



**MARCH 2018**

Box 20106, Regina, SK, Canada S4P 4J7 | Phone 306-530-8545 | Fax 306-546-2999 | Email [info@poga.ca](mailto:info@poga.ca)

## Going to Market in China

### POGA Focusing Efforts

In November, 2017, POGA sent two of its Directors, Jenneth Johanson and Ray Mazinke, to China. The Honourable Lawrence MacAulay, Minister of Agriculture and Agri-Food, lead the Trade Mission to “promote and raise the profile of Canadian agriculture, agri-food, and seafood products” (Agricultural and Agri-Food Canada November 10, 2017 News Release).



*The Honourable Lawrence MacAulay, Jenneth Johanson and Ray Mazinke on a Ministerial Mission to China in November 2017 to help further the market access issues Canadian raw oats currently face.*

POGA contracted Emerging Ag, Inc. to assist with the China Market Access process beginning in summer 2017. Robynne Anderson, President of Emerging Ag, presented highlights of this work at the POGA December 7, 2017 Conference. Here’s some of the good news Robynne presented:

- China is the fastest growing market for oats.
- At the current market price, the value of oat imports into China is ~\$48M. Oat imports into China have increased nearly 17 times from 2006 to 2014, and over 2.5 times from 2011/12 to 2015/16.
- At the same growth rate, the value of oat imports should more than double in the next 5 years.
- If Canadian oat exports to China were possible and Canada reached 40% market share within 5 years from access approval, the potential market worth is \$40M.
- Regarding plant health, Administration of Quality Supervision, Inspection and Quarantine - People's Republic of China (AQSIQ) and Canadian Food Inspection Agency (CFIA) signed a 2018 work plan, which includes oats, in November 2017. This is the first milestone in the progress towards a phytosanitary agreement, which will undo the current trade constraints and permit raw oats for food and feed to

be shipped from Canada to China. Ray and Jenneth also shared their experiences and pictures from China. They report that China appeared very excited about the quality of Canadian oats. The delegates spent time show-casing Canadian oats to buyers and world-wide importers/exporters at the Food and Hospitality Trade Show, and taking part in an embassy visit and many meetings with businesses and government. One oat product that has been gaining popularity with health-conscious consumers - here and also in China - is oat rice, which uses oat groats as a high-protein, nutritious rice replacement.



*Ray and Jenneth - promoting oats in China.*

Overall, the entire Mission team was very pleased with the reception they received and the enthusiasm China shows for the quality of Canadian oats. In addition, all involved are excited to be making progress in getting raw Canadian oats into the fastest growing market for oats in the world!



*Robynne Anderson provided an update on Canadian Raw oats market access issues to China. Her company, Emerging Ag, has been hired to assist in this process.*

## Oats Protein Potential – Will Oat Protein Replace Soy?\*

### New Opportunities for Product Development

POGA and The Alberta Crop Industry Development Fund (ACIDF) have provided support for a project entitled, “Product Development from Gluten Free Oat Fractions.” The principal researcher, Dr. Lingyun Chen, Canada Research Chair in Plant Protein, Structure Function and Nutraceutical Delivery at the University of Alberta, made presentations at the POGA December 7, 2017 Conference and the AOGC January 29, 2018 AGM.

What are fractions? In a layman’s nutshell, food ingredient fractions are divisions of a whole food which have been separated for other ingredient applications, based on a certain characteristics of those fractions. Dr. Chen explains, “For instance, protein fractions from oats have certain functional properties similar to egg and dairy protein functionality. They have the ability to produce emulsions, gels, foams and to bind water and oil. Thus oat proteins have potential to be used as a fat substitute for products such as sausage and a good binding agent for meat burgers.”

Fractionated oat protein is a prime example of oats’ potential in food processing. There is a world-wide, growing protein demand, especially for meat replacements, and oat protein is gaining a positive reputation to fill that demand. Plant-based proteins have been used for years. Dr. Chen says, “Soy protein is widely used in infant formulas and high-protein sports drinks, but does not meet the ever-increasing market requirement for different functionalities and sensory attributes and is also regarded as a major allergen. Some oat varieties have high protein content (20-22%), which compares to pea protein. In addition, oat protein is tolerated by celiac sufferers and offers a neutral flavour, unlike bean-based proteins where the bean flavour must be removed.”

Based on results obtained from this study, Dr. Chen sees potential for working with oats to produce extruded noodles and ice cream, just to name a few other conceivable applications. She is also involved in a project to determine the feasibility of oats used in coffee creamers (the same project mentioned in this issue’s Oatdeal article). Dr. Chen explains, “Oats have good properties for coffee creamer applications; they have good emulsifying properties necessary for a creamer and the dried creamer powder has quick dispersal properties.” Dr. Chen concludes, “The results of these projects can be used as tools for processors to source ingredients from oats to meet very certain needs.”

The project was finished in late 2017 and Dr. Chen is working on the final report (which will be available at [www.poga.ca](http://www.poga.ca) under ‘research results’ later this year). Producers and industry were all very interested in the work at both AGMs this year. Some industry partners, based on the presentations heard, are working with Dr. Chen to leverage this research into new products.

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*If you tickle the earth with a hoe she laughs with a harvest.*

*Douglas Jerrold, (1803-1857), English dramatist and writer.*



*Dr. Lingyun Chen spoke on her three oat end-use research projects currently underway at the University of Alberta on January 29, 2018 at the AOGC AGM as well as at the POGA AGM in December.*

## Clean Grain from Canadian Farms

### Reliable Quality Keeps Exports Flowing

Keep it Clean (KIC) is a program that shows Canada’s commitment to delivering consistently superior agricultural products to markets around the world. This is an established program started by the Canola Council of Canada and expanded with Cereals Canada to share best practices required for export-quality cereals and canola. The overall goal of the KIC program is to help prevent market access issues and maintain Canada’s international reputation for reliability and quality. POGA has finished up their second year of collaboration with Cereals Canada and Barley Council of Canada on this project and has committed to continue the relationship in 2018.

Canadian oats are being exported to new world markets all the time, and POGA continues to look for new market access opportunities like China and India. Each country has different standards and qualities that must be met for that market. The KIC program best management practices checklist contains five items, accompanied by explanations of each item. The list was created to be used by growers, but it also serves as the Canadian value chain’s commitment to quality, cleanliness, and consistency. That list informs oat purchasers and movers of the quality control procedures Canadian oat growers adopt, and how growers apply those best management practices to produce the superior-quality oats that buyers seek.

Cereals Canada is the project manager and monitors grower and retailer awareness of the program in several ways. They track and measure website traffic and conduct regular program evaluation, such as grower surveys. Cereals Canada also interacts with producers one-on-one at various trade shows across the country and on social media platforms, engaging in dialogue about the program and market access issues.

The Keep It Clean program has become an exercise in cooperation and cross-commodity growth. Supporting organizations include the Barley Council of Canada, Canola Council of Canada, The Prairie Oat Growers Association, and Pulse Canada.

For more information on the program, visit [www.keepingitclean.ca](http://www.keepingitclean.ca).





## Shelley's Orange Cranberry Muffins

*The flavor combination of cinnamon and orange zest makes these high-fiber, gluten-free muffins truly delectable.*

<https://www.youtube.com/watch?v=9D8GDdopsL8>

Reprinted with permission from: Shelley Case, RD  
North America's Gluten-Free Nutrition Expert  
Regina, SK, Canada | [www.shelleycase.com](http://www.shelleycase.com)

Yield: 12 muffins

### Notes:

- If you don't have oat flour on hand, make your own by grinding rolled oats in a food processor.
- Substitute raisins for cranberries.

### Ingredients:

1 cup GF oat flour  
½ cup GF rolled oats  
½ cup ground flax (flaxseed meal)  
1 tbsp. baking powder  
1 tbsp. cinnamon  
1 tsp. xanthan gum  
2 eggs  
½ cup oil  
½ cup packed brown sugar  
½ cup orange juice  
Grated rind (zest) of 1 orange  
1 tsp. vanilla  
¾ cup dried cranberries

- ♦ Preheat oven to 375°F.
- ♦ Combine oat flour, oats, ground flax, baking powder, cinnamon and xanthan gum in a large bowl and mix well.
- ♦ In a separate bowl, whisk eggs and oil, then add brown sugar, orange juice, orange zest and vanilla and whisk again until mixed.
- ♦ Add liquid mixture to dry ingredients. Mix together until just combined. Fold in cranberries.
- ♦ Spoon batter into paper-lined muffin cups. Bake for 12–15 minutes, or until toothpick inserted into the center comes out clean.
- ♦ Cool on wire rack

1 serving = 1 muffin  
Calories (kcal) 238  
Carbohydrates (g) 27  
Dietary Fiber (g) 4  
Fat (g) 12  
Protein (g) 5  
Iron (mg) 1.4  
Calcium (mg) 50  
Sodium (mg) 168

## Oat Outlook for Canada

Randy Strychar, [Oatinformation.com](http://Oatinformation.com)

Randy Strychar, Ag Commodity Research, shared oat market information he has been collecting and analyzing at POGA's December 7, 2017 Conference and reconfirmed this forecast in February 2018. Western Canada oat production has seen a solid 71% growth over the past 7 years. The 2008-2010 decline in seeded oat acres is due to falling feed use of oats and growers' net returns. Since 2010, the number of seeded acres have been relatively stable. However, increasing yield (versus increased acres) throughout that time is responsible for the solid production gains in Canadian oats.

World grain end stocks are at near-record levels and Canadian oat supply and quality are more than ample to meet current forecasted demand. The 2016/17 Canadian oat end stock outlook is above the 5-year average. The forecasted price moving forward is in the range of \$2.25-\$3.25 (\$2.25-\$3.00 in Saskatchewan and Alberta); any price beyond this range is contingent upon major weather issues and the possibility of well-above average future yields.



*Randy Strychar of [Oatinformation.com](http://Oatinformation.com) provided a market outlook for oats at the 2018 POGA AGM.*

Strychar also notes, as previously mentioned in other POGA newsletter articles, that China shows promise to be the next big oat market. China's diet is shifting and it is embracing hot and ready-to-eat cereals and oat-based snack bars because of their convenience and nutrition. It is focusing on raw oat imports and domestic processing of those oats. There has been phenomenal growth in oat imports to China over the past 10 years; Strychar expects this to double over the next 5 years. Other world regions also showing an increase in oat demand include the EU and East Asia and the Indian sub-continent. A final positive trend is the continuing increase in demand for oats by domestic mills.

POGA thanks Randy for collecting and analyzing the numbers and for sharing all the valuable marketing information!

## Oat Trial at NARF

### What Varieties Work for Producers and Millers?

Which oat varieties do major oat buyers choose for their food products? The answer to that question could vary year-to-year, depending upon ever-changing conditions, new varieties hitting the market each year, the company you are selling to, and in which growing region the oats are grown. This past summer, Northeast Agriculture Research Foundation (NARF) was engaged in an oat variety research trial for General Mills that might play a part in decisions General Mills makes in the future.

Jessica Pratchler, NARF Research Manager, reports, "NARF conducted the trial in summer 2017 and will be engaged in continuing the trial for summer 2018. We are also in discussions to continue this trial on a long-term basis and supplement it with other oat agronomy-related projects. The 2017 trial consisted of three replicates testing 20 oat varieties." General Mills provided the seed varieties from a range of sources: eastern and western Canada, the United States, and Europe. The eight named and twelve numbered varieties tested were a mix of traditional and organic seed varieties. There was no herbicide or fungicide applied in the trial to understand how these varieties perform under stress.

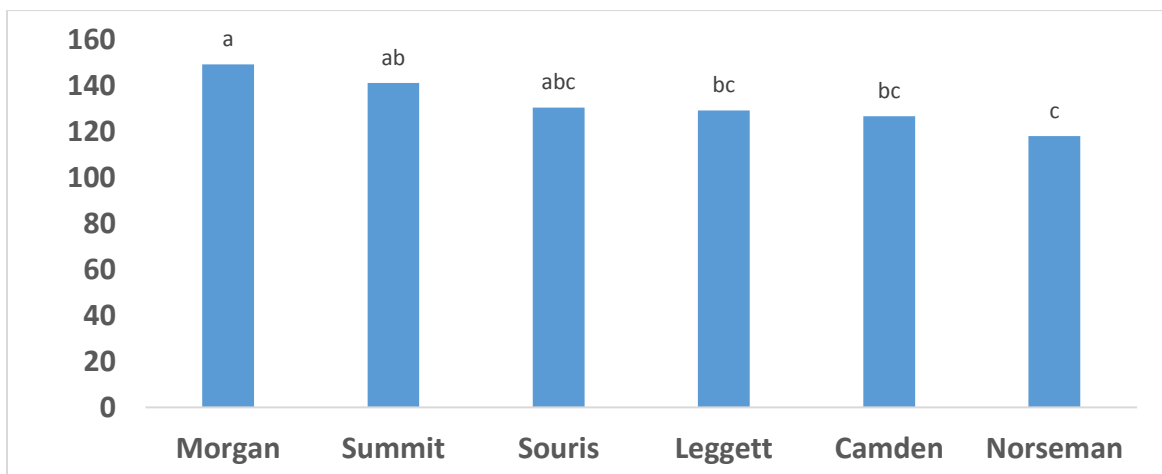
Pratchler continues, "Of the varieties commonly grown in Saskatchewan, Morgan was the highest yielder; Summit and Souris were close runners-up. The results proved interesting and I would definitely like to conduct this trial over a long-term period. Yield results can change year-to-year; therefore, multiple years of testing are required before conclusions and recommendations can be made." If another trial is conducted in 2018, Pratchler would eliminate some of the varieties that performed poorly and source other new varieties. She says, "It is also interesting to look at the architectural aspects of the different varieties and how they affect plant competition with weeds and diseases."

Of the newer varieties, 2017Y1102 and 2017Y1120 were the highest yielding, but not statistically different from Morgan despite a 10 bu/ac increase. 2017Y1102 is a European variety which is unique due to its upright leaf structure. 2017Y1120 is a new variety under the Minnesota co-op program. The two lowest yielding varieties are 2012Y0202 and 2017Y1609. 2012Y0202 is a General Mills variety that matured too early under NE Saskatchewan conditions. 2017Y1609 is a new organic variety. Nicolas is an example of an oat variety bred in Eastern Canada that might perform well in the West. 2017Y1112 is another Swedish variety with upright leaf structure and should perform well under narrow row spacing. Hayden is a South Dakota variety that remained short and yellow all year long. All of the varieties in Chart 2 (see page 5), other than Morgan, are not yet available in Saskatchewan.

General Mills relocated their oat variety development laboratory to the South Dakota State University campus in 2016. Pratchler notes, "Many of the varieties grown in the Dakota states did not yield well here. It's great to have the opportunity to test some of General Mills' preferred varieties against varieties that perform better in this region. For instance, Morgan performs well here, but not everywhere, and there are varieties that millers have on their preferred milling varieties list that growers in this region can't make work. This can prevent our regional growers from meeting some of that market."

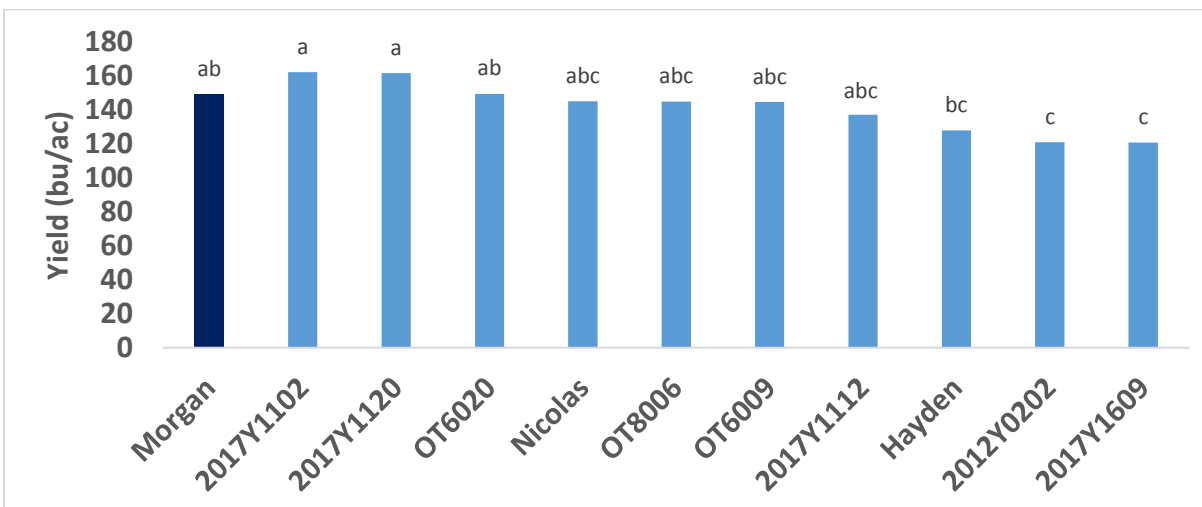
Pratchler states, "If General Mills, for example, wanted to increase oat-based protein in their product there is the potential to meet this demand quickly and to receive more value out of oats. Jim Dyck's variety OT6020 is an example of a high-protein oat variety that did fairly well in our trial." Pratchler shares a final thought on preferred oat varieties, "Morgan continues to be a popular variety but there may be other varieties to consider that outperform Morgan in some areas. The growing region, and obviously miller acceptance, are very important factors for growers when they are making a decision on which variety to plant. We look forward to collaborating in the future with General Mills to help further the oat industry in Saskatchewan."

Chart 1



Varieties tested during this trial and listed in the Saskatchewan Seed Variety Guide. Please note, yield variations are not statistically significant ( $p < 0.06$ , where they must be  $p < 0.05$  to be significant), but it does show that differences do exist.

Chart 2



Non-Saskatchewan varieties compared against Morgan. Yields are statistically significant ( $p < 0.03$ ).

## The Canadian Transportation System

### Are we heading for another 2013-2014 Disaster?

Mark Hemmes, President of Quorum Corporation, spoke at the POGA AGM this year and then sat down with us in February to give us the latest information on the current transportation issues we are facing. Many of you may be waiting to fill contracts that are now months behind; well, here's why:

According to the Ag Transport Coalition reports, as of week 30, which ended February 24, CN has only delivered 66% of the cars in the 'want week' (the week ordered) year-to-date. CP, on the other hand, is performing better at 86%. In the current period (week 30 only) CN delivered a dismal 17% of the cars requested and CP delivered 50% (which is not good news on the improvement side)! With more than 30% of the cars not being delivered on-time (year-to-date) by CN those involved in the transportation of grain are feeling a strain.

In addition to this challenge, grain companies must also pay demurrage when grain is late (demurrage is a charge payable to the ship owner when a ship is not loaded within the agreed upon time). In December, based on average vessel prices for Panamax ships, demurrage ranged from \$12,000 - \$16,000 a day. Shippers are charged after the time in port exceeds the number of "contracted lay days" and with an average of 17 days of vessel time in port, demurrage time can range from 5-7 days, or a charge upwards of \$80,000 per ship. To be fair, this number is now down to a demurrage rate of about \$11,000 per day and it seems most ships are able to leave port before demurrage is charged. As of February 28, there were 40 ships (35 in Vancouver and 5 in Prince Rupert) waiting while the worst period of 2013-2014 saw 52 ships waiting, so we are not to that point right now but the situation is still severe.

What can be done about this? Well, Bill C-49\* will solve some of the problems, according to Mark. It passed first reading in the House of Commons on November 1, 2017, and may be brought into force sometime in early September, 2018. Mark's parting message for oat growers is that he is not anticipating the same level of transportation crisis seen in 2013/14; Bill C-49 will provide some additional support to prevent a similar situation but it won't solve all the issues. Based on the data and current situation there is real concern over how long it will take our transportation system to "get on the right track."

\*The full C-49 bill can be read at <http://www.parl.ca/DocumentViewer/en/42-1/bill/C-49/third-reading>.

The following bullet-point list from Mark summarizes the potential changes for the grain industry if this bill is passed as it stands now:

- There will be more transparency and expansion of the data reported by railways.
- Access and shipper remedies have been added, which will allow shippers to seek reciprocal remedies in service agreements; railway companies will also incur financial penalties.
- Long-haul interswitching will replace existing extended interswitching; each origin option will require an application and the fixed-scale approach will be changed to an individual calculation made by the CRA (if not pre-negotiated). The Canadian Transportation Agency will be granted an expanded role to establish rates for use in long-haul interswitching by using an expanded data set that is part of the new legislation.
- Modifications to the Maximum Revenue Entitlement (MRE) will occur. There will be a new volume-related composite price index (VRCPI) for each railway industry which will induce an investment incentive, especially for railcars, where in the past it has been a disincentive.

## Mike Pearson\*

### Ag-View from South of the Border

#### POGA Annual Conference presentation

Mike Pearson, Iowa Public Television's Market to Market show host and Ag News Daily podcast co-host and Vice President, gave the opening presentation, 'What's Driving North American Agriculture in the Year Ahead', at POGA's December 7, 2017 annual conference in Banff. In addition to his broadcasting career, Mike is also a cow/calf farmer who playfully boasts that he grows 27 acres of oats per year for feed! If you weren't able to attend the conference, here is some of the information Mike shared.

Statistical records prove the cyclical nature of agriculture and Mike highlights four major periods of explosion in global demand for agricultural products. The first two periods, 1917-18 and 1945-46, were the result of two world wars. The third was during the mid-1970s and contributing factors included the depreciation of the U.S. dollar and increased trade with the Soviet Union. The fourth period, roughly during the past 10 years, is due to many factors, including modernization and urbanization growth in China, as well as the increasing demand for ethanol. The financial crisis in 2008 was also an interesting contributing factor, as investors holding funds in investment accounts began moving dollars to the markets; large-scale fund managers began investing in one of the only investment classes that seemed to promise returns: agriculture. Global connectivity and e-trading sparked aggressive transactions and this excitement fueled farmers to increase yields. Increased production continued to the present day, resulting in a surplus in feed grains in the market. While traders still like the agricultural markets, it is always a good idea for all industry players to keep the global picture and historical numbers in mind.

The current challenge facing feed grain producers is poor returns, which leads to the question: "where to add value?" According to Mike, margins are tight now and will continue to be, so producers need to figure out how to deal with that. "The market's job is to buy the cheapest goods possible and with a glut, a weed-out is inevitable," says Pearson.

From now until at least 2020 the news is not great for grain producers. However, Mike believes a solution may be found in feed for livestock. Meat production is growing in the northern hemisphere; October, 2017 saw the largest U.S. meat slaughter ever. "More people are willing to pay premium for high-quality protein and those animals have the potential to chew their way through the surplus of feed grains - globally," states Mike. Livestock demand is also growing in the developing world. With that growth comes a demand for high-quality protein and many of these countries can't grow feed efficiently. China is currently increasing sow production; Chinese meat consumption rose 42% from 2006 to 2016. China may not sustain this level of demand growth, as their economy has been slowing down recently but most of Southeast Asia's demands are on the rise.

Mike's presentation summary includes this message: always tell your stories as producers. The North

American ag-industry is very efficient at growing grain, but less effective at maintaining good public relations. An increasing number of people in the general public are becoming farther removed from agriculture and don't identify agriculture with producers. There is a tendency for the public to dislike big agriculture while, at the same time, to love producers. Mike advises, "Keep a 'people-oriented image' in agriculture. Keep your farming stories circulating in the public!"

#### Post-presentation interview

In addition to his presentation time, Mike shared additional time for an interview to provide POGA members with more insights from our southern 'kin'. Of course, talk immediately turned to the North American Free Trade Agreement (NAFTA) and whether it is possible to foresee good outcomes for all sides. Nodding vigorously, Mike states, "Yes, successful renegotiations can definitely benefit all concerned. As U.S. consumers become more interested in the quality of food they eat, this could be a great opportunity for Canada to promote healthy foods grown there, like oats. There is also a back-story in the 'U.S. trade deficit with Canada' concern that the Trump government is presenting. They are not taking into account the fact that Canadian product imported into the states is often used to create value-added product, some of which is then sold to Canada. This benefits both countries."

When asked if the U.S. agricultural community might feel hope for improvements in NAFTA, at least in certain areas, Mike says, "Possibly - more from the IT (information technology) and patent side of things and perhaps from the general agriculture community - except dairy. However, that it continues to exist is the best scenario for all. The agreement results in efficient shipping chains between countries; if it is cancelled, shipping costs will increase and that results in less dollars to farmers. There is some talk of scrapping the agreement entirely and for Canada to return to a 'most favoured nation status' with the U.S., and vice versa. If that occurs, changes can happen on the fly and all of the certainty experienced under the current agreement is lost."

It is difficult for the average person to determine all of the agricultural interests that are affected by NAFTA currently, and that could be affected in the future by its demise or drastic revisions. "The agricultural interests that I feel are, and will be, most affected by NAFTA are pork, poultry and eggs, oats, dairy, beef (to a lesser extent), ethanol (on the U.S. side), and manufacturers using these products," says Pearson.

No discussion would be complete without including some thoughts on current on-farm profitability and how they might differ between the U.S. and Canada. Pearson offers, "U.S. farm profits have dropped the past 4 years; profits in 2017 were half what they were in 2013. Canada's dollar value difference probably benefits Canadian farmers somewhat, but they may see a decline as well. The U.S. had a higher peak and Canada's drop probably won't be as severe, but it is likely coming."

POGA extends thanks to Mike Pearson for his POGA annual conference presentation and the post-presentation chat!

## Oat Breeding and Research\*

### U of S Crop Development Centre

Dr. Aaron Beattie, barley and oat breeder at the University of Saskatchewan's Crop Development Centre (CDC), presented at the 2018 CropSphere conference in Saskatoon. To view the conference Power Point presentation, go to [cropsphere.com](http://cropsphere.com), 2018 Speakers and Presentations page.

The CDC has a large staff, working on both oats and barley. Full time staff include: 3 in the grain quality lab (who work on, for example, beta glucan and protein); 3 in the malt quality lab; 5 in the molecular lab (who work on, for example, crown rust resistance); and 11 in the field lab. There are also 5 summer staff and 2 graduate students at the CDC.

Within the oat breeding program, milling oats receive about 90% of the focus. Aaron explains, "The team is trying to spend a bit more time on higher protein varieties and stem rust. This has not received much attention until the last few years, when we began to have access to disease nurseries in Manitoba. We also spend some time on forage breeding; CDC Haymaker was the last forage variety the Centre released. Last month, we, along with Bill Biligetu, CDC forage breeder, received funding from Agricultural Development Fund (ADF) for additional work on oat forage breeding. The project will focus on quality attributes, agronomics and incorporating crown rust resistance into forage varieties."

Breeding objectives fall under three main categories: agronomics, quality, and disease resistance. Says Aaron, "We are focusing on yield and lodging resistance; newer varieties have much better lodging resistance, which enables them to handle increased yield. We try to keep maturity to a reasonable level so that, if fungicide is used, maturity is not pushed too late; millers are requesting growers watch carefully to determine if fungicide use is really necessary. Keeping the millers in mind, CDC also strives for groat percentage, plumpness (higher test and kernel weight), uniformity, uniform grain size within panicles, and fewer tertiary panicles. Nutritional characteristics associated with the heart health claim in oats are also important. New work is being done on diseases such as stem rust, crown rust, smut, and fusarium head blight (FHB). However, amongst cereals, oats are fairly strong in terms of FHB tolerance."

CDC received funding for the project titled, 'Breeding for Resistance to Leaf Blotch in Saskatchewan Oat' from the Saskatchewan Oat Development Commission (SaskOats) and the Agriculture Development Fund (ADF) of Saskatchewan and is made possible through the federal/provincial cost-shared Growing Forward 2 initiative (the report for this project is available at [www.poga.ca](http://www.poga.ca) - 2018 research results). Aaron continues, "Some varieties are more susceptible to leaf blotch than others and the Centre is working to determine the causes and incorporate more genetic resistance into future varieties. The target area for most CDC work is in western Canada. Over the last few years, seed companies and others have noticed that varieties bred for western Canada also do well in Quebec. Some buyers have indicated an interest in these varieties for Quebec, and an exchange between provincial breeding programs is a real benefit for all concerned."

In terms of some recent CDC varieties, Aaron explains, "We registered CDC Arborg in 2016; CDC was aiming for a replacement to Morgan, which a lot of millers are looking to replace. Morgan is a good agronomic variety for growers, but CDC Arborg shows good yield advantages, not only during normal to wetter years, but it also did well this past year in regional variety trials under drier conditions. It was the top yielder in Areas 3 and 4, and among the top in Areas 1 and 2. It is on the earlier end of the medium maturity spectrum - a fair bit earlier than Triactor. It has good resistance to lodging, we have seen good results in wet Manitoba years, and it maintains straw strength well. It has good groat percentage (it compares to CDC Dancer), decent protein, low oil, and the beta glucans are in the range for heart health claims, which make it good for both millers and end users." (*See the Saskatchewan Seed Guide for agro-climatic area locations.*) *Arborg is currently in pedigree seed production stages with expected availability to producers by 2020. For more information talk to your local FP Genetics Seed Grower.*

Variety OT3087, registered in 2017, exhibits similar characteristics. It is a shorter variety with good lodging resistance, good groat percentage, and better crown rust resistance (rated as moderately resistant), so it might perform better when grown in crown rust areas. Aaron says, "We ideally strive for Moderately Resistant (MR) ratings in the program because single gene resistance in varieties with an R (Resistant) rating tends to break down; we have seen this consistently in past years. MR-rated varieties don't have a defined gene that we're aware of, but have broad background resistance, which should provide more stability."

CDC breeds for crown rust resistance which is the dominant disease in oats and is caused by the fungal pathogen *Puccinia coronata*. States Aaron, "Yield losses vary from 5% up to 20%. Crown rust responds to fungicide (with 90% control), but in general, it is better if you don't have to use fungicide, as it pushes maturity back a bit. There is also some organic production in western Canada where that is not an option. Genetic resistance is a better solution."

Phenotyping has been done at field nurseries, and it works well, but we can only do it once a year; it is fairly expensive, and it limits the number of breeding lines that can be evaluated. As well, we don't get crown rust infection each year, especially in the Saskatoon area. Another way to deal with this is to develop molecular markers linked to resistance genes which allows us to select for traits in the absence of the disease. This type of testing wasn't available for oats because we didn't have the tools, but through a world-wide consortium of funders (POGA included) the Collaborative Oat Research Enterprise (CORE) project has allowed us to develop tools to tag traits to use in breeding programs. This has enabled us to develop the tools to map crown rust resistance genes within a short period of time. Last year we screened 23,000 different oat lines for four different types of crown rust resistance. The molecular marker testing allows us to do more lines at about one fifth of the cost of doing it in a nursery."

Other projects CDC is working on include: beta glucan content, oat smut resistance, and mapping additional crown rust resistance genes. Aaron closed his presentation with thanks: "to the multiple funders for the program that hopefully provides information of value to you all."



## BeGrainSafe Program\*

### It's WAY Better to be Safe than Sorry

While all the news POGA brings the members in this newsletter is important, nothing is more important than promoting the safety of the most valuable asset on the farm: human lives. POGA, along with a long list of grower groups and businesses, support the Canadian Agricultural Safety Association's (CASA) BeGrainSafe program. "The response from the agricultural industry has been fantastic! After a particularly tough year of grain-related fatalities in 2015, sponsors and donors came together with enough funding to help CASA build and launch the BeGrainSafe program in January 2017," says Liz Ellis Clark, CASA Development Specialist. Liz's statement shines a light on the broad range of human lives that are affected by the reality and tragedy of grain entrapment and dust explosions - from farmers, children, family and friends, to rescuers and product suppliers. It truly is a collective concern.

See [casa-acsa.ca/BeGrainSafe](http://casa-acsa.ca/BeGrainSafe) for a complete list of sponsors.



*BeGrainSafe Trailer - ready to demonstrate life-saving techniques.*

CASA brings the BeGrainSafe Trailer, a mobile grain safety training and demonstration unit, out to agricultural events throughout the season and also provides demonstrations to ag-related institutions. The trailer engulfs a mannequin/person in flowing grain in a controlled manner to demonstrate the dangers of grain entrapment and rescue training procedures.

**Table 1 - 2017 BeGrainSafe Trailer Activities**

Venue-Trailer	Trailer Visits	Attendance*	
Ag Days	910	30,000	MB
Farm Tech	350	2,000	AB
U of M	30	30	MB
Banjo Bowl	500	33,000	MB
CASA conf.	74	74	AB
Agri-Trade	335	33,000	AB
Agribition	700	120,000	SK
Ag in Motion	355	25000	SK
<b>Total</b>	<b>3254</b>	<b>210,030</b>	

\*Attendance #'s include non-confirmed potential visits.

Liz continues, "Our three sets of table top displays (lung display and flowing grain display) were really popular at the shows listed in the table, as well as community kids' farm-safety-days and Ag shows. In fact, we reached 4,756 additional kids and adults through these venues, for a total reach of 8,010 people at 32 events in 2017." A grain safety trade show unit developed last spring for smaller Ag shows and fairs reached over 400 people at Crop Connect 2017 and Canola Palooza in Alberta and Manitoba.

Building awareness through demonstration and display outreach has been a main focus, however, activities don't stop there. Liz explains, "This year, BeGrainSafe has also developed some training specifically aimed at producers and volunteer firefighters. We offer a course for producers to develop a grain safety emergency response plan. We are also developing a course to train firefighters in complex grain rescue procedures. An online course focusing on grain handling and storage hazards is also in the works."

In terms of bookings for the BeGrainSafe Trailer in 2018, Liz reports: "CASA has already participated (for the second year) in Ag Days (Brandon). They will be back in Brandon again for the Royal Manitoba Winter Fair, March 26-31, 2018, and then they are off to the Calgary Stampede Grounds in May to participate in a farm safety day for kids (grades 7-9). They are also booked for Canola Palooza in Alberta in June. CASA thanks all POGA members for their support and we encourage all to visit the demonstration trailer at any of the events CASA is participating in." Check [casa-acsa.ca](http://casa-acsa.ca) to find out more about the BeGrainSafe program, including when the BeGrainSafe Trailer will be in your area. For booking inquiries contact CASA at [info@casa-acsa.ca](mailto:info@casa-acsa.ca).

## **Save the Date!**

### **Prairie Oat Growers Association**

**2018**

### **Annual General Meeting**

**Location: The Sheraton Cavalier,  
Saskatoon, SK**

**Date: December 6, 2018**

**Call 1-306-652-6770 now  
to book your room.**



## Oatdeal - Drink Your Oats!\*

### A New Way to Consume a Healthy Product

George Barrerras of Oatdeal, oat smoothie and smoothie enhancement manufacturer, presented his company's story at the SaskOats AGM on January 9, 2018 in Saskatoon. George and his wife, Hiscay Rivera, came to Canada from Columbia more than a decade ago. Oat drinks are very popular in South America. George realized that Canada is the largest producer of oats in the world and says, "I thought there must be TONS of oatmeal drinks there! To my surprise, there was....nothing. I believed there must be a business here: Canadians know and eat oats - they'll also drink them."

He began to work on the first, and his favourite, part of building a business: product development. "I loved this stage. I truly believed that buyers would line up to buy my product," says George. Full of faith, he took his idea to the Saskatoon Food Centre to develop the product, obtained business grants, developed the prototype and labels and began packaging. With that done, George was 'ready for market'.

George then met the second stage in business development: facing reality. George admits, "To be honest with you, I thought that when I was ready to go to market, it would be an easy ride. It didn't take long to realize that it's not about placing product on shelves; it's about people buying your product. I knocked on door after door. Retailers told me that Canadians don't know anything about oat drinks. Then one big chain said they were interested in the product, but under the condition that I change the labels. My first big mistake was not going to the retailers with sample labels to get their opinion." George rectified that and developed new labels.

Oatdeal packages were now on some store shelves. He participated in, "every trade show you can imagine," set up sampling booths in stores, and was featured in magazine articles, on Dragon's Den, and on CTV and Global news. His company was chosen by Food in Canada magazine as one of the top 10 companies to watch in 2015. In spite of all the positive exposure, buyers weren't choosing Oatdeal products. George realized, "oat drinks are just not a tradition in Canada. People like it when they try it, but it's not something they grew up with." The challenge was getting people to buy the unfamiliar product.

George continues, "My first 'punch in the face' was Expo West in Anaheim, California. All the labeling was still in English. Retailers came and tried the product, but I got the same story: U.S. people aren't used to it. Then a big buyer for Costco walked up to my booth, tried a sample and said, 'Oh my God, I love this.' The buyer asked for a few bags to take home to his children." Says George, "I thought I'd be in Costco all across North America! As he was walking away, I asked him, 'what do you think of putting my product in Costco?' He said, 'Oh no, these won't sell in Costco. These are Hispanic drinks. My mom is Hispanic and I grew up drinking these, but you can't sell these (in Costco).' He gave me the advice, 'Close down the way you're doing business, go back to Canada, get new labels, and target the Hispanic market. Reinvent your

company!' I hated to hear it, but in back of my mind, I knew he was right."

At this point, George was entering the third stage of building a business: decide whether to shut down or continue. George states simply, "Fortunately, we continued." That decision moved him right into the fourth stage: learn from mistakes and rebuild the company. The reason for that decision came about at the Minneapolis trade show. Says George, "We had paid for it and so I went, but I was disappointed in everything that had happened before. However, someone from General Mills came to my booth and asked, 'this drink is Hispanic - why isn't the label in Spanish?' I lied and said, 'We're in the process of getting Spanish labels made right now.' He told me that General Mills sources products like this from manufacturers instead of making them at General Mills, and that they might be interested in our product. I realized that if two different people from big companies were telling me the same thing, then I should take their advice and target the Hispanic market. Our company name is Oatdeal, but our U.S. brand name is now the Spanish 'Avena Ideal', meaning 'the ideal oat'. This time, we studied the U.S. Hispanic market (which acts differently than South American Hispanics). We made new Spanish labels that display: oats, added pro- and pre-biotics (this is very popular in the Hispanic market), made in Canada, and gluten free. I went to Hispanic trade shows with this hot oatmeal drink (atole), which is very popular with Hispanics across South America. We're not the first atole in the market, but we are the first to add pre- and pro-biotics and promote gluten free oats. We market it by not only mentioning the nice, hot drink that will keep you feeling full, but by talking about how it helps the digestive system. The cinnamon-flavoured products have 4 ingredients that aid in digestive health: oats, pre- and pro-biotics (in a ratio which balances 'good and bad' bacteria and aids in nutrient absorption), and cinnamon (also proven to help digestion)."

Oatdeal has encountered other problems such as keeping up with demand when orders started coming in. Exporting to the U.S. has also presented significant obstacles. George says, "Exporting sounds easy to do, but it presents big challenges. Most distributors want you to be an exporter and an importer." The NAFTA renegotiations is also a big concern. If the product is stopped at the border for any reason, Oatdeal can't meet its obligations to supply product and that can result in serious damage to the company and its relationships.

An additional exporting problem is that sending products containing milk to the U.S. is difficult. The atole product can be made with or without milk. There is a big U.S. food service market comprised of small Hispanic coffee shops and restaurants who want the milk-based product. It takes too much time for these businesses to prepare a milk-based drink from the non-milk mix; they need to simplify for efficiency - to add hot water and serve. George now has a client wanting to distribute the milk-based product to the U.S. Hispanic food service industry and he must find a way to export that product.

George delved into other new strategies for the product and target market. He found co-packers in

Saskatchewan and developed a single serving pouch, in addition to the multi-packs, so consumers could try one serving or several flavours before committing to multi-packs. He also asked himself, “What about Canada? I’ve already started the U.S. wheels moving. I don’t want to walk away from the Canadian market - I have to find a way to encourage Canadians to drink oats.” He discovered that Canadians are avid purchasers of products that enhance fruit smoothies (plant proteins, chia seed, etc.). He created Oat Boost, a smoothie enhancer made from pea protein, oats, and absorption-enhancing biotics, with no added flavourings or sugar. Oat Boost has been a Canadian success! They started online testing and are now out of stock. They have sold more Oat Boost than the oat drink product in Canada. George shares his marketing approach, “We explain to people that, while other products are loaded with ingredients, they first need to develop a good digestive system and increase nutrient absorption - and that’s what our product does. People really understand the concept. We are selling in both Canada and U.S. online. One of my biggest regrets is underestimating online sales potential - I never thought about online sales. We have been so successful that we had to stop our Facebook and Google ads because we have sold out! People love our Canadian introductory packages of 8 units, which have 2 units of each flavour, for \$12.99, shipping included. This has been our driver for success! We will also be selling Oat Boost in Canadian Co-op Food Stores, starting March, 2018.”

Oatdeal is also involved in a project with the University of Alberta and POGA to create an oat-based coffee creamer. Confirming his belief in oat-based product potential, George states, “Creamers are loaded with hydrogenated oils and chemicals. This will be the first creamer made from oats, making it a coffee creamer that actually provides health benefits as well as great taste. Oatdeal is very happy to be involved in this project. We hope to receive product samples soon.”

George’s parting statement, which could well be the slogan of all POGA members: “I believe in oats!”



*Bob Anderson of Dugald, MB was honoured at the 20th Annual POGA AGM in Banff. Bob has attended all 20 AGMs and was a key individual in establishing the POGA and Manitoba commissions. Bob was also a dedicated board member for 8 years. Thanks to Bob for all he has done for oat growers throughout Western Canada.*

## **What’s the Best Yielding Oat Variety in Alberta? You Probably Think it’s Morgan - Think Again!**

### **Measuring Yield and Beta-( $\beta$ )-Glucan Content**

Gateway Research Organization (GRO) and Smoky Applied Research & Demonstration Association (SARDA) wrapped up Year Two of the Alberta Variety Trials (see the March, 2017 Oat Scoop article ‘The Research Scene in Alberta’ for an introduction to the project). Sandeep Nain, General Manager of GRO, presented a summary of both trial years at the December, 2017 POGA AGM and the January, 2018 AOGC AGM.



*Sandeep Nain of GRO displayed results from the first two years of the Alberta Oat Variety Trial when presenting at the POGA AGM and the AOGC AGM.*

The trial objectives are to identify oat varieties with superior milling quality grades and higher yield, when grown in the North Central and/or the Peace Region of Alberta. As the Project Lead, Nain developed and manages the project; GRO conducts the trial and field work at the Westlock location and has contracted SARDA for the field work at the Fahler location.

The same 11 milling oat varieties were tested at GRO’s Westlock location and at SARDA’s Fahler location and the data was compiled and compared at each year end. Sandeep explains, “We set out to compare Morgan (a high-yielding, low  $\beta$ -glucan-content variety that grows well in Alberta) to the other varieties to determine what other varieties grow well in Alberta and which varieties out-perform Morgan in yield and  $\beta$ -glucan content, which is what millers are now seeking.” A minimum of 4%  $\beta$ -glucan level is the current marker for U.S. Heart Healthy label claims. Morgan tested just below or just above the 4% over the last two years at both test locations, while several other varieties came in with higher levels overall.

Sandeep admits, “Yield is still king and unless millers begin paying for value-added  $\beta$ -glucan content, yield qualities will still be favoured by producers. With two years of testing behind us, we have two higher-yielding varieties that performed well: Ruffian and Seabiscuit. However, Ruffian did have lower levels of  $\beta$ -glucan at both locations over both years (POGA editorial note: the millers we have talked to have stated that Ruffian

*does mill better than Morgan so between those two varieties Ruffian is preferred*). Seabiscuit performed very well at both locations in 2016, staying in the top 3 varieties for yield and averaged above 4.5%  $\beta$ -glucan content. However, in 2017 Seabiscuit had issues with lodging at the Westlock site. Also,  $\beta$ -glucan levels were lower in the 2017 Westlock location in all varieties. This may be due to a second wet year overall in that region and higher precipitation in the month of July, 2017 compared to July, 2016. The data we have collected over the first two years of the project has allowed us to start to build the 'story' of a trial. Now that we have two years of data recorded, we will have more data to compare how growing conditions might affect yield and  $\beta$ -glucan content in 2018."

To see Nain's full PowerPoint presentation, please see the presentation links list at [www.poga.ca](http://www.poga.ca) - Conference and AGM page. The 2017 project report can be found at POGA's research results page. Prairie Oat Growers Association (POGA), Grain Millers Canada and Canadian Oats Milling provided full financial support for the project. FP Genetics assumed a portion of the lab analysis costs for this trial, while Jubilee Farms, Canterra seeds, Canada Seed depot, and FP Genetics all donated seed for the trial. Thanks to all the 'sponsors' that make trials like this one possible!

## **POGA Encourages Consumer to Eat "Oats Everyday"\***

### **Oats, not just a Breakfast Food!**

The Oats Everyday social media platforms have been up and running since July, 2017. The campaign is a joint initiative between Prairie Oat Growers Association (POGA), General Mills, Grain Millers, Richardson International, and the AgriMarketing Program under Growing Forward 2, a federal, provincial, territorial initiative. Statistics from the website and social media platforms were presented for the first time to POGA members at the 2017 annual conference in Banff by Jody Dundas of Suckerpunch. The campaign focus is to encourage oat consumption not only 'everyday', but also 'any time of day'. This concept shifts oats from the breakfast bowl to an appearance on the table at any meal. The strategic objective also aims to establish oats in the U.S. consumer market as a tasty, versatile and healthy food ingredient and to promote consumption. The Oats Everyday website and social media platforms provide consumers with information to make healthy oat food choices all day long. Valuable data based on user interaction is collected and analyzed, and the results are reported to the industry funders.

Speaking to how the team determines a recipe's success at their in-house kitchen, Jody states, "We currently have 7 staff, so allowing for individual taste preferences, we know that if at least 5 of the 7 team members like the recipe, it will be popular. We don't often have to reinvent a dish; we usually only have to tweak recipes that we already know will work. We have never yet had to discard a recipe."

The target market for the campaign is U.S. females between the ages of 24 to 64. An attendee at the conference asked Art Enns, POGA President, "Why are we targeting the U.S. in this campaign?" Art explains, "It all comes down to funding. Financially, it's very

difficult for small organizations like the Oat Growers to fund 100% of marketing programs; even 50% funding takes a significant amount of our meager budget! With the 50% funding provided by AgriMarketing on approved projects (only available for projects targeting markets outside of Canada) we, at times, can do a couple of marketing programs at once."

Suckerpunch also created the Avena Canadiense website for POGA's Mexican Consumer Campaign and is responsible for preparing, staging and photographing recipes developed at Emerging Ag, Inc. The pictures and recipes are then posted to the Avena website. Jody describes his company as, "a boutique-style operation working primarily for agricultural clients." Marketing and advertising companies that target the agricultural industry and house a kitchen specializing in recipe creation, preparation, staging and digital media-friendly imaging are probably few and far between. The team has certainly developed a particular expertise in oat promotion using their social media marketing specialty.

As of the December conference, there were 53 delicious recipes posted on the [oatseveryday.com](http://oatseveryday.com) website. Jody also provided current performance indicators. Jody explains, "We created start-up target projection numbers based on our experience with the Avena website and allowed for a larger U.S. market. The website activity was lower than we expected, but the Facebook numbers were vastly higher than projected. From the statistics we can see that, earlier in the campaign, website visits were occurring due to linking from the social media platforms. We are now seeing more visits from organic browser search referrals; people are finding the site using food-, grain- and health-related search terms, and this is encouraging."

Website demographic statistics indicate that the majority of the viewers are female (90.3%) and 70.44% of website viewers are 65 years of age and older. Most people in this age group, if they are active internet users, are more likely to visit websites than the common social media platforms used mostly on mobile devices by a younger demographic. This is proven by the Facebook and Instagram demographics Jody provides. These statistics show female users are primarily clustered in the 25 to 64 year age group; male users from any age category never exceed 3% of total users. The data from all platforms indicates that the right market is being targeted - women are still most involved and interested in gathering food-related information, making food choices and meal preparation.

To date, Suckerpunch is pleased with the campaign results, especially with the Facebook commentary. The banana bread recipe received 70,000 views and there is lots of commentary indicating viewers want to take advantage of the information offered. The sweepstakes have received better than anticipated response; the first sweepstake goals of 1,000 entries and 500 spin-off newsletter subscriptions were greatly exceeded. The first round resulted in 7,000 entries and 2,000 subscriptions, and numbers have continued to climb with the subsequent two sweepstake offers. In total to date, 78% of sweepstake participants have also subscribed to the Oats Everyday newsletter. Website

activity by geographic location indicates that 30,575 (85.51% of total) visitors originate in the U.S., followed by Canada with 3,348 (9.36%) visitors. Visits from other geographic locations represent much smaller numbers. The geographic demographics on Facebook denote even better market targeting, with over 99% of the 30,000+ page followers originating from the US market.

The project is monitored by a standing committee comprised of representatives from each funding organization. Jody's presentation can be viewed at [www.poga.ca](http://www.poga.ca) - AGM & Conference page.

**NOTE: All article titles marked with an asterisk (\*) indicate articles written by Pam Yule, Right Angle Business Services.**



*The POGA Board - at the December, 2017 Conference and AGM in Banff.*

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