

The WHEATFIELD

Saskatchewan Wheat Development Commission Newsletter

March 2024

POLICY/ADVOCACY

\$10.8M commitment to research highlights Sask Wheat AGM

by Dallas Carpenter
Communications
Manager

A busy and successful 2022-2023 crop year was capped off at the Sask Wheat Annual General Meeting (AGM) on Jan. 9, 2023, at the Western Development Museum in Saskatoon.

Board Chair Brett Halstead reported on the previous year's business, with research taking the spotlight early. Sask Wheat committed over \$10.8 million to 55 research projects, including \$3.1 million towards equipment at the University of Saskatchewan's Crop Development Centre and the eight AgriARM research sites.

Since 2014, the Commission has committed funding to 305 projects for over \$67.3 million. This has helped leverage millions more toward breeding new varieties and improving agronomic practices and pest management.

Key advocacy initiatives were highlighted, notably the Canadian Grain Commission's (CGC) decision to harmonize separate



Sask Wheat Chair, Brett Halstead, delivers his report at the 2024 AGM. Photo by Nathan Jones.

primary and export standards at export tolerances for test weight and total foreign material for most western Canadian wheat classes. With primary standards tightened to export standards, producers may have faced significant negative financial implications from quality downgrades and lower prices at primary elevators.

The decision was to be implemented on Aug. 1, 2023, but was reversed after a Sask Wheat-led, multi-organizational campaign. Sask Wheat continues to

urge the CGC to complete an economic analysis for consideration by the Western Standards Committee before any future consideration of primary and export standards harmonization.

The wheat stem sawfly survey, a collaboration of Sask Wheat, the Saskatchewan Crop Insurance Corporation (SCIC), and the Saskatchewan Ministry of Agriculture, was one of the agronomy activities highlighted at the AGM.

The sawfly survey led to the production of the first Wheat Stem Sawfly Risk Map, which is published on the Sask Wheat website. The map can be used as an additional resource to assist producers in identifying hotspots around the province, helping them to decide whether to implement a control strategy, such as growing a semi-solid variety.

The meeting was the final for Halstead as Chair, with the Board of Directors electing director Jake Leguee to serve as Chair for 2024. In addition, director Jocelyn Velestuk was elected the Vice-Chair of the organization. SW

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CHAIR'S MESSAGE

Continuing to advocate for producers on policy issues

I hope this newsletter finds everyone well and anticipating good things for the upcoming growing season.

It was wonderful to see so many producers attend the AGMs of the crop commissions in person this year. Whether in person or online, we will continue working hard to encourage producers to engage with us so they know about the work we are doing on their behalf. We want to hear your questions and concerns about Sask Wheat's activities and initiatives.

One of the most important activities we have worked on over the past few months has been the Transport Canada Rail Review. Former Board Chair, Brett Halstead and staff attended a stakeholder engagement session on Oct. 18, 2023, in Saskatoon, along with representatives from other crop commissions and producer organizations.

The topics discussed at the meeting included extended interswitching, shortlines, annual and winter grain contingency plans, and the important Maximum Revenue Entitlement (MRE). The Crop Logistics Working Group and the Grain Growers of Canada (GGC), both of which Sask Wheat is a member, responded to the review. Both submissions, which Sask Wheat supported, called for the retention of the MRE as it ensures rail carriers are fairly compensated while providing producers, who ultimately bear the cost of rail service, with cost protection. Both submissions also asked that interswitching be perma-



The topics discussed at the meeting included extended interswitching, shortlines, annual and winter grain contingency plans, and the important Maximum Revenue Entitlement (MRE).

nent and extended beyond the current 160 km radius.

The proposed merger of Bunge and Viterra is another issue we continue to monitor. In partnership with SaskBarley, Alberta Grains, and the Agricultural Producers Association of Saskatchewan (APAS), Sask Wheat is coordinating a project with the University of Saskatchewan to analyze the potential implications of the proposed merger. This is especially important for Saskatchewan producers in the areas of competition and investments in oilseed crushing capacity, rail transport, port infrastructure and the configuration and concentration of primary elevators. Smaller crops would

have especially been affected by producer access to delivery.

Sask Wheat continues to be involved in consultations on the Pest Management Regulatory Agency's (PMRA) draft Continuous Oversight policy. The policy would establish the continuous review, learning and intake of information for each active pesticide ingredient registered in Canada. Continuous Oversight would include the intake of academic research, water monitoring, chemistry data, non-published research and research from other countries. Sask Wheat is a member of the Canada Grains Council, and we often collaborate with them on files regarding the PMRA. We have taken the lead on messaging with this issue, as we commonly do.

Sask Wheat also continues to work with and support the Ag Carbon Alliance, which has been encouraging the federal government to pass Bill C-234 in its original form, which would see the Greenhouse Gas Pollution Pricing Act amended to exempt propane and natural gas used by farmers to heat farm buildings and barns from the carbon tax.

One of my favourite times of the year is coming up: seeding. There is nothing like it. The early sunrises, the smell of freshly turned soil, the blossoming trees, the anticipation of the emergence of another crop, it truly is an exciting and exhilarating time of year. Best of luck to all of you in the fields this spring, and be safe out there!

Jake Leguee
Chair

Sask Wheat
DEVELOPMENT COMMISSION

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Jocelyn Velestuk – *Broadview*
Brett Halstead – *Nokomis*
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EXECUTIVE DIRECTOR'S MESSAGE

Potential impacts of sustainability initiatives remain on the radar

Sask Wheat kicked off 2024 with several events that brought researchers, agronomists and marketing experts to communities throughout the province through our Coffee Shop Talks and Think Wheat events. While bringing these experts to communities to discuss their research and experiences is important, these events also are tremendous opportunities for our directors and staff to engage with the many producers who attend. It was valuable to hear from producers who could make it to these events and our AGM, held on Jan. 9, and we hope to hear from more producers at future events throughout the year.

According to the March 3, 2024, Wheat Market Outlook, wheat exports are seeing mixed results for the current crop year. Spring wheat exports, excluding durum, are ahead of last year's pace, sitting at 12.3 million metric tonnes (mt). Durum exports, however, are just under 1.8 million mt, down 40 per cent from this time last year. As has been noted by Mercantile Consulting, Turkey is a significant competitor for Canadian durum this year, which has cut into many of our traditional export markets.

On Jan. 10, I joined many leaders from Saskatchewan's agri-



culture industry at the Global Institute for Food Security (GIFS) at the University of Saskatchewan to receive the results of GIFS's carbon life cycle analysis for the major western Canadian crops. The results were impressive! For example, adopting practices such as minimum tillage and diverse crop rotations has helped Saskatchewan producers lead the nation by sequestering an average of 15.6 million mt of carbon annually using a five-year average from 2017-2021. The investment by producers into research and plant breeding has also had a major impact on Saskatchewan becoming a leader in sustainable agriculture. Find out more about the GIFS initiative at gifs.ca/sustainableag.

Sustainability has been a focus of federal government policy for the sector over the past year. In Dec. 2022, Agriculture and Agri-Food Canada (AAFC)

began consultations on a draft Sustainable Agriculture Strategy (SAS) document, which included the proposed goals of improving the environmental performance of agriculture while growing the productive capacity and maintaining the sector's competitiveness. On Dec. 29, 2023, AAFC released the "What We Heard" report on the SAS consultations. There were several key themes identified in the report, including the need to identify and address data gaps and apply economic and social lenses to the goals of the SAS. The report indicated that respondents feel strongly that the SAS recognize the importance of the regionality and diversity of primary production agriculture, the varying scales at which farmers produce and, thus, the varying challenges and needs the policy must address.

Additionally, the need for a sustainability policy to recognize early adopters and the concern with the increasing loss of agricultural land in Canada were major themes heard in the consultations.

The "What We Heard" report revealed some divisive issues. For example, some respondents want the strategy to aim for a net-zero agriculture sector, while others feel this is unachievable

and would set the sector up for failure. However, there is strong support for more resources to be made available for public research through AAFC, in partnership with academia and research associations, and for unbiased information to be provided through government or trusted producer associations. We hope this report will lead to an SAS that benefits Saskatchewan wheat farmers and rewards them for the sustainable practices they have already implemented and continue to practice on their farms.

We will continue participating in engagement sessions and advocate for wheat producers wherever possible. Sask Wheat and the other SaskCrops commissions had the opportunity to meet with the Minister of Agriculture, the Hon. Lawrence MacAulay, in Dec. 2023, and we will continue to seek more opportunities to bring important producer issues to government officials.

I want to extend best wishes to our farmer members headed into the upcoming spring and seeding period.


Blair Goldade
Executive Director

WHAT'S NEW

Welcome new director Cameron Reich

Sask Wheat's new Director, Cameron Reich, was officially installed on the Board of Directors following the AGM on Jan. 9, 2024.

Reich lives on a farm east of Craik, SK, with his wife Jessica and newborn son Renner. He is the fourth generation to produce grain on the family farm. He is also a part-time Saskatchewan Crop

Insurance Corporation (SCIC) adjuster. Previously, he worked at a local grain terminal for over seven years, gaining extensive experience in grain buying and grading. He also has previous experience working as a representative for an agricultural technology business in Western Canada.  — **Sask Wheat Staff**



Cameron Reich

WHAT'S NEW

Twelve USask students receive scholarships and awards

The Saskatchewan Wheat Development Commission (Sask Wheat) committed \$165,000 to six undergraduate and six graduate student awards and scholarships to students at the University of Saskatchewan's (USask) College of Agriculture and Bioresources in 2023. This brought Sask

Wheat's total commitment to student scholarships and awards to \$1,055,000 since 2015. Sask Wheat's objective when establishing the Undergraduate Awards and Scholarships and Graduate Scholarships at USask was to assist in the education of Agriculture and Bioresources students, strengthening

the development of Saskatchewan's next generation of producers, agronomists, and researchers. Further, the graduate scholarships enhance the college's research capabilities and complement research being undertaken by the faculty. ^{SW}

— Sask Wheat Staff

GRADUATE AWARDS

The Sask Wheat graduate scholarships help the USask's Crop Development Centre (CDC) support master's and Ph.D. graduate students, strengthening the CDC's wheat research and development program. The following USask Agriculture and Bioresources students received a Sask Wheat Graduate Scholarship:



GEORGINA ANTOCHI-CRIHAN

Master of Science Degree
(Plant Sciences)

Thesis title: *Community Structure of Ground-Dwelling Arthropods in the Agroecosystems and Tame Grasslands of Saskatchewan.*

Supervisor: Dr. Sean Prager



DAPHNÉE FERLAND

Master of Science Degree
(Plant Sciences)

Thesis title: *Collecting High-Frequency GHG Emissions Data from a Canola-Wheat Cropping System in Saskatchewan.*

Supervisor: Dr. Kate Congreves



KALHARI MANAWASINGHE

Master of Science Degree
(Plant Sciences)

Thesis title: *Assessing the Impact of Canopy Architecture on Radiation Use Efficiency and Transpiration Efficiency in Wheat (Triticum aestivum L.) under Drought and High-Temperature Stress Conditions.*

Supervisor: Dr. Karen Tanino



BERENICE ROMERO

Doctor of Philosophy Degree
(Plant Sciences)

Thesis title: *Host choice selection in the Aster Yellows pathosystem.*

Supervisor: Dr. Sean Prager



SUBARNA SHARMA

Doctor of Philosophy Degree
(Plant Sciences)

Thesis Title: *Mining Canadian Bread Wheat Germplasm for improved water productivity and Drought Tolerance.*

Supervisors: Drs. Abidur Rahman and Karen Tanino



BLAKE WEISETH

Doctor of Philosophy Degree
(Soil Science)

Thesis title: *Impact of fertilizer and cropping management practices on phosphorus and nitrogen use efficiency and losses in runoff water in variable topographies in Saskatchewan.*

Supervisors: Drs. Jeff Schoenau and Jane Elliott

UNDERGRADUATE ESSAY AWARDS

This award provides student assistance and encourages students to learn about the production of wheat in Saskatchewan and its importance to the agriculture sector and provincial economy.

The following USask Agriculture and Bioresources students received a Sask Wheat Essay Award:



LINDSAY DANIEL
4th year
Avonlea, SK



JULIA FINLAYSON
4th year
Calgary, AB



ETHAN KISH
4th year
Melfort, SK



ANITA VACHON
4th year
Oak Lake, MB

UNDERGRADUATE WHEAT PRODUCERS SCHOLARSHIPS

This award recognizes the academic achievement of continuing undergraduate students in any program offered in the College of Agriculture and Bioresources whose immediate family are check-off paying wheat growers in the province of Saskatchewan.

The following USask Agriculture and Bioresources students received Saskatchewan Wheat Development Commission Wheat Producers Scholarships:



NYAH HOPKINS
4th year
Outlook, SK



BRYDEN TESSIER
4th year
St. Isidore de Bellevue, SK



WHAT'S NEW

Levy-paying wheat producers eligible for tax credit

The Scientific Research and Experimental Development (SR&ED) Program is a federal government program that encourages research and development by providing tax-based incentives.

For the crop year ending July 31, 2023, producers may claim 81.03% of their levy contributions as a qualifying SR&ED expenditure on their federal tax return.

Investment tax credits may be claimed by filing form T2038 (IND) for farm individuals or T2SCH31 for farm corporations.


By using levy contributions to finance research and development work that benefits Saskatchewan wheat producers, Sask Wheat can participate in this program and distribute these tax-based

incentives to producers.

The program gives registered wheat producers access to investment tax credits (in the form of cash refunds and/or reductions to taxes payable) for their levy contributions that are spent on qualifying research.

In addition, farm corporations may claim 53.52% of their levy contributions as qualifying expenditures toward the Saskatchewan Research and Development Tax Credit program. They may file form T2SCH403 to claim this credit.

Producers that have requested a refund of their levy are not eligible for either tax credit.

For links to these forms and more information, please go to saskwheat.ca. 

— Sask Wheat Staff



The delegation, including Sask Wheat director Lesley Kelly (fifth from right), visits Latin America. Photos courtesy Cereals Canada.

MARKET DEVELOPMENT

Canadian wheat is in a class by itself

by Ellen Pruden

Director of Communications
Cereals Canada

Following the release of the 2023 New Wheat Crop report, four trade and technical missions were conducted in late 2023 to showcase the quality of Canadian wheat to customers and buyers.

Led by Cereals Canada, the global missions included experts from the value chain, such as commissioners from the Canadian Grain Commission (CGC), exporters, and grower representatives from four provincial organizations. Sask Wheat director Lesley Kelly participated in the Latin America mission, where Josh Boersen of the Grain Farmers of Ontario joined her. Dean Hubbard of Alberta Grains travelled to Northern Africa, Italy, and the UK. Tara Sawyer, also from Alberta Grains, travelled to Nigeria, UAE, Singapore, and Malaysia. Corey Peters, who represents the Manitoba Crop Alliance, took part in the technical and trade mission to Asia.

During the 17-country visits, the Canadian delegation informed hundreds of customers about what they could expect from this year's wheat crop. Canadian wheat is known globally for its high quality and consistency and is typically used as an improver wheat.



The global mission included presentations on the quality of the 2023 crop and Canada's quality assurance protocols to buyers and millers.

The presentations included information about market supply and demand, updates from the CGC about their harvest sample program, and available government certificates. At each seminar, the growers presented key farming practices and highlighted how farmers grow wheat while maintaining the environment. As in previous years, sustainability was a strong theme, with many customers posing questions.

"Each market wants to understand more about Canadian farming practices," states Dean Dias, CEO at Cereals Canada. "Having representatives like Dean, Tara, Lesley, and Corey speak on behalf of Canadian growers about their farming

practices is critical to informing customers about sustainability."

Reflecting on their participation in the trade and technical missions, the grower representatives shared what a significant role sustainability played in their conversations and interactions with customers.

In Colombia, Lesley Kelly had questions about regenerative agriculture practices and how her farming system compares. She noted the complexity of comparing systems and diverse practices in different regions and the importance of considering a holistic view of on-farm sustainability practices.

For Cereals Canada, the trade and technical missions are a way to build and maintain strong relationships, vital to growing the international demand for Canadian wheat. For the growers who participated, the experience was a powerful way to see the impact of what they do daily.

"We have always prided ourselves on quality and consistency," says Hubbard. "To hear it repeatedly mentioned by buyers and customers, it really stood out to me as a grower. One broker even referred to Canadian durum as the Ferrari of durum, which really goes to show Canadian wheat is in a class by itself." **SW**

RESEARCH

Closing the gap

Researcher challenges conventional thinking to improve investments, practices

by **Delaney Seiferling**
Freelance writer

A team of global wheat researchers has determined that Canadian Prairie wheat yields are 66-68 per cent of what they could be, with some areas closer 50 per cent.

One Canadian researcher believes these numbers can serve as a jumping-off point to strengthen the Canadian wheat industry.

"I don't think you can properly understand where you need to go with your research without understanding what the potential is and what is affecting the attainment of that potential," says Dr. Brian Beres, senior research scientist at Agriculture and Agri-Food Canada (AAFC).

This was the idea behind a research project led by Beres and partially funded by Sask Wheat that aimed to determine how yield gaps in Canada are affected by region, what factors are causing those gaps, and how to make strategic improvements to Canadian wheat research investments and on-farm practices.

Part of the research included a farmer survey about on-farm practices, yielding interesting data, Beres says.

For example, results showed divergence in seed treatments in terms of both their uses and effectiveness.



Wheatfield prior to harvest. Photo by Dallas Carpenter.

"When you think of a seed treatment, you think of the biotic part of it — the disease and pest management," he says. "But what we've shown previously is that the abiotic resistance offered by those seed treatments really facilitates plant resiliency. For example, you get significantly more plants in the field and that obviously becomes an opportunity for higher yields and you protect that yield with the improved resistance to abiotic stress."

Survey results also showed that farmers are using nitrogen conservatively in some areas, contrary to much popular belief these days, he says.

"Our data seem to be sup-

porting the idea that we're probably cheating back a little bit too much on nitrogen in certain environments," he says.

"I don't accept the argument that excessive nitrogen use in wheat is a major contributor to greenhouse gases, particularly when you think there are sources out there, nitrification inhibitors and so on, that seem to easily address that, as tools that can reduce emissions."

Finally, he said the survey results suggested an important potential correlation between soil organic matter and yield gaps.

"It's not like a farmer can go out and change their soil organic matter tomorrow, but the importance of the soil

health component and how it can be improved with synthetic nitrogen applications seems to be reinforced by our results."

He says overall the data showed that divergences in on-farm practices across wheat growing regions in Canada will be key to answering more questions going forward.

"Certain practices on-farm are definitely affecting the yield gap across the Prairies."

The next step for Beres and his team will be handing the project's final results off to funders and decision-makers to help inform their research investments and best practices in their regions. [sw](#)

RESEARCH

Looking for the one

Genomic selection brings efficiency and cost-effectiveness to the wheat breeding process

by Delaney Seiferling
Freelance Writer

Wheat breeders are always looking to produce the next great variety.

But to do so, they have to eliminate many not-so-great lines along the way.

Luckily, a new technology allows them to do so more efficiently and cost-effectively than before.

In the last seven years, Dr. Richard Cuthbert has successfully incorporated this technology, genomic selection, into his bread wheat breeding program at the Agriculture and Agri-Food Canada Swift Current location.

He says the results have been surprisingly impactful, he says.

"In breeding, we typically have thousands of lines from crosses that bring together desirable traits," he says.

Ideally, breeders would test every line for every trait, but that can be very expensive and time consuming. Typically, quality traits, and those related to yield stability, are the hardest to test for.

"You typically need to grow the lines at many sites, and they need to be replicated yield trials, so that gets to be quite expensive," he says.

Adopting genomic selection technology has allowed breeders to intensively study a



A research plot combine at the AAFC Swift Current research station. Photo courtesy of Dr. Richard Cuthbert.

subset of a few hundred lines each year for complex traits, including quality. They then use DNA fingerprinting technologies to document every line, develop statistic models for each trait and compare them to the thousands of other lines, analyzing and predicting which ones will perform best.

"We can genotype a breeding line for about CA\$30," Cuthbert says. "A single yield plot typically is at least CA\$50 plot and we often grow four plots of each line at the earliest breeding stages. So, the cost savings is huge."

Since adopting the technology, Cuthbert and his team have been able to weed out the poor-

ly performing lines a lot faster.

"In breeding, we're looking for the one. But really what we're doing is throwing out the ones we don't want as fast as possible to focus resources on the best. For example, with the capacity to plant ten thousand plots, if you throw out the lines that are the least likely to be the best, the ones planted in yield plots are that much better. So, you'll be able to achieve a better genetic rate of gain."

Using genomic selection has also helped AAFC breeders choose parent lines and put them to use faster than they normally would, Cuthbert says.

"This could result in choosing parents in year three or four of the process, instead of around year seven," he says.

He says overall, adopting

this technology will make the program more efficient overall with expensive resources and he is grateful for that.

"It just makes the odds a lot better for the breeder," he says. "It's been really, really helpful to have the farmers help us out with funding to bring that technology in."

Going forward, Cuthbert says the genomic selection technology will continue to benefit the bread wheat breeding program, generating better yields and end-use quality traits. Still, another major benefit he foresees will be using it in the durum breeding program.

"I know our durum breeding is applying it pretty aggressively as well for fusarium head blight resistance. That's probably where it'll have a really big impact." SW



Wheat being analyzed in a lab. Photo courtesy of Dr. Richard Cuthbert, Agriculture and Agri-Food Canada.

RESEARCH

Unlocking the future of wheat: A breakthrough in gene editing

by **Delaney Seiferling**
Freelance writer

As the global population continues to grow and farmers are required to produce more food on the same amount of land in a changing climate, new and improved wheat varieties are needed now more than ever.

Traditional breeding methods can't produce these new varieties needed fast enough.

This is why new tools, such as gene editing, are increasingly being used by plant breeders globally to add efficiency and speed to the breeding process.

And one is leading the way in using this new technology for wheat breeding.

Dr. John Laurie, Research Scientist at Agriculture and Agri-Food Canada (AAFC), recently completed a project partially funded by Sask Wheat that allowed him to successfully adopt a certain gene editing process

into the breeding program at AAFC Lethbridge.

"We are definitely the first wheat breeding program in Canada to have such a gene editing system," he says. "Up to now, the technology has been developed as proof of concept."

Laurie says the benefits of using this gene editing technology are numerous.

Firstly, most wheat breeding programs — including the ones at AAFC Lethbridge — use a breeding method known as "doubled haploid production by maize pollination." This involves using maize pollen to create haploid wheat seeds, which are turned into plants with two identical sets of chromosomes containing the desired traits for wheat lines.

The gene editing technology used by Laurie and his team can be adapted more seamlessly into these types of breeding programs, as opposed to directly engineering wheat, as

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We are definitely the first wheat breeding program in Canada to have such a gene editing system.

Dr. John Laurie

Research Scientist at Agriculture and Agri-Food Canada (AAFC)

they already have established tissue culture protocols and trained personnel.

"All that is needed for them to perform gene editing in their elite lines are maize lines containing gene editing constructs designed to target specific wheat sequences," he says.

"The breeding programs would pollinate as usual and screen resulting lines for gene edits. The beauty of this method is that because the procedure results in doubled haploids,

the resulting wheat lines are already homozygous and fixed in the precise edits desired by the researcher."

He says another major benefit of this new technology is that it will save time in the breeding process, allowing breeders to produce engineered mini maize lines containing precise edits in just a few months. These smaller, fast-flowering maize lines can be grown in greenhouses and growth cabinets using the same pots, soil mix and growth benches used for wheat.

"We are finding that this could save us at least a year's worth of work," he says.

This means that Canadian farmers can expect new and improved wheat varieties at a rate that will keep them competitive globally and maintain Canada's position as a top supplier of wheat to the world, he says.

"We are likely one of only a few labs in the world doing this." ^{sw}

AGRONOMY

2023 Wheat Wise On-Farm Trial Results

by Carmen Prang
Agronomy Extension Specialist,
Sask Wheat

We are pleased to announce the completion of our highly anticipated 2023 Wheat Wise On-Farm Trials! Wheat Wise trials focus on replicating treatments to see if there is a statistically significant result. Through this program, producers and agronomists work alongside Sask Wheat and research experts while implementing field-scale trials under the producers' farm conditions and management practices. This will allow producers to fine-tune recommendations for their specific farm conditions and assist with future management decisions. Although the work is collective, the goal is maximizing wheat yield, quality and economic return.

This year's protocol focused on biological nitrogen fixation products on spring wheat and durum to see if there is an agronomic and economic advantage to using these products. The biological market is fast-growing, and many producers question whether these products could fit on their farms.

This year, we had 11 growers and their agronomists from around the province participate, and IHARF generously put in one site. These sites covered various environmental conditions, soil types and management practices. The participating producers followed a protocol to have proper repetition and randomization. To ensure proper replication, we chose one product (Envita®) instead of comparing multiple products within a field.

As seen above, two options



LEFT: Tables showing the two options on how to set up the trial.

Option A: Two Treatments	
1	No foliar N-fixing biological
2	Envita® at recommended rate and timing

Option B: Four Treatments	
1	Normal N rate + No Envita®
2	Normal N rate + Envita®
3	Reduced N rate + No Envita®
4	Reduced N rate + Envita®

were offered to set up the trial. Some producers took it further by adding a treatment with a low fertilizer rate.

Once the trial was established, data was collected throughout the season, including a spring soil sample, spring plant density, general observations, weather data, yield (weighed using equipment scales or weigh wagon) and quality.

The data was then analyzed, and our finding showed that all 12 sites and over 21 different

nitrogen supply rates, treated and untreated yields were not significantly different. Overall, yields increased significantly with nitrogen supply, but there is no significant difference between the average yield for treated with Envita® and untreated, regardless of nitrogen rate. In terms of quality, protein increased significantly with nitrogen supply, but we did not see a significant response to the Envita® application, regardless of nitrogen supply. We did not observe any significant

treatment effects when the sites were combined, but when the individual site differences were examined (Plenty and Wynyard), seed size was often larger when treated with Envita®. Finally, since there was no significant difference in yield between treatments, the most economical treatment is the check for all trials.

Be sure to head to our website under the agronomy tab for more details and explanations in the full report, including individual trial site information! [SW](#)

As we celebrate the success of the 2023 trials, we look forward to this upcoming crop year. Sask Wheat is looking to expand our on-farm trial program by inviting more interested producers and agronomists to join this exciting opportunity. In 2024, we will focus on protocols for biological nitrogen fixation, split applications of nitrogen, and enhanced-efficiency fertilizers. If you are interested in participating, please reach out to carmen.prang@saskwheat.ca.



ABOVE: Producers, including Sask Wheat director Glenn Tait, centre, discuss agronomy topics with Dr. Lipu Wang, left, Research Officer, Crop Development Centre (CDC), University of Saskatchewan, at the Coffee Shop Talk in Prince Albert on Feb. 1, 2024.

**COFFEE SHOP TALKS
and THINK WHEAT**

**SASK WHEAT
BRINGS
LEARNING
OPPORTUNITIES
TO PRODUCERS**

The new year brought new opportunities to meet wheat producers and bring researchers and experts to their communities through our Coffee Shop Talks and Think Wheat events.

The relaxed and informal setting of the Coffee Shop Talks has been popular with producers. We made it to Wilkie in late January and Prince Albert in early February after visiting Moose Jaw and Cupar in early Nov. 2023.

This year, we tried a unique format with the Coffee Shop Talks, with an industry expert spending 15 minutes with a single group at a table before switching. Once every group made it around the room and heard from each expert, each individual could grab a coffee and find the expert they were most interested in talking to!

Sask Wheat held our Think Wheat extension meetings in late Jan. 2024, stopping in Canora, Watrous and Outlook. We heard from hydrology scientist Dr. Phillip Harder, marketing expert Marlene Boersch, entomologist Dr. Meghan Vankosky, and a policy panel, which included Donovan Howden from the Agricultural Producers Association of Saskatchewan and Sask Wheat's own James Lokken and Aiden Sanden.

Watch our website and social media channels for more events after seeding.

— Sask Wheat Staff



Sask Wheat Agronomy Extension Specialist Carmen Prang (left), and Western Applied Research Corporation Lead Research Associate Kayla Slind discuss agronomy topics at the Coffee Shop Talk in Wilkie on Jan. 16, 2024.



Agriculture and Agri-Food Canada Field Crop Entomologist Meghan Vankosky makes a presentation at the Think Wheat event in Canora on Jan. 23, 2024.



The policy panel answers questions from the crowd in Watrous on Jan. 16, 2024.

WHEAT PROFIT PODCAST

NEW EPISODES COMING UP

- Soil Sampling with Jeff Schoenau
- Seeds of Success: Navigating Wheat Seeding Rates with Kayla Slind
- 2023 On-Farm Trial Results with Carmen Prang, Christiane Catellier & Kaeley Kindrachuk

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