



TheWheatField

THE NEWSLETTER OF THE SASKATCHEWAN WHEAT DEVELOPMENT COMMISSION

DECEMBER 2020 EDITION

CWRC commits over \$22.6 million to AAFC wheat breeding activities

The Canadian Wheat Research Coalition (CWRC), a collaboration of the Alberta Wheat Commission, Saskatchewan Wheat Development Commission, and Manitoba Crop Alliance, has committed more than \$22.6 million over five years to a core breeding agreement (CBA) with Agriculture and Agri-Food Canada (AAFC) for the development of wheat varieties.

The CWRC assumed responsibility for producer funding of wheat varietal development from the Western Grains Research Foundation, which includes working with AAFC to provide the capacity needed to deliver improved genetics and profitability to producers. The \$22.6 million commitment of producer funding is an increase of \$2.6 million over the previous agreement. The funding will provide further support for plant breeders, technicians, and specialists who are working to deliver field-ready wheat varieties to western Canadian farmers.

"The activities being conducted by Canadian researchers and wheat breeders such as those at AAFC have led to major innovations over the past few decades, including the development of several new wheat varieties with improved genetics and more desirable traits," said Fred Greig, CWRC Chair and Chair of the Manitoba Crop Alliance.

"Farmer funding committed by Sask Wheat and our fellow commissions in Alberta and Manitoba through the core breeding agreement will help support AAFC's ability to bolster their technology and attract and retain top researchers and breeders," said Brett Halstead, Sask Wheat Chair. "Public wheat breeding is crucial to Canada's agriculture sector, and the wheat varieties AAFC has produced are a tremendous return to the farmer investment in this program."

This agreement will contribute to the development of wheat cultivars that provide farmers with greater yield potential, resistance to priority diseases such as fusarium head blight, rusts, and common bunt, and resistance to pests such as the orange wheat blossom midge and wheat stem sawfly.

In January 2020, the CWRC announced the commitment of more than \$9.6 million over five years to the CBA for the University of Saskatchewan's Crop Development Centre (CDC) to develop spring wheat cultivars. The new agreement represents a significant increase over the previous five-year agreement of \$5.4 million.

The CWRC funding will provide expanded "core" support for the CDC's wheat breeding programs, including a significant increase in contributions to field-based breeding activities, disease nursery and screening, molecular marker-assisted breeding, winter nursery capacity, and end-use quality evaluation.

The CBAs with the Universities of Alberta and Manitoba are being finalized and should be announced in early 2021.

CHAIR'S MESSAGE:

CWRC/SeCan MOU and response to a PMRA proposal highlight a busy fall for Sask Wheat



I hope you and your family are well this fall. We experienced a relatively event-free harvest, which was welcomed after a tough year that saw extremely wet conditions followed by a period of drought for most of the province.

The year's final crop report from the Saskatchewan Ministry of Agriculture indicates that yields were average across much of the province, but that quality was above average. Earlier this month,

Statistics Canada reported that Saskatchewan's average yields were 48.7 bushels per acre for spring wheat and 41.3 bushels per acre for durum, both of which are slightly higher than the 10-year average. Considering the heat we had through July and August, these are good numbers.

It was an odd year for pests in the province. In June, the wet conditions were optimal for the growth of fusarium head blight



General Manager's report.....	3
Welcome to Haley.....	3
Taking the fight to wheat midge.....	4
Wheat midge: protecting against another outbreak.....	5
Untangling the mystery of robust rust resistance.....	6
Sask Wheat increases funding for student scholarships.....	7
Virtual Grade School.....	7

CHAIR'S MESSAGE *continued from page 2*

(FHB) and the emergence of the orange wheat blossom midge. The weather conditions changed quickly in early July, so the damage done by FHB and the wheat midge was limited. Still, farmers showed a greater interest in managing these pests than in either of the previous two growing seasons. The traffic on Sask Wheat's FHB risk map and management page was up significantly from last year, showing the concern producers had about managing the fungus.

Many of Sask Wheat's funded research projects are devoted to breeding varieties with improved FHB resistance and wheat midge tolerance, while several projects are studying improved management techniques for both pests. Even with the advancements we have made, these pests are still among the most devastating to yield and quality and thus remain at the top of Sask Wheat's priority list for research funding.

None of the varietal and agronomic improvements we've seen over the past two decades that have minimized the damage of these and other pests would have been possible without the millions of dollars invested by Prairie wheat producers. The producers' commitment through commissions such as Sask Wheat and organizations such as the Western Grains Research Foundation has allowed vital research to go forward and leverage additional funds to advance the research process further.

Another important aspect of maximizing producer investments comes from collaboration with other commissions, government departments, and private organizations. Our formal partnership with the wheat commissions in Alberta and Manitoba through the Canadian Wheat Research Coalition (CWRC) has led to broader collaborations for Sask Wheat beyond the three Prairie wheat commissions.

The latest collaborative initiative is a memorandum of understanding (MOU) that the CWRC has signed with SeCan. The purpose of the MOU is to coordinate funding and in-kind support of public wheat breeding from all interested stakeholders that will provide benefits to producers and the entire wheat value chain. Through the MOU, the CWRC and SeCan intend to build "near market" capacity to enhance Western Canada's wheat breeding programs.

While research has kept Sask Wheat busy, we have also worked on several regulatory and policy issues. A recent issue of note is a regulatory change to tank mix labelling proposed by the Pest Management Regulatory Agency (PMRA) of Health Canada, which could significantly impact Saskatchewan crop producers if adopted.

The PMRA's regulatory proposal indicates that "if a label contains no guidance related to tank mixing, then tank mixes are not permitted." This is a reversal of the PMRA's long-standing 2009 guidance authorizing the use of tank mixes that do not have specific labels. The proposal is not aligned with the broader Government of Canada approach to reducing regulatory burden nor is it aligned with United States' regulations through the Environmental Protection Agency, which will put Canadian producers at a disadvantage to their American counterparts.

The current tank mix regime has allowed producers to combine the application of a variety of inputs. This has reduced time spent in-field and ensured producers can apply products promptly in a short application window. Changing the current regime will increase the number of passes required over a field, leading to higher soil compaction rates, crop damage, and fuel use. Producer competitiveness will suffer as operating margins will come under further pressure.

Sask Wheat has written to the PMRA to convince it to reverse this policy direction. We have joined several other crop organizations in expressing our dismay at the policy and potential implications for producers. We hope the PMRA will hear the concerns of Prairie farmers and reconsider this proposal.

Finally, I would like to encourage all registered wheat producers to attend the Sask Wheat Annual General Meeting, which we are holding virtually for the first time. The AGM will be on Tuesday, January 12, at 11:15 AM. You can register and get more information for the AGMs of the CropSphere host commissions and the Crop Production Week member organizations at saskcrops.com.

If you have any questions or concerns, please reach out. The contact information for each Sask Wheat director is available at saskwheat.ca, or you may contact the office by phone at 306-653-7932 or by email at info@saskwheat.ca.

Brett Halstead, Chair



BOARD MEMBERS:

Bill Gehl
Regina

Brett Halstead
Nokomis

Lesley Kelly
Watrous

Jake Leguee
Weyburn

Ken Rosaasen
Preeceville

Glenn Tait
Meota

Jocelyn Velestuk
Broadview

STAFF:

Harvey Brooks
General Manager

Dallas Carpenter
Communications Manager

Debbie Forgie
Administrative Assistant

Blair Goldade
Research Program Manager

Valar Gurusamy
Research Project Manager

James Lokken
Policy

Carmen Prang
Research Program Assistant

Deb Rousson
Office Administrator

Haley Tetreault
Agronomy Extension Specialist

Kelsey Tollefson
Policy Manager

The Wheat Field is a publication of the Saskatchewan Wheat Development Commission (Sask Wheat). Articles are not to be reproduced without written permission from Sask Wheat. Articles represent the opinions of the authors and do not necessarily reflect the opinion of Sask Wheat.

CONTACT US:

Saskatchewan Wheat Development Commission

310 - 111 Research Drive
Saskatoon SK S7N 3R2
Phone: 306-653-7932
Fax: 306-653-7935
saskwheat.ca
info@saskwheat.ca

GENERAL MANAGER'S REPORT:

Collaboration bringing innovation and opportunity to wheat producers



Harvest wrapped up across the province in October, with most areas having good harvest conditions and a relatively early finish. Although extreme heat at the end of the growing season stole some yield potential, farmers report average yields with generally good and uniform quality. Producers are now focusing on marketing this year's crop.

The 2019-20 crop year has set another record for grain movement. Even with

the challenges the rail industry faced throughout the 2019-20 crop year, including weather, blockades, and COVID-19, the slowdown in demand for other commodities during the onset of the COVID-19 pandemic allowed grain shipments to not only catch up but reach new records. So far, the start of the 2020-21 crop year has been strong, with producer deliveries for both wheat and durum ahead of last year's pace. Of course, we are just moving into the most challenging shipping period, and we hope to see service levels maintained.

While COVID-19 has not had a serious impact on most on-farm operations, it has certainly impacted the research community presenting many challenges to completing field and lab work this growing season. Sask Wheat appreciates all our research partners' efforts to get plots in the ground this year and continue the research that is important to producers.

Research remains a key focus for Sask Wheat, and we are committed to being a part of a system that will maintain and grow funding for wheat research in Canada. Recently, the Canadian Wheat Research Coalition (CWRC), a collaboration between Sask Wheat, the Alberta Wheat Commission, and the Manitoba Crop Alliance, announced funding for a Core Breeding Agreement (CBA) with Agriculture and Agri-Food Canada (AAFC). This CBA is a \$22.6 million investment over the next five years to ensure that producers will benefit from new premium wheat varieties and associated genetics from AAFC's breeding program for many years to come.

Through the CWRC, Sask Wheat is working on renewing the CBA's with the University of Alberta and the University of Manitoba. In addition, the CBA announced this spring with the University of Saskatchewan's Crop Development Center will provide \$9.6 million over five years.

Producers' continued support of public breeding programs must be recognized in the ongoing industry value creation discussions. The seed industry continues to move ahead with its Seed Variety Use Agreement (SVUA) pilot program that will charge a trailing royalty on farm-saved seed on selected crop varieties through a contract agreement. Sask Wheat and the other western wheat commissions have not endorsed and have not been party to the SVUA pilot project development. The commissions voiced our concerns regarding the inclusion of publicly developed, midge-

tolerant varieties in the pilot.

Through discussions with SeCan, the CWRC and SeCan have developed a memorandum of understanding (MOU) to work collaboratively on a funding model to support wheat breeding in Western Canada in a clear, accountable, and transparent way alongside other interested stakeholders. Because of this collaboration, SeCan will not include the two publicly developed midge-tolerant varieties, AAC Starbuck and AAC Wheatland, in the SVUA pilot. Sask Wheat was pleased to see these two varieties removed from the pilot, as it will ensure greater uptake of these varieties and continued success of the midge-tolerant wheat program. Sask Wheat believes public varieties developed with significant investments from producers need to be viewed through a different lens in any value creation discussions.

The current collaboration between producer commissions and seed companies will allow for more consultation and option development for publicly developed varieties moving forward. Producers made it clear through the federal value creation consultations that additional options needed to be presented. This MOU demonstrates that producers will invest in variety development efforts to enhance capacity and ensure future competitiveness. Ultimately, producers want a strong, sustainable public varietal development system to deliver improved varieties and create value across the value chain.

Harvey Brooks, General Manager

Welcome Haley!

Sask Wheat would like to welcome Haley Tetreault as our new Agronomy Extension Specialist.

Haley grew up on a mixed cattle and grain farm near Leoville, SK. She graduated with a Bachelor of Science in Agriculture, majoring in Agronomy, from the University of Saskatchewan in 2018. Prior to joining Sask Wheat, Haley worked as a Precision Agronomist with Farmers Edge covering north and west-central Saskatchewan. In this role, she advised growers on soil fertility, crop inputs and crop production. She has multiple years of experience working as a retail agronomist, and continues to be very active on the family farm. In addition, Haley is a Certified Crop Advisor through the American Society of Agronomy, and is working towards her P.Ag. through the Saskatchewan Institute of Agrologists.



Taking the fight to wheat midge

By Clare Stanfield

A group of researchers at Agriculture and Agri-Food Canada (AAFC) research stations and the Universities of Saskatchewan and Manitoba are working on breeding new methods of resistance in wheat to protect against one of the greatest threats to quality and yield: The orange wheat blossom midge.



Orange Blossom Wheat Midge Larvae

Currently, the primary defence against this wheat midge is the *Sm1* gene, which was discovered by researchers in the mid-1990s. “*Sm1* starts to act when larvae start to hatch,” says Dr. Tyler Wist, research scientist and field crops entomologist with AAFC in Saskatoon. “*Sm1* changes the acid levels in the kernel, so when larvae start to feed, they don’t like it, stop feeding and starve to death.”

While the *Sm1* gene provides deterrence, downgrades are still common since feeding often starts before *Sm1* kicks in. In addition, single-gene resistance is difficult to protect and preserve over the long-term.

To supplement the defence *Sm1* currently provides, Wist is investigating other sources of resistance to wheat midge, in part to preserve *Sm1*’s usefulness but also to build better midge defences in wheat. Wist is conducting this research alongside colleagues Dr. Curt McCartney from AAFC in Morden, Dr. Alejandro Costamagna from the University of Manitoba, Dr. Robert Graf from AAFC in Lethbridge, and Dr. Pierre Hucl from the University of Saskatchewan. The research is being funded by

Sask Wheat, the Alberta Wheat Commission, the Manitoba Crop Alliance, and the Saskatchewan Ministry of Agriculture through the Agriculture Development Fund.

The power of pyramiding

This research aims to develop wheat varieties that offer multiple lines of defence against wheat midge. This may include physical barriers, like awns and hairy glumes, or preventing the laying and hatching of eggs with egg antibiosis and oviposition deterrence.

In plant genetics, breeding multiple defence lines is called pyramiding, or stacking, and the wheat midge pyramid has four levels. “*Sm1* is at the bottom,” says Wist.

Oviposition deterrence (OD) is at the top of the pyramid. “When *Sm1* was being developed, researchers found that some wheat lines just didn’t have as many eggs on them,” he says. This was due to the plant having an odour that the female wheat midge doesn’t like. Research done at the time showed that egg-laying on highly susceptible Roblin wheat was reduced when the OD smell was introduced. “With oviposition deterrence, you get reduced egg-laying – sometimes as much as nearly 50 percent,” says Wist. Dr. Curt McCartney from AAFC Morden is currently studying the genetic basis of OD.

Second from the top of the pyramid are the physical barriers to egg laying. “What the literature and my recent experiments suggest is that awns and hairy glumes reduce winged aphids from landing on these wheat heads,” he says. “So maybe they will slow down wheat midge as well.”

Controlled lab tests show that wheat midge have a preference for wheat without the hairy glume trait. “The goal with hairy glumes is not to get wheat midge egg laying down to zero, but maybe reduce it a bit – 20 percent would be a win,” says Wist.

Perhaps most exciting is the third level of the pyramid – egg antibiosis, or EA. Researchers noticed something unique with one wheat line during lab experiments – eggs were deposited, but they did not hatch. Wist says while this line carries the *Sm1* gene, this was not a typical *Sm1* response. Researchers are now working to identify the genetic origins of this EA reaction.

Getting all or most of these traits into agronomically productive wheat lines is a huge challenge, but when it happens, farmers will have multiple lines of defence against wheat midge says Wist. “With pyramiding, you have a plant with an oviposition deterrent, then hairy glumes to stop them getting down to lay eggs, and then you get EA and the eggs just don’t hatch, so no damage to kernels, and then *Sm1* – that’s sort of your last resort.”

It’s exciting work and Wist is quick to point out that his collaboration with fellow researchers and funding from all three provincial wheat commissions, the Saskatchewan Ministry of Agriculture and the CAP wheat cluster have been key to what they’ve learned so far. “I couldn’t do this project on my own,” he says. “I’m not a wheat breeder, I’m just a guy who likes bugs.”



Follow Sask Wheat on Twitter:
[Twitter.com/saskwheat](https://twitter.com/saskwheat)

Wheat Midge: Protecting against another outbreak

With the many challenges that 2020 has brought the world, it's no surprise that orange blossom wheat midge picked this year to show up in full force in fields across the Prairies.

"We actually had the biggest outbreak of wheat midge that I've seen in my short career," says Dr. Tyler Wist, research scientist of field crop entomology with Agriculture and Agri-Food Canada in Saskatoon, Saskatchewan. "Results of the annual wheat midge survey that comes out in early January will include the data that we need to show a population increase, but the spring rains were perfect for midge development."

Wist says the overall midge population had been decreasing over the past decade in Western Canada, in part, due to dry growing conditions. He explains that larvae overwinter in the soil in larval cocoons and require adequate moisture in May and June to bring them to the soil surface. Above-average rainfall this spring in some parts of the Prairies made conditions ideal for the pest to thrive.

The Prairie Pest Monitoring Network (PrairiePest.ca) ran models in mid-August to determine potential numbers of overwintering wheat midge larvae. Results predicted higher densities of wheat midge compared to 2019. Alberta was also forecast to have greater populations than Saskatchewan and Manitoba. Though the actual impact will be confirmed once survey data is compiled and analyzed this winter, it's certain that some producers saw the effects of wheat midge this year.

Orange wheat blossom midge can seriously damage yield and quality of susceptible wheat varieties. In late September, the Canadian Grain Commission confirmed that midge was present in the 2020 durum and wheat crops. In order to determine damage, producers are encouraged to look for rupture of the bran on the back or side of kernels; a white line or mark on the back or side; or a distorted kernel.

Midge Tolerant Wheat varieties

Producers who are less inclined to worry about downgrading by the elevator are those who planted Midge Tolerant Wheat in the spring.

For more than a decade, these varieties have been the first line of defence against the pest. Midge Tolerant Wheat producers report significant yield and grade benefits — approximately \$36 per acre. There are now more than 35 varieties available in seven different wheat classes.

Midge tolerance in all varieties originates from a single gene called Sm1, which increases the level of phenolic acids in the

wheat kernel and discourages feeding by the pest. As a result, the midge starve and die.

All varieties are sold as a blend of midge tolerant and midge susceptible wheat, providing an "interspersed refuge system" that disrupts the midge's ability to produce resistant offspring, preventing a build-up of a resistant midge population. As Sm1 is the one and only midge tolerant gene, producers must do their part to protect the technology. All producers sign a Stewardship Agreement and commit to maintaining the refuge by limiting the use of farm-saved seed to one generation past Certified.

Planning for 2021

Given the right conditions, such as consecutive wet springs, midge populations can build quickly.

"This year could be a building year for the midge population... with trouble coming next year," says Wist. "We'll know better once the midge survey is complete."

In the meantime, as producers plan ahead for 2021, ensuring stewardship protocols are being followed or purchasing Certified Midge Tolerant Wheat are solid steps to prevent against midge outbreaks and to protect future yield and quality.

DAILY NEWS
February 29, 2020

RESISTANT MIDGE POPULATION EXPLODES

Sorry to startle you, but we needed to get your attention. The resistant midge population hasn't exploded, but it is entirely possible in the future if we don't follow Midge Tolerant Wheat stewardship protocols.

Take Midge Tolerant Wheat Stewardship seriously. If not, this headline could become reality.

Limit the use of farm-saved seed to one generation past Certified seed. It's a simple step that protects the one and only tolerant gene.

When you grow Midge Tolerant Wheat, you sign a Stewardship Agreement and commit to only using farm-saved seed for one generation past Certified seed.

That's what keeps the interspersed refuge system at the proper level and prevents build-up of resistant midge.

Protect the one and only midge tolerance gene ineffective. Let's work together and practice proper stewardship to keep Midge Tolerant Wheat.

MIDGE TOLERANT WHEAT
Plant • Protect • Preserve

Contact your retailer or visit midgetolerantwheat.ca

Did you know?

One bushel of wheat yields enough flour to make 70 one-pound loaves of white bread or 90 one-pound loaves of whole-wheat bread.

Untangling the mystery of robust rust resistance

By Clare Stanfield

The rust-resistance gene pool can be large and complicated. More than 200 known genes confer resistance to leaf, stem, and stripe rust that wheat breeders use to develop rust-resistant varieties. Despite the number of potential paths to rust-resistance, many producers have experienced a rust-resistant wheat variety suddenly stop working. This raises the question: Do any of the 200-plus rust-resistant genes have the potential to be a long-term, stable solution to rust-resistance?

Wentao Zhang, a research officer at the National Research Council of Canada (NRC) in Saskatoon, says the issue isn't with the resistant genes themselves but how we have been using them. "The genetics of these resistant genes is less understood and most of them have been introgressed into cultivars in a 'blind' way," he says.

In other words, genes that confer resistance to various types and strains of rust are found and then added into germplasm for a wheat variety without knowing the gene's long-term viability. Often, rust pathogens quickly adapt, evolve, and break down the resistance.

Like any genes in a complex biological system, the rust-resistant genes influence each other and the plant they belong to in a myriad of ways researchers don't fully understand yet.

With funding from the Saskatchewan Wheat Development Commission and Saskatchewan Ministry of Agriculture's Agriculture Development Fund, Zhang and a team of collaborators from Agriculture and Agri-Food Canada (AAFC) and the University of Saskatchewan (USask) undertook a research project to understand rust-resistant mechanics and gene interactions that may lead to robust rust resistance in wheat.

Breaking down the genetic details

Genes responsible for conferring rust resistance can be arranged into two main groups. Resistant (R) genes tend to be specific to a single race or disease isolate. While they function through the plant's entire life cycle, they break down quickly. Adult plant resistant (APR) genes activate once plants reach adult growth stages, often after disease develops. However, some APR genes give resistance to all races, or isolates, of a single rust pathogen, and many even include other disease pathogens in their orbit.

Zhang's study was aimed at identifying the resistance mechanisms in two wheat varieties: Parula, which has shown high levels of resistance to all three types of rust, and Thatcher, which has shown some APR resistance to stem rust. The goal was to characterize this resistance so wheat breeders could target these mechanisms in their breeding programs.

Characterizing resistance requires identifying QTLs, or quantitative trait loci. "QTL mapping is finding where resistance is located on the genome," explains Kerry Boyle, technical officer with NRC in Saskatoon and Zhang's colleague on this project. QTL analysis can give researchers a picture of which regions of the plant genome contribute the most to resistance and how genes interact.

Zhang started by crossing Parula and Thatcher. "We know these lines show resistance in the field," says Zhang, adding that

genotyping and QTL analysis would hopefully reveal which genes were doing most of the work, and what combinations of R and APR genes would present more durable rust resistance.

Populations of the Parula/Thatcher cross were exposed to rust in three AAFC disease nurseries: The Morden nursery for leaf rust, the Brandon nursery for stem rust, and the Lethbridge nursery, along with a nursery at USask, for stripe rust. In all, 306 double haploid lines of Parula/Thatcher wheat were examined with the results verified through field testing.

Gradually, Boyle and Zhang built up a genetic map that showed where these APR genes were on the wheat genome and gained a better understanding of how they behaved, how they interacted with each other and the growing environment, and what their level of contribution was to rust resistance. "We have a better idea of these things, but we are very far from knowing it all," says Boyle.

Building a better pyramid

The overall goal was to determine which combinations of resistant genes, stacked together or "pyramided," would deliver more durable resistance in wheat.

"We think that if you have three APR genes, that's a good foundation. This should be durable," says Zhang. He has identified a "foundational multi-APR cassette" that names specific APR genes that can be used to produce durable resistance to all three types of rust found in Canada.

The project also discovered a small number of stem, leaf and stripe rust-resistant genes previously unknown to breeders. "A lot more work needs to be done to characterize those," says Zhang. Boyle says that one of the more important QTLs they found affects grain quality and is linked to fusarium susceptibility.

Does all this discovery mean that reliable, rust-resistant wheat varieties will be available soon? "Not yet," says Zhang. "But the [genetic] markers were published, and this can be useful to breeders to check their breeding lines. Now they can use these markers to ensure they retain good genes during the breeding process."





Join our email list!
Go to
saskwheat.ca
to sign up.

Sask Wheat increases funding for student scholarships

Enhancing the capacity of wheat breeding and research is a focus of the Board of Directors of Sask Wheat. Since 2015, Sask Wheat has provided \$10,000 annually in undergraduate scholarships and \$100,000 annually in graduate scholarships to aid students and support the wheat research and innovation activities of the University of Saskatchewan's (USask) College of Agriculture and Bioresources.

Not only does the Sask Wheat undergraduate award provide student assistance, but it compels students from various majors



Dr. Gurcharn Brar, left, who received a Sask Wheat Postgraduate Award in 2016, with Dr. Randy Kutcher.

to learn about the production of wheat in Saskatchewan and the importance of wheat to the agriculture sector and Saskatchewan's economy. The Sask Wheat graduate scholarships have helped the USask's Crop Development Centre (CDC) support master's and Ph.D. graduate students, strengthening the CDC's wheat research and development program while training the next generation of researchers and wheat breeders.

To provide greater opportunities for students and further enhance the excellent research at USask, the Board of Directors of Sask Wheat has increased the scholarship funding. Starting in the 2020-2021 academic year, Sask Wheat will provide \$15,000 in undergraduate scholarships and \$150,000 in graduate scholarships annually.

The 2020 Sask Wheat Undergraduate Award recipients are:

- Erin Anderson, fourth year, BSA, Agronomy major
- Joshua McBride, fourth year, BSA, Crop Science major
- Evan Schmidt, fourth year, BSA, Crop Science major
- Warren Seib, third year, BSCAGB, Agribusiness major

The 2020 Sask Wheat Postgraduate Award recipients are:

- Kathryn Aldridge, M.Sc. candidate
- Lampros-Nikolaos Maros, Ph.D. candidate
- Dylan Sjolie, M.Sc. candidate.
- Rasanwada Wijesundara, M.Sc. candidate

Due to COVID-19, the annual Bean Feed event, where scholarships are announced, has been postponed. Sask Wheat congratulates these students and looks forward to an opportunity to congratulate you in person at a later date.

Register now for Virtual Grade School

Grain farmers: Learn about degrading factors in wheat and barley along with other important information at Virtual Grade School on Wednesday, January 19 from 12 p.m. to 1 p.m.

Joey Vanneste, Canadian Grain Commission (CDC) Operations Supervisor for Northern Saskatchewan, will explain how to spot different degrading factors in wheat and barley. In addition, he will be discussing how to collect a representative sample of grain and the benefits of utilizing programs such as the Harvest Sample Program and the Subject to Inspector's Grade and Dockage program.

Register now at saskwheat.ca

Presented by:



Saskatchewan Crop Organizations Virtual AGMs

Registration is now open for the virtual 2021 Annual General Meetings (AGMs) for the Saskatchewan crop organizations.

Monday, January 11, 2021

Canary Seed Development Commission of Saskatchewan
Saskatchewan Winter Cereals Development Commission
Saskatchewan Mustard Development Commission
Saskatchewan Forage Seed Development Commission
Saskatchewan Alfalfa Seed Producers Development Commission
Saskatchewan Leafcutters Association

Wednesday, January 13, 2021

Saskatchewan Seed Growers Association

Tuesday, January 12, 2021

Market outlook for all crops - Marlene Boersch and Chuck Penner
Saskatchewan Canola Development Commission
Saskatchewan Barley Development Commission
Saskatchewan Wheat Development Commission
Saskatchewan Flax Development Commission
Saskatchewan Oat Development Commission
Saskatchewan Pulse Growers

The **Saskatchewan Agricultural Graduates' Association (SAGA)** will be holding its 86th Annual AGM on Saturday, January 9th, 2021 at 7:00 pm. The link to the meeting, meeting ID, and passcode will be posted on the SAGA website: saskaggrads.com

For more information and to register, please go to
saskcrops.com



310 - 111 Research Drive, Saskatoon SK S7N 3R2
Phone: (306) 653-7932 | Web: saskwheat.ca

