

INVESTING IN THE FUTURE FOR A VIBRANT ALBERTA WHEAT INDUSTRY



From post-secondary scholarships to internships and mentorship opportunities, AWC is paving the way for sustainable wheat industry leadership.

Victoria Russell Communications Specialist

One of Alberta Wheat Commission's (AWC) strategic priorities is to develop strong leaders for a progressive and vibrant AWC and Alberta wheat industry. We want to see sustainable leadership across our value chain, and AWC is investing in future generations to ensure our industry continues to thrive.

Tomorrow's leaders come up in conversation regularly in farm succession planning—it's a hot topic in our

industry with an aging population of farm owners.

But if you look at the broader scope of agriculture, it's a growing issue in the research world as well. Research is arguably one of the most important drivers sustaining the competitive advantages that the western Canadian wheat industry enjoys on the world stage. The benefits of research start at the farm level and follow through to the quality we deliver to our international customers.

But Canada's research capacity is at risk. According to a recent study

commissioned by the Western Grains Research Foundation (WGRF),* we can expect to see about 16 senior scientist positions vacant in the next three years. And some entire disciplines, such as weed science, don't have anyone in place to fill these roles and continue building knowledge.

AWC is taking proactive strides to mitigate this industry risk. One of our key deliverables for the strategic priority mentioned above is to invest in future generations of agriculture researchers. We offer scholarships at every post-secondary institution across Alberta that offers an agriculture-related program. Our scholarships are about investing in the people who have the potential to fill these roles and ensure that agriculture research continues to sustain itself.

AWC is proud to be building on our scholarship program—we're in the early phases of developing a scholarship aimed at agribusiness students, recognizing that such programs are also crucial entryways for industry leaders to begin their careers.

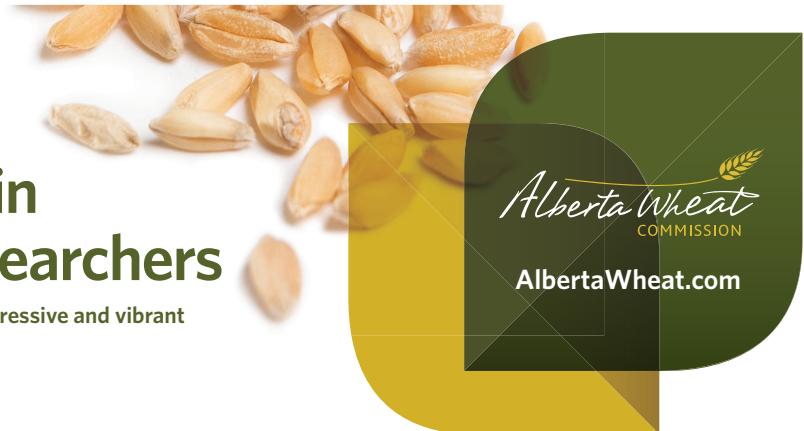
In addition to scholarships, AWC also invests in future generations through an in-house internship program, which has been filled by both future farm leaders and city kids who aspire to become part of the agribusiness world. We're excited to be building a mentorship program that will match highly qualified mentees seeking to build their careers with the best in the business.

Our plan is to continue our work delivering programs for tomorrow's leaders. We believe this will be a catalyst that ensures our industry continues to grow and prosper. Throughout the next three pages, you will learn more about how AWC is investing in future generations to pave the way for a progressive and vibrant wheat industry.

* The WGRF study can be found at westerngrains.com.

AWC Invests in Future Ag Researchers

Developing strong leaders for a progressive and vibrant Alberta wheat industry

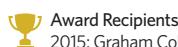


University of Alberta

Alberta Wheat Commission Graduate Research Scholarship in Crop Science

\$10,000 awarded annually

- Students registered full-time in a graduate degree program in the Faculty of Agricultural, Life and Environmental Sciences conducting research in the area of crop science, specific to wheat production, are eligible
- Students registered in a master's program are eligible to hold this award during the first two years of their program
- Students registered in a doctoral program are eligible to hold this award during years one through four of their program



2015: Graham Collier | 2014: Breanne Tidemann



University of Lethbridge

Alberta Wheat Commission Scholarship in Agronomy

\$1,000 awarded annually

- Students in any undergraduate degree program interested in pursuing a career in the field of agriculture, agronomy or plant genetics are eligible



2015: Erikka Weisgerber



Lethbridge College

Alberta Wheat Commission Scholarship in Agriculture Sciences

\$1,000 awarded annually

- Undergraduate students enrolled in agriculture sciences with an agriculture technology major are eligible



2015: Kayla Giles

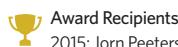


University of Alberta

The Alberta Wheat Commission Award in Crop Science

\$1,000 awarded annually

- Students in the Faculty of Agricultural, Life and Environmental Sciences pursuing a bachelor of science in agriculture, majoring in crop science, are eligible



2015: Jorn Peeters | 2014: Katie Wyering



Olds College

Alberta Wheat Commission Scholarship in Agriculture

\$1,000 awarded annually

- Second-year students enrolled in agriculture management with a production major are eligible



2015: Josiah Schut



Lakeland College

Alberta Wheat Commission Scholarship in Crop Technology

\$1,000 awarded annually

- First-year students enrolled full-time in the Crop Technology Program (Vermilion campus) are eligible



2015: Winner to be announced in March, 2016

* Students interested in pursuing an Alberta Wheat Commission scholarship should contact their student award office for more information.

COLD-TOLERANT, EARLY-SPRING WHEAT VARIETIES IN THE WORKS

Victoria Russell
Communications Specialist

Farmers can look forward to the development of new cold-tolerant spring wheat varieties with the potential to spread out the growing season with earlier seeding and harvest, thanks to a research project from University of Alberta doctoral candidate Graham Collier.

Collier is this year's recipient of the Alberta Wheat Commission Graduate Research Scholarship in Crop Science, valued at \$10,000. Under the supervision of Dr. Dean Spaner and Dr. Brian Beres, Collier is looking at the agronomic suitability of newly developed spring wheat lines that could be planted as early as mid-March in colder soils ranging from 0° to 2° Celsius. It is expected that cold-tolerant varieties developed from this research will also have comparable to increased yields over conventional varieties.

The lines Collier is working with actually started out as winter wheat varieties that were bred to no longer require fall seeding, meaning they can be used as spring wheat. The lines originated from Dr. Robert Graf's winter wheat breeding program at Agriculture and Agri-Food Canada's Lethbridge Research and Development Centre.

"Doctors Beres, Graf and Spaner realized that spring wheat that could be seeded earlier and in colder soils, and potentially harvested earlier, would be a good fit in Western Canada's short growing season," Collier said. "My research involves proving this concept and bringing the best



Graham Collier's research is examining the agronomic suitability of newly developed spring wheat lines that could be planted as early as mid-march.

agronomic package for this cold-tolerant spring wheat growing system to reality."

This project is just getting underway, but could result in an agronomic package that would use fall-applied residual herbicides—potentially removing the need for an in-crop herbicide application—followed by spring seeding in cold soils at 0° to 2°C, with specific soil depth and seeding rate recommendations. In addition to spreading out work in the busy spring season, this system could also result in a longer grain-fill period, which would result in increased grain yield. Other benefits would include improved pest

resistance and increased competition with weeds.

Part of Collier's work is included in a project led by Beres that aims to take advantage of early growing degree accumulation, increase yields, and improve preparedness for more variable spring climatic conditions and more severe late-summer growth conditions.

After completing his doctorate, Collier intends to continue pursuing agriculture research. "I intend to farm and work in Western Canada, and want to be able to bring practical research to growers to help them improve our industry."

FUTURE FOCUS

New mentorship program to foster tomorrow's agriculture industry leaders



Hannah Konschuh
Acting policy and government relations manager

What is a mentor? Someone who is perhaps a little older and a little wiser, who has impacted your life or career for the better. Sometimes all it takes is a conversation or a piece of advice to start you down a different path or to open new doors. Mentorship is about having that person to guide you in making key connections, growing professionally, and advancing your career in the direction you want it to go. Whether you're a farmer or an agribusiness professional, mentorship can have a major impact on your success.

Alberta Wheat Commission (AWC) is intentionally creating these connections with the development of our new Future Farm Leaders Mentorship Program. This new program will foster the grain industry by providing training and experience to up-and-coming young leaders, creating a strong pool of highly qualified people. Current industry leaders will be paired with young producers and agribusiness professionals to impart their knowledge and experience.

Mentees can look forward to shaping the mentorship experience they want, working one-on-one with a leader in their chosen field to identify key learning opportunities and forums for professional development over the course of the mentorship period. Along the way, mentees will be exposed to numerous valuable industry connections, building their professional network. Graduates will leave the program better able to manage their operations, and will have begun to develop the skills needed to lead the agriculture industry into the future.

Why AWC? As you've seen in other articles in this issue, AWC's strategic priorities guide our commitment to invest in future generations. We are proud of the AWC scholarship program that supports students in their studies as they train and prepare to enter the agriculture industry. Future

This new program will foster the grain industry by providing training and experience to up-and-coming young leaders

Farm Leaders will move one step beyond that, targeting young agriculture professionals and producers as they build their careers and the skill sets needed to shape our industry and ensure that it continues to thrive.

What will make our program successful? AWC has our own ever-growing network of industry leaders and groundbreakers in the various facets of agriculture. We have built our network through collaboration with other industry leaders on projects across the board. Our selection committee will source reputable agriculture leaders—the best in the business—and pair them with passionate young farmers and agribusiness professionals to participate as mentees.

Stay tuned for our launch announcement on albertawheat.com. Applications will open this summer, with the program set to begin in fall 2016. We look forward to receiving applications from tomorrow's leaders.



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Timely, Accurate, Transparent Cash Grain Price Information

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PDQ aims to be a complete and unbiased resource for cash grain market prices and important crop data. PDQ will improve farmers' ability to make well-informed marketing and planning decisions and maximize the value of their crops.

Watch for more to come in **Phase 2**.

PDQ is owned and operated by the Alberta Wheat Commission and is provided as a service to all market participants.

pdq
PRICE & DATA QUOTES

QUALITY OVER QUANTITY

Malt barley harvest report sheds light on the 2015 crop year

By Sydney Duhaime

If one word could sum up the 2015 growing season, it would be “unpredictable.”

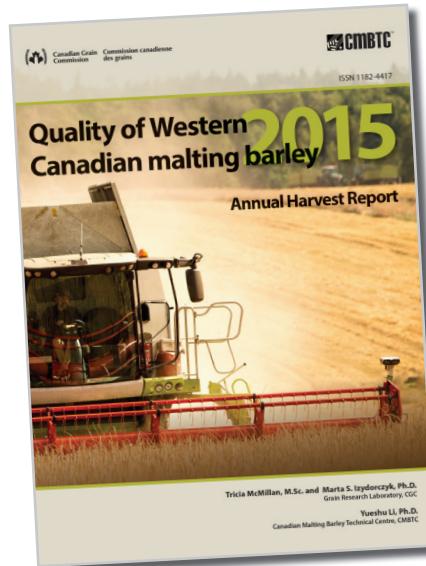
For farmers across Western Canada, 2015’s unco-operative weather made for a suspenseful crop year—one that left many worried that their crop might not make it to harvest, especially in the case of malt barley.

While it is normally a rewarding crop to grow, malt barley can be sensitive to extreme weather and a tough growing season. However, according to the *Quality of Western Canadian Malting Barley Annual Harvest Report*, malt barley proved to be resilient and survived 2015’s unpredictability.

Inside the report

Created by the Grain Research Laboratory (GRL) at the Canadian Grain Commission (CGC) and the Canadian Malting Barley Technical Centre (CMBTC), this annual report (available at grainscanada.gc.ca) provides marketers and buyers with an in-depth look at malt production and quality in Western Canada.

Marta Izydorczyk, research scientist and program manager with the CGC, explained that the results of this report also show how the demand for malt barley and select varieties is changing. This is information farmers can use, in conjunction with the yield data, to make the best varietal choice for them.



The *Quality of Western Canadian Malting Barley Annual Harvest Report* is available at grainscanada.gc.ca

“This year, our survey was based on 62 composite samples that represented more than one million tonnes of barley selected for malting,” Izydorczyk said.

Samples are provided by grain handling and malting companies, which allows the GRL and the CMBTC to create a malt harvest report complete with weather conditions, specific characteristics (starch, protein and germination levels), seeded varieties and overall varietal yields.

Up-and-coming varieties

The 2015 barley harvest in Western Canada was an estimated 7.78 million tonnes, and, for the most part, malt barley acres were seeded with two dependable varieties: AC Metcalfe and CDC Copeland. In fact, these varieties of choice occupied a combined 73.9 per cent of Western Canada’s malt barley acres.

Although AC Metcalfe and CDC Copeland are staple malt varieties in Western Canada, a few new varieties are growing in interest among farmers and, more recently, the malting and brewing industries as well.

“Bentley, CDC Kindersley, AAC Synergy are becoming more popular,”

Izydorczyk said. “I think we will probably see more and more interest in new varieties. I have the impression that we are going to see a much higher percentage of acres grown with these varieties.”

Wade McAllister, an Alberta Barley delegate and farmer from the Penhold area, has a growing interest in these new varieties too. “Synergy looks like it is going to be the new up-and-coming variety,” he said. “Rahr is looking at getting some more acres in of Synergy, so we are looking at putting some in next year.”

Quality and price

In terms of quality, malt barley from the 2015 harvest was a bit of a mixed bag. Harvest samples showed some signs of pre-harvest sprouting and higher-than-average levels of protein—less than ideal characteristics for malting.

Peter Watts, managing director of the CMBTC, explained that the late-August and early-September rains caused sprouting, which downgraded the quality of barley. However, “anything that was harvested before the rains was relatively good quality and, in some cases, very good quality,” he said.

Malcolm MacDougall, who farms near Champion in southern Alberta, knows first hand the damage harvest-time rain can cause. "If you get rain at the wrong time and your malt barley turns to feed, it goes from one of your best-paying crops to one of your worst-paying crops," he said.

MacDougall said his malt barley was much better than expected, despite the drought conditions that occurred to varying degrees throughout the province in 2015. "We weren't expecting a lot from our barley. It was a hot and dry summer, then we had a lot of rain and hail."

McAllister also experienced issues with rain when harvesting his malt barley. "Harvest was challenging towards the end," he said. "We try to get our malt off before the rain . . . so we can make malt."

Luckily for McAllister, he was able to get the barley off the field before the rain came—and luckier still, all of his barley made malt. "The quality was excellent, probably some of the best barley we have ever grown," he said. "Proteins were low, plumpness was



The McAllister family's Antler Valley Farm located near Penhold, AB.

good and the yields were incredible."

Despite the unpredictable weather, MacDougall and McAllister were not alone in their results. The 2015 malt harvest had higher-than-average kernel weight and plumpness, high extracts levels, good germination and slightly above-average yields and acres (a 12-per-cent increase over the previous year).

In addition to yields and acres increasing, demand for malt barley only continues to grow—and the price forecast looks promising.

"I think the demand should remain strong for malting barley because supplies are tight," Watts said. "We should see prices as relatively strong in 2016, at least early in the season, as producers are making seeding decisions."

ALBERTA BARLEY'S AGM AN OPPORTUNITY TO REFLECT AND PLAN FOR THE FUTURE

By Ellen Cottee

Buoyed by a successful 2015 harvest, Alberta's barley industry looks to continue the momentum into 2016. However, before taking on the new year, farmers and industry alike had the opportunity to learn about exciting opportunities and the increased potential for the world's oldest cereal grain at Alberta Barley's annual general meeting.

Hosted at the Banff Springs Hotel,

Dec. 9 to 10, the 2015 AGM was a chance for Alberta's barley producers and industry members to come together, learn and look forward.

"This is the time when we reflect on the activities and accomplishments of the past year and work towards the future," said chairman Mike Ammeter, as he kicked off the meeting.

"It wouldn't be an agriculture conference without sustainability on the agenda," added Erin Gowriluk, government relations and policy manager

for Alberta Wheat Commission.

As she updated attendees on the Alberta Crops Sustainability Project, Gowriluk discussed the sustainability goals and standards set forth by the new federal government. "Given the work we have done, and the interest and engagement many of you have demonstrated in this area," Gowriluk said, "we are well positioned to work collaboratively to help the federal government reach their sustainability objectives."

In addition to addressing the shifting world of environmental standards, maintaining the sustainability of Canadian barley markets also remains a focus for 2016. Kenric Exner of Viterra highlighted the growing competition with other barley-rich countries as a concern, especially in terms of exports and demand into China, during his presentation on export and domestic markets. "Ensuring barley's risk and returns to the producer remain competitive versus competing commodities is a major priority in order to grow or preserve barley's acreage base," he explained.

Exner cited Canada's growing number of craft breweries as a major force keeping the domestic demand for malt barley strong. With over 400 breweries opening in Canada between 2004 and 2014, and global beer production rising, malt barley has become a key domestic and export market player.

During his update on the commission's activities, Alberta Barley's general manager, Rob Davies, discussed how to keep the malt barley industry sustainable and competitive. With more than 20 malt varieties available, Davies outlined why producers largely stick with AC Metcalfe and CDC Copeland, varieties registered in 1994 and 1999, respectively. "Malt barley growers are basically holding almost 70 per cent of their eggs in a basket that is 15 to 20 years old," Davies explained. "That is hurting our competitiveness both in the field and internationally."

Davies said market development work to improve both domestic and international acceptance of new varieties is critical. When buyers accept new varieties, it will allow producers the opportunity to grow newer varieties with better yields and to increase their net returns per acre.

On the industry side, Gord Winkel from the University of Alberta gave



Gord Winkel, chair and industrial professor of the Engineering Safety and Risk Management Program at the University of Alberta, discusses the importance of telling your own story.



AGM attendees learn about upcoming opportunities for Alberta's barley industry from farmers and industry experts.

producers a look at what safety and sustainability can mean for an essential yet often misunderstood sector. Building on his mining industry experience, Winkel's presentation, titled "The Sustainability Imperative," included sound advice for Alberta's barley producers. "If you don't tell your story, someone else will," he said. "And you might not like it."

Similar to mining, agricultural communities are located in rural or remote areas, yet many of the negative perceptions of the sector come

from large urban centres. According to Winkel, this means people who have no experience in the industry are passing judgment on the practices of an industry they rely on.

In 2016, members of Alberta's barley industry will have to come together to work towards sustainability goals while ensuring their story is being told and, most importantly, understood. With the tools, tips and information presented at Alberta Barley's AGM, they are starting the year off on the right foot.

POSTER SESSION HELPS CONNECT RESEARCHERS AND PRODUCERS



Gabriel Ribeiro, a graduate student working at Agriculture and Agri-Food Canada, explains his research to barley farmers.

By Ellen Cottee

Building relationships is a key element of Alberta Barley's annual general meeting. With plenty of opportunities to network and connect, the two-day event proved to be a major success in 2015. During the AGM, the research poster session presented a unique opportunity for producers to learn the latest on effective feeding and barley use research from the researchers themselves.

Participants in the poster session distilled their research into poster format and presented it to AGM attendees mingling in the hall of the Banff Springs Hotel. The 16 students and researchers were judged in five different categories—poster organization, research content, communication, question and answer, and importance to the industry.

The three winners—Larisa Jancewicz, Krysty Munns and Gabriel Ribeiro—were all graduate students conducting research at Agriculture and Agri-Food Canada's (AAFC) Lethbridge Research and Development Centre.

"We work here at the research centre to improve cattle performance, make it more sustainable, and find ways for the industry to be more efficient," said Ribeiro, the third-place finisher.

His project, *Effect of diastatic power and processing index on the feed value of barley grain for finishing feedlot cattle*, focuses on the impact of diastatic power and processing of barley on cattle. A trait of malt barley, diastatic power is the amount of starch-converting enzymes in the barley.

"Usually, feed barley for cattle is chosen based on bushel weight, degree of plumpness and percentage of thins," Ribeiro explained. "We were looking to see if we could find a trait with a better relationship to the performance of feedlot cattle."

The results of Ribeiro's study were inconclusive. He said small feedlots make it difficult to measure average daily gains. "We need farms to pick this up and try it," he explained. "That's the only way we'll know how well this works."

In second place, Krysty Munns'

project, *In situ identification and quantification of starch-hydrolyzing bacteria attached to barley and corn grain in the rumen of cows fed barley-based diets*, investigated how bacteria in the gut of cattle breaks down starch.

"If we can find a way to manipulate the microbes in the rumen system, maybe we can have better starch digestion and better utilization of the grain," Munns explained.

While more of a "second-degree" application, Munns' poster drew a lot of interest from the crowd, she said. "It was great—people were coming up and, instead of just standing there, they were very engaged and interactive."

First-place winner Larisa Jancewicz spent two years designing calibrations for near-infrared spectroscopy (NIRS) machines, which are generally used to analyze grain for quality, in order to determine the starch concentration in feces for her project, *Using NIRS to evaluate grain processing, fecal starch concentration and feed efficiency in commercial feedlot cattle fed barley-based diets*.

"The objective of my thesis was to try to implement what we do in research settings into commercial settings," Jancewicz said. "It's important to maximize what we're feeding cattle instead of wasting feed."

If cattle digest all the nutrients in their diet, they can gain more weight or eat less for the same amount of weight gain. "I noticed the higher the fecal starch levels, the lower the weight gain was and the more they had to eat," she explained. "This research could save farmers a lot of money."

Jancewicz welcomed the opportunity to discuss her research with producers attending the poster session. "I was pleasantly surprised by how much interest there was in my topic," Jancewicz said. "People had a lot of questions, which is nice because sometimes you don't get that much feedback."