evaluates the benefits and drawbacks of cover crops in a western Canadian crop rotation. Here in Lethbridge we've had good success growing fall rye/winter pea as well as fall seeded lentils. Not so much luck with dryland clover or radish. Which begs the questions, should farmers be focused on growing more winter crops rather than cover crops?

## Challenges met in 2021 knowledge sharing

*We change the way people farm with enriching and interactive learning experiences*

### ONLINE PESTICIDE APPLICATOR WORKSHOP

March 4, 2021

Pesticide applicator credits in 2020 were hard to obtain due to COVID-19, so we held a virtual session to ensure applicators could recertify. Almost 140 people tuned in for a full day of learning.



### FARMING SMARTER FIELD SCHOOL (50)

June 24, 2021

Restrictions prevented us from hosting an in-person field event. Fifty people joined us online to learn about biostimulants, potato research, herbicide layering and patch management, and a variable rate irrigation project with University of BC.



### THANKS FOR FARMING TOUR

July 7 & 8, 2021

TFFT organizers selected Farming Smarter as the charity that received a percentage of ticket proceeds from its event. We set up a booth and spent a couple days networking and learning at Lethbridge Exhibition Park.







**WORD ON WINTER WHEAT**

**July 13, 2021**

Nearly 50 people joined us on zoom to learn about winter wheat through presentations from Soulanges Mills, Dr. Rob Graf, Monica Klaas, Dr. Brian Beres and Rogers Foods.

**PLOT HOP**

**July 22, 2021**

This was the first and only field day we were able to host in 2021! Fifty-five people joined us on the trailer to tour around the research plots for precision durum, Intelirain, hemp agronomy, strip till canola, WeedIt and cover crops.



**2021 BY THE NUMBERS**

- 18 news outlets published 73 stories about Farming Smarter
- Published two magazines, March and November, distributed through Alberta Farmer Express to 10,000 rural addresses
- YouTube viewers watched 4,375 HOURS of Farming Smarter content in 2021
- Created subscriber e-newsletter in 2021 to ensure Agronomy Smarts Subscribers receive the most up to date information from our research to their inbox
- The popularity of our monthly e-newsletter continues to grow as over 2,000 people signed up to receive information about bug of the month, weed wisdom, and event notices
- Instagram followers increased by 23%
- Facebook followers increased by 16%
- LinkedIn followers increased by 14%
- Twitter and staff accounts increased by 5%
- Economic analysis of our impact — TOTAL of \$130 million
- Public Media Impressions \$45 million
- Research Program \$39 million
- Event participants \$33 million
- Digital & Print Extension \$13 million

**GLOBAL CROP PRODUCTION VIRTUAL CONFERENCE**

**December 15, 2021**

We brought in speakers from around the world to highlight advances in agriculture practice, technology, and issues. Fifty people logged into the online platform for a day of presentations and live Q/A sessions with speakers from Australia, New Zealand, Scotland, and England.



Cole Malaka discovering hemp close up.  
PHOTO: FARMING SMARTER

**INNOVATION WORKSHOPS**

**October 27, Nov 2, 4, 10, 2021**

We called on our network to help us shape the future of innovation. Seventy-five participants joined us in Lethbridge, Taber, Brooks or online to provide us with input.

## Field Tested takes it up-scale

*We change the way people farm through grounded on-farm innovation*

**F**ield Tested is Farming Smarter's program for facilitated on-farm research. We take compelling products practices and technologies and evaluate them on the farm in a real-life context. In 2021, we completed 23 field trials in collaboration with nearly 30 different partners. Projects included precision planters, herbicide resistant kochia, spore trapping, variable rate irrigation, PGRs in seed alfalfa, and flea beetles and insecticides.

Field Tested Manager, Lewis Baarda, is always open to working with interested farmers or anyone that wants to experiment at field scale. To work with us on a Field Tested project, contact [Lewis@farmingsmarter.com](mailto:Lewis@farmingsmarter.com).

**Below:** A Spornado passive spore trapping unit placed in a dry-bean field near Enchant, Alta. Farming Smarter evaluates spore traps as a potential decision support tool to help determine when fungicide applications are warranted.



**Above:** Farming Smarter's brand new plot combine collecting yield data from a field scale canola research trial.

Planting canola for the field scale precision canola trial. Great Plains planter supplied by Kubota Canada, and New Holland tractor supplied by Vanee Farm Centre.





**Above:** Calibrating a John Deere seeder to apply varying rates of treated and untreated seed for a field trial on flea beetles and seed treatment insecticides.



**Right:** Flea beetle damage on cotyledon stage canola. Top = commercially treated seed, Middle = no seed insecticide, double seed rate, Bottom = no seed insecticide, normal seed rate.



**Left:** Using hand-sprayer for a field trial evaluating PGR use for seed alfalfa production.

# Custom Research an important part of Farming Smarter

*We change the way people farm by delivering unbiased trusted results*

## COMPANIES WE PARTNER WITH:

FMC, Corteva, Bayer, NuFarm, Alfalfa Seed Commission, Albaugh, Sulvaris, Complete Agronomic Services, Western Ag Innovations, Agro Liquid, Alpha-Agri, Anuvia, Replenish Nutrients, Koch Industries, Lavie-Bio, Maizex, Pride Corn, North Star Genetics, Nutrien, Thurston, WISErg

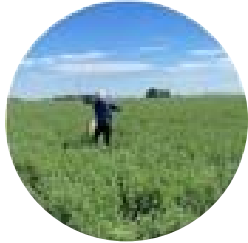
**“Dedicated group of people whose mission is to serve industry partners, with a high level of staff competency. The organization is prepared to make investments in people and assets to improve overall accuracy, relevance, and capacity to do research. Upgraded combines, planting tools, software etc enabling higher level of project execution.”**

JOHN GIBSON WITH ALBAUGH, CHEMICAL MANUFACTURING COMPANY



### ALFALFA COMMISSION TRIALS

We made a new relationship with the Alfalfa Seed Commissions for the next three-plus years. Two Alfalfa Weevil trials were conducted in Rosemary, and desiccation products (Reglone and Acetic acid with surfactants) and desiccation timing trials (one of each in Rosemary and Lethbridge). Assail and Entrust are promising chemicals for battling the Alfalfa Weevil, more work will be done this year. Desiccation trials were also a success and will be conducted again this year.



### WINTER CROP TRIALS

Winter crop trials with oats, peas, barley, lentils, and camelina were conducted with Western Ag Innovations and will continue in 2022 through the RDAR project for winter crop adaptability. Some varieties are showing promise and creating great interest in screening crops for southern Alberta. Survivability, maturity dates, yield, and other properties will be assessed to help understand how well winter crop varieties will grow. These crops provide other benefits, like reducing soil erosion, and increasing water use and nutrient efficiencies.

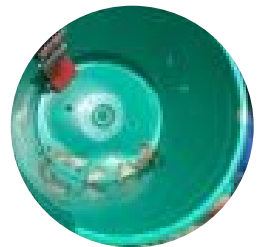


### CORN TRIALS

We had eight corn variety/herbicide trials in 2021, making for a full corny year! The trials yielded wonderfully, giving companies, such as Bayer, much important information for variety selection in southern Alberta. We hope to have another corny year in 2022!

### PEST MONITORING

Pest monitoring for the Alberta Pest Monitoring network were conducted. The network is an important tool that allows farmers to plan ahead for potential pest invasions. Diamondback moths, Bertha Armyworm, canola sweeps (Cabbage Seedpod Weevil), Pea Leaf Weevil, Wheat Midge and Wheat Stem Saw Fly were monitored. Monitoring will continue this year.



### ROLLING BARLEY

The Rolling Barley study with George Lubberts of Complete Agronomic Services was replicated for the second year. We found rolling at late 4-leaf and 1st-node stage resulted in significant crop damage, reduced plant stand, and reduced yield. The 1st-node rolling hurt the crop the most. We will continue rolling barley and wheat in our recently accepted RDAR research project, which is funded for three years.

### CARA SOIL BENCHMARK SAMPLING

20 sites sampled in 2019 were re-sampled in 2021, and 20 from 2020 will be re-sampled this year for the last year of the project. When the sampling is complete, CARA will be assessing the data to provide a complete understanding of the health of Alberta's soils. This will inform farmers about management practices to improve soil health.



# Gearing up for another research season

BY LEE HART

**F**arming Smarter has nearly two dozen new and continuing research projects on the drawing board for the 2022 growing season.

Among the current research projects, the not-for profit, farmer directed, agriculture innovation hub serving southern Alberta, will look at improved agronomic practices for specialty crops, seed placement, crop pest management, new technology in disease management, and variable rate irrigation.

“The focus is to evaluate production practices, products and new technology that could have significant value at the farm level,” says Mike Gretzinger, research coordinator. Gretzinger, who has about 10 years with the organization, co-ordinates protocols, seeding, spraying, data collection, harvest and data processing for the small plot trials, research contracts and demonstrations.

Gretzinger says in the ebb and flow of agricultural research projects, usually conducted over several years, the organization always has some new projects starting, while others wrap up.

Among multi-year research projects beginning in 2022, is a province-wide project organized by Lakeland College at Vermillion studying the effect of a plant growth regulator (PGR) on malt barley. Farming Smarter is a research partner.

Laurel Thompson, research scientist at Lakeland College leads the project that will evaluate the affect of a newly registered product, Moddus, on malt barley varieties. Moddus is a gibberellin inhibitor PGR, developed by Syngenta Canada.

“Our research plots at Lethbridge will be one site in the province evaluating the timing and application of the PGR and its affect on crop growth and yield,” says Gretzinger.

In another research project, Farming Smarter will replicate research plots this year evaluating the affect of ultra early seeding dates on Canada Western Amber Durum (CWAD)

Although, historically, durum isn't a particularly vigorous crop to withstand cold soil temperatures at seeding, now cold-tolerant durum wheat genetics may be suitable to handle much earlier seeding dates.

The Farming Smarter plots parallel a four-year research project started in 2021 by Dr. Brian Beres a senior agronomy research scientist at Agriculture and Agri-Food Canada Research Centre in Lethbridge.

As grain yield is positively associated with maturity or growing degree day requirements, it is possible that yields can be maintained or even exceeded with early-seeded, cold tolerant durum wheat?

“As part of the ultra-early seeding project we seeded some plots of durum last November after freeze up,” says Gretzinger. “And we will continue this spring with plots seeded at different soil temperatures ranging from 0 C soil temp to 5 C, 7.5 C and 10 C.”

Farming Smarter will also be establish plots in 2022 to evaluate the effect of strip tillage on canola.

Farmers widely adopted conservation tillage practices including no-tillage and reduced tillage on the Canadian prairies. However, proper residue management of the previous crops is challenging,



Strip tillage helps manage residue, warm and prepare a good seed bed.

which may lead to cold and wet seedbed conditions and improper seed to soil contact during seeding, especially when using a vacuum planter.

In some what of a compromise, the question is whether strip tillage can help manage residue, expose and help warm a strip of seed bed, while still helping to conserve moisture and minimize the risk of soil erosion.

A project will compare strip tillage to zero-tillage and conventional tillage practices for the effect on crop emergence and seed yield of conventionally sown and precision-planted canola on dryland and irrigated farming systems.

In addition, precision planting of canola will be compared to conventional seeding methods including one-inch narrow knife opener, a three-inch hoe opener, and a disc-hoe opener.

## Ongoing Research Projects

There are several continuing research projects, says Dr. Gurbir Dhillon, Farming Smarter research scientist who joined the organization in 2019.

He will be involved with the fourth year of a research project aimed at seeing how effective a precision or vacuum planter is when it comes to seeding small grains and pulse crops.

“These precision planters are typically used to seed conventional row crops such as corn or soybeans,” says Dhillon. “However, farmers are interested in seeing how well they perform with small grains and other crops.

“Along with it being used for row crops, can a precision planter also be an all-encompassing seeding system rather than a tool for a small group of specific crops?”

With research plots at Lethbridge, Enchant, and Brooks, the multi-faceted research project is evaluating the use of a precision planter to seed canola, durum wheat, pulse crops and hemp.

Another project studies how timing and various rates of fertility affect industrial hemp yield and quality. After being involved in a province-wide hemp agronomy research project, led by Dr. Jan Slaski at InnoTech Alberta, it is time to crunch the numbers.

Dhillon will put together the final report from Farming Smarter's involvement over the past three years, that included hemp fertility trials (20 treatments), as well as trials looking at various application rates and different application date trials (18 treatments) and variety trials (15 treatments).

This is just a sample of the many projects going in the ground this spring. Visit the project pages of [farmingsmarter.com](http://farmingsmarter.com) to discover all the projects. —

# 2022 Program Part

Twelve businesses in southern Alberta offer exclusive benefits to the agriculture community and the work of Farming Smarter.

There are many ways to support Farming Smarter as a business. Visit our website [farmingsmarter.com](http://farmingsmarter.com) to explore all the things we can do for you.

**We change the way people farm.**



**50% off your first 2022 Spornado Package** valued at \$1,000 includes 1 Spore Catcher, 2 Cassettes and 2 hrs of consultation

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[www.2020seedlabs.ca](http://www.2020seedlabs.ca)



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# Enchant Farms — strong farmlands, thriving habitat

BY KRISTI COX

Stamp Seeds farm in Enchant shares quality wildlife habitat with a productive crop operation under a collaboration between the Haggins Family (landowner), Stamp Seeds (producer), and Alberta Conservation Association (ACA). Together they manage and support great lengths of enhanced bird habitat and abundant wetlands that now host the intended residents.

The Haggins family purchased the farm near Enchant in 2004 with the intent of leasing it out while making the property attractive to upland game birds. The farm is irrigated and spans 1440 acres.

Stamp Seeds is a local seed producer that has held a lease from Haggins to farm this land since 2007. Their primary goal is to maintain a modern, profitable farm. They grow seed crops including canola, flax, peas, faba beans and cereals.

“The Haggins’ land is very close to our main farmyard here at Enchant,” said Nathan Stamp, Operations and Crop Manager of Stamp Farms. “(My father) was trying to expand the farm at the time, so it was a good opportunity.”



Establishing an eight row shelter belt on Enchant Farms. PHOTO: DOUG MANZER

ACA has a strong background helping the ranching community achieve long-term benefits for wildlife and cattle in grassland systems.

“To build on this, we wanted to explore approaches that would benefit wildlife but also be compatible with modern farming,” said Dr. Doug Manzer, Senior Scientist and Wildlife Program Manager (ACA). “There are 25 million arable acres in Alberta, which has substantially changed the suite of species that are successful on this landscape. We’re looking for approaches that restore wildlife values — especially on fringe areas of any farm.”

ACA began working closely with Haggins and Stamps in 2014. They started by

taking baseline surveys of existing habitat features and counts of gamebirds, songbirds, and amphibians. They will use these to compare with control sites over time.

The Haggins made a great start by planting 13 linear kilometres of shrubs around pivot fields to improve habitat for grey partridge and pheasants. Manzer described the ideal habitat for grey partridge as a Habitat Sandwich with three key component:

- Tall shrubs — key for cover from predators, and fruit and buds for winter feeding
- Forbs (wildflower) — provide habitat for insects that are critical food for early chick growth.
- Grasses — nesting and loafing.

Today, there are over 19 linear kilometres of diverse shrubs in rows up to five deep, and the team reseeded many areas outside of crop with seed blends to improve nest and brood rearing success. The forbs in these blends attract insects vital for chick growth, and pollinators that benefit the whole farm.

With the fields surrounded, the team moved inward to expand the habitat available within cropped areas.

“On two large fields, we put shrub rows through the center of the fields,” said Manzer.

They added a 30-metre buffer at each end, so they don’t join up with the shrub rows that encircle the fields. This allows machinery to move through and creates island habitats that may disrupt predator movement as they hunt the outside edge of fields.

That habitat development appears to be working. On an average farm in the area, Manzer explains that there would be one or two pairs of grey partridge per square km. With the ongoing habitat upgrades on Enchant Farm spring breeding pairs are much higher ranging from 10 to 35 pairs per square kilometre. The overall biodiversity is also much greater compared to nearby control sites.

To further enhance the habitat, increase flood control and filter undesirable nutrients from the water, the team turned to wetlands. Initially, there were eight permanent wetlands on the farm and now there are over 30. Some are fully man-made, some are augmented, and some are low, wet areas on the edge of fields reverted to permanent wetlands. These vary in size from quite small to a deep, permanent body of water with a waterfowl nesting island that is successfully attracting birds.



Two male grey partridges at the edge of a shelterbelt. PHOTO: DOUG MANZER

The farm has tested the flood control capabilities of the enhancements. In 2018, when Taber County had devastating flood issues in the spring, Stamp Farms were able to pump the excess water off the fields and into these wetland areas.

“This allows us capacity to take the water off the field and put it where it’s not flooding out a neighbour or MD ditches,” said Stamp. “It was the goal to be able to drain water off the field without it hurting anything else.”

The Haggins family funded most of the project, with some support from Pheasants Forever and ACA.

Manzer explained that the costs are partially offset through the savings incurred from lower inputs by not attempting to farm low, wet areas that may or may not yield crop. Additionally, Stamp noticed a decrease in pest insects.

“I definitely noticed I don’t spray as much insecticide on these fields,” said Stamp. “I think there are a lot of beneficial insects and spiders surrounding these fields that keep pest insects in check.” No detrimental effect of the increased wildlife is evident on the farm.

“After the crops come off, it’s kind of a good thing to have some animals grazing through there,” Stamp said. Stamp Seeds modifies its practices to meet the goals of the project. They leave stubble a little taller and work with the team on planting crops that fit the goals of all parties.

“If you don’t try different things — think outside the box — you never know what could be done better or differently,” Stamp said. “We have been fortunate to be a part of this long-term project with the Haggins family and ACA.” All of this is thanks to the Haggins’ initial vision.

“When we started with this, we just wanted to have upland game birds on the property,” explained Haggins. “It expanded beyond that to all types of ungulates, game birds, songbirds and insects. Now it’s a showcase for what can be done from a habitat development standpoint.” —



# Third-party research serves farmers

BY KRISTI COX



Trevor Deering, Isabel Rattai and Michaela Gates made up the Custom research crew in 2021.

**T**hird-party research may be a requirement for industry, but it also serves farmers to know that an unbiased association gives companies honest feedback on new products. For industry, it's reassuring to know that they can trust Farming Smarter to do rigorous testing and maintain requested levels of confidentiality. The Farming Smarter Custom Research unit adds to its staff knowledge base, provides funds to leverage in grants for public research and keeps industry and farmers/agronomists connected through events. Here are some of the custom research projects taking place in 2022.

## Replenish Nutrients

Farming Smarter will test Replenish Nutrient's products in a rotation study with wheat, canola and faba beans on irrigated land at three sites in southern Alberta. They will perform intensive soil health measurements to understand what effects the nutrients have on the soil in relation to the rotation.

"We're really excited about this because soil health is an important topic in agriculture," said Deering. "We want to provide rigorous scientific practices that help analyze soil health."

## Adaptability of novel fall seeded pulse and cereal crops

This one-year study will include Winter Barley, Wheat, Oats, Pea, Lentil, Camelina, and Faba Beans in southern Alberta. This is in partnership with Western Ag Innovations and is a Results Driven Agriculture Research (RDAR) granted research project.

The team seeded it in the fall of 2021 and will harvest in the spring. The objective is to test how well these newly created varieties are adapted to our climate.

"They were developed for milder winters," said Deering. "We want to test them in our harsher southern Alberta climate where we get more freeze thaw and lower temperatures." Deering thinks this is a great opportunity to fill in a gap in research.

"We've seen that farmers are really interested in this," said Deering. "There hasn't been much uptake of winter crops. There's little to no research for how well these novel crops do in our winters."

## Alfalfa Seed Commission

Farming Smarter continues its research with the Alfalfa Seed Commission. This follows a one-year study done in 2021.

"We did one year of research with them and we're adapting the studies a bit to change treatments to incorporate what we learned from that first year," said Deering. There are two areas of study:

**Alfalfa Weevil** — "We've seen resistance to insecticides in the Rosemary area," said Deering "We're trying to find insecticides and practices that help them control the alfalfa weevil."

**Desiccation** — "We have two desiccation trials. We're testing different products and desiccation timing to help with harvestability. We're really hoping we can provide high value for alfalfa seed growers to improve crop dry down and harvest."

## Chinook Applied Research Association (CARA) Soil Health Benchmark

This is the final year in Chinook Agriculture Research Association's soil health benchmark study where Farming Smarter participates as a partner. When the results are tallied, we should have an in depth picture of the current physical, chemical and biological characteristics of soil throughout Alberta, with Alberta specific soil health scoring metrics.

## Seed Canola Agronomy

To improve the agronomy and yield of seed canola production, Farming Smarter will try tillage methods, varieties and improved agronomic practices for farmers. This is a three-year project.

"Our Agronomy research crew conducted similar canola research," said Trevor Deering, Custom Research Unit Lead at Farming Smarter. "But this is for seed canola, which is new for Farming Smarter." There will be two different trials in three locations within southern Alberta.

"We're trying to encompass the different climatic and soil regions of southern Alberta," said Deering. "I think that will add value for growers." —

# Beneficial or problematic, P3 ag research is the new reality

BY MADELEINE BAERG

Last fall, Results Driven Agriculture Research (RDAR), Lethbridge College and Sunterra Farms Greenhouse announced they will collaborate on a multi-year greenhouse research project, one of the first projects in a new direction for publicly supported ag research in Alberta.

The collaboration, which will see RDAR invest just over \$783K and Sunterra contribute twice that, will study growth media, lighting strategies, and irrigation options in hopes of improving crop quality and yield in greenhouse-grown tomato and strawberries. The long-term goal of the investment is to develop the currently very small greenhouse sector in Alberta that has the potential to generate \$1.5B in economic activity annually and 3000 direct jobs.

RDAR began in March of 2020 as a way for the Alberta Government to contribute financially towards ag research while exiting from leading, decision-making, and conducting ag research themselves. Producer-led, RDAR is an arms-length, non-profit tasked with establishing government ag research priorities, evaluating funding applications, and allocating the province's ag-specific research funding.

RDAR's primary goal is to maximize benefit for producers. To leverage every government dollar, RDAR hopes to increasingly engage corporate and academic partners through what RDAR's chief executive officer, Dr. Mark Redmond, calls T4Ps: transdisciplinary producer-public-private partnerships (more commonly called public-private partnerships, or P3s).

The Sunterra project "ticked all the boxes" on RDAR's application scorecard, says Redmond.

"In terms of our responsibility to grow investments in agriculture in our province... this really hits home. It's a great example of how research can be done by engaging all of these partners."

Trevor Lewington, chief executive officer of Lethbridge Economic Development, agrees that the partnership model can bring major benefits.

"If you can leverage what each partner is best at, or leverage the right partner, then I think the P3 concept truly can be a win-win-win. The exciting part is the potential of these types of arrangements," Lewington says.

Still, change isn't easy. Uncertainty over who will have access to a P3's research findings has been a major point of concern for many in the agricultural industry.

"The gap is that there is no clarity on if the data that comes out of this kind of research partnership will be available to everyone," says Dr. Mohyuddin Mirza, past president of the Alberta Greenhouse Growers Association.

That concern appears to be more communication flaw — likely due to the newness of the P3 model — than system flaw. Both Sunterra and RDAR confirm that all research coming out of their P3 project will be freely and publicly available.

**"It's one of those cases where you almost need to think about the divorce while you're signing the marriage license."**

TREVOR LEWINGTON

In fact, publicly disseminating research findings was a key RDAR requirement for the Sunterra P3 proposal. To that end, the collaborative team plans to host open houses starting nearly right away and will publish findings in multiple industry publications.

Amanda Hehr, president of Sunterra Farms Greenhouse Ltd. says Sunterra is more than willing to share their findings with other greenhouse growers and has no desire to keep findings proprietary.

"Alberta imports 80% of its produce. We have a long way to go before we are fighting over retail shelves. With research like this, the tide rises for all of us. All of us will benefit."

Though the partnership requires substantial time and financial commitment, Hehr says the benefits offset the investment.

"The results are public domain but being part of this partnership puts us in a seat at the table," she says. "We feel we have front row seats; that we can help steer the type of research that would be most beneficial to us."

Too, she says the partnership allows Sunterra to engage with partners in wide-ranging discussions they might not otherwise be

part of, including about future educational program funding.

Perhaps not surprisingly, Hehr is an enthusiastic proponent of the P3 concept, and says the collaboration and partnership it enables are a long time coming.

"I think sometimes the research that (was done in the past) could be very high-quality research but could be kind of disconnected from what was happening in the industry. This hybrid model will be so much better because there really is a connection to the drivers that impact commercial growers," she says.

That said, P3s are not without potential pitfalls.

Lewington says P3s can fall short of their goals — even fall apart entirely — if the relationship proves unbalanced or if there's a mismatch in terms of expectations or expertise.

"There is a risk that potentially someone walks away from the table and the partnership collapses and dollars are wasted. Perhaps a company is pursuing what they think is a market opportunity but then corporate priorities shift and, in the meantime, government and colleges have committed dollars and resources against it." In most cases, carefully worded contracts with adequate penalty provisions can go a long way to protecting all parties.

"It's one of those cases where you almost need to think about the divorce while you're signing the marriage license," says Lewington.

There's also a risk that the wrong partners join the partnership.

"Let's say a company comes to a college and says: 'We really want you to lead a project to become a global center of excellence for underwater basket weaving.' The college says, 'No problem!' because they've got a mandate to have partnerships. But they really don't have any expertise in that area," says Lewington.

The other major concern associated with a shift towards P3-focused funding is whether pure research — the long-term research without immediate application or specific economic benefit — will disappear.

"We have to be a bit conscious of the fact that sometimes, good discoveries and true knowledge comes from research just for the sake of research. The danger of this very

purpose-specific, hit the target kind of research for one company or one product is that's if that's the only type of research that we do, could we be missing out on other opportunities?"

Dr. Mohyuddin Mirza has an insider's perspective on ag research in Alberta as a horticultural researcher with the province for nearly 40 years. He worries the shift to project-by-project funding has already cost the province its overall research capacity.

"Government led research has been decimated. We used to have a very good facility at Brooks. All the scientists were let go. Similarly, in Edmonton we had the Crop Diversification Centre. Those are things (this new funding direction) has impacted. All the researchers are gone, some to foreign jobs. (The Government) will have to work hard to gain the confidence of industry that good quality research can be done here."

He says he personally prefers "the old system."

"It was independent research available to everyone, with all the different sectors involved. That's how you build an industry. Now the funding has become so competitive, you must hire someone just to (write) the grants. There are less resources available and, in my opinion, most of decisions are made by bureaucrats and not by researchers."

At the end of the day, whether you favour or oppose RDAR's private sector-focused direction for agricultural research, there's no getting around the fact that it is the new reality.

"The province has clearly set the priority. It is important that we adapt to that reality because if we don't, chances are our region will miss out on sources of funding," says Lewington. "We need to make sure we are playing the game the way the rules have been set out." He says the challenge before producers now is to rethink their own role and responsibility regarding research.

"What needs do you have, and have you had that conversation with our post secondaries to actually see if there are viable solutions from working together?"

Hehr recommends producers keep an open mind. "I can understand that as (the P3 model) is a new model, it will take people a little while to understand that the value does trickle down to everybody, to see the benefit and trust the process." —

## Farming Smarter grows regional knowledge

BY MICHAEL KAAKE

**A**s the new year is in full swing, Farming Smarter again has an array of events, projects, and information for their customers.

Farming Smarter will have multiple events throughout 2022. There is an online pesticide applicator credit workshop March 24 to allow professionals to keep their continuing education requirements (CEUs) up to date. All Farming Smarter events offer CEUs.

Watch for its signature summer event Farming Smarter Field School June 23 and a Lethbridge Plot Hop July 21 where visitors go into the fields with research leads to explore crop trials.

Farming Smarter will participate in Open Farm Days August 13 with its popular Healthy Farms Farm Smart event open to the public and featuring fun for the whole family.

When harvest ends and the weather turns cool, Farming Smarter will host a virtual Global Crop Production Conference December 14. Tune in to hear agronomy presentations from around the world.

Keep an eye on the Farming Smarter homepage for additional fall events. Sometimes, its business partners offer select events through Farming Smarter. Jamie Puchinger, Farming Smarter Assistant Manager, discussed how people can access these events.

"Registration is all on our website, farmingsmarter.com. We list all the events in our calendar and people can sign up online," she said.

Puchinger explained that for virtual events, registered guests receive a link to join the meeting. In person field events typically take place at Farming Smarter's field site just east of Lethbridge on Hwy 512.

Puchinger added "The last few years have been difficult because of the uncertainty of it all. Especially because in-person events have always been our go to. To have that anticipation that we were going to continue moving ahead with in-person events and then suddenly have to transfer to online last minute was a big struggle for

us. But at the very least we can still share the information and what we're learning on all our projects."

Despite the struggle of doing these events online, she believes online is also a great way for people to learn and network. She hopes people will take advantage of those opportunities going forward.

Puchinger also spoke about the Farming Smarter website redesign. "The new website looks and has different information. I'm really excited for people to see the new site and see what we have to offer the farming community.

"People who have an Agronomy Smarts or Digital Learning subscription can access the most current information that we can provide. However, our archived projects are open to the public" said Puchinger.

The Farming Smarter Agronomy Smarts and Digital Learning subscriptions are the non-profit association's way to be customer focused. Our subscribers access wisdom gleaned from practical, rigorous scientific research in numerous ways including events, written materials, videos and more. Subscribers log into our website for access to current research project updates, a subscriber video library, a CEU education platform, and up to \$15,000 in discounts on products or services from partner businesses.

This subscription includes admission to all live and digital events throughout the year where they can earn an average of CEU annual average — 30 CCA/CCSC and five pesticide applicator credits per year.

The Digital Learning subscription for \$250 per year offers all digital events, access to the subscriber video library with the most current videos, access to research reports and full access to information on the website,

Puchinger said, "We work very hard to research and deliver the information southern Alberta farmers need to sustain their farms. I encourage anyone in the regional agriculture industry to learn about what we do through our website or by coming to our events. We're here for crop producers." —

# Laverne Gill quietly benefits his community

BY KRISTI COX



Laverne hard at work as usual! PHOTO: FARMING SMARTER

Laverne Gill's generosity, quest to both acquire and share knowledge, and willingness to try new things, all led him to be the 2022 Orville Yanke Award recipient. Farming Smarter presents this award annually to someone that made a significant contribution to soil conservation in southern Alberta.

"Laverne is so giving of his time and his resources and so community-minded that we feel he's very deserving of the Orville Yanke Award," said Ryan Mercer, Farming Smarter Board President.

Gill grew up on a farm close to Elkwater. He worked 26 years for the City of Medicine Hat in the computer department while he and his wife did a bit of farming on the side.

In 2008, he retired and focused on expanding and improving his farming practice. They relocated, and rented land northeast of Medicine Hat, where most neighbours were still using summer fallow. Gill adopted a four-year continuous cropping rotation and direct seeding practice that caught the attention of his neighbours.

"Early on they could see the benefits of what we were doing," Gill said. We were able to increase our land base by renting more acres." Shortly after Gill started farming in Cypress County, he met Farming Smarter.

Ken Coles, Farming Smarter Executive Director remembers, "We stumbled upon Laverne through a partnership with Cypress County. Then Ag Fieldman Jason Storch, wanted some research done in Cypress County and helped us secure some land. It just so happened that Laverne's family was renting the land and our relationship grew from there."

Gill embraced Farming Smarter's educational opportunities and served on the Board of Directors.

"Laverne's friend and favourite agronomist Doug Brodoway served Farming Smarter as our Chair. Eventually, we convinced Laverne to

join the board and Doug and Laverne often traveled together. Over the years, Laverne quietly and introspectively contributed some great perspectives to the organization," said Coles.

"We were trying to become a productive farm basically from scratch," said Gill. "Farming Smarter wanted to share knowledge, so that we were all doing a good job. There are tremendous friendships and relationships built from communities and like-minded people that want to share, grow, keep the industry alive and in good light with the public."

When Gill worked in the city, he would bring people out during harvest to see how a farm operates.

"We try to be a liaison for the farming community. I think that if we don't have public buy in on what we're doing and how we're doing it we're quickly going to get moved to the side for something else," he said.

Coles said, "We hosted yearly tours on his land that brought many people to learn and share ideas. It's always amazing the impact that just a few people can have. Laverne always greeted us with a smile and a warm welcome."

Gill's stewardship practices extend to leaving grass along ditches and allowing slough areas to naturally regrow. He's looking at creating habitat for raptors in hope they will naturally control gophers.

Gill's wife, Launa, and children Brandt, Kristin and Garrett, are all part of the operation's success.

"They've all bought the pitch that I've been pitching, and they've always helped," said Gill. "We work as a team. I'm a big advocate of being able to work together — and we get more accomplished. I can't say enough how much I appreciate them."

Coles added, "Laverne's family was always willing to help us by seeding and spraying around our plots, dealing the weeds we left behind and letting us use his shop to work on equipment. In a drought

year, they hauled water and sprinkled our trials so we could salvage some data.”

The Gills aim for a five per cent improvement on their farm every year.

“We brainstorm at the end of the year after our crops come in,” said Gill. “What can we improve on? What do we need to purchase to make those improvements? Sometimes it’s pieces of equipment, sometimes it’s the other things like software or processes”

When Gill was a teen, he recalls many people were skeptical of Orville Yanke’s plan for direct seeding. Not many years later his parent’s farm adopted Orville’s practices.

“And lo and behold, here we are,” said Gill. “Ninety-five per cent of the farming community is doing exactly what he pioneered at the time. Don’t be afraid to try something new.”

Mercer noted that innovators take a risk, but that without this, there is no progress.

“Any time you try new things and improve methods, you’re on the ‘bleeding edge,’” said Mercer. “To find out what works, you have to try several different things, and you’re going to end up trying things that don’t work, but that’s all part of the learning process.”

Laverne Gill is an innovator willing to share his learning experiences to benefit others. This makes him deserving of the award according to Coles.

“He was always there to lend a helpful hand through good conversation, attending advocacy events and most importantly at our site in Medicine Hat. Thank you, Laverne for all that you’ve done for Farming Smarter and the agriculture community.” —



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# Charting a path for ag extension

BY MADELEINE BAERG



Farming Smarter takes part in Alberta Open Farm Days as an extension activity that supports agricultural social license.

When the Alberta government stepped away from hands-on ag research two years ago, publicly funded agriculture extension of all kinds dropped precipitously. Now, Results Driven Agriculture Research (RDAR), the producer-led body tasked with overseeing distribution of Alberta public research dollars, spearheads a collaborative industry task force to make recommendations for the future of extension in our province.

“The question before us is: how can we develop a cooperative, co-ordinated, compelling extension model in Alberta? RDAR serves as the igniter of that work,” says Dr. Mark Redmond, RDAR’s chief executive officer.

“We are not in the extension business ourselves — we’re in the role of driving the right research,” says Redmond. But, he adds, RDAR wanted to make sure identified gaps in extension were with a group who qualified to answer what extension is within the context of Alberta.

In 2020, RDAR consulted industry to gauge interest in developing a collaborative

extension system. Industry responded with strong enthusiasm. In response, RDAR contracted past Deputy Minister of Agriculture and long-time agriculture advocate, John Knapp, to create a roadmap toward collaboration. Knapp drafted a series of recommendations, including suggesting the creation of an extension task force representing a wide spectrum of voices from the agriculture industry.

In September, RDAR facilitated a first Extension Task Force meeting. The Task Force includes one representative from each of seven areas: crops, livestock, applied research associations, academia, Alberta Agriculture, the private sector, and RDAR itself. From there, the Task Force arranged itself as an independent and stand-alone group, though RDAR funds an independent reviewer to support the Task Force’s efforts.

Liisa Jeffrey, executive director of the Peace Country Beef and Forage Association, joined the Task Force to represent the voice of applied research. She says that extension is much more than an optional add-on after the heavy lifting of research

is complete. Rather, she sees it as a critical component to the ultimate success of the innovation cycle.

“There is no value to research coming out of universities or Canada research stations if those results, technologies, practices aren’t being adapted to regional conditions and translated for adoption on our farms and ranches,” says Jeffrey.

Unfortunately, she — like many others — feels extension falls short in Alberta today.

“In an ideal world, all the pieces of the innovation cycle would not only be functioning well individually but also working together smoothly and collaboratively. I feel that, currently, our system is not cohesive. I think most people feel that way. There’s a fair bit of separation between the different phases of the cycle, but also between those who are working in the field.”

Farming Smarter’s Assistant Manager, Jamie Puchinger, agrees.

“Alberta took a significant step backwards a couple years ago when they eliminated all the extension positions. In general, the cuts we’ve seen have been a painful loss



Farming Smarter held one public summer event in 2021 — a July Plot Hop. Overwhelmingly, participants identified in-person events in research plots as a favourite way to get information about new ideas.

for the whole industry. People have to come up with new ways to get the answers they need,” says Puchinger.

But, says Redmond, that’s exactly what’s happening.

“When we talk to Alberta Wheat Commission, Barley Commission, the canola and pulse growers, and others, they all have knowledge translation units that work very closely with producers.”

Too, he adds, “there are independent groups like AgVisor Pro who offer an expert in your pocket. You can be standing in the middle of your field looking at a weed, snap a picture, connect with one of their experts, and they’ll deliver a just-in-time answer for you.”

He believes RDAR’s role is to fill gaps that are not met by private sector agronomists, industry associations, producer groups and applied research organizations.

Puchinger agrees groups like Farming Smarter have and will continue to step up for extension. In fact, she says applied research organizations and industry groups with direct producer relationships are ideal

conduits for good extension. However, she says inadequate funding drastically limits capacity, and RDAR’s typical project-based focus doesn’t meet farmers’ needs.

“I submitted an application to RDAR specifically for extension funding,” she says. “It was rejected. We were told our application was denied because it wasn’t project specific. Just to share info wasn’t good enough: there had to be a specific reason for it. There are a hundred reasons to share information, and all of them benefit producers.”

Puchinger hopes the Extension Task Force will bring one clear message to RDAR about extension:

“We need more. More money, more people, more resources, more tools for farmers to access, more support for farmers to implement practices and changes. Just more of everything. We need long-term thinking that supports sustainability and best management practices.”

Though the Extension Task Force has not yet officially unveiled its timelines, Redmond says the data gathering process will

be complete in March and that results will be rolled out in early spring.

“We would like to have as many actionable points put into plans this year as possible so we are keen to see the Task Force move ahead as quickly as they can,” he says.

Once RDAR receives the report, Redmond says RDAR will consider how it can best achieve the identified goals.

“RDAR’s board, the applied research associations, all of the Task Force members are going to take it away and say: ‘here is what Alberta producers are saying they want to see as best practices. How will that affect the way we address these particular needs?’”

While it’s only a small group — just the seven Task Force members — that has officially taken on identifying the best direction for extension in our province, leading agriculture forward is a responsibility that should be shared by all producers.

“The whole point of the creation of RDAR in the first place was to give producers control over those public dollars and how they are spent,” says Jeffrey. “I would urge producers to pay attention to what’s happening in ag research and extension. Ask questions; look at system the as a whole and really consider: is this working for me or could we do better? And if we could do better, let’s voice that.” —

# RDAR celebrates first anniversary

## *Stronger together*

BY NATALIE NOBLE

**R**esults Driven Agriculture Research (RDAR) celebrated its first annual AGM January 2022 with the 2022-2027 Strategic Framework guiding the way. It's fair to say the farmer led RDAR program launched in March 2021 is making great strides to advance Alberta's ag industry in all sectors. It's a response to the vision and supportive feedback shared by rural constituents, provincial politicians, academic institutions, 12 applied research associations, various producer boards and commissions.

"We've brought a multi-sector industry together under one roof so they can collaborate and exchange ideas for the greater good of agriculture. It's important to recognize that this is one of the first entities that represents both the livestock and crop sectors," says Dr. David Chalack, RDAR Board Chair.

"The 50 folks providing input on our advisory committee could potentially all live in silos. Now, people can step back and understand the truly integrated nature of our ag industry. We can all work together and we are."

The first-year achievements to support producer-identified needs and ideas have been outstanding, says Chalack. "I attribute that success to the collaboration between all parties. We absolutely play an important role in Alberta to advance the competitiveness and profitability of our agriculture industry."

RDAR has a clear vision with deep respect for its public and private funding and investment, as well as the farmers they serve. Put simply, the vision is to support Alberta's agriculture and agri-food sectors to achieve its full potential.

"We're doing this through producer-led, grassroots advisement that identifies where problems lie and opportunities exist so we can make strategic investments into research and innovation," says Chalack. "Our role is to power research that transforms agriculture. We can't do that alone. I believe we're a tremendous conduit and catalyst for that and we aim to be a model for other provinces."



Dr. David Chalack, RDAR Board Chair.

**"We're doing this through producer-led, grassroots advisement that identifies where problems lie and opportunities exist so we can make strategic investments into research and innovation."** DR. DAVID CHALACK



Nate Horner, Minister of Alberta Agriculture & Forestry and Rural Economic Development.

Committing an annual \$37 million over each of the next 10 years, Alberta's government considers RDAR a critical partner in ensuring the industry and Albertans get the most for their investments.

"Agriculture is a rapidly changing sector and Alberta, with help from RDAR, is a world leader in the development and implementation of new agricultural research and technology," says Nate Horner, Minister of Agriculture, Forestry and Rural Economic Development. "The nature of this work is long-term and we're going to rely on it to fund farmer-led research for years to come. It's essential RDAR continues to look to the fields for what they need to work on in the lab."

Research priorities that drive RDAR come from the RDAR advisory committee along with the RDAR board after numerous interactive sessions and consultations over the first year.

"Our priority is to enhance the industry's productivity, profitability and competitiveness," says Chalack. We've established and fund projects to achieve that across the industry."

In addition to various plant and animal genetics initiatives, projects include a commercial cow-calf DNA pooling project for enhanced performance in that realm. There's also ongoing queen bee research to support crops like canola that are dependent upon pollination.

"Sustainability, responsible agriculture and land stewardship are also priorities," says Chalack. As with any initiative surrounded by such passion, the first year produced valuable learnings.

"It's always about how you try to satisfy everyone," says Chalack. "RDAR recognizes the importance of the knowledge transfer and training required to move research into the hands of producers and actually get it incorporated. This is certainly a priority of other applied research associations working to move research into the hands of producers for the adoption of new ideas and practices."

He adds that developing the ideal metrics to showcase RDAR's performance and the reporting of it prove challenging but are



nearly nailed down. On the bright side, the application review and governing processes are running optimally, thanks to incredible staff, management, and Board.

As of December 31, 2021, 139 projects received approval for a total of \$30.8 million out of 582 proposals submitted. “We really moved the needle on how quickly we can respond,” says Chalack, adding that during last year’s anomaly of a drought year, RDAR put out a special call for proposals to support farmers to deal with the hot and dry conditions. “We learned we have to move quickly and get money into the right hands.”

While the program saw incredible uptake, RDAR is not content to rest on its laurels. The organization aims to grow but needs to leverage funding from other organizations and government sources to do so. In addition to the provincially capped \$37 million per year, RDAR leveraged three-to-four times that amount through private company contributions, other research funding organizations and the federal government.

These public and private investments are worthwhile with far reaching benefits to producers across the province. “We also work with post-secondary institutions starting right at the early stages of that educational stream to ensure all this innovation makes a difference,” says Chalack. “We’re here to work with people and grow collaboration between producers, the private and public sectors, and integrate all these players.”

Anyone with questions around applications, funding, support and/or how to connect, is encouraged to reach out to Dr. Chalack, RDAR CEO Dr. Mark Redmond, its directors, or staff. —

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One is for Ripples, one is for Pringles, and one is for Kettle Cooked



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# Take a Stab at Farm Fame

BY ISAAC MILKO

Over the past 20 years technology has become an increasingly important influence in nearly all aspects of our lives and farming is no exception. Not only has the internet and social media channels made it possible for Farming Smarter to educate farmers from all over the world, but it played a significant role in expanding the Farming Smarter platform.

Your operation can help the non-farming community see real life on a farm and increase understanding for a generation twice removed from food production.

Morgan Gold sets an interesting example as the owner of Gold Shaw Farm. After many years of working an insurance job in the city, Gold decided to make a major change in 2016 when he moved out to the Vermont countryside and started the Gold Shaw Farm YouTube channel. Gold is active on all major social media platforms, including a new podcast. But YouTube is his main outlet where his viewers follow his journey establishing his self-described “farm in progress.”

His videos mainly consist of Gold going about his daily routine, addressing the various obstacles that a novice farmer encounters on his 158-acre homestead. Viewers followed the farm’s development from the very beginning, and as such, they have a front row seat to how the new farmer approaches the issues that arise in a much less traditional manner. The subscribers of Gold Shaw Farm have become invested in the journey of not only the farm, but the farmer as well, which is one of the key aspects that contributed to the start-up farm’s success.

## CONNECTION TO THE AUDIENCE

Forming a connection with his viewers is of utmost importance to Gold which he effectively achieved with social media. Through several platforms, Gold formed a bond with his viewers and went a step further by providing a tangible connection to the farm through selling merchandise and farm products on his website. As Gold documents his chickens and geese happily running around the farm, his customers get a peace of mind that the animals are raised humanely; one can take pride in supporting a farmer when they know the stories behind the products.

## TRANSPARENT AND RELATABLE

Gold believes that small scale farms are the way of the future, and he isn’t afraid to show the numbers. In several videos, Gold breaks down both the expenses and profits of the farm and even includes a detailed video on how much it cost him to finally escape city life. The audience’s desire for authenticity is not left unfulfilled as Gold shows complete transparency in his journey both financially and emotionally. The special bonds that Gold formed with each animal on his farm is evident in every video, and the warmth he exudes can be genuinely felt by all that watch.

## ENTERTAIN

Overall, the content Gold Shaw Farm provides is quite entertaining. Gold understands the wholehearted commitment that farming requires and applies the same principle to the videos he creates. By adding short clips from shows and movies or using humour to help prove a point, Gold puts a lot of effort into his content. Although he describes himself as an introvert, which is a quality I’m sure many farmers share, Gold has a great on camera pres-

ence; he is never condescending and always happy to work his farm. The Gold Shaw Farm videos can help someone with a dream of living the homestead life understand what an average day on a farm looks like.

## DIVERSIFY

YouTube may be Gold’s main outlet, but he also puts a lot into his other social streams. Using more than one channel is important as it provides opportunities to attract different audiences across a variety of platforms. Gold Shaw Farm has a very active Instagram account where Gold posts almost daily because Instagram’s algorithm is more likely to promote channels active every day. This may seem like a bit of a chore, but as I’m sure most of you know, there’s never a dull moment in the life of a farmer and capturing and sharing these moments will become second nature with a little practice.

Search Gold Shaw Farm on YouTube to find his channel and get a fun and informative glimpse into the life of the unconventional farmer. You may find yourself inspired to share your story! —



Gold Shaw farm having fun and sharing on YouTube.



# SUMMER EVENTS COMING IN 2022

**JUNE 23**

**LETHBRIDGE FIELD SCHOOL**

**JULY 21**

**LETHBRIDGE PLOT HOP**

**AUGUST 13**

**HEALTHY FARMS FARM SMART OPEN FARM DAY**

Watch [farmingsmarter.com](https://farmingsmarter.com) as all these events update with speakers, education credits & ticket sales.

GET ALL THE DETAILS!

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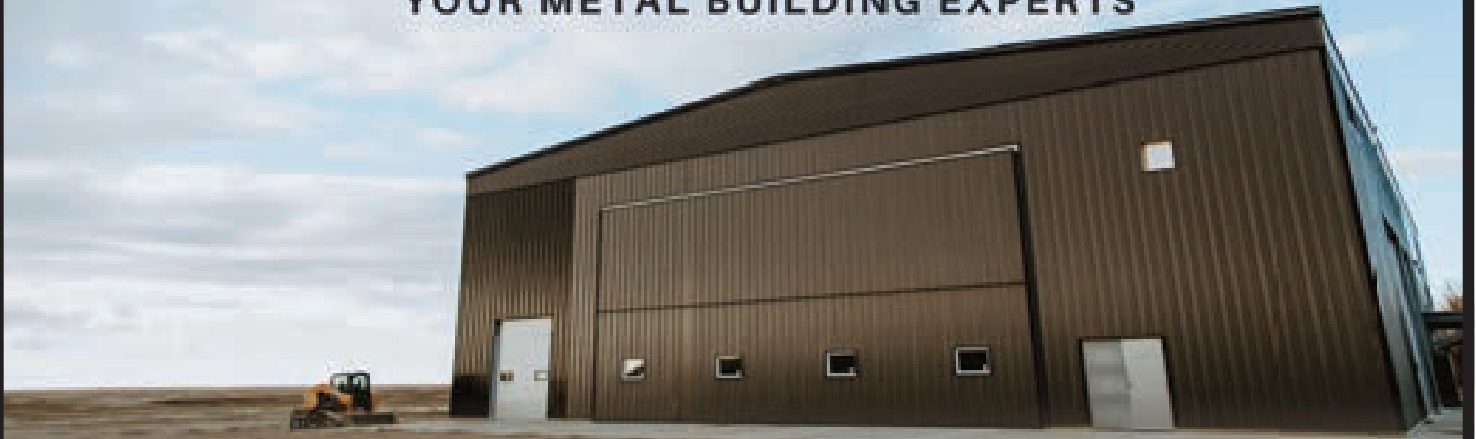
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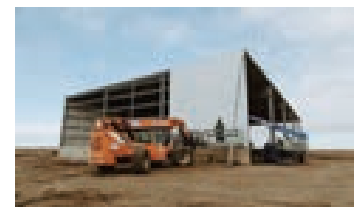
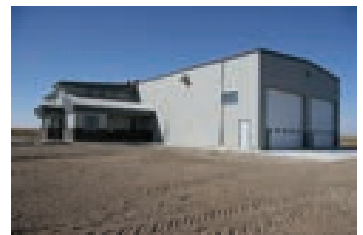
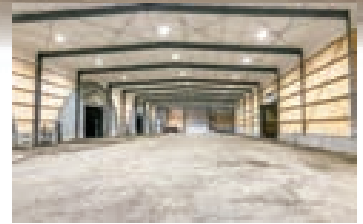
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