Resilience

Turning challenges into OPPORTUNITIES

ANNUAL REPORT
2024-2025

Ag-West Bio

President's Message

Navigating UNCERTAINTY

Sometimes the going gets tough, and that's when the tough get going. But the tough are more resilient when they don't have to go it alone.

When we have to deal with what's coming one day at a time, it helps to lean in to that spirit that pulls us together and strengthens the ties we already have. The Buy Canada Campaign is a good example. They say 'never waste a good crisis' – now is the time for us to pull together, tap that innovative spirit, foster a sense of community, and be willing to work together to solve a problem.

This season of uncertainty that we're in is the perfect time for us to double down on what Ag-West Bio has always done. Innovation is at the heart of progress, and that doesn't come without taking some risks. Really disruptive innovation comes from taking big risks and seeing a future that not everyone is ready to see. We need to build for the future.

Ag-West Bio's role is to help build innovative bio-businesses in Canada, which strengthens our sector and makes us resilient against external challenges.

We have recently partnered with LGCY Innovation Hub, a new initiative by 9 Mile Legacy Brewing that reflects our values of supporting each other through innovation. LGCY is a nano-fermentation facility that focuses on creative collaboration and exploring innovation with community partners. Many great innovations have started small and grew because someone was willing to give it a try.

Thank you to the Ministry of Agriculture and PrairiesCan for their ongoing commitment to driving innovation. I am also grateful to the staff of Ag-West Bio, our Board of Directors, and our members. This community will see us through hard times. Thank you all for your commitment to our cause.

Dr. Karen Churchill

Letter from the Chair

Facing Challenges TOGETHER

While we live in unprecedented times, I believe the Saskatchewan bioeconomy has many of the key ingredients that society needs to weather this storm.

Our province has been through challenges before, and we always work together to solve our shared problems and come out the other side stronger than ever.

Here at Ag-West Bio, we've been making new additions to our team, both staff and board members, adding new ideas, perspectives and skillsets to increase our resilience. We've had many exciting moments this year, which all reinforce the ways we are fulfilling our mandate. We welcomed Ergo to the GAAP, celebrated the sale of Smart Earth camelina germplasm to Bayer, and received renewed funding for the Prairie Food Link.

It has been a pleasure to work with Karen Churchill in guiding Ag-West Bio on its mission. She is consistently hard-working and dedicated to strengthening the Saskatchewan bioeconomy through commercialization, building the ecosystem and being an ambassador for prairie science. She is constantly networking and building connections that spread beyond our borders.

On behalf of the Board of Directors I would like to thank the provincial Ministry of Agriculture for supporting Ag-West Bio with core funding for the last 36 years. I would also like to thank the organizations that fund our initiatives: PrairiesCan for funding the Prairie Food Link and the Sustainable Canadian Agriculture Partnership for funding the Diverse Field Crops Cluster.

Thank you to our board members for their commitment to this mandate. They offer diverse perspectives on the strategic decisions that we make for the organization. We welcome Chantel Chizen and Kathy Larson as new board members and offer special thanks and say farewell to Gayle MacDonald, who has completed her term.

Together we'll continue to do what Ag-West Bio does best: advocate for ag and food science and champion Saskatchewan's bioscience startup companies.

Jeff Bertholet

VISION: Saskatchewan is a world leader in bringing agricultural bioscience innovation to commercialization.

MISSION: Accelerating innovation and enabling companies to commercialize research in agricultural and food biosciences.

MANDATE: To provide leadership, as a catalyst, to link existing capabilities and resources in order to strengthen the bioeconomy industry in Saskatchewan.

Ag-West Bio Board of Directors

Jeff Bertholet (Chair) – Crop Development Centre
Erin Armstrong – Independent
Chantel Chizen – University of Saskatchewan
Terry Fonstad - University of Saskatchewan
Heather Forbes – Rite way Mfg. and Morris Equipment Ltd.
Shawn Gibson – Saskatchewan Ministry of Agriculture
Kathy Larson – University of Saskatchewan
Tyler Lynch – Saskatchewan Ministry of Trade and Export Development
Gayle Macdonald – Independent
Jennifer Milo – SynergyAG
Jason Skotheim – Horizon Pet Nutrition
Mike Wonnick – Independent

Ag-West Bio Staff

Karen Churchill – President & CEO
Ola Aina – Office & Finance Administrator
Noelle Chorney – Director of Communications
David Gauthier – Investment Manager
Jeremy Lang – Director of Innovation & Business Development
Lana Mollard – Corporate Secretary & Executive Assistant to the President & CEO
Monica Pollard – Director of Ecosystem Development
Alejandra Toro – Manager of Program Development
Savanna Veilleux – Communications Assistant
Shae Zwozdesky – Communications Assistant

Industry Overview

Challenging Times, OPPORTUNITIES FOR GROWTH

Every media channel and coffee row is buzzing with unfolding events that throw Canada's very existence into question. Many of Saskatchewan's primary industries have been targeted in escalating tariff wars, and the sense of uncertainty continues to grow.

In the bioscience industry, people may be wondering how these events will affect them. Leaders in the industry have been having the same thoughts and are looking for ways to turn these challenges into opportunities.

Ag-West Bio President and CEO Karen Churchill says, "Ag-West Bio has a longstanding history of acting as a catalyst for progress, which inherently involves embracing change."

Saskatchewan has never been immune to international market volatility. Angela Krauss, Interim CEO and Senior Vice President of the Saskatchewan Trade and Export Partnership (STEP) says, "Saskatchewan is an export dependent province. Trade plays a vital role in our economy. Because of our relatively small domestic market, our companies need to look outside provincial borders to expand to new markets and grow their customer base. Heightened trade barriers and protectionism from around the globe, but increasingly from the United States, is concerning many of Saskatchewan's companies offering both goods and services."

> Our value-added agriculture sector is one of the fastest growing sectors in Canada,
> **WITH ANNUAL REVENUE THAT HAS MORE THAN DOUBLED SINCE 2012.**

Tyler McCann, Managing Director of the Canadian Agricultural Policy Institute, says current events reveal deeper issues in Canada. "The tariffs are a problem, but they lay bare some of the fundamental challenges we face in Canadian agriculture. If we want to succeed as a sector, we may not be able to count on the things we have traditionally counted on, like reliable access to the world's largest economy and trading market."

McCann says now is the time to double down on agriculture's domestic value-added sector: "We've been doing work on food and processing in Canada, which is our greatest potential. But productivity growth has been slow. The GDP has been substantial because we've been relying on export growth. We need to work on our productivity."

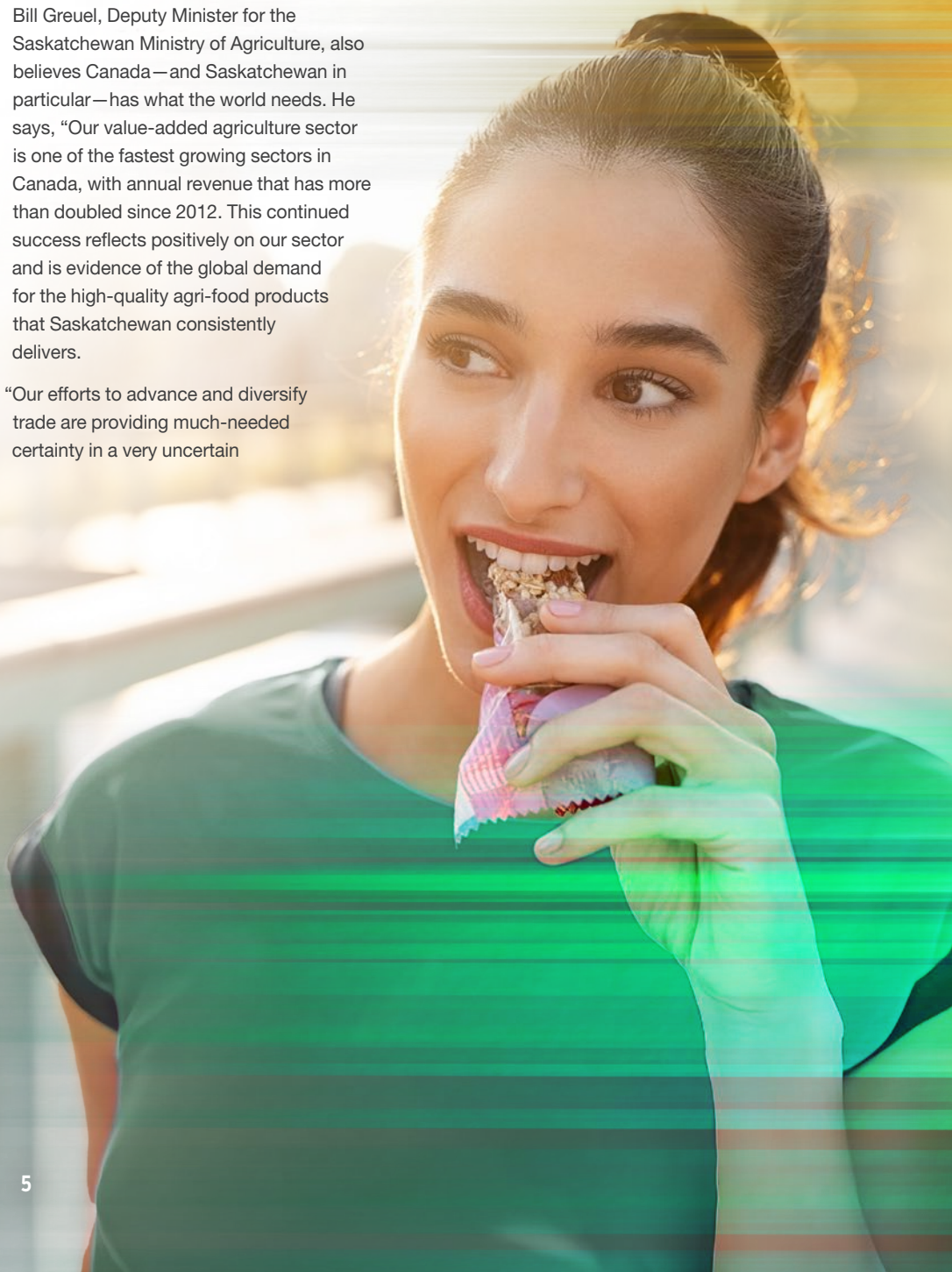
Policy is only part of the solution, and possibly a smaller part than Canadians expect. McCann says, "We're seeing more and more that policy is only a small part of creating these opportunities. We need a culture focused on growth and drive. We have a Canadian approach of being comfortable with the status quo. What we're going through now suggests we need to throw that out the window, be more ambitious and more aggressive. We need the government to do less, but to do the things they do better."

Regardless of the challenges, McCann cites growing demand for Canadian products: "Canada has what the world needs. But we don't have confidence in the regulatory and policy environment to help us navigate the current risks."

> This continued success... is evidence of the global demand for
> **THE HIGH-QUALITY AGRI-FOOD PRODUCTS THAT SASKATCHEWAN CONSISTENTLY DELIVERS.**

Bill Greuel, Deputy Minister for the Saskatchewan Ministry of Agriculture, also believes Canada—and Saskatchewan in particular—has what the world needs. He says, "Our value-added agriculture sector is one of the fastest growing sectors in Canada, with annual revenue that has more than doubled since 2012. This continued success reflects positively on our sector and is evidence of the global demand for the high-quality agri-food products that Saskatchewan consistently delivers.

"Our efforts to advance and diversify trade are providing much-needed certainty in a very uncertain



> Investing in research is one of the smartest investments in agriculture we can make as a province—
>
> **IT HELPS THE INDUSTRY STAY COMPETITIVE, ABLE TO ANTICIPATE AND RESPOND TO FUTURE CHALLENGES AND OPPORTUNITIES.**

economy. We are strengthening our international relationships to increase trade and boost exports with the 160 countries we do business with. The province will continue to diversify export markets through missions and our network of nine international trade and investment offices that help make the province more resilient to market risks."

In many cases, the answer to the question, 'what can we do?' is, 'more of the same.' Angela Krauss says, "For more than 25 years, STEP and Ag-West Bio have worked together to advance biotechnology and agri-industry opportunities for Saskatchewan companies. STEP has participated in and supported Ag-West Bio industry initiatives such as the Global Agri-Food Advancement Partnership (GAAP), Navigate, and the Prairie Food Link, and Ag-West Bio has supported STEP's outgoing and incoming trade development initiatives.

"In navigating future uncertainties, STEP and Ag-West Bio can continue to collaborate on similar initiatives to foster innovation and reduce some of the risk for Saskatchewan companies in market diversification into both new market segments and new geographic regions."

Diversification and collaborating with other markets are where innovation thrives. Karen Churchill says, "Innovation has blurred the distinctions between what we traditionally consider agriculture or biosciences. We recognize the benefits of drawing knowledge from various sectors such as the health industry, the oil and gas industry, and manufacturing. If our land, plants or animals are impacted, it likely falls within our purview. For example, we can now care for the soil and increase food production in ways previously unimaginable, mapping these changes and sending data directly to our phones."

Bill Greuel speaks to the importance of a healthy research infrastructure to fuel innovation: "Investing in research is one of the smartest investments in agriculture we can make as a province—it helps the industry stay competitive, able to anticipate and respond to future challenges and opportunities. We know research is what keeps our producers and agri-businesses positioned as global leaders."

The research landscape is changing more rapidly with the expansion of opportunities, thanks to technological advancement,

particularly AI. Jeremy Lang, Ag-West Bio's Director of Innovation and Business Development, says, "AI is a big opportunity—leveraging the power of AI to imitate biomolecular dynamics to solve previously unsolvable molecular problems will lead to new products and solutions, which in turn will lead to new innovations and businesses.

"Entrepreneurs are the source of economic growth. Anything we can do to help entrepreneurs and innovators grow their companies and create jobs will support the economy and build our resilience."

Bill Greuel identifies Ag-West Bio as a key ingredient in Saskatchewan's innovation commercialization ecosystem: "Connecting science and business establishes a real community of innovation, and Ag-West Bio is a catalyst for this kind of activity by directly investing in companies through the Technology Commercialization Fund, by delivering purposeful events to bring people together and by delivering relevant training for entrepreneurs. All of this works to encourage commercialization of good ideas into business growth opportunities. Commercialization is vital to an export-based economy like ours, in which growth relies on staying competitive, resilient and sustainable."

Karen Churchill acknowledges the necessity of technology, but also the people behind it: "While artificial intelligence offers unprecedented connectivity, human connection remains crucial. Our partners provide valuable insights into the issues we face, contributing diverse perspectives that enable us to address challenges effectively. Ag-West Bio not only collaborates with these partners but also actively fosters a community that supports entrepreneurs in taking the next step toward success. Together, we strive to make a significant impact in establishing our bioeconomy, now and in the future." ▲

Report on the GAAP
Creating Jobs & Opportunities

At the Global Agri-Food Advancement Partnership (GAAP), we not only believe in innovation but also invest in and support it. We are committed to bringing new biotechnology to the forefront, positioning Saskatchewan as a leader in innovation.

In 2024, GAAP invested in ERGO Bioscience, whose genuine interest in the province and cutting-edge technology make them a perfect fit for Saskatchewan.

Biotechnology is, and will continue to be, at the core of innovation worldwide—and Saskatchewan's bioscience ecosystem is becoming recognized on the global stage. While AI is permeating all aspects of our daily lives, it promises to accelerate research by analyzing vast amounts of theoretical data, reducing failed trials and human error. This will shorten the time it takes for consumers to access the newest and best options on the market.

At the GAAP, we aim to provide companies within and outside the province with everything they need to thrive. When a biotech company like ERGO succeeds, we become part of a revolution that brings sustainable solutions to our most pressing needs, such as providing affordable and healthy ingredients in our food. Supporting innovation not only impacts businesses but also benefits the community.

We are excited to welcome ERGO into our incubator. Among the many milestones we have achieved, we are particularly thrilled that ERGO has hired new personnel based here in Saskatoon at the GAAP office. The new laboratory lead will use GAAP's facilities to carry out new projects.

GAAP continues to make international connections: early in 2025, we welcomed Ricky Cassini, the CEO and co-founder of Michroma, a start-up from Argentina that produces food dyes using fungi. Ricky had learned about GAAP and the Navigate program from previous participants who recommended our program. Our circle of innovation continues to grow and put Saskatchewan on the map.

Ricky Cassini with GAAP staff Alejandra Toro and Martin Wilding

Prairie Food Link Report

Breakthroughs through COLLABORATION & NETWORKING

Prairie Food Link (PFL) is an industry-led cluster that has been serving as a key connector for organizations within the Saskatchewan food and ingredient processing sector since 2021.

Currently, PFL has 237 individual members representing 166 organizations. It is a diverse and multifaceted ecosystem, with members spanning various sectors (private industry (112), government (13), non-profits (32), and educational institutions (9)).

PFL continues to strengthen its network and enhance its offerings through key partnerships with stakeholders, including FEAD (Female Entrepreneurs in Agri-Food Development) and OPUS, USask's startup incubator. PFL also facilitated several high-quality training programs aimed at equipping its members with essential skills to thrive in the food processing sector.

This year the PFL has secured a three-year funding agreement with PrairiesCan through the Regional Innovation Ecosystems (RIE) program. This support will be leveraged by existing funding received from fee for services, partnership funding, event fees and in-kind support provided by Ag-West Bio.

In 2024 PFL hosted events that created networking opportunities, offered insights into market trends, and fostered collaboration within Saskatchewan's food processing industry. They brought industry leaders, entrepreneurs, and other stakeholders together, providing them with practical insights, strategies, and actionable takeaways to enhance their businesses.

Prairie Food Link is proud of the success stories that have emerged from its programs and initiatives. The ongoing collaboration and networking between members have resulted in new business partnerships, expanded distribution networks, and innovation breakthroughs. Visit prairiefoodlink.ca to learn more and sign up for upcoming Monthly Mixers.

A Commitment to Inclusion and Diversity

PFL is proud to include Indigenous businesses and economic development organizations within its membership base. These groups are integral to PFL's goal of creating a diverse and inclusive food ecosystem:

- Île-à-la-Crosse Fish Company / Sakitawak Development Corp
- Indigenous Foods and Beverages Canada Inc.
- Boreal Heartland / Keewatin Career Development Corporation
- Indigenous Manufacturing and Contracting Network Inc.
- NWC Wild Rice Company
- NewNation Developments Ltd
- Flying Dust First Nation Lands and Resources / Flying Dust Market Garden.

These organizations bring unique perspectives and valuable contributions to the food processing sector, enhancing PFL's capacity to represent a broad cross-section of industry stakeholders. ▲

Commercialization Report

Celebrating GOOD NEWS

We have much to celebrate this year, with a healthy investment pipeline, new investees, and good news from our earlier investments.

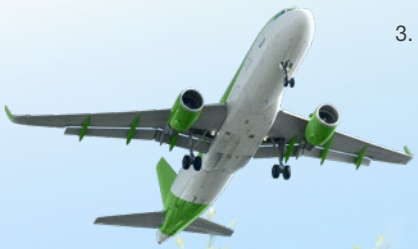
This year we met with 20 early-stage companies to provide input, guidance and connections that will accelerate their investment readiness and commercialization plans. Early-stage investing is always risky. We have a highly vetted selection process that we use to build a stronger ecosystem by filling capital gaps for our investees, while maintaining a high success rate.

This year we invested in:

1. Sask Shrimp for the development of a fish feed that does not break down in water
2. 9 Mile Legacy Brewing's new venture, LGCY Innovation Hub
3. NULIFE GreenTech who use bioreactors to transform food waste into bio-oil.

One particularly good news story this year was the sale of Smart Earth Camelina's germplasm to Bayer. Bayer will continue to work with the germplasm while Smart Earth Camelina continues to manufacture their oil products for pet health.

Many Ag-West Bio investees are making significant progress in their commercialization journeys. Patience is critical when supporting early-stage agri-food companies. The road is often long and tumultuous, but the payoff can be substantial for the founders, the agriculture industry, and society in general. Stay tuned for more investee success stories! ▲



Bayer will continue to work with camelina germplasm to decarbonize the transportation sector with renewable diesel and sustainable aviation fuel solutions.

Member Profile | ERGO

Using Fermentation to Grow a More Sustainable FOOD INDUSTRY

ERGO's myoglobin is used to create products with the same colour, taste, and aroma as meat.

With an increasing number of people turning to plant-based diets for both ethical and environmental reasons, there is a growing demand for sustainably sourced meat alternatives. ERGO, an Argentina-based biotech start-up, is using precision fermentation to grow authentic animal proteins without using animals.

ERGO currently produces two different types of protein: myoglobin and caseins. Myoglobin is used to create products with the same colour, taste, and aroma as meat, while caseins are used to create plant-based dairy products, such as cheese and yogurt.

> **The precision fermentation process uses microorganisms to create new ingredients.**
>
> **AT ERGO, THEY USE IT TO GROW PLANT CELLS THAT HAVE 100% THE SAME STRUCTURE AS THE ANIMAL DERIVED ONES.**

Precision fermentation has been around for decades, but ERGO is using it in innovative ways. Much like alcohol fermentation, the precision fermentation process uses microorganisms to create new ingredients. At ERGO, they use it to grow plant cells that have “100% the same structure as the animal derived ones,” explains Alejandro Barbarini, CEO and co-founder of ERGO.

He makes sure to specify that the plant cells they are growing are stem cells. “This means they are undifferentiated cells,” he says. “They are not root, they are not leaf, they are not flower; they are stem cells. They have all the genetic information inside.”

This is how ERGO’s precision fermentation process differs from other lab-grown meat processes. Instead of harvesting stem cells

Alejandro Barbarini (front row, far right) with the ERGO team

from living animals, they grow their own, completely removing the animals from the process. ERGO's process generates fewer greenhouse gas emissions and uses far less land and water than traditional meat and dairy production, making it both better for the environment and vegetarian friendly.

Barbarini explains that, by creating more complex animal proteins, ERGO also distinguishes themselves from other precision fermentation start-ups. "Many of the start-ups using precision fermentation are based on platforms using microbes or yeast. In our case, we use plant cells because they have more biological resources to reproduce complex animal proteins with more flexibility," he says. "We try to focus on proteins that we know the rest of the companies cannot produce."

ERGO also sets themselves apart in terms of their business model. While most companies using precision fermentation are ingredient suppliers, ERGO is interested in something bigger. "We are a platform company," Barbarini explains. "We try to diversify, and we are trying to offer multiple applications in different areas."

Instead of providing ingredients, ERGO provides the technology that other companies need to produce those ingredients. For example, in addition to growing plant cell proteins, ERGO's technology can also be used to produce ingredients that are otherwise difficult to obtain. If a crop only grows in very specific conditions or generates a low yield, ERGO can provide a solution.

Barbarini gives the example of essential oil derived from rose petals. "You need tons and tons of petals to extract just one litre or a couple of grams of essential oil. Using our platform, we can produce essential oil every day with the biomass that we extract from the bioreactor," he says.

There are endless applications for their technology, and ERGO wants to be involved in all of them. Luckily, they are able to do so with the help of their partners, investors, and the Saskatoon biotech industry. In 2023, ERGO participated in the Global Agri-food Advancement Partnership (GAAP) Navigate program, supported by Ag-West Bio. Shortly after, GAAP proposed direct investment in and collaboration with ERGO.

Barbarini recounts that first trip to Saskatoon: "During those two weeks, we had the chance to visit the whole Saskatoon biotech ecosystem. We understood that this was a huge opportunity for us."

Since the partnership was finalized in summer 2024, ERGO has begun the incubation process in Saskatoon. They have incorporated their first lab in the city, set up their subsidiary, and hired their first employee. And this is only the beginning for ERGO in Saskatoon. The location offers access to first-rate technology and an enthusiastic support system, as well as to ERGO's customer base in Canada and the United States.

Currently, they are focused on optimizing their processes and improving their team. This will involve setting up a commercial team in Saskatoon and, possibly, an eventual migration of the entire company to Canada. "Our plans are to be there long term," Barbarini says, "it is key for us."

The future of ERGO is promising, and Barbarini says that it would not be possible without the help of their community in Saskatoon. "They have helped me a lot, not just with the investment implementation, but with all the secondary activities that are necessary to set up a company in another country. I would like to say thank you to all the people working at GAAP and Ag-West Bio. To the people who have opened doors for me, not just in the laboratories, but in their own homes." ▲

Making Something Positive from FROM A WHOLE LOT OF WASTE

NULIFE is turning waste biomass into sustainable, renewable, biocrude oil.

What if you could turn waste—perhaps the one thing on Earth with no value—into something that is not only profitable, but that also makes a positive impact? Through cutting edge waste management solutions, NULIFE Green Tech is doing just that.

The founders of NULIFE were looking for technology that aligned with their mission—to create a successful business model that would turn a profit while making the world a better place. Years later, their patented hydrothermal liquefaction (HTL) technology is helping them achieve that goal.

In brief, the company is turning waste biomass into sustainable, renewable, biocrude oil. Through partnerships with a range of other companies, NULIFE gathers a portion of the massive amounts of industrial waste (anything from underutilized agricultural residues to sewage sludge) produced in North America to their facility in Saskatchewan. There, they put it through their hydrothermal liquefaction process, which uses heat and pressure to turn the waste into sustainable and profitable bio-oil.

"We essentially recreate how oil was formed on Earth," says Jerry Kristian, cofounder of

> **NULIFE Green Tech is currently in the process of establishing partnerships with refineries.**
>
> **THAT WILL BE ABLE TO TURN NULIFE'S BIO-OIL INTO LOW-CARBON FUELS.**

NULIFE, “but instead of millions of years, we do it in less than 10 minutes, and we create a renewable biocrude oil.”

The HTL technology existed before NULIFE, but it had yet to be used in this unique way. “The challenge was, it had been heavily researched, but not really commercialized,” he explains. “We saw a great opportunity with it.”

Currently, NULIFE is selling their bio-oil product, but they are also selling carbon credits earned through the process to a range of companies across North America, including Stripe, Shopify, and Google.

Another major advantage of their HTL process is that they can take their technology right to their clients. Kristian explains that they have developed a modular system that is scalable, which allows them to set up close to waste generation sites. This reduces both trucking costs for the waste generator as well as emissions.

And this is only the beginning—NULIFE is always looking toward the future. The company is currently in the process of establishing partnerships with refineries that will be able to turn NULIFE’s bio-oil into low-carbon fuels. They are also working with a fellow Canadian company that is advancing their own technology to capture, clean, and sell NULIFE’s carbon dioxide emissions released in the HTL process, improving both the environmental impact and the monetary benefits of their technology.

Jerry shows feedstock while Brock holds jars of the finished product in front of oil tanks.

Right now, NULIFE is primarily focused on expanding their Saskatoon facility, which Kristian knows will serve as a showcase for them to replicate as they extend their reach across Canada and into the United States. “We have the interest, now we need the commercial facility to show them.”

For NULIFE, sustainability has a double meaning. “When we say sustainable, it’s in two ways: environmental, but also on the business side. To be a sustainable business, you have to be profitable and solve a real problem for industry.”

Essentially, you can only continue to change the world if you have the resources to do so. And NULIFE, which was created out of a desire to make the world a better place for the next generation, is focused on longevity. Kristian says this is part of the reason they chose waste management. “Waste is something that’s created every day,” he explains, “it’s recession-proof.”

They prioritize long-term agreements with clients and are always looking for ways to expand their reach and impact. This is why their relationships with organizations in the community, such as Ag-West Bio, are so important.

“The money is wonderful,” says Kristian, referring to the $300,000 Ag-West Bio invested in NULIFE in October 2024, “and you appreciate it, but then it’s spent.”

What he cites as truly important is the kind of ongoing support, exposure, and community-building the organization offers. “Ag-West Bio adds value—the introductions, the exposure. They are even producing a video for us right now.”

This sense of community is why the company chose to set up shop in Saskatchewan. Kristian says that, despite the early challenges every start-up faces, the sense of community and local pride in the province will be a benefit later on. “These are people who not only care about making a return; they want to make an impact.”

“This is home,” he says, “and it’s important to us.” ▲

Rooted in Resilience

BUILDING A LASTING BUSINESS FROM THE GROUND UP

Smart Earth's camelina oil supplement for canine and equine use has thousands of 5-star reviews.

A resilient business model is all about knowing when to adapt and when to hold your own. This is something that the people behind Smart Earth Camelina Corp. know well.

When the founder of Smart Earth, Jack Grushcow, decided to transition from software development to biotech in the mid-nineties, he took the time to do his research. "I thought it would be cool to build something out of DNA," he says, "but I also wanted to commercialize it. So, it looked like plant biotech was an opportunity."

Grushcow started Linnaeus Plant Sciences Inc., which would become Smart Earth Camelina. The Linnaeus team spent their first few years researching molecular biology at the University of British Columbia, exploring options in canola oil and GMO technology to produce renewable lubricants and polymers. However, there were export concerns associated with canola as a food crop, and they needed a different crop to deliver the modified oil profiles. This is when they landed on camelina (and on Saskatchewan).

"Everyone in the biotech space has a nail, and they're looking for a hammer," Grushcow says. "In other words, everyone has their favourite gene or something they want to do, and they try to create a business around it." Smart Earth wanted to do things the other way around. They started by looking for a need in the industry, and then they looked for a product that would meet that need.

Camelina is, itself, resilient. It is a low-input, high yield crop that can grow on marginal land, making it suitable for both the prairies and today's climate challenges. It's also resistant to many of the pests that affect crops like canola.

According to Grushcow, the product's resilience is what leads to a strong, lasting business. "It's the practical aspect of actually commercializing a technology that's always the missing piece."

Smart Earth has always been focused on practicality; it's how they've survived as a company for more than 20 years. As pioneers of camelina production, they have faced their share of challenges over the last two decades. Grushcow cites his experience receiving pushback from the Canadian Food Inspection Agency, such as

> People have to understand how great an environment Saskatchewan is for doing this.
>
> **IT'S THE CENTRE OF THE UNIVERSE.**

their "service standard" of not opening new applications before two years have passed. Grushcow observes, "This type of inefficient bureaucracy will hamper Canada's ability to compete in today's global economy. For example, we wanted to introduce a pelleted camelina meal for making high Omega-3 milk. Camelina meal has been approved in the EU for all uses for many years, yet we would be required to do years of testing here and wait more years for a review. We decided we could not afford to go through this process, and had to look for other lower value markets. Everyone loses here." These headwinds required Smart Earth to change and adapt their business model.

The company has been successfully producing and selling companion animal

Camelina has an important role to play in the production of low-carbon fuels.

camelina oil products and camelina-based meal (used mostly for chickens) for years. However, after being approached by major oil companies and global agriculture players, it became clear that camelina had an important role to play in the production of low-carbon fuels. Smart Earth set out to find the right home for that portion of their work and eventually sold part of the company to Bayer Crop Sciences in December 2024.

Bayer acquired Smart Earth's camelina germplasm, intellectual property, key employees, and the materials necessary for expansion into feedstock markets. This allows Bayer to continue what Smart Earth started in terms of low-carbon biofuel development, leaving Smart Earth with the resources to focus on their camelina-based products for companion animals.

"Camelina can be one of the key players globally in terms of sustainable aviation fuel feedstock. And that is what Bayer wants to do," says Grushcow. "We thought it was time to get all the work we've done over the years into the hands of a company like that."With the time and money gained in the sale, Smart Earth is able to focus on what they do best—producing quality products that serve their clients while keeping the environment healthy.

Grushcow explains that none of this would have been possible without the incredible support the company received from the business and agricultural communities. "These things have taken decades to develop," he says, "so it's really about having a vision and having a team around you that can support you."

Ag-West Bio has been a member of that team since the beginning. "They were the first investor. It was amazing of them to support what we were doing when nobody else seemed to care," Grushcow says.

In his experience, there is no better place to find that support than Saskatchewan. "People have to understand how great an environment Saskatchewan is for doing this. We moved here to develop oilseeds, and we had everything we needed—all the researchers, all the experience," he says. "It's the centre of the universe."

Communications REPORT

Spotlighting science, our investments and EXCITING INNOVATIONS

There are many opportunities to tell stories about our events, investments and partners, and we use many channels to do so. We have a lively social media feed and a growing following, with LinkedIn being our main channel for engagement.

On a weekly basis, we let our subscribers know about news and events in our ecosystem through our Weekly Update. Seasonally, we publish our Bio Bulletin, where we can dig into the science behind the work being done by our partners, local researchers and the businesses we invest in.

We also tell our story in partner publications, such as STEP Global Ventures, Western Food Processor magazine and the Western Producer annual seed guide. We support our members by preparing press releases when they have big news to share—as we did for Smart Earth, NULIFE and Intelliyeast last year.

We go beyond the written word to develop promotional videos for the companies we invest in. A feature video for NULIFE has recently gone live.

And then there are the experiences we create, such as our 'Show Me the Science' themed AGM where we feature and promote the companies we invest in. Global Biotech Week is an integration of all our communications strengths: partnership, sharing about science, and people having a great time. We and our partners coordinate multiple events across the province that make science fun and accessible to all.

Programming REPORT

Connections Make US STRONGER

Ag-West Bio's programming brings prairie science to the public and creates venues where our partners—whether they be entrepreneurs, researchers, companies or government agencies—can connect, learn, network and be inspired.

Ricky Cassini talks about his business with Sask Polytech students

Pure Heart

The success of our initiatives is evident in the number of repeat programs we host from year to year. Our Sprouting Success Speaker Series this year aimed to be closer to the farming community, with two events taking place in Carlyle and Humboldt, Saskatchewan. In Carlyle, we spoke with Jake Leguee, Managing Partner of Leguee Farms and Chair of the Saskatchewan Wheat Development Commission, about the 'miracle of incremental progress'. In Humboldt, we learned from Cory Willness from SWAT MAPS, Kyle Folk from Ground Truth, and Mike Furguson from Exceed Grain, three farmers who developed successful, groundbreaking technologies.

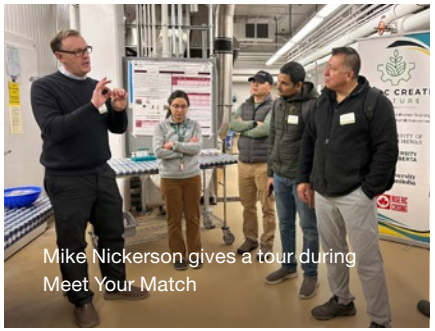
We continued our partnership with Innovation Saskatchewan by hosting a Young Professionals' Night under the Knowledge Farm banner. The afternoon featured Ricky Cassini and Mauricio Braia, co-founders of Michroma, a start-up based in Argentina and San Francisco that produces food dyes using fungi. Ricky and Mauricio spoke about the importance of combining scientific expertise with business acumen to create a successful start-up.

Our Women in Bio program hosted Dr. Shannon Hood-Niefer who engaged and inspired participants by sharing her story. Our annual Beef Innovators' Breakfast was a hit, with over 60 producers and entrepreneurs in attendance. Entrepreneurs pitched their ideas to producers to receive instant feedback.

Prairie Science

This year held many research and knowledge transfer programs, starting with our second Meet Your Match event in partnership with the Ministry of Agriculture—a workshop that connects researchers with industry collaborators. A sister initiative called A Meeting of Minds happened in March, with the intent of helping researchers make successful applications for the Agricultural Development Fund (ADF). Commodity groups shared their research priorities, and emerging researchers shared their research interests.

The Diverse Field Crops Cluster also held a research day in March, with various researchers and cluster members sharing about their ongoing research projects.



Mike Nickerson gives a tour during Meet Your Match

Ag-West Bio also shared science with a younger audience at Spotlight on Ag, where students toured Innovation Place and visited biotechnology startups based on the campus. We combined art and science in one night at Global Biotech week, with over 2500 visitors to our 'Beautiful Science' exhibit at Nuit Blanche. ▲

Diverse Field Crops Cluster REPORT

Climate resilient agriculture with reduced ENVIRONMENTAL FOOTPRINT

Supporting the research activities of special crops—camelina, flax, mustard, and confection sunflower—is the primary focus of the Diverse Field Crops Cluster (DFCC).

Improving yield, increasing resistance to pests and diseases and finding plant traits that enable adaptation to climate change will contribute to increased profitability for Canadian producers.

Researchers and Cluster members actively promoted the ongoing research into these crops at Ag in Motion, the Western Canadian Crop Production Show and crop specific field days held throughout the summer growing season. Ag West Bio hosted the 2025 DFCC Research Day where researchers shared findings to date and crop groups highlighted their visions for future research and collaborations.

Led by Dr. Richard Gray's agricultural economics team at the University of Saskatchewan, DFCC initiated an impact assessment study to determine the economic, social and environmental benefits and impact of federal and industry funding for the Canadian agricultural landscape. Research results will be shared with the community in 2028.

Of note for the cluster is that Bayer CropScience Inc. acquired the breeding and seed production business of Smart Earth Camelina Corp and became the crop sector member within DFCC responsible for the camelina project. DFCC thanks Smart Earth for their significant guidance and support throughout DFCC's history and wishes the company all the best in their future value-added business endeavours.

DFCC is managed by Ag-West Bio. Funding for DFCC is provided through the Government of Canada's Sustainable Canadian Agricultural Partnership program and industry partners: Mustard 21 Canada, SaskOilseeds, Bayer CropScience Inc., Manitoba Crop Alliance, Western Grains Research Foundation, Government of Manitoba, Nuseed Canada, SaskWheat, and Mitacs.

Project titles and Principal Investigators:

Greenhouse gas (GHG) program for diverse crops
Dr. Kate Congreves (USask)

Integrated approaches for genetic improvement of flax
Dr. Bunyamin Tar'an (USask) and Dr. Frank You (AAFC-Ottawa)

Camelina crop and germplasm development-harnessing for climate resiliency
Dr. Christina Eynck (AAFC-Saskatoon) and Dr. Dan Ruzicka (Bayer CropScience Inc.)

Climate smart condiment mustards for crop productivity and resilience
Dr. Bifang Cheng (AAFC-Saskatoon) and Dr. Howard Love (Mustard 21)

Breeding and experimental hybrid screening of confection sunflowers
Katherine Stanley (Manitoba Crop Alliance)

Impact assessment study
Dr. Richard Gray, (USask) ▲

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