

POGA Marketing Campaigns Exceed Targets⁺ Mexico, Japan and Canada Projects

All three projects have progressed very well half-way through their terms (as of 2022 March 31, they are at the end of the first year of the two-year projects).

(Definitions of terms you will see throughout this article: **"Engagement"** refers to users who have seen the campaign and taken action across our social media channels: e.g., liked, commented, viewed the website, watched the video, etc. **"Reach"** refers to the number of people who have seen a piece of social media relating to the campaign. **"Impressions"** refers to the reach figure -plus- the number of times a post appeared in a user's timeline.)



As of 2022 March, the **Mexico-Avena Canadiense** campaign continues to realize strong user activity. The Facebook page now has >363K followers. A single, 'spring day' blog post reached >60K people and received >5.8K engagements.

The final recipe posted in March, *Ojiya o sopa japonesa con vegetales* (Japanese oat and vegetable soup), reached >403K people—the best performing post of the year. The regular food blogger entries continue to engage followers and are introducing new food cultures to different markets.

The Avena Canadiense website receives a lot of activity and the YouTube channel continues to grow organically.

Only half-way through the project term, the Reach/Circulation/Readership has already reached 97% of the full two-year Key Point Indicator (KPI) target. Website and Social Media Views are sitting at 52% KPI, so well within reach of the target by the project's end.

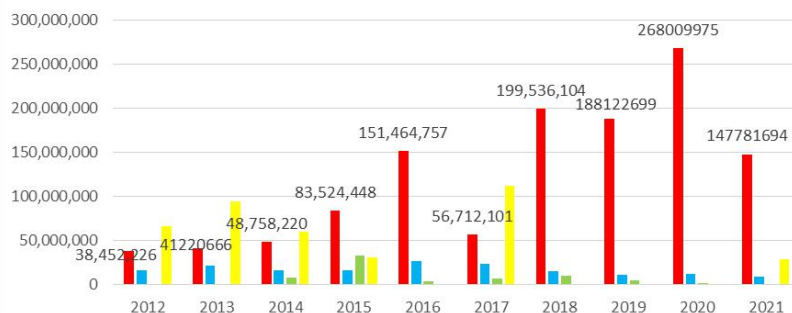
The annual event held in Mexico with the Mexican Diabetes Association (Federación Mexicana de Diabetes) and the recipe contest took place online last year, and continues to show a high level of reach and viewership for the events. One of the winning recipes, Garnachitas de Avena (Fried Oat Tortillas), was posted to the Avena Canadiense Facebook page and reached >213K people and garnered <18K engagements.

Export numbers to November 2021 confirms Canada to be by far the leading exporter with 80% of the oat market share despite the severe drought that affected the crop in the summer. Mexican consumer interest in oats remains high—record high consumption levels for processed oats were again achieved in 2021. Exports did decrease in 2021 due to drought conditions affecting availability. We have been assured that demand is still very strong!

This project is supported by the Prairie Oat Growers Association (POGA) and funded through the AgriMarketing Program under the Canadian Agricultural Partnership, a federal, provincial, territorial initiative.



Oat imports in Mexico (kgs)
main exporters 2012 -2021 (November)



Source: Mexican SIAVI (Sistema de Información Arancelaria vía Internet)
<http://www.economia-snci.gob.mx/>

Canadian Exports to Mexico (kgs) as per Mexican Sistema de Información Arancelaria

Country/Code	1004.90.99 oats other than seed	1103.19.01 groats & meal of oats, pellets of oats	1104.12.01 oat flakes or rolled oats	1104.22.01 worked grain of oats	Total*
2017	2,746,853	1,390,730	2,045,177	50,529,341	56,712,101
2018	148,429,573	1,561,093	1,924,998	47,620,440	199,536,104
2019	142,919,891	1,343,194	1,072,903	39,336,867	184,672,855
2020	212,533,066	1,455,927	1,005,123	53,015,819	268,009,875
2021**	96,526,282	***	701,475	50,553,937	147,781,694

*Total include some rounding across multiple commodities.

**2021 results are up to November 2021.

***Data not available.

Continued on page 2...



The first nine months of the **Canada–Oats Everyday** campaign received limited funding for social media advertising. Even with restricted resources, the average monthly reach sat comfortably at 359,900. In January 2022, additional funding approval was received from the Ag Action Manitoba Program for Industry Organizations (funded by the governments of Canada and Manitoba). This resulted in massive increases across all numbers: the average monthly reach for the 2021 fiscal year increased by 388% and sits at >1.4M views each month.

A recipe video for *Butter Oat Waffles* was posted in English and French, and reached >175K with >46K engagements.

The recipe from the Mexico campaign for *Ojiya* or Japanese vegetable soup was posted (English and French) to the website (www.oatseveryday.com) and to the Facebook page. It reached >98K people and received >7.5K engagements. The recipe was also shared through the Facebook Advertising platform as a single-recipe ad and garnered another >76K in reach. (This proves the value of diverse advertising techniques.)



Here are the Key Performance Indicators (KPIs) for Year One the 2021-2023 campaign:

Activity	Target	Actual	KPI (% of target)
Reach/Circulation/Readership	50,000	49,330	98% achieved
Website & social media views	36,000,000	17,164,624	47.6% achieved

The project team will continue to optimize performance (such as using the advertising platform) and increase reach, and it is expected that targets will be easily surpassed by the end of the project term.

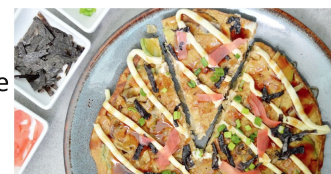
This project is supported by the Prairie Oat Growers Association (POGA) and funded by 1) the AgriMarketing Program under the Canadian Agricultural Partnership, a federal, provincial, territorial initiative and 2) the Canadian Agricultural Partnership, Ag Action Manitoba—Industry Development Program.



Once again, the **Japan–Kananootsumugi** social media component of this campaign garnered excellent results. Social media views for the Kananootsumugi Facebook and website campaign exceeded the 2023 target number of 10,000,000 within the first year of the campaign by 71%!

The Facebook page has >2.5K users as at 2022 March, with >1.4M impressions and >2.3K engagements.

New recipes are being developed by our bloggers and translated into multiple languages. A recipe for *okononiyaki* (a Japanese style pancake) was posted in English and French, and reached >205K, making it the most successful recipe for 2021.



Country/Code	Canadian Exports to Japan (kgs)				Total
	1004.10.00 oat seed	1004.90.00 oats other than seed	1104.12.01 oat flakes or rolled oats	1104.22.01 worked grain of oats	
2018	-	26,515,000	448,129	172,340	27,135,469
2019	-	34,189,000	556,314	163,810	34,909,124
2020	12,000	36,806,000	1,132,079	123,260	38,073,339
2021	-	33,438,000	1,814,423	107,956	35,360,379

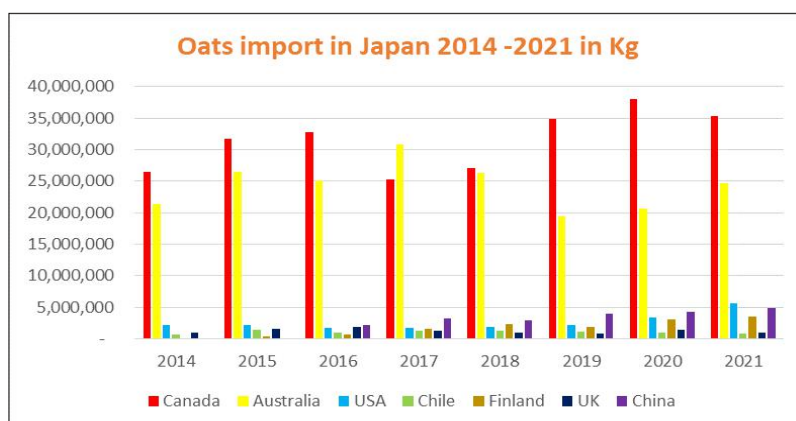
A final post for the month was a blog shared to celebrate 'Spring Day' and this, too, received very good response.

Overall, 2021 oat exports from all countries to Japan have been increasing for the past four years, indicating that oats are becoming

a common choice for Japanese consumers who regularly enjoy including oats in their diets. 2021 exports set a new record high, and reached almost 80K MT, representing a 10% increase compared to 2020. Exports of Canadian oat flakes and rolled oats went remarkably well, with a 60% increase compared to 2020, which means that Canada is also getting the revenue associated with valued added and raw products. However, the overall 2021 Canadian exports had a slight decrease of 3K MT compared to 2020, very likely due to lack of availability due to drought conditions.

Canada holds 44% of the Japanese oat market share. This proves the effectiveness of outreach and marketing activities and the gains that can be made in the future.

This project is supported by the Prairie Oat Growers Association (POGA) and funded by the Canadian Agricultural Partnership (CAP), a federal, provincial, territorial initiative.



POGA President Jenneth Johanson shares, "The board is gratified to prove the value of our marketing efforts through our social media campaign results. We meet and exceed targets each year that these projects have been running, and export numbers confirm the value of outreach to specific international markets. The additional support we received for the Canadian Oats Everyday project almost immediately increased user interaction, and we are proud to reach out to the many Canadians who are positively responding to our messages of home-grown, healthy oats and are very interested in learning about all the diverse ways to prepare oats."

POGA Thanks All Exiting Directors!

You will hopefully read the “Meet your Neighbour” articles in this issue and you might wonder, “Why all the change?” Well, in each of the prairie provinces the regulations provide term limits on the number of years a director can sit on each of the commissions and, unfortunately, many of our directors “termed out” this year. Below is a very short list of the accomplishments these directors provided to the board. To note everything they contributed would take an entire, additional Oat Scoop issue but rest assured they worked hard on behalf of oat growers and we would welcome any of them back on the board!

SaskOats/POGA

Alan Butuk – Alan, his wife Sonya and their two children, farm and run cattle near Insinger, SK. Alan joined the SaskOats/POGA board in 2014 and became the SaskOats Chair, and therefore POGA Vice-Chair in 2016. Alan remained in this role until 2021 when he passed the Saskatchewan Chair reins over to Chris Rundel. Alan attended countless meetings, voiced concerns for oat growers across Western Canada and was always a steady voice of reason and humor; a great combination that’s very tough to find!

Wade Hainstock – Wade, his wife Janet and son, operate a cow/calf operation in Saskatchewan. Wade joined the board in 2014 and graciously agreed to sit on numerous committees such as the Canadian Field Crop Alliance (CFCRA), Western Grain Research Foundation (WGRF), and Canadian Feed Research Institute. He also represented SaskOats at Saskatchewan Soil Conservation Association (SSCA) events plus too many others to list! We would like to thank Wade for all his contributions as well as his dedication and determination to make important meetings fit with his schedule and his willingness to continue to represent oat growers on a few of these committees during the board transition!

Garry Johnson – Garry and his wife Gerry, operate an organic farm near Swift Current, SK. As the only organic grower on the SaskOats and POGA board, Garry was a great resource to the board for any organic proposals that POGA received.

MOGA/POGA

Doyle Penner – Doyle, his wife Kendra and their three children, farm near Arnaud, MB. Doyle joined the board in 2014 and became the MOGA Vice-Chair in 2015. In 2019 Doyle was suddenly thrown into the Chair role and the POGA Vice-Chair role. As Doyle does, he stepped up with grace and ease. Doyle always brought thoughtful attention to meetings and issues of importance and ensured that oat growers’ priorities were top of mind.

AOGC/POGA

Nick Jonk – Nick joined the board officially in 2012 but he was working behind the scenes for years before that to get the Alberta Oat Growers Commission off the ground! Nick, his wife Renee and son, farm near Westlock, AB. Nick sat on the Prairie Grain Development Committee (PGDC) for five years, working to ensure only the best oat varieties came to market. Nick also participated in the 2016 Mexico Mission, meeting with buyers to get the very successful POGA Mexican Marketing Campaign off the ground.

As you can see, all of these individuals put significant work into the organization and helped POGA and the provincial commissions get to where they are today. We will forever be grateful for their contributions!

SAVE the DATES!

For your Commission's AGM

**Monday,
January 30, 2023
at the Westin Hotel,
Edmonton, AB.**



**As part of
CropConnect
February 15-16, 2023
At the Victoria Inn,
Winnipeg, MB.**



**January 2023 in Saskatoon.
Check the website for
more details this fall.**



Please check www.poga.ca
and the fall Oat Scoop for updates
as they become available.

New POGA Director: Edgar Scheurer[†] Meet Your Neighbour!

New MOGA and POGA board member **Edgar Scheurer** may be ‘new’ to some readers, but others might recall that he was a MOGA member years ago, prior to the establishment of the development commission and levy collection. Edgar shares, “I am very happy to see how far adopting the commission model got us as oat producers. From the increased export markets to the vast number of oat research projects and scientists working in oats, there have been a lot of great improvements for growers over the years.”

Scheurer Farms, operated by Edgar and brother, Andy, is located near Dugald, MB—15 miles east of Winnipeg.

They grow oats, wheat, canola, soybeans, sunflowers, and sometimes corn. Last year (2021), the oat varieties they chose were Camden, Arborg and ORE3542. Perhaps as a result of last year’s drought, there wasn’t much difference in yield between the three varieties, but Edgar reports that Camden had the best weight and least thins.

The farm area, commonly referred to as the Red River Valley, is known for its heavy soils and producers usually face excess moisture challenges (except, of course, for the 2020 and 2021 years).

Edgar decided to run for the board for a number of reasons: “I like growing oats and believe MOGA does an outstanding job fostering research and market development with comparatively low funding amounts. It is also a good group to be a part of and I learn a lot from other members.”

During his off-hours, Edgar travels to his cottage on Hecla Island. “I like to go there to relax and enjoy the scenery of our beautiful country,” says Edgar.

Nutrients for Oats (What, Where, When and How Much)

Determining Optimal Nitrogen and Phosphorus Application

SaskOats and Northeast Agriculture Research Foundation (NARF) are working together on a trial entitled *4R management: Right rate and placement for fertilizer in oats*. Brianne McInnes, NARF Operations Manager, will lead the trial, and two research sites will collaborate on the project: NARF in Melfort, SK and Western Applied Research Corporation (WARC) in Scott, SK.

The term '4R' is an approach to nutrient management for crops: the right fertilizer source applied at the right time, rate and place.

To grow well, oats must have nitrogen. There is a direct correlation to nitrogen rates and increased yield, but higher application rates have the potential to increase lodging and decrease test weights.

Saskatchewan growing regions are known to naturally produce high yields of oats, and it is proven that more nitrogen is needed to support this extra growth. The fact that nitrogen increases phosphorus absorption has also been established.

McInnes states, "In past studies, yield responses were not always found to be consistent with phosphorus supplementation. However, 80% of Saskatchewan soils are deficient in phosphorus, and thus some amount of supplementation is likely to affect oat emergence and seed yields where phosphorus is limiting."

Past research projects have noted some uncertainties regarding phosphorus application and uptake in correlation with nitrogen. However, researchers suspect that placing nutrients further from the seed in various crops may play a part in absorption—at least, in some soil types and textures. Placement for optimal results needs more research to determine the 'best bang' for the producer's buck.

Potential positive results have been noted in regard to fertilizer placement (e.g., seed burn is diminished when fertilizer is placed further from the seed row, most notably when high rates are utilized). But, more controlled research must be done in order to make substantial determinations as to how various application rates and placements affect yield and quality in oats.

McInnes explains, "This trial is intended to demonstrate to oat growers whether or not different fertilizer placements at seeding will affect plant stands, yield and/or quality of the crop. For the most part, rates and placement options that would be used by Saskatchewan producers will be used in order to simplify the demonstration design."

Phosphorus will be applied as per a typical soil recommendation of 40lbs/ac in the seed-row or side-band in combination with various nitrogen placement options. Three different nitrogen rates will be applied (moderate, typical and high) at two different seed-bed locations (side-band [a short distance from the seed] and mid-row). A high-yielding oat variety will be used.

Researchers will be looking for high plant stands (to maintain weed competition, minimize insect pressure and ensure high seed yield). They will measure the plant density, maturity, yield, and quality.

Results will be shared during in-person or virtual field day tours and at winter meetings. They will also be posted to various websites (including the POGA website research page) and shared in a future Oat Scoop article.

This project is supported through the Saskatchewan Oat Development Commission (SaskOats) and funded by the Agricultural Demonstration of Practices and Technologies (ADOPT) initiative under the Canadian Agricultural Partnership, a federal, provincial, territorial initiative and Fertilizer Canada.

New POGA Director: Jason Wiese[†] Meet You Neighbour!

New AOGC and POGA board member Jason Wiese, his wife Erica (and new addition to the family—Andi June), farm Bar HH Horte Ventures Ltd. in Camrose County, AB. Jason explains, "We operate the joint venture with Erica's parents. Both Erica and I are full-time farmers, and her parents are transitioning into retirement. We also have a great neighbour who works with us seasonally in spring, summer and fall."



Jason and Erica Wiese in their oat field in Camrose County

Jason continues, "We grow oats (of course), canola, wheat, green and/or yellow peas, barley, fall rye and flax." Bar HH grows these crops in a diverse rotation that promotes soil health while also meeting profit goals.

When asked why Jason grows oats, he responds: "Oats are one of our main crops for a number of reasons: bottom line, close proximity to market, rotation, and agronomic advantages. In our area and with proper management, we are able to consistently produce high-yield and -quality milling oats. The past few years, we have grown Morgan oats."

Transitioning to working full-time on the farm last year has enabled Jason to make a commitment to board work with an industry-related organization. He was looking for the 'right fit' and when representatives from AOGC/POGA approached him, he was interested in the diversity offered by this organization that represents all three Prairie Provinces. Jason states, "Several producers I know and trust have served on these types of boards, and I wanted to be part of a board that puts the best interests of producers forward."

While Jason has a fair amount of experience attending various ag-related meetings, this is his first board position. He shares, "I'm learning a lot already. Just meeting and talking with the other board members is an education. It's also been very eye-opening to witness first-hand all the work that goes into the organization behind the scenes."

Jason is open to and interested in learning all he can during his board term. Currently, his main areas of interest are crop research and development, and marketing (mainstream, niche and developing markets).

Family comes first for Jason, closely followed by his second passion—farming. He concludes, "My family is very active in skiing (downhill and cross country), curling, mountain biking, ball and other outdoor activities."

POGA Presents at the 2022 NAMA Conference

Jenneth Johanson, POGA President, and Shawna Mathieson, POGA Executive Director attended the 2022 North American Millers' Association (NAMA) Spring Conference in South Carolina. The three-day event is NAMA's largest annual educational conference and an average of 200 participants attend the event each year.

Mathieson was asked to make a conference presentation, where she informed attendees of POGA's activities and of the western Canadian oat producer perspective:

- marketing campaigns in Canada, Japan and Mexico;
- sponsorship activities (Keep it Clean Cereals, Ag in the Classroom, etc.);
- research project funding;
- policy work (meetings with the federal government and transportation companies);
- current challenges facing oat producers;
- oat varieties expected to be planted across the prairies in 2022;
- crop insurance and what it really covers for producers;
- current crop pricing and how oats compare to other crops for farmer profitability (which is not great as of April 2022);
- a forecast on expected acres for 2022;
- carry out stock expectations for 2023; and,
- winter snowfall and moisture levels going into the 2022 growing season.

Randy Strychar, Oatinformation.com, also presented at the conference. Bakingbusiness.com published an e-article on 2022 oat projections made by Mathieson and Strychar. To read the article, go to: <https://www.bakingbusiness.com/articles/56125-grower-analyst-say-canadian-oat-acres-up-4-to-6>. An article was also published in their printed magazine, Baking and Snack.

For more information about the event (and to access the agenda), go to: <https://namamillers.org/event/2022-spring-conference/>.



Picture from a printed article in Baking and Snack magazine, detailing predictions by Mathieson and Strychar

POGA President Jenneth Johanson states, "For many years, POGA has been invited to present at the NAMA conference. It is a prime opportunity to communicate with North American millers and buyers who purchase about 90% of Canadian oats each year. POGA uses this occasion to inform the decision makers, at both large and small oat companies, about what's really happening at a farm level. The contacts and information exchanged here are vital for western Canadian oat producers."

Organic and Low-Input Field Day

Welcome back!!!

July 28th, 2022 – all day

Swift Current Research and Development Centre (SCRDC), Agriculture and Agri-Food Canada

Co-hosted by:

Organic Research Program at SCRDC, SaskOrganics & Advisory Committee on Organic Research at SCRDC

This event will feature an Intercropping and Living Mulch trial partly funded by POGA, as well as trials on Cover Crop Blends including oat, and Contribution of Oat to Soil Fertility and Growth of Subsequently-grown Crops, among others.

More details to follow and will be posted to:

<http://saskorganics.org/event/tentative-field-day-at-the-swift-current-research/>

SaskOats Funds 2021 Seed-Borne Pathogens Survey

Saskatchewan pulse and cereal commissions and commercial seed-testing laboratories partner annually to undertake seed tests and a survey to detect any pathogens that might affect the current year's crops. Saskatchewan Pulse Growers leads the larger project (which includes seed tests for germination, vigour, and plant population).

To read the full factsheet, which contains information and data for oats, all pulses and cereals, go to:

<https://poga.ca/images/pdf/IndustryNews2022/SaskOats Seed Survey Highlights 2021.pdf>.

This Seed Survey is funded by Saskatchewan Pulse Growers (SPG), SaskWheat, SaskBarley, and SaskOats.

Titles noted with a ⚡ (symbol) indicate articles written by (and newsletter graphics/layout by) Pam Yule Right Angle Business Services

Ottawa Outreach 2022

Each year, POGA representatives meet with Members of Parliament, Senators and senior officials in Ottawa to discuss challenges oat producers face and the multi-faceted value of oats. This year, the team highlighted:

- the \$8 billion per annum contribution that oats make to the Canadian economy;
- the importance of supporting smaller crops; and,
- the continued need for market development support.

The POGA mission (February 8-10 and March 1-3) was held virtually due to COVID restrictions. Participants included: POGA President and MOGA director Jenneth Johanson; SaskOats Chair Chris Rundel; SaskOats director Ambrely Ralph; AOGC directors Darwin Trenholm and Dylan Robinson; MOGA director Bob Lepischak; POGA Executive Director Shawna Mathieson; POGA Senior Project Manager Dawn Popescul; POGA Marketing Coordinator/Administrative Assistant Cyndee Holdnick; and Robynne Anderson, Emerging Ag Inc.

The POGA team is always well received and has developed a reputation for consistent, organized and well-presented information to government and industry officials. Key messages the team delivered included:

Canada's Reputation for Oat Quality. Canadian oats are prized internationally and domestically for their top-notch quality and nutritional profile. Production and demand are rising, as indicated by the increased exports and Canadian milling capacity expansion seen in the last five years. POGA continually works to ensure that Canada's reputation for quality oats stays front and center. The sector has grown to be worth \$8 billion per annum to the economy.

The Next Policy Framework. The Canadian Agricultural Partnership (CAP) should include a specific focus on smaller Canadian crops given their importance to crop rotations and sustainability. Investment in new research and value chain development is needed to support small crop diversity.

The Role of Farming to Improve the Environment and the 'Sustainability Case'. Farmers and AAFC need to work very closely in policy-development decisions in all areas, but especially on the environment and sustainability work. "We want to make sure any new policies and regulations are good for both producers and all Canadians. We also need to ensure they make sense and are realistic to help achieve other goals set, such as production and export targets," states Shawna Mathieson, POGA Executive Director.

Oats have one of the best environmental-footprint profiles of all cereals, but farmers need more support to adopt improved technologies which will enable them to plant diverse, environmentally friendly crops—such as oats.

POGA President Jenneth Johanson states, "All of the topics we discuss are important. This year, emphasis was placed on the oat industry's \$8-billion-per-annum contribution to the Canadian economy and the vital role oats can play in the 'Sustainability Case,' as oats have one of the best profiles of all cereals for its low-carbon footprint. Oats, and other small crops, can play a crucial role in crop diversity. The oat industry needs to be at all government discussion tables to explain its position and requirements, and to lead global market access initiatives for the healthy Canadian oat crops our farmers continue to produce every year."

Officials the POGA delegation met with include:

Members of Parliament:

- Office of Mary Ng, Markham, Thornhill (Ontario)/Minister of International Trade, Export Promotion, Small Business and Economic Development
- Office of Marie-Claude Bibeau, Compton-Stanstead (Quebec) / Minister of Agriculture and Agri-Food Canada
- Yves Perron, Berthier-Maskinongé (Quebec), Bloc Québécois
- John Barlow, Foothills (Alberta), Conservative
- Warren Steinley, Regina-Lewvan (Saskatchewan), Conservative
- Francis Drouin, Glengarry-Prescott-Russell (Ontario), Liberal
- Rechie Valdez, Mississauga-Streetsville (Ontario), Liberal
- Michael Kram, Regina-Wascana (Saskatchewan), Conservative
- Dan Mazier, Dauphin-Swan River-Neepawa (Manitoba), Conservative
- Kody Blois, Kings-Hants (Nova Scotia), Liberal

Senators:

- Robert Black, Ontario

Agriculture and Agri-Food Canada senior officials from: Agri-Science/Clean Tech; Sustainability; Environmental Policy; and AgriCommunications—Topics focused on market development programs, market and industry services, market access, the role of oats in reaching sustainability goals, domestic consumption of oats, and clean technology.

Market Access and Market Development; and Transportation senior officials—Topics focused on oat exports, marketing campaigns, and the need for reliable transportation to markets.

Breakfast Club of Canada; and Farm to Cafeteria Canada—Meetings to discuss the role of oats in school food programs.

Canadian Transportation Industry senior officials; and Canadian Pacific Railway and Canadian National Railway senior officials—Topics focused on transportation.

MOGA director Bob Lepischak shares, "The POGA board continues to build communication momentum with its annual Ottawa mission, where we champion the Canadian oat industry's untapped potential and present issues facing producers that impede growth.

"We continue to advocate for research and development, for improvements to the transportation system, and for oats to be recognized as a 'highly rated crop' in the sustainability case. We also ensure that Ottawa is reminded of the importance of marketing oats and oat products (abroad and at home).

"POGA has proven these efforts are worthwhile, based on positive results from its marketing projects to Mexico, Japan and Canada. The country's increased use of milling oats has increased 17% over the past five years with strong continued growth forecasted. We simply need to continue outreach to Ottawa to remind officials of the success the Canadian oat industry is capable of achieving."

POGA appreciated the opportunity to meet virtually with many officials within the Federal Government and looks forward to future face-to-face and virtual events.

Oat Advantage Breeding Program Update[†] Annual Report from Jim Dyck

Jim Dyck, owner of Saskatoon-based Oat Advantage (OA), submitted his report (dated 2022 January) for his 2021 breeding program. To read the full report, go to <https://poga.ca/research-results>.

As part of Dyck's program and the POGA-sponsored funding, five goals have been established. Below is the summary of the progress to date and future plans:

Goal 1: High bushel weight (55 lb¹/bushel target—off the combine). ¹Currently, producers experience a fluctuation in bushel weights, depending on growing conditions and agronomy. OA's objective is to create improved oat varieties that consistently reach this 55 lb target.

A small gravity table is used to create mini-populations of high- and low-side plot pair seed. Gravity-evaluated, selected pairs were sent to New Zealand in 2021 fall and planted to produce seed for OA 2022 full-sized research trials in the three Prairie Provinces.

Goal 2: Low hull content (17% oat hull target).

A 'Kicker' (sizing device), gravity table and de-huller will be used to make selections for oats with low hull content. Oat kernels will first be size selected using the Kicker, then processed into 'high/low' fractions with the gravity table. Once sufficient seed is obtained from plot trials, the de-huller will be used to confirm results.

Goal 3: High protein (toward 20% kernel protein).

Best selection methods from high-protein, early-generation seed produced in the two previous goal activities will be used in 2022 field trials for single-plant evaluation (and be available for viewing at field tours).

Goal 4: Harvest Durability (easier harvest without desiccation or swathing; reduce regrowth and August 'greening up').

The 2021 drought (and a small, August rainfall) provided the unexpected, but beneficial, opportunity for OA to observe regrowth of single plants in key populations: it occurred in some plants, but not others. Hundreds of plants were pulled from the soil in September. Dyck states, "From our gravity table 'high/low' population pairs, I was able to eliminate plants with regrowth tendency; a few plants with regrowth were kept as references to compare good and bad oat lines."

Goal 5: High-yield and valued oat varieties

The ultimate goal is to combine

Goals 1-4 and produce new and improved varieties for producers, but which also meet miller needs. Dyck shares, "We have been presented with the opportunity to also test in Alberta and Manitoba. This will strengthen wide-location testing with very early generation oat material and enables us to breed for these diverse areas."

Dyck invites producers to visit the farm any time during the summer. Please contact him at oatadvantage@gmail.com to make arrangements.



OA plot-pair seeds emerging 2022 February near Christchurch, New Zealand

BBQ Bean & Oat Burgers

With bold flavors and a satisfying texture from the addition of steel cut oats, these vegetarian burgers will satisfy even the most-skeptical meat-eaters in the crowd. Don't have a big gang to feed? No problem – they freeze well and can be quickly cooked or reheated for an easy weeknight dinner.

Prep Time: 15 minutes

Cook Time: 10 minutes

Total Time: 25 minutes

Servings: 6 burgers

Ingredients

- 1/2 cup steel cut oats cooked (125 ml)
- 1 onion medium, finely diced
- 2 cloves garlic minced
- 1 carrot grated
- 1 tsp cumin ground (5 ml)
- 2 tsp chili powder (10 ml)
- pinch salt
- 1/3 cup barbeque sauce (80 ml)
- 1 1/2 cups quick oats (375 ml)
- 1 19 oz beans (canned) black, pinto or kidney, drained (540 ml)
- 1 Tbsp canola oil (15 ml)

Instructions

1. In a non-stick skillet, sauté onion until softened.
2. Add garlic and carrot and sauté for about a minute. Stir in spices and steel cut oats. Cook, stirring, until oats are well incorporated.
3. In a mixing bowl, mash the drained beans with the barbeque sauce.
4. Add the cooked oat mixture and the dry oats and mix well. Let the mixture stand for 10 minutes to firm up.
5. Heat oil in a non-stick skillet and cook patties for approx. 5 minutes per side, turning only once.
6. Serve on oat buns with your favorite toppings.
7. Burgers can be frozen, cooked or uncooked, for up to 1 month.



Oats and Pulses Hook Up:✦

“Let’s Get Together and Complement Each Other’s Essential Amino Acids!”

Dr. Lingyun Chen, Canada Research Chair in Plant Protein, Structure Function and Nutraceutical Delivery at the University of Alberta, has a new project underway: *Development of healthy food products by combining proteins and dietary fibers from oats and pulse*. Project team members are Dr. Wendy Wismer, University of Alberta and Dr. Jay Han, Leduc Food Processing Development Centre.

Oat Scoop readers are well-acquainted with Dr. Chen and her food ingredient development work (often focused on oats). Some of the latest Oat Scoop articles on Dr. Chen’s work can be found in the 2020 Summer and Fall issues at <https://poga.ca/news/oat-scoop>.

Chen explains her aim and motivation for this new project: “Finding new sources of plant proteins and fibers, or substantiating the existing ones, is necessary to obtain sustainable, affordable and healthy food products. The high-quality milling oats in Canada are good sources of both dietary fibers and plant proteins.”

Research in this area could continue for many years; the long-term goal is to develop high quality protein and fiber ingredients from oats for healthy food development.

The short-term objectives (applied to this particular two-year project) are to develop technology innovations to combine proteins and dietary fibers from oats and pulse to develop: 1) fat replacers for dairy/dairy substitute products; and 2) texturized vegetable protein products for meat analogue applications.

Dr. Chen continues, “Even though pulses and oats lack some essential amino acids, foods produced with mixtures of both can provide a high value and balanced diet. This research will provide opportunities to add value to oats and pulses as two major crops in western Canada. The successful results will help the oat and pulse processing industry seize the current trends of rapid development of plant-based foods, and fat-replacer and meat-analogue products, thus enhancing their competitiveness in the global market. The successful food development will provide consumers with healthy food choices to help control the prevalence of obesity and lower the risks of chronic disease.”

High protein/ β -glucan content oat varieties will be selected for use in the research project. Outcomes targeted for this project include:

- identification of oat varieties with the potential to produce high-quality protein and dietary fiber ingredients for food development;
- new techniques will be established to combine functionalities of plant proteins and dietary fibers to develop plant-based, microgel fat-replacers and improved texturized vegetable protein; and,
- new food prototypes will be developed to provide options of ‘fat free’ or ‘low fat’ products to consumers (e.g., ice cream/yogurt and veggie burgers).

Each collaborator brings their own specialty to the work. Dr. Chen brings expertise in protein structures and food extrusion processing techniques. Dr. Wismer’s research

program focuses on the evaluation of taste and smell perceptions and what makes people ‘like’ food. Dr. Han has many years of experience in pulse crops, food processing techniques, and grain research and development.

The two-year project period is currently set to start mid-2022 and end mid-2024. POGA will be updating readers and explaining some of the science involved as interim and final reports are received.

This project is funded by: Results Driven Agriculture Research (RDAR) in Alberta; Natural Sciences and Engineering Research Council of Canada - Discovery (NSERC); POGA; and Alberta Pulse Growers Commission.

What Might CRISPR Technology Mean for Oats?

Final Project Report

POGA introduced Oat Scoop readers to this project in the 2019 June issue: *Tuning the Oat Genome with CRISPR-based systems*¹. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) is a genome-editing technology that can be used to zero in on stretches of genetic code and alter gene function to achieve favourable, or prevent unwanted, traits. ¹POGA note: *The two-year project was originally scheduled to end in 2021, but due to unforeseen circumstances, was extended and completed this year.*

Dr. Jaswinder Singh from McGill’s Department of Plant Science was the Principal Investigator for the project and collaborated with Dr. Nicholas Tinker, Agriculture and Agri-Food Canada Research Scientist.

Some may wonder how CRISPR technology and GMOs are different.

Dr. Singh explains, “While both good technologies, the main difference is that CRISPR technology can alter what is already in that species, so no foreign or outside material is brought in, where GMO can only use foreign DNA from a different species (i.e., transgenic) or from another cultivar of the same species.”

Singh describes one of the main points the research team is making regarding the use of CRISPR technology: “This editing technique is a modern, plant-breeding tool which allows direct modification of genes precisely and efficiently. Gene editing has potential to generate mutations in the host genes without the need for transgenic organisms. In this project, we have successfully edited the oat gene in the Park variety. This is the first-ever, gene-editing success in oat.”

Oats has very complex genetics and science has not completely decoded the sequencing (as to how genes, alone or in correlation with each other, affect oats). For



Dr. Jaswinder Singh on stage at the 2021 POGA AGM

instance, how the genetics regulate the amount of β -glucan in oats is not well known. On a search to identify genes linked to β -glucan content in barley, Dr. Singh's lab had earlier identified a novel gene (TLP8) that was regulating the β -glucan, and the research team began 'tweaking' this gene to study how it may affect amounts.

The TLP8 gene is also expressed in various oat species; what was not known is whether TLP8 affects β -glucan in oats in the same way it does in barley. The research team performed several tests that attempted to determine this. Singh states, "To date, we have been unable to infer the relationship between TLP expression and β -glucan content in oat by conventional methods; this deserves further attention and our CRISPR system could help to understand gene and trait associations."

Singh also presented at the 2021 December POGA AGM held in Banff, AB, where he further explained the work he and others are doing on oat genome research. To see his full presentation, go to <https://poga.ca/poga/agm-conference>.

Interestingly, genes will occasionally 'jump' location in the sequence on their own (called transposons), and this can interrupt other genes and alter their original function.

Things get pretty complicated at this point, but in an attempt at an overly simplistic explanation—there are elements responsible for the breaks in chromosomes made by transposons, which can occur naturally, but can also be induced in the lab. The Activator (Ac) element can act on its own; the Dissociation (Ds) element needs an Ac element to transpose. When these elements naturally insert themselves into genes, they can cause what is called *mutants*, which can be demonstrated (for instance) in multi-coloured corn. This produces kernels that mutated from the original colour to some of the other hues found in corn (such as Flint corn, used in cooking and in colourful harvest display arrangements).

It is not possible to completely explain in this article the various technology, methods and equipment used by Singh's team. However, they have been able to induce, detect and measure transposition activity in the oat genome. They have also tagged several genes in oats—identifying the mutant line, the location on the chromosome and their functional effects on the oat. They are working on reactivating transposons that have been purposely inserted in a gene (with the potential to edit/repair a tagged gene).

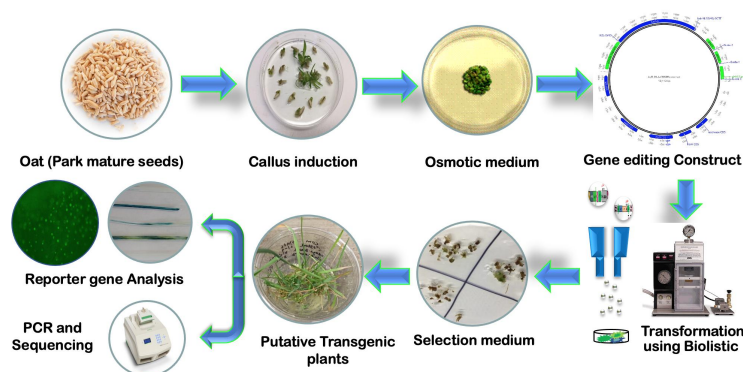
Your SaskOats Board at Work

Chris Rundel, SaskOats Board Chair, took part in an interview with the Western Producer regarding the new AGT Food and Ingredients Inc. mill and processing facility planned for Aberdeen, Saskatchewan.

To read the article, go to: <https://www.producer.com/news/new-oat-processor-planned-for-sask/>.

For the more scientifically literate reader, this Process of Oat Transformation illustration may be of assistance.

Process of Transformation and Gene Editing in Oat



The long-term objectives for Singh's work are to make improvements in oats in the following areas:

- agronomy (yield, maturity, height and lodging);
- quality (β -glucan, protein, kernel uniformity and plumpness, test weight, groat percentage); and,
- disease resistance (crown rust, stem rust, smut, barley yellow dwarf virus, Fusarium head blight).

Singh summarizes the work accomplished in this research project:

1. The team initially accomplished a high frequency of genetic transformation in the oat genome, which positively set the stage for gene editing in oats.
2. The researchers introduced exogenous² transposons into the oat genome via transformation, which have great potential for understanding the function of oat genes. ²*Oxford dictionary: growing or originating from outside an organism.*
3. Using modern tools, new genes associated with β -glucan content have been identified. The TLP8 from different oat genomes indicate natural sequence alterations in TLP8.
4. Successful transformation events were obtained with homoeologous³-specific, gene-editing constructs. *Singh note: ³Nearly identical copies of genes found on other chromosomes, as the oat genome is hexaploid (contains six homologous sets of chromosomes [two pieces of DNA of the same genes, one from each parent]) in nature.*

To read the final report on this project, go to <https://poga.ca/research-results>. Also, Dr. Singh et al (Mohannad Mahmoud, Zhou Zhou, Rajvinder Kaur, Wubishet Bekele and Nicholas A. Tinker) published a scientific journal article, *Toward the development of Ac/Ds transposon-mediated gene tagging system for functional genomics in oat (Avena sativa L.)*, which interested readers may want to access: <https://link.springer.com/article/10.1007/s10142-022-00861-9>.

POGA funds this project in part with the Government of Canada under the Canadian Agricultural Partnership's AgriScience Program, a federal, provincial, territorial initiative.

Project to Revise Nutrient Uptake and Removal Guidelines

Year One Interim Report

In the 2021 November Oat Scoop, POGA introduced producers to the two-year project: *Revising the crop nutrient uptake and removal guidelines for Western Canada*. Dr. Fran Walley, University of Saskatchewan Department of Soil Sciences is working with co-investigator Dr. Rich Farrell, University of Saskatchewan Department of Soil Science; and collaborators Mr. John Heard, Manitoba Agriculture Food and Rural Initiatives; and Lyle Cowell, Manager, Agronomic Services at Nutrien.

Walley released the interim report for the first year (to read the full report, go to: <https://poga.ca/research-results>). In the report, Walley stresses: *All results in this summary are PRELIMINARY and are from a single year of data collection. Importantly, we do not know how much year-to-year variation to expect, and thus none of the observations to date should be used for changing fertilizer recommendations or management plans. Until we have a second year of data collection, the existing nutrient uptake and removal guidelines remain unchanged, and provide the best information that we have to offer at this time.*

The report summary reads:

The objective of this research is to develop new estimates for crop nutrient uptake and removal, based on grain and biomass samples collected from commercial fields and from existing literature. Through the collaborative efforts of Nutrien AgSolutions field agronomists and Manitoba Agriculture, over one thousand grain samples were collected from across the three prairie provinces during the 2020 harvest, and analyzed for macronutrient (N, P, K, S) and micronutrient (Cu, B, Zn) uptake. Results from the 2020 growing season suggest that although a limited number of existing nutrient uptake guideline estimates of nutrient removal (e.g., CFI Nutrient Uptake and Removal Guidelines for Western Canada, 2001) are aligned with removal assessed in 2020 (particularly for N), for the most part existing removal guidelines either over- or under-estimate macronutrient removal. Importantly, the existing ranges for nutrient removal do not capture the full extent of the observed variability in nutrient uptake and removal. Existing nutrient removal guidelines do not include micronutrient estimates, and thus data from 2020 represents a source of new information. Due to the extreme drought experienced in 2021 across the prairies, we limited our sample collection to approximately 20% of what we had originally planned; we will be completing all sample collection in the upcoming growing season.

Importantly, in 2022 Walley will also be collecting biomass samples from commercial fields to determine total nutrient uptake and [needs farmers interested in participating](#).

If producers are interested and willing to provide a legal location and permission for Walley and her team to access their fields, her team will do their best to get to all the locations. Or, if you are able to help more and can physically collect the samples and send them to Walley and her team, it would be of great assistance to the

project! For further information on the sampling requirements contact fran.walley@usask.ca.

This project is funded by Western Grains Research Foundation (WGRF); Alberta Wheat Commission; Prairie Oat Growers Association (POGA); Saskatchewan Canola Development Commission; Saskatchewan Flax Development Commission; and Saskatchewan Wheat Development Commission.

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Your MOGA Board at Work

Manitoba Agricultural Services Corporation (MASC) - MOGA directors Yves Lapointe, Jenneth Johanson, Ray Mazinke, and Edgar Scheurer; Shawna Mathieson, POGA Executive Director; and Cyndee Holdnick, POGA Marketing Coordinator/Administrative Assistant, met with MASC officials on February 23 to express concerns about the MASC office closures and how to better improve service now that the change has occurred.

Which Oat Varieties Held it Together?*

ADOPT Trial Results from the 'Tough-Going' Summer of 2021

Mike Hall, Research Coordinator for Parkland College and the East Central Research Foundation (ECRF) in Yorkton, submitted the final report for the trial: *Which Oat Varieties Hold it Together When the Going Gets Tough*. POGA introduced this project in the 2021 June Oat Scoop issue; readers can review the article on page 15 to familiarize themselves with the objectives and plan (go to <https://poga.ca/news/oat-scoop>).

The main reason that Hall created this particular project was to help producers decide on best management practices now that millers are accepting less pre-harvest desiccated oats. Because of this, producers may have to leave oats on the field longer prior to harvesting and that means greater risks for decreased grain quality, shattering and harvest losses.

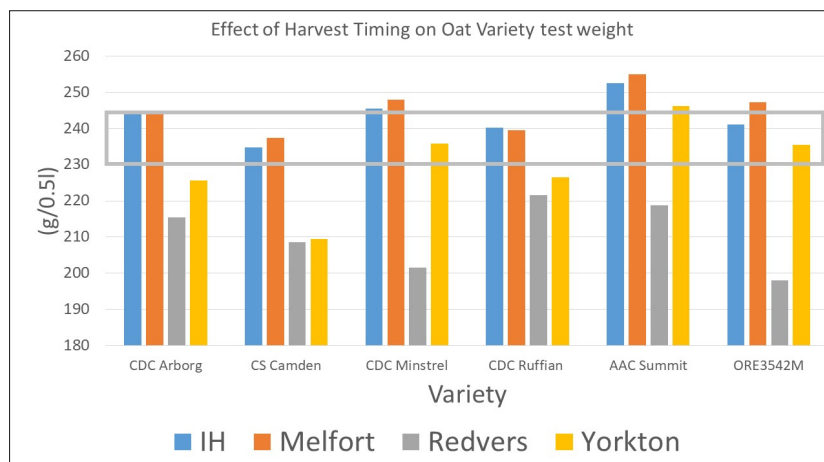
The drought and high-temperature conditions of last summer provided less-than-ideal conditions to grow and reap abundant harvests. However, Hall's full report contains plenty of clear information and data (go to <https://poga.ca/research-results>). The report summary reads:

Trials were established at Yorkton, Indian Head, Redvers and Melfort to determine the effect of ideal and late harvest timings on yield and grain quality of six commonly grown milling oat varieties. The varieties compared were CDC Arborg, CS Camden, CDC Minstrel, CDC Ruffian, AAC Summit, and Ore3542M. Harvest dates varied between locations, with harvest dates being relatively early for Yorkton due to drought induced ripening and later at Redvers. However, good separation between ideal and late harvest timings of 19, 24, 26 and 29 days were achieved at Yorkton, Indian Head, Redvers and Melfort, respectively. No variety maintained the best of all attributes when harvested late; however, CDC Arborg had the least number of major concerns. It resisted lodging, maintained a high yield potential and had a reasonable test weight in the middle of the pack. Lodging was an issue for CDC Ruffian and a major concern for AAC Summit at the Melfort site. AAC Summit, CDC Minstrel and Ore3542M tended to have the lowest yields when harvested late at Indian Head. Across locations, test weights were consistently low for CS Camden and high for AAC Summit.

Hall and the ECRF team produced an excellent video that takes less than 10 minutes to view—it is well worth the watch. Hall provides an easy-to-absorb summary of the results and adds some thoughts and advice for producers.

Go to the Trials page (<http://www.ecrf.ca/?page=trials>), scroll down to the Oats section, and choose the video: *Oat Varieties That Hold it Together When the Growing Gets Tough 2021*.

This project was supported through the Saskatchewan Oat Development Commission (SaskOats) and funded by the Agricultural Demonstration of Practices and Technologies (ADOPT) initiative under the Canadian Agricultural Partnership, a federal, provincial, territorial initiative.



Note: Grey box indicates anything within the box would be discounted; anything below would be rejected

Conclusions regarding late harvest

Variety	Yield	Text Weight	Lodging
CDC Arborg	Good	Good-fair	Good to Fair
CS Camden	Good	Poor	Good
CDC Minstrel	Good-Poor	Good-Poor	Excellent to Good
CDC Ruffian	Good-Poor	Good	Fair to Poor
AAC Summit	Poor	Very Good	Poor to Very Poor
ORE3542M	Good-Poor	Good-Poor	Excellent to Good

SaskOats Continues to Support Macronutrient Research

In the 2021 June Oat Scoop, POGA published an article introducing the ADOPT* trial: Are oats responding to higher levels of macronutrients? (Go to <https://poga.ca/news/oat-scoop>.) This project was led by Mike Hall, Research Coordinator for Parkland College and the East Central Research Foundation (ECRF) in Yorkton.

SaskOats has committed to support another round of research with the same objectives this year. This extension is primarily driven by the low amount of data collected because of the 2021 drought conditions and will enable additional comparisons that have the potential to provide more valuable results to producers.

Please stay tuned for a 'wrap-up' report that encompasses both years of results from this research—to be published by POGA in a 2023 issue of the Oat Scoop.

*ADOPT trials are funded by Agricultural Demonstration of Practices and Technologies initiative under the Canadian Agricultural Partnership, a federal, provincial, territorial initiative.

Integrated Disease Management in Saskatchewan Oats

Final Project Report

The three-year project, *Improved Integrated Disease Management for Oats in Saskatchewan*, is now concluded. Jessica Slowski (Pratchler), Northeast Agriculture Research Foundation (NARF) initiated and led the project, and continued involvement in the project for some time after leaving NARF for a new position. Brianne McInnes is the new NARF Operations Manager and assumed the lead position. The data compilation and final report was completed by Christiane Catellier, Research Associate at Indian Head Agricultural Research Foundation (IHARF).

The final report Abstract provides the reasoning for the project: *Studies on integrated disease management (IDM) have shown that utilizing several management practices simultaneously is often most effective for disease control in crops. In oats, the efficacy of fungicide application for preserving oat yield and quality has been shown to vary with varietal disease resistance. Further, studies have suggested that increasing the seeding rate can be effective in reducing tillering in cereals, subsequently resulting in more uniform crop development and better fungicide application timing and efficacy for head disease but thicker crop canopies which could increase leaf disease.*

The project objectives were:

- to understand the effectiveness of fungicide application and genetic resistance to control foliar disease in various oat varieties;
- to determine the impact that plant populations have on optimal fungicide application; and,
- to determine how IDM strategies vary between the soil and climatic zones in Saskatchewan.

A split-plot design with four replicates was established at the four locations (Melfort, Indian Head, Redvers and Yorkton). Each of the main plots received the same fungicide applications (untreated, treatment at flag leaf stage and treatment at heading stage).

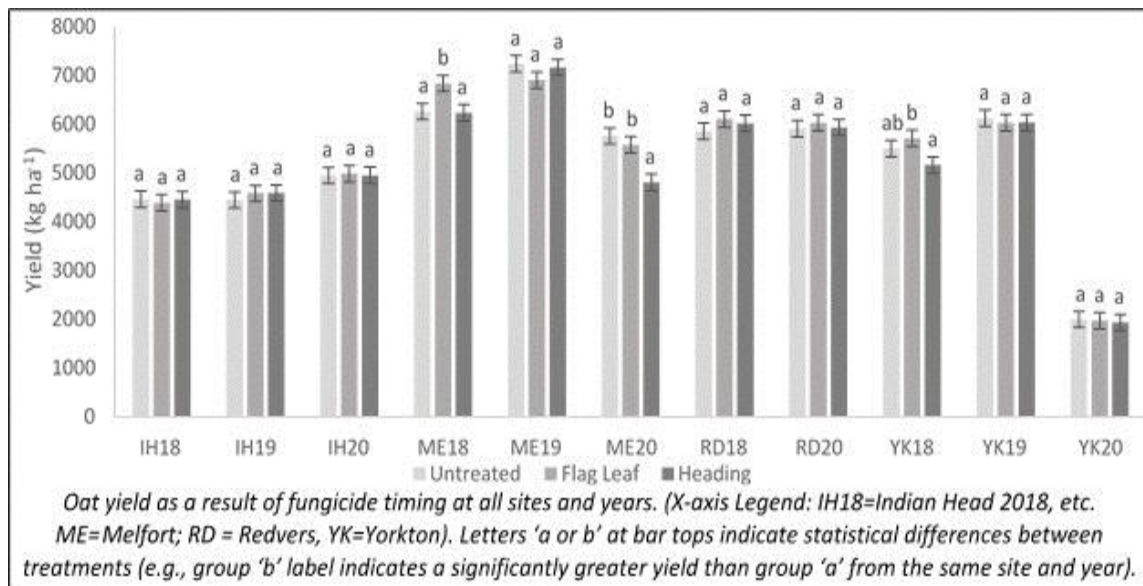
The main plots were then sub-divided to include various combinations of oat varieties (CS Camden and Summit) and seeding rates (300 seeds/m² and 450 seeds/m²). The

12 treatments were replicated four times at each location in each year.

Conditions at the participating sites were good for crop growth in most years. However, the environmental conditions also contributed to low levels of foliar disease development. This impacted the effect that fungicide application might have had on yield and quality in a disease-heavy year. The effects of seeding rate were found to vary with variety, but the effectiveness of fungicide application was not conclusively tied to either of these management factors.

The report states: *Effects of fungicide application were inconsistent and often inconclusive, as untreated plots performed as well as either of the fungicide applications, even when there were significant differences between the treatments. The effectiveness of applying fungicide for disease management did not appear to vary with varieties or seeding rates in this study. Thus, the decision to apply fungicide, and at what timing, should be based on environmental conditions being conducive to disease development. It is recommended that producers continue to combine several practices to manage disease in oats, as the effects can be additive, if not interactive.*

McInnes shares, “As with other grain crops, disease management requires an integrated approach in oats. As environmental conditions are so impactful to disease development, limitations always exist when evaluating multiple management strategies for disease in research. In some site years, fungicide timing had an impact, most notably flag leaf applications, however varietal and seeding rate responses to fungicide applications were minimal. Varietal and seeding rate differences (such as greater tiller development with Summit and at a lower seeding rate of 300 seed/m²), as well as a greater increase in disease incidence of leaf spot with Camden as compared to Summit, suggest that varietal selection and seeding rate targets may have the potential to impact fungicide efficacy under high disease conditions. However, this cannot be supported by any significant findings from this project. Considering this, research under higher disease pressure would be necessary, to further evaluate integrated disease management strategies in oats.”



Interested readers can read the final report at <https://poga.ca/research-results/2021-research>. You can also read previous articles on this project in the Oat Scoop (Introduction article in 2018 July; Interim report in 2019 November).

This project was co-funded through the Agriculture Development Fund (ADF) of Saskatchewan and was made possible through the federal/provincial cost-shared Growing Forward 2 initiative.

New POGA Director: Jessica Slowski⁺ Meet Your Neighbour!

Most Oat Scoop readers will know Jessica Slowski (née Pratchler) best from her time as Research Manager at Northeast Agriculture Research Foundation (NARF). Jessica is now working as an Agronomist at Clearview Agro Ltd. in Foam Lake, SK.

Jessica made another big change around the time she left NARF. She married Dean Slowski, and the couple welcomed baby Hayden to the family this January.

Dean, his parents Randy and Debbie, and Jessica operate RDS Farms near Sheho, SK. They primarily grow wheat, canola, oats and barley.

The East Central Saskatchewan farm has black soil. Jessica shares, “We predominately grow Ruffian oats; it does well in our area and straight cuts well.”

When an opportunity presented itself to run for election as a POGA/SaskOats director, Jessica was eager to accept the challenge. She states, “I felt I could bring a unique perspective to the board and wanted to expand my board experience. I also missed being on the innovation and policy side of agriculture.”

Jessica has significant previous experience working with POGA/SaskOats. She explains, “During my time as Research Manager for NARF, we did many oat projects with the two organizations. NARF was also very happy to receive an endowment from the Morris Sebulsky estate (administered by SaskOats).”

Currently, Jessica is serving on the POGA research committee and is also a Provincial Councilor to the Saskatchewan Institute of Agrologists board, as a representative from the northeast.

Because of her background as a researcher, Jessica brings specific interests to oat development. She explains, “I am very interested in system-based agronomic research for all crops—which involves manipulating more than just one or two variables or inputs. This approach can be very broad or specific as it compares different types of management practices and how they can impact yields and the environment, and the economics of growing a crop. As we know, producers aren’t faced with one agronomic decision in a given year, however, having a study with 10+ specific management variables would be too cumbersome. Systems-based research means looking at, for instance, regenerative versus conventional management, or moderately versus heavily intensified approaches. For oats, I am interested in pursuing more study in intensive agronomy, for example, using plant growth regulators and different combinations of fertilizer sources and amounts, and disease management. Variety development is also a special interest of mine. I am fascinated by the amount of work and cooperation that goes into the development of a new variety.”



When it comes to family and personal time, Jessica shares: “I enjoy helping out at the farm as often as I can—especially when it comes to operating machinery. I like gardening and heading to the lake in the summer, and winter is my time for different sewing and painting projects.”

Jessica also discloses an ambition which should be of interest to all producers: “My future life goal is to own and operate my own research farm.”

Alberta Oat Variety Trials⁺ Annual Round-up of the Best Oat Varieties for Alberta

Sandeep Nain, General Manager of Alberta’s Gateway Research Organization (GRO), has submitted the annual report for the project: *Increase the Oat Acres in Alberta by Finding a High Yielding Oat Variety that Maximizes Producer Income and Meets the Demands of the Millers.*

Morgan has been the most popular oat variety in Alberta for some time. As explained in earlier editions of the Oat Scoop, this variety has lower-than-desired beta glucan content to satisfy millers’ requirements. Nain explains, “The two most common indicators of grain quality are test weight and beta glucan (β -glucan). While Morgan produces higher test weight in Alberta growing conditions, it typically does not meet millers’ criteria of a minimum 4% β -glucan content. Because of this, millers will source Alberta oats only after they have exhausted oats from other regions.”

Morgan is also not resistant to crown rust, which has increasingly been advancing west into Alberta. Nain’s variety trials continuously test various high-performing varieties and rate them for production in Alberta conditions. Morgan is used as the comparative variety and, each trial year, newly developed varieties are added and those with lesser performance are eliminated.

Nain states, “As in the past, the trial results show noticeable varietal differences in yield and β -glucan content between the two trial locations (GRO, Westlock and Fahler, in the Peace Region). Also, 2021 was very dry in both locations compared to the last five-year average, and overall yields were lower compared to previous years.”

Both locations received 75% less-than-average precipitation and a two-week hot spell of +30°C. Nain states, “Even so, Westlock area fared well overall with an average site yield of 139 bu/acre compared to just 23 bu/acre in the Peace Region site.”

Crop Year	Top 3 Varieties for Beta Glucan at Westlock		
2021	OT3112	CDC Endure	CDC Skye
2020	OT3112	CDC Endure	CDC Skye
2019	CDC Endure	CDC Arborg	AC Morgan
2018	CDC Endure	CDC Arborg	Triactor
2017	CS Camden	Akina	CDC Ruffian
2016	CDC Seabiscuit	CDC Ruffian	CDC Orin
	Top 3 Varieties for Beta Glucan at Peace Region		
2021	OT3112	CDC Endure	CDC Skye
2020	CDC Skye	OT3112	CDC Endure
2019	CDC Seabiscuit	CDC Arborg	CS Camden
2018	Triactor	AC Morgan	CDC Endure
2017	CDC Ruffian	CS Camden	CDC Orin
2016	CDC Ruffian	AC Morgan	CDC Seabiscuit

The first table summarizes the top three varieties for β -glucan at both locations over the last six years. The second table summarizes overall varietal yield for all varieties and all years. Readers can access Nain's full report at <https://poga.ca/research-results> to see all data tables detailing comparisons between the two sites, varieties tested throughout the project lifespan for all other measured results (e.g.: height, lodging, test weight, etc.). In addition, tables summarizing comparisons of 'varietal β -glucan content' over the life of the trial may be of special interest to producers.

The Oat Scoop reached out to two AOGC board members for their feedback on the trials.

AOGC Chair Brad Boettger shares, "Before I became a board member, we grew Morgan exclusively because of its ability to produce high yields in our area. Over the 2016-2018 production years, we switched to several new varieties from the trials. While we have always tested new varieties, we felt even more confident to test those from the trial because, as board members, we carefully review, and are well acquainted with, the trial results. None could compare with Morgan's performance on our farm, in that one variety did not provide the same abiotic stress (primarily weather) tolerance and the other lacked in terms of quality and dehulling resistance during harvest operations. In 2019, we again grew Morgan, and enjoyed our best farm average oat production and our single-highest, field-average yield. Since then, we have trialed several others (while still growing Morgan as the primary variety) and, while one looked like a nicer sample visually while standing, Morgan still out-yielded it by 18 bushels/acre over a number of replicated trials in the field; the other had inferior stress tolerance. I believe these annual trials are very helpful and worth continuing in order to find varieties that can compete with Morgan's yield and provide qualities such as higher β -glucan content, and stress and disease tolerance. We can't rely on a single

Overall Summary: Yields from 2016 to 2021								
	Yield	Overall Average	2021	2020	2019	2018	2017	2016
Milling oats	% of AC Morgan	Yield (Bu/Ac)	Yield (Bushel/Acre)					
AC Morgan	100	204	161	203	243	226	212	178
CS Camden	98	200	150	211	241	206	226	167
CDC Seabiscuit	103	211	-	205	239	212	208	189
OT3112	87	177	140	213	-	-	-	-
CDC Ruffian	100	203	147	206	219	207	245	193
AC Summit	92	189	121	178	245	203	217	167
CDC Arborg	101	206	150	208	244	221	-	-
ORE3542M	98	199	-	183	214	201	-	-
CDC Norseman	102	208	-	190	222	213	-	-
CDC Endure	100	203	143	194	249	226	-	-
CDC SKYE	92	188	115	211	237	-	-	-
CDC Orrin	99	202	-	-	-	218	221	168
Souris	86	175	-	-	-	-	194	155
CDC Minstrel	92	188	-	-	-	-	202	174
Triactor	104	212	-	-	238	229	208	172
Alkina	101	206	-	-	-	221	222	176
Kalio	69	141	141	-	-	-	-	-
AAC Douglas	73	148	148	-	-	-	-	-
ORE3541M	56	115	115	-	-	-	-	-

variety forever. Without the information provided by these trials, producers would be taking a higher risk trialing new varieties on their own."

AOGC board member, Dylan Robinson, responded: "I have been growing Morgan and another trial variety the last few years. Morgan is still the front runner in yield, despite lower β -glucan content and some agronomic short-falls that are beginning to date it. I find the newer varieties nicer to grow, because they're slightly shorter and earlier. If these newer varieties can continue to adapt to Alberta soils and comparatively short growing season, then we will inevitably see them overtake Morgan. I believe that some varieties aren't far away from that now. It will be interesting to see how Endure and Skye continue to respond in the Alberta trials and, as seed becomes more available, more farms can confirm results on a larger scale."

This project was supported by Prairie Oat Growers Association (POGA) and Grain Millers Canada.

Producer Consent Form

POGA has received requests from international oat buyers to source oats directly from producers. If you are an oat producer in Alberta, Manitoba or Saskatchewan and are interested in being contacted by these companies for potential direct oat sales, head over to the main page at <https://poga.ca/>, click on and fill out the Producer Consent Form. Your contact info will be included in a list provided to companies inquiring about direct-from-producer sales.

Kochia: A Growing Concern

CropLife Canada, in partnership with those listed below, has created and posted a factsheet on *Managing Herbicide-Resistant Kochia* on their Manage Resistance Now website.

For this, and other information, go to: <https://manageresistancenow.ca/>.

You can also access this material by clicking on *Kochia, A Growing Concern* at www.poga.ca.

This factsheet was funded by CropLife Canada, Canola Council of Canada, Manitoba Crop Alliance, SaskWheat and Prairie Oat Growers Association (POGA).

Your SaskOats Board at Work

Chris Rundel, SaskOats Board Chair, took part in an interview with Jim Smalley from Regina radio station 620 CKRM regarding the federal announcement of over \$400,000 in funding provided by Agriculture and Agri-Food Canada for POGA marketing programs in Mexico, Japan and Canada. Readers can learn more about the marketing campaigns on page one of the Oat Scoop.

To read the news release regarding government funding support to increase exports of Canadian grain products, which includes a quote from POGA President Jenneth Johanson, go to: <https://poga.ca/news> and click on the article *POGA Receives Funding for International Marketing of Oats*.

Chris Rundel, SaskOats Board Chair, and Kody Blois, Member of Parliament for Kings-Hants, Nova Scotia, toured the Avena Foods facility in Regina on April 11 to discuss positive momentum occurring for oats, including the large number of processing expansions happening. Chris also took this opportunity to raise issues and challenges oat producers are facing, such as the recently announced Government of Canada goal to reduce fertilizer emissions by 30%.

Your MOGA Board at Work

Bob Lepischak, MOGA Director and POGA board representative on Grain Growers of Canada (GGC) was in Ottawa March 28-30 to participate in GGC's National Grain Week. Activities included outreach with Members of Parliament, Senators, industry partners, and senior federal government officials. This annual, industry-wide advocacy ensures producer views and concerns are shared with decision-makers and industry partners.

As part of the week, GGC announced the creation of a climate-solutions initiative to help meet Canada's ambitious goal of net-zero emissions by 2050. The 'Road to 2050' will propose a path forward that focuses on innovation, research, and beneficial management practices. It is also intended to guide government policies and programming directed at Canada's grains sector, ensuring farmers are supported in their efforts and, hopefully, allowing farmers to have a voice in climate change solutions affecting agriculture before they become Government policy.

Shawna Mathieson, POGA Executive Director, at Work

- Attended the Saskatchewan Budget Announcement on March 23 and met with Saskatchewan Minister of Agriculture Dave Marit, Deputy Minister Rick Burton, and other senior officials.
- (Ottawa) Participated in calls with a Senior Policy Advisor in the office of the Prime Minister, and the Director General, Carbon Pricing Bureau, Environment and Climate Change Canada, as part of a collaborative effort to involve Saskatchewan crop organizations in discussions regarding climate change.

Oat Milk

POGA received requests from Oat Scoop readers to publish a recipe for oat milk. We had done just that in the 2020 Spring issue, but here it is again. Want to try making your own Oat Milk? Here's a recipe, courtesy of Simple Vegan Blog, and posted on poga.ca:



Ingredients

- 1 cup rolled or quick oats (100 g)
- 3-4 cups water (750 ml – 1 litre), depending on how thick you like your milk

Directions

Yield: 3-4 Servings

- Soak the oats in water for at least 30 minutes. We usually soak them overnight, but it's not necessary.
- Drain the oats and wash them (discard the soaking water).
- Blend the oats with 3 to 4 cups of clean water (750 ml to 1 liter).
- Strain the milk using a cheesecloth, a strainer, a napkin or a nut milk bag.
- Store in a sealed container in the fridge for up to 5 days.

Receive
Oat Scoop
electronically!

Simply go to www.poga.ca and click on Sign up to receive the Oat Scoop by e-mail. We will then remove your name from the print mail-out list.



25th Annual Conference

Thursday, December 1, 2022
Sheraton Cavalier, Saskatoon, SK

Please join us on **Wednesday, November 30 at 8:00 pm** for a **Meet-and-Greet** at the **Top of the Inn**—Sheraton Cavalier.

AGENDA

7:45 am	Registration and Free Hot Breakfast
8:25 am	Welcome and Introduction —Jenneth Johanson, POGA President
8:30 am	Speaker TBD
9:15 am	POGA Annual General Meeting —Jenneth Johanson, POGA President
9:45 am	Stimulating Germination and Emergence of Wild Oat, Volunteer Oat, Barley and Wheat —Dr. Shaun Sharpe, Research Scientist, AAFC
10:15 am	Networking/Coffee Break
10:45 am	Oats Everyday: Expanding the Canadian Oat Market —Robynne Anderson, Emerging Ag President
11:45 am	Hot Lunch
1:00 pm	Speaker TBD —Oat Market Outlook
2:00 pm	Understanding the Impact of Particle Size on Physicochemical Properties and Nutritional Benefits of Pulse and Oat Flour —Dr. Yongfeng Ai, University of Saskatchewan Associate Professor and Carbohydrate Research Chair
2:30 pm	Oat Processing Expansion: The Changing of Agriculture—Meeting the Demands of the Socially Conscious Consumer of the Future —Murad Al-Katib, AGT Foods President and CEO
3:15 pm	Networking/Coffee Break
3:45 pm	Stop Acting Your Age, Boring isn't a Business Requirement —Matt Havens, Generational Expert
5:00 pm	Wrap-up and Adjourn —Jenneth Johanson, POGA President
5:45 pm	Social Hour at the Sheraton Cavalier
6:30 pm	Dinner and Presentation —POGA: 25 Years in Review—What Has Changed (or Maybe What Hasn't)!
8:00 pm	Program Ends. See you in 2023 at the Winnipeg Delta Hotel on Wed., December 6!

Daytime seminars, breakfast and lunch: \$20.00 (\$25 at door)
Optional Evening Banquet \$50.00 (\$60 at door)

**Times and agenda topics subject to change. For updates, pre-registration and credit card payments - visit poga.ca*

Call the Sheraton Cavalier (306-652-6770) or use the **'Book Your Room'** link on poga.ca to secure the negotiated rate of \$165 (plus fees) per night.
The room block closes on November 9, 2022!