

The WHEATFIELD

Saskatchewan Wheat Development Commission Newsletter

October 2023

POLICY/ADVOCACY

Harmonized test weight reversal by CGC a win for wheat farmers

by Dallas Carpenter
Communications
Manager

Following opposition initiated by Saskatchewan in cooperation with the Agricultural Producers Association of Saskatchewan (APAS) and amplified by the National Farmers Union, the Western Canadian Wheat Growers Association, and other farm organizations, the Canadian Grain Commission (CGC) reversed its decision to harmonize separate primary and export standards at export tolerances for test weight and total foreign material for most western Canadian wheat classes. The decision was to be implemented on Aug. 1, 2023.

With primary standards tightened to export standards, producers may have faced significant negative financial implications from quality downgrades and lower prices at primary elevators. For example, CWRS wheat weighing between 60.1 and 60.9 lbs/bushel that meets the longstanding current



Photo by Dusan Petkovic, Shutterstock.com

primary minimum test weight tolerance for #1 would no longer have met even the #3 CWRS minimum of 61 lbs/bushel, relegating it to feed wheat if test weight was the determining grade factor (please see saskwheat.ca/test-weight-harmonization for more information).

For the last several years, Sask Wheat urged the CGC to conduct an economic analysis before making any decisions on harmonization. This is especially important to understand the potential impact harmonization

would have on producers. Sask Wheat also commissioned its own preliminary study focused on test weight (please see saskwheat.ca/test-weight-harmonization for that study and more information).

The final motion carried on this issue at the Apr. 4, 2023 CGC Western Standards meeting recommended that the CGC commissioners delay any changes until an economic impact assessment is completed. Despite this, the CGC moved ahead on harmonization plans for

Aug. 1, while referencing the meeting as its major consultation with the grain sector. It only reversed course following the Sask Wheat-led opposition.

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

For more information on this issue, please head to our website: saskwheat.ca

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CHAIR'S MESSAGE

Maintaining marketing opportunities for producers at the forefront

I hope everyone had a happy Thanksgiving and a successful harvest. As we've become accustomed to, harvest was a mixed bag across the province with variable yields and rain in August and September causing quality concerns. Overall, grain quality has been reported as average in most areas, with generally good protein levels for winter wheat, spring wheat and durum.

In a year like this where weather has the potential to have a major impact on the quality and grading of grain, it is important producers have as many advantages on their side as possible when marketing their grain. That was a major impetus behind Sask Wheat and the Agricultural Producers Association of Saskatchewan (APAS) publicly calling on the CGC to reverse its decision to harmonize primary and export standards for test weights and total foreign material at the export standard for most western Canadian wheat classes. In response, the CGC reversed its decision before implementing the changes. We are grateful for the support from other producer groups and even more pleased by the result.

The CGC's decision to implement the harmonized test weight standards was made without proper consultation with producer groups and the individual producers who will bear the costs of the tighter standards. A motion was carried at the Western Standards



It is important that producers have as many advantages on their side as possible when marketing their grain.

Committee meeting in April 2023 asking for a delayed decision on the harmonization of test weights until an economic analysis is completed and the results are considered in the decision. Sask Wheat has also asked the CGC to undertake an economic impact analysis of this issue, especially regarding the potential impact on producers. This needs to be completed and made public by the CGC before harmonization of these standards is considered again.

Sask Wheat will participate in Transport Canada's engagement sessions for freight rail stakeholders this fall. This is in advance of a Rail Review that will lead to considerations

of legislative and regulatory updates for the freight rail sector. Along with other Saskatchewan and Prairie producer organizations, we will ensure that producer perspectives and voices are heard in this review.

I am pleased to see that we will have one new director, Cameron Reich, joining the Board of Directors following our Annual General Meeting (AGM) on Jan. 9. Lesley Kelly, Jocelyn Velestuk, and Glenn Tait will continue into their second consecutive terms at that meeting. I hope you will join us for our AGM, which will be at the Western Development Museum in Saskatoon at 9:30 a.m. You may also join us online. More details are available on the AGM and other Sask Wheat events, such as Coffee Shop Talks and Grade School, later in the newsletter.

Please reach out to me, my fellow directors, or one of the Sask Wheat staff if you have any questions or suggestions about what you would like to see us doing on your behalf. We are always looking for feedback to make sure we are serving the best interests of Saskatchewan wheat producers. Our contact information is in the column to the right of this message.

I'm looking forward to meeting with and hearing from wheat producers over the next few months.

Brett Halstead
Chair



BOARD MEMBERS

- Brett Halstead** – *Nokomis*
- Scott Hepworth** – *Assiniboia*
- Lesley Kelly** – *Watrous*
- Jake Leguee** – *Weyburn*
- Rob Stone** – *Davidson*
- Glenn Tait** – *Meota*
- Jocelyn Velestuk** – *Broadview*

STAFF

- Blair Goldade**
Executive Director
- Dallas Carpenter**
Communications Manager
- Constance Chiremba**
Research Program Manager
- Samantha Frank**
Administrative Assistant
- Montana Getty**
Communications and Events Coordinator
- James Lokken**
Interim Policy Manager
- Sushmita Nandy**
Research Project Manager
- Carmen Prang**
Agronomy Extension Specialist
- Deb Rousson**
Operations and Finance Manager
- Aiden Sanden**
Policy Analyst
- Cheryl Smith**
Administrative Assistant (on leave)
- Kelsey Tollefson**
Policy Manager (on leave)
- Tatiana Vera**
Research Program Coordinator

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EXECUTIVE DIRECTOR'S MESSAGE

Advocacy on key policy issues remains a focus

As summer moves into fall, Sask Wheat staff remain busy with ongoing and new initiatives in our core areas of research, agronomy, administration and policy. As we reflect on the summer that was, we look forward to continuing our work on behalf of Saskatchewan wheat producers.

Sask Wheat's 2023 Semi-Annual Meeting was held in Regina on June 20. The event marked our 10th anniversary as a commission and included a presentation from agronomic consultant Phil Needham. Sask Wheat's Wheat Wise program expanded in 2023, with 11 field-scale agronomic trial sites throughout the province. In July, producers had an opportunity to walk back through history at the joint Sask Wheat/SaskBarley booth at Ag in Motion. Sask Wheat plots showcased AAFC varieties Katepwa, Lillian and Wheatland providing a visual representation of what public and producer-funded research has done over the years for wheat variety development.

Sask Wheat continues to provide financial administra-



tion and science coordination for the Canadian Wheat Research Coalition's (CWRC) recently approved Canadian National Wheat Cluster. Sask Wheat also continues to work closely with the other Saskatchewan crop commissions under the banner SaskCrops. SaskCrops consists of SaskBarley, SaskCanola, SaskFlax, SaskOats, Saskatchewan Pulse Growers, and Sask Wheat. The most recent SaskCrops collaboration includes submissions to the Pest Management Regulatory Agency's (PMRA) consultation, *Strengthening the regulation of pest control products in Canada*, and to the federal finance department's pre-budget consultation.

On Aug. 1, Sask Wheat and

the Saskatchewan Winter Cereals Development Commission amalgamated under the name Saskatchewan Wheat Development Commission, now representing all levy-paying wheat, fall rye and winter triticale producers in the province. Producers strongly supported the amalgamation, which will further the development of winter cereals production in the province.

In August, Sask Wheat also had the pleasure of meeting with the newly appointed Minister of Agriculture, the Hon. Lawrence MacAulay. The Minister met with Sask Wheat directors and staff to discuss issues impacting Saskatchewan producers, including the importance of continued investments into crop research, the scale of Saskatchewan agriculture, and the contributions of Saskatchewan annual crop production to the Canadian economy, sustainability and global food security.

As we move into fall, grain movement and markets continue to receive significant attention from Sask Wheat. While both major rail companies reported several record

weeks for performance in the last crop year, service across Saskatchewan remained inconsistent, especially throughout the summer. Consistent and reliable rail movement throughout the entire grain year is critical for Saskatchewan producers to ensure that they can deliver grain to the elevator in a timely manner and maximize revenue from their grain sales. We continue to monitor rail car-order fulfilment performance as reported by the Ag Transport Coalition (ATC), of which we are a member, as demand for rail service increases into the fall and early winter. We also continue to publish the Wheat Market Outlook and accompanying audio summary every week on our website.

Finally, the best way to stay informed about everything Sask Wheat is working on is to listen to our new podcast, *Morning Wheaties*, hosted by Montana Getty and Carmen Prang. The podcast airs weekly.

Blair Goldade
Executive Director

WHAT'S NEW

Sask Wheat welcomes Tatiana Vera

Tatiana Vera joined Sask Wheat as our Research Program Coordinator in June. She is a proud agronomist with an M.Sc. in Plant Sciences from the University of Saskatchewan (USask). During her time at USask, she received the Sask Wheat Graduate Scholarship.

Tatiana has been working for more than a decade in public and private research institutions inside and outside of Canada. Her

research focus has been in plant pathology and breeding for disease resistance in western Canadian cereals. Currently, she is the chair of the Wheat, Rye and Triticale Disease Evaluation Team for the Prairie Grain Development Committee (PGDC). Tatiana believes developing a strong collaboration between farmers and research institutions is the foundation for growth.

 — Sask Wheat Staff



Tatiana Vera

WHAT'S NEW

Four producers acclaimed to the Board of Directors

Sask Wheat will welcome one new and three incumbent directors to its board following a summer-long nomination period. First-time director Cameron Reich will join returning directors Lesley Kelly, Jocelyn Velestuk and Glenn Tait on the Board of Directors. Each director will serve a four-year term, with Kelly, Velestuk and Tait continuing into their second consecutive

terms. The terms of the four directors will begin on Jan. 9, 2024, following the Sask Wheat AGM.

The four acclaimed directors will join sitting directors Brett Halstead, who serves as Board Chair, Jake Leguee, who serves as Vice-Chair, Scott Hepworth and Rob Stone. ^{SW}

– Sask Wheat Staff



CAMERON REICH

Cameron Reich lives on a farm east of Craik with his wife Jessica and newborn son Renner. He is the fourth generation to produce grain on the family farm. He also works as a part-time Saskatchewan Crop Insurance Corporation (SCIC) adjuster. He previously worked at a local grain terminal for over seven years where he gained extensive experience in grain buying and grading. He also has previous experience working as a representative for an agricultural technology business that operates throughout Western Canada.



LESLEY KELLY

Lesley Kelly actively farms with her family at Watrous, SK, where they grow wheat, canola and lentils. Lesley is the farmer behind the High Heels & Canola Fields blog where she dispels myths about agriculture and brings consumers and farmers together. Lesley's goal in being involved in the community and agriculture is to create conversation, collaborate and identify solutions that help make agriculture and the community stronger.

Lesley co-founded the Do More Agriculture Foundation, which is a Canadian registered charity whose mission is to support Canadian farmers and those within ag, taking care of their mental health and bringing resources to the industry. She was recognized by the YWCA with the Women of Distinction award and received the Queen Elizabeth II Platinum Jubilee Medal for this work.



JOCELYN VELESTUK

Jocelyn Velestuk is part-owner of Velestuk Farms Inc., which is a family operation with her husband and his parents. Their farm is a mixed operation that focuses on practices that improve the soil and are based on sound agronomy to help create a more sustainable farm business.

Jocelyn grew up on a grain farm and has been in the agriculture industry as a farmer and agronomy consultant for over eight years. She has served on many different boards. She has been an agronomist in the industry and has a background in research from her Master's degree in soil science from the University of Saskatchewan.



GLENN TAIT

Glenn Tait farms on Harehope Farm, a 2,500-acre family operation with generations three, four and five involved in growing wheat and canola. His great-grandfather homesteaded the farm, which is near Meota, in 1903.

Glenn has been farming full-time since receiving his degree in agriculture (crop science) from the University of Saskatchewan in 1985. He has served on his RM council, the Agricultural Producers Association of Saskatchewan (APAS) Crops Committee, the Battlefords' school board, and many other boards and committees.

WHAT'S NEW

Coffee Shop Talks are back!

Coffee Shop Talks are informal events where we bring industry educators, researchers and you – the farmer – together to encourage communication and growth in knowledge. Not only will you have a chance to learn and network, but we also host these events at a location comfortable for you.

These events will have no planned presentations, which will provide opportunities to cover the agriculture topics you are curious or concerned about by giving you direct access to your peers and industry experts. Great discussions lead to increased knowledge, a better sense of community, and an improved use of current on-farm agronomy research. sw

– Sask Wheat Staff

UPCOMING TALKS

Moose Jaw

Wednesday,
Nov. 1, 2023

8:30 a.m. - 12 p.m.

Sportsman's Centre Event Hall

Cupar

Thursday,
Nov. 2, 2023

8:30 a.m. - 12 p.m.

Cupar Town Hall

Register at
saskwheat.ca



Inside the tent with Sask Wheat staff and director Scott Hepworth (second from right). Photos courtesy Sask Wheat.

GROWER RELATIONS

Sask Wheat engages with producers at Ag in Motion

by Montana Getty
and Carmen Prang
Sask Wheat

Sask Wheat and SaskBarley were back at Ag in Motion in July 2023. This year's theme was "A Walk-Through Time," which showcased different wheat and barley varieties through several eras of farmer investment.

The plot showed how far breeding has come over the years and highlighted the 2021 return on investment report conducted by Dr. Richard Gray and Dr. Katarzyna Bolek-Callbeck of the University of Saskatchewan. The report found western Canadian farmers have received nearly \$33 in return through varietal improvements for every dollar they invested in wheat breeding.

Inside the booth, directors and staff were on-hand to speak to producers about



Sask Wheat activities. The highlight of the booth was a collaboration between Sask Wheat and Cereals Canada to create packages of pasta



ABOVE: Pasta made from Canadian durum was handed out to producers.

LEFT: Executive Director Blair Goldade with the popular Plinko game.

to hand out as a thank you to producers. There were many comments on how great the pasta was, and we loved seeing people share recipes using it on social media. Despite the rain on the first day, the booth was well attended and many great conversations were had with producers! sw



Kochia in a field. Photo by Keith Topinka.

RESEARCH

Finding alternatives to fight herbicide-resistant kochia

by **Delaney Seiferling**
Freelance writer

Kochia was a nasty weed for wheat farmers to begin with, causing an average 20 per cent yield loss in spring wheat crops.

But in recent decades, this weed has become even more of a challenge due to its growing resistance to herbicides, particularly glyphosate, dicamba and fluroxypyr.

That is why Sask Wheat, along with several other industry partners, invested in a five-year research project led by AAFC researchers Shaun Sharpe, Julia Leeson and Charles Geddes to survey glyphosate-resistant and dicamba-resistant kochia across the Prairie provinces.

"It is important to monitor herbicide resistance in kochia on a long-term basis because it is always changing," Geddes said. "These surveys provide farmers and agronomists with the knowledge of what to look out for in their area and to plan ahead."

Surveys between 2018–2021 documented glyphosate resistance at 87 per cent of Sas-

katchewan sites and dicamba resistance at 45 per cent of Saskatchewan sites.

This means that triple-resistant kochia — resistant to Group two herbicides along with glyphosate and dicamba — was present in 40 per cent of Saskatchewan samples.

"Essentially all kochia populations tested from the Canadian Prairies in the past decade have been Group two-resistant," Geddes said.

He noted one of the keys is reducing the kochia seedbank, which could be key in depleting kochia populations.

"Kochia seed remains viable for only one-to-two years in the soil seedbank, making seedbank depletion an opportune target to manage this weed."

Research from the past five years yielded several other important considerations for farmers when it comes to kochia management.

First, row spacing and seeding rates are important, Geddes said. Studies showed that a narrow crop row spacing (9 inch) with a doubled seeding rate reduced kochia biomass

throughout a wheat-canola-wheat-lentil rotation by 80 per cent compared with wide (18 inch) row spacing and recommended seeding rates.

"This corresponded with a reduction in the kochia seedbank by 63 per cent at the end of the four-year crop rotation," he said.



All kochia populations tested from the Canadian Prairies in the past decade have been Group two-resistant.

Charles Geddes
AAFC researcher

Crop rotations are also key. Studies showed that rotations including winter wheat had 72 per cent lower kochia biomass overall compared with rotations that included spring wheat, Geddes said.

"The winter wheat rotations had 60 per cent lower kochia densities than the spring wheat

rotations across assessment timings before and after the post-emergence herbicide treatment and before harvest each year."

Another potential management tool is pre-harvest glyphosate and saflufenacil, which reduced kochia by 28 per cent on average in studies, regardless of whether the kochia was glyphosate-resistant or susceptible, Geddes said.

Finally, one other short-term management option could be mixing Group four herbicides. Preliminary research showed that a mixture of fluroxypyr and dicamba effectively managed a kochia population that was resistant to one or both herbicides when applied alone.

Going forward, researchers plan to further characterize Group 14 resistance in kochia and determine alternative methods to manage kochia prior to crop seeding, Geddes said.

"We plan to continue our research on managing multiple herbicide-resistant kochia to help provide information on options that farmers can use to manage this growing issue." ^{SW}

RESEARCH

Breeding innovation

Making improved varieties available sooner

by **Delaney Seiferling**

Freelance writer

We all know how important wheat is to the Canadian economy and the global food supply.

But for this crop to continue to be successful, we will need to address ongoing challenges faced by wheat farmers, including fluctuating climatic conditions which threaten stability in global markets and food security.

One of the best ways to address these challenges is by strengthening the breeding process by adopting new, innovative tools.

One research project from the 2018–2023 Canadian National Wheat Cluster aimed to do just that, by increasing the use of doubled haploid technology and molecular breeding in western Canadian wheat breeding programs.

Doubled haploid technology works by doubling chromosomes within cells in a plant genotype, creating a doubled haploid plant. In conventional breeding, it can take up to six generations to develop a true breeding line. This technology can speed up the process five-to-six times, said AAFC researcher Dr. Firdissa Bokore.

“Doubled haploid technology shortens the breeding cycle which accelerates varietal development, putting varieties in the hands of farmers sooner than traditional breeding,” said Bokore, who took over management of the research from former lead Dr. Ron Knox, who



Wheat research plots at the Swift Current Agriculture and Agri-Food Canada research station. Photo by Dr. Richard Cuthbert.

retired in early 2023.

“Besides saving time on breeding cycles that benefits breeders, doubled haploid breeding contributes fewer recombination events, or shuffling of the genes, maintaining useful genes and traits that the plant will exhibit.”

Molecular breeding, which uses DNA markers in the breeding process rather than phenotypic identification, can also cut costs and time involved with breeding, Bokore said.

“Molecular breeding allows for early selection for desirable trait combinations, allowing breeders greater opportunity to select for complex traits such as yield later in the breeding cycle,” Bokore added that this breed-

ing method makes it possible to discard undesirable genes earlier in the process, saving time and money.

“Molecular markers allow for the identification of parental lines having beneficial traits which can then be used for crossbreeding, trait recombination and gene stacking. Traditional breeders, in collaboration with molecular researchers, design and make crosses to develop breeding populations from which lines having complementary traits can be selected using DNA markers.”

The research, which wrapped up in early 2023, was able to help successfully integrate these two technologies into Western

Canada bread and durum wheat breeding programs. As a result, 12 varieties were developed using doubled haploid technology or with the use of DNA markers.

The impact of this research will continue going forward by allowing breeders to respond quicker to agronomic and market needs, such as increased resistance to biotic and abiotic stresses and increased agronomic efficiencies, Bokore said.

“In short, these forms of biotechnology help to deliver new varieties adapted for Western Canada to growers faster. Providing farmers with innovative varieties having ‘right fit’ genetics contributes to their continued success.” **SW**

RESEARCH

Pyramiding oviposition deterrence and Sm1 to control wheat midge

by Ellen Cottee
Freelance Writer

As many farmers know, there is only so much they can do to guarantee a good crop — and all that hard work can be undone by a pest less than an eighth of an inch long. Fond of spring and durum wheat in particular, wheat midge are born ready to destroy a crop through their appetite.

Currently, wheat midge in the Prairies are largely controlled through the use of varieties with the Sm1 gene, which kills midge larvae as they feed on the plant with minimal damage to the wheat. However, there is a risk this protection will be overridden by evolution: wheat midge are able to mutate through each generation, eventually becoming resistant to the effects of the Sm1 gene.

While the risk is still years away, Dr. Alejandro Costamagna of the University of Manitoba wants to be sure Canadian farmers are ready to fight back against wheat midge if that day comes. Through funding from the 2018-2023 Canadian National Wheat Cluster, he began research on another mitigation opportunity found in wheat genetics: volatiles.

"The chances you have individuals with mutations that allow them to overcome the Sm1 gene and also these chemicals are very, very reduced," Costamagna explained. "That's what we call pyramiding resistance."

When laying eggs, midge prefer a precise moment in



Orange blossom wheat midge or *sitodiplosis mosellana*. Photo by Gilles San Martin is licensed under CC BY 4.0.

wheat growth — indicated to them through plant volatiles, or tiny chemical compounds they sense in the area. Researchers working on the Sm1 gene found some varieties of wheat were unattractive to wheat midge due to the specific volatiles the plants emit.

The first step in Costamagna's research is identifying the volatiles that repel wheat midge. These compounds are then sent to Dr. Kirk Hillier, a biologist and professor at Acadia University, who uses electroantennogram equipment to determine which volatiles provoke a reaction in the midge.

"The good thing is, we're making progress," he said. "We found compounds we think are associated with deterrence

“
We found compounds we think are associated with deterrence — we're trying to follow up on those to see if they lead us to the genes we are after.”

Dr. Kirk Hillier
Biologist and professor
at Acadia University

— we're trying to follow up on those to see if they lead us to the genes we are after.”

The next step is to identify

which genes control these volatiles and how they can be 'turned on' to promote resistance in more varieties of wheat. However, that can only come with further experiments and assessing midge reactions.

Costamagna and his team continue to look for funding opportunities, and he stresses the importance of maintaining the wheat midge colony. Canada is home to one of the only viable midge colonies producing enough for use in experiments.

"It's quite unique in the world, and it takes time and expertise to get going," he explained. "If we stop maintaining the colony, then there is no guarantee you'll have another one to experiment with when the time comes." ^{SW}

AGRONOMY

Boosting crop success

The importance of soil sampling

by Carmen Prang

Agronomy Extension Specialist,
Sask Wheat

As harvest wraps up and the days grow shorter, farmers begin to reflect on the previous crop and start planning for next spring, all while taking a much-needed breather. One of the crucial tasks that takes place during the fall is nutrient management planning. There are various elements that can be considered during this planning, including nutrient removal and uptake guidelines, yield goals, and 4R (right source, right rate, right time and right place) stewardship, to name a few. However, one of the most cost-effective and beneficial practices we can consider is soil sampling.

Soil sampling, whether done in the fall or spring, provides a snapshot of nutrient levels, pH balance and organic matter content. Understanding these factors can help farmers fine-tune their crop management strategies by showing what nutrients are adequate, deficient or marginal. Understanding this is, in part, how we determine future nutrient applications to achieve yield and quality goals, select the right products and amounts, and avoid over-application.

There is a lot to consider when it comes to soil sampling and many more benefits than can fit in this article. With that said, here are a few things to keep in mind:

1. *Soil sampling can be done in the spring or in the fall. Soil sampling in the fall allows*



Collecting a soil sample. Photo by ALDa.team, Shutterstock.com.

- enough time to send in samples, get results, come up with a plan (that hopefully includes some 4R aspects.) and order products.*
2. *Fall soil sampling should be conducted when the soil temperature is consistently below 10°C (ideally closer to 5-7°C) as soil microbial processes begin to slow. This will give a more accurate picture of what spring nutrient levels will be.*
3. *Soil test results are only as good as the sample itself. It is important to ensure samples are properly*

taken, handled, stored and shipped.

4. *Be consistent with your sampling method, depth, timing and laboratory analysis every year you sample.*
5. *There are many different methods of soil sampling, including random composite, benchmark, grid, or zone. Each farm is unique in its nutrient management planning and field variability. Work with your agronomist to find a plan that works best for you.*

So, as the leaves begin to

fall, take the opportunity to sample your soil, as it is a small step with significant benefits for your farm's future success. Once your results are in, work with your agronomist to interpret soil test results and come up with a plan that works best for your farm.

For more information on nutrient management planning and other best fall management practices, check out our recent joint document and Wheat Profit podcast on fall considerations found on our website under agronomic resources. sw

AGRONOMY

Stay away from OTA!

Manage your on-farm storage to reduce risk

by The Keep it Clean Program

Moisture and temperature are the two biggest factors in grain spoilage. Making sure the grain that goes into the bin has been dried to an optimum moisture level and checking the bins frequently to monitor temperature and identify any issues early will reduce the chances of spoilage.

When it comes time to store cereals, one of the best things a grower can do for their grain is to ensure that it is dry and kept cool, well below 10°C.

Ochratoxin A (OTA), is a potent, naturally occurring mycotoxin that can form on stored cereal grains in high moisture conditions. OTA is produced by *Penicillium verrucosum*, a naturally occurring soil fungus; but, unlike deoxynivalenol (also known as DON or vomitoxin), which is formed by fusarium infections in the field, OTA forms exclusively in storage.

OTA can be a risk to market access as countries can have different maximum allowable limits of OTA in grain. Make sure to monitor this regularly throughout the storage season, and to remove a minimum

of one-third of bins if there is a detectable temperature rise. Not doing so risks the development of OTA.

Preventing even the smallest pockets of OTA-contaminated cereals during storage is the only way to manage OTA and help reduce the risk of toxins being produced and avoiding product recalls. OTA is not destroyed with heat or processing, so it can persist in grain or grain products. By taking steps to prevent the formation of OTA in stored grain, farmers can protect their investments and help keep markets open for all.

The most common cause of OTA is from contaminated soil particles, last year's stored grain, grain handling equipment, and/or residues remaining in the bin. OTA can develop in small pockets of wet grain, or when water comes in contact with grain — even in bins that are generally well managed and properly aerated.

Cooling the grain as quickly as possible and keeping it cool can help reduce the production of condensation in storage.

No matter the crop that is in the bin, Keep it Clean recommends checking them frequently and following these best management practices for safe storage:

- *Keep bins and grain handling equipment clean.*
- *Thoroughly clean dust and debris between grain lots.*
- *Ensure crops are harvested or dried to a safe level for storage.*
- *Do not blend tough/damp grain with dry grain on-farm — it is too risky.*
- *Cool the grain quickly to well below 10°C to achieve uniform, cold temperatures throughout the bulk, ideally well below zero.*
- *Monitor bins regularly. Move at least one-third of the grain out*

of the bin with any detectable temperature rise.

- *Condition grain as soon as possible in the spring as soon as ambient temperatures allow for drying.*

By keeping an eye on your bins and taking these steps to maintain the quality of your stored cereals grains you can protect both its marketability and your investment. [EW](http://keepitclean.ca)

Please go to keepitclean.ca for more information and resources.





Register now for Grade School

Grade School is an opportunity for producers to watch in-person grading demonstrations for wheat, barley, flax and canola. CGC representatives will discuss common degrading issues for each crop and answer questions in Indian Head on Nov. 28 and Swift Current on Nov. 29.

Learn about the Harvest Sample Program, the Final Quality Determination Program, and other CGC programming for grain farmers. There will also be presentations from the crop commissions.

Grade School 2023 is brought to growers by Sask Wheat, SaskCanola, Sask-Flax and SaskBarley.

Attendance is no cost, but registration is required and limited.

Indian Head

Tuesday, Nov. 28
Memorial Hall
9 a.m. to 3 p.m.

Swift Current

Wednesday, Nov. 29
Coast Hotel
9 a.m. to 3 p.m.

For more information and to register, go to saskwheat.ca.

— Sask Wheat Staff

MINISTER OF AGRICULTURE VISITS SASK WHEAT DIRECTOR

As Executive Director Blair Goldade covered in his message on page three, the Hon. Lawrence MacAulay, federal Minister of Agriculture, visited the farm of Sask Wheat Director Rob Stone and his family on Aug. 15. The hour-long meeting, which was also attended by Goldade and Director Lesley Kelly, was an excellent opportunity to discuss investments in crop research and policies impacting grain producers on behalf of Sask Wheat and SaskCrops.

— Sask Wheat Staff



CLOCKWISE FROM TOP LEFT: Minister MacAulay in a combine; Rob Stone shows Minister MacAulay a seeding drill; Rob Stone explains how agronomic apps are used on the farm; Director Lesley Kelly, Minister MacAulay, Director Rob Stone, and Executive Director Blair Goldade beside Rob's combine. Photos by Sask Wheat staff.

SASK WHEAT 2024 ANNUAL GENERAL MEETING

The Sask Wheat AGM will be on **Tuesday, Jan. 9, 2024** from **9:30 a.m. to 11 a.m.** at the Western Development Museum (2610 Lorne Ave.) in Saskatoon.

Producers and observers may register to attend in person or online. A registered wheat producer, who is a producer who has paid a check-off to Sask Wheat in one or more of the previous two crop years (Aug. 1, 2021 to July 31, 2023) and has not requested a refund in the most recent year a check-off was paid, is eligible to vote on motions and introduce and second resolutions. Voting will be available for those attending online and in person.

Farmers and industry representatives from private and government organizations may attend any AGM as observers.

To register for the Sask Wheat and other Saskatchewan crop commission AGMs, please go to saskcrops.com.

AGM AGENDA

TIME	TUESDAY
9:00 – 9:30 AM	Registration
9:30 – 11:00 AM	Sask Wheat AGM
11:00 – 11:25 AM	Break
11:25 – 12:30 PM	SaskCanola AGM
12:30 – 1:00 PM	Lunch
1:00 – 1:45 PM	SaskFlax AGM
1:45 – 2:15 PM	Break
2:15 – 3:15 PM	SaskBarley AGM
3:15 – 3:45 PM	Break
3:45 – 5:15 PM	Saskatchewan Pulse Growers AGM
5:15 – 6:30 PM	Grower Networking Reception

