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Oats Quesadillas por favor? Promoting Canadian Oats in Mexico

When we first discovered that Mexico ranks third in the world in oat imports, just after the US and China, we began to realise that Mexicans appreciate oats highly. For this reason, since 2013 POGA has undertaken a campaign to promote Canadian Oats in Mexico. In 2014 we launched a website - avenacanada.com - where Mexican visitors

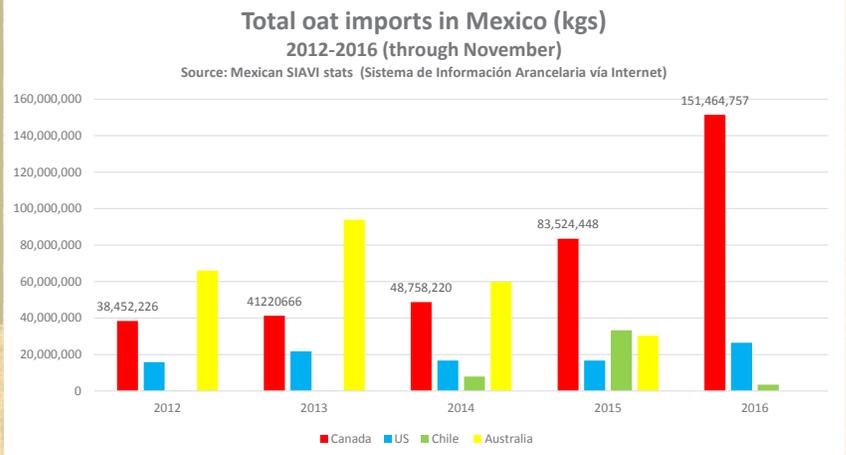
can find out all the nutritional properties of oats, with customized oat recipes using local ingredients. More than 1,700 people visit the website each day, while on Facebook, we are reaching over 5 million people each month, including our more than 136,000 fans. This work, which includes an online advertising campaign to promote the web site, continues through funding by the AgriMarketing Program under Growing Forward 2, a federal, provincial, territorial initiative.

As part of the promotional activities, POGA held two recipe contests through the Avena Canadiense fan page, targeting Mexican users. Did you ever think that you could make the Mexican dish tamales with oats? How about oats ice cream or lasagna? Honestly we hadn't, but the Mexicans have! Certainly Mexicans are always up for a challenge and showed their creativity by submitting over 180 recipes: from Oats Pizza Crust to Sweet Potato Bread with Oats, from Breaded Shrimp with Coconut and Oats, to Oats Quesadillas.

POGA's efforts in the Mexican market have been extremely successful, evidenced by the fact that Mexican imports of Canadian oats are the highest they have been in 5 years. Last November, POGA took a small delegation on a Trade Mission to Mexico City

Mexican Imports of Canadian Oats

According to the Mexican Ministry of Economy, Canada gained tremendous market share in oats exports to Mexico with reaching 151,000 tonnes.



Mexican Imports of Canadian Oats - Mexican Ministry of the Economy. (Similar results have been verified through the Canadian Grain Commission).

and Guadalajara to meet with relevant players in the country, as well as to host two media events and be part of the World Diabetes Day awareness event in the Aztec country.

Attended by 2,000 Mexicans, on November 13th, the Mexican Diabetes Federation and the Mexican Ministry of Health organised a public event in Mexico City to raise awareness of this disease that affects more than 6 million people and is one of the main causes of death in the country. Since oats are a suitable food for people living with diabetes, POGA was granted a booth to distribute recipe cards and fact sheets to promote oats and their nutritional properties. POGA partnered with the largest oat company in Mexico, *Grupo Vida*, who contributed free oat samples to hand out during the event.

Another highlight of this mission were two tasting events targeting the media in Mexico, where the chefs prepared a menu with Mexican recipes using oats in each and every one of them! Growing up in Canada, we often think of oats for breakfast and dessert, with these two events we learned that they are great any time of day. Together, the events attracted 60 attendees including 19 media reporters and bloggers.



POGA supported educational displays.

The program of the night included remarks by the representatives of the Embassy of Canada and the Mexican Diabetes Federation.



Mexican chefs are excited to work with Canadian oats

In 2017, POGA will aim to strengthen the relationships built with health partners in Mexico, as well as with the importers and processors. We are thrilled with the extraordinary progress since POGA first travelled to Mexico in 2013, which is why we will find innovative ways to continue this oats crusade in Mexico!



Children like learning about oats too

Diversifying Global Oat Markets

POGA growers and oat industry representatives had the opportunity to examine potential global oat markets from a presentation by Steve Lavergne, Director, Grains and Oilseeds Division, AAFC. Steve reviewed western Canadian oat production and generalized that for the past five years the oat situation was consistent. Canada has maintained its third- place position as world oat producers behind the EU and Russia, and ahead of the United States, Australia, China and Mexico. When we examine the oat export status, Canada leads the world, exporting on average, 50% of the annual oat crop. Currently, the oat crop moves south of the border to the United States, and to a much lesser extent Mexico. However, with POGA directed market activities, Mexico is importing more and more from Canada.

Western Canadian oat growers and processors recognize that diversifying global markets only strengthens the industry and potential for increased production. Markets of interest and investigative action include China and India.

China needs oats! Their oat production continues to drop and oat imports continue to rise. The Canadian challenge is not simply the movement of the product. Steve says, "Currently, Canada does not have access to this market for raw oats for human and animal consumption," POGA did apply for access to this market in 2015. Market access issues are handled by various government agencies and officers in the Chinese government. He adds, "AAFC is endeavouring to work through these identified priorities with Chinese officials to resolve these market access issues."

"India, too, is a growing market for oats," adds Lavergne. "However, negotiations on import conditions will be both challenging and lengthy." Laverne did note that POGA applied for market access to India in 2016. POGA President, Art Enns, agrees saying, "POGA is certainly involved in the process of obtaining market access to more global markets, especially China and India right now." Efforts such as these are vital to industry sustainability and growth.

Scientific Research and Experimental Development (SR & ED) Tax Credit for Registered Oat Producers

The Scientific Research and Experimental Development (SR & ED) Program is a federal government program that encourages research and development by providing tax-based incentives.

By using levy contributions to finance research and development work that benefits Western Canadian producers, oat producer development commissions and associations in each prairie province are able to participate in this program and distribute these tax-based incentives to their producers.

The program gives registered oat producers access to investment tax credits for their levy contributions that are spent on qualifying research.

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SR & ED continued

For 2016:

Alberta producers may claim 17.9% of their levy contribution.

Manitoba producers may claim 19.7% of their levy contribution.

Saskatchewan producers may claim 24.5% of their levy contribution.

Mitigating Mycotoxins in the Canadian Food Value Chain

Mycotoxin contamination is of serious concern in Canada's grain industry. Global and domestic regulators are considering regulations, or have already regulated, allowable limits. This issue has the potential for economic harm and trade imbalance for the country.

Recognizing the topic may have a major impact on Canadian Oat producers and exporters, POGA is participating with funding assistance from The Government of Canada's Agri-Innovation Program. To find out more we chatted with Susan Abel, Vice President Safety and Compliance, Food and Consumer Products of Canada (FCPC).

Says Susan, "It is very difficult to remove these toxins from grains as they can't be washed or cooked out. We are working with growers, brokers, transporters, elevators, millers, and further processors to ensure our grain based food supply meets specs." She adds "with our weather patterns changing, our grain is facing drought, flooding, insects, and extremes of heat and cold. Stressed plants, like people, are more susceptible to disease, mould and fungal attacks".

This current study, focuses on two mycotoxins, DON (deoxynivalenol), and OTA (Ochratoxin A). DON is also called vomitoxin because it, in some quantities, can cause temporary nausea, vomiting and diarrhea. Exposure to very small amounts of OTA can result in kidney disease in both humans and animals.

"DON is the by-product of certain fungi, and tends to originate while the grain is growing in the field. OTA is a by-product of Penecillium mould – and it can develop anywhere there is enough warmth, darkness, and moisture (mainly produced after harvest during storage and handling)", says Susan. "For oats, OTA is the mycotoxin of more concern than DON."

Mitigating mycotoxins in grain is a global issue. Regulations are only under consideration in Canada – Europe already has them in place. The international food safety standards setting body, Codex Alimentarius, spent about five years developing guidance limits for DON. Canadian Millers and FCPC provided data to this process to ensure achievability in North America.

FCPC and its members continue to support research

on ways of reducing mycotoxin presence. This current project is an international collaboration with globally recognized leaders in mycotoxin research. Susan emphasizes, "Regulations, when based on sound science and are achievable, help define an end-point that can be used by growers, millers, and further processors to manage the presence of mycotoxins in grain."

"There are many things that growers can do to help reduce the levels of mycotoxins in grain," says Susan. She cited as one example, the soft wheat industry's efforts in reducing DON levels by careful application of fungicides. "There are many more tools for growers than just fungicides (amount of tillage, cultivar, even tractor patterns) and part of this study is to review the tools that are now in place compared to the 1996 crop year, and see which tools are the most effective. We are actually reviewing what best practices are in place from farm to consumer packaged foods to help ensure safe grain based foods. The research is also looking at better and faster test methods to detect these mycotoxins during grain unloading."

FCPC wishes to thank its generous supporters – the University of Guelph, PepsiCo Foods, Mondelez, Nestlé/Gerber, Kellogg, The Prairie Oat Growers Association, Grain Farmers of Ontario, the Canadian National Millers Association, the Western Grains Research Foundation, and the Government of Canada's Agri-Innovation Program.



Dear Oat Growers,

It's March 2017, and your Oat Grower Manual (see POGA website) is needing a little attention and updating. Spring is on the way, and although no one needs to tell you how to grow an excellent oat crop, a forum for sharing trusted practices as well as new ideas, can be a useful resource.

I am working on an Oat Grower Resource Manual update for POGA and would like to know your oat thoughts, oat ideas, oat wishes, oat secrets to growing the best oat crop ever. Email me at oatadvantage@gmail.com or phone 306-291-9978, where I would be pleased to begin a conversation with you, or just get your advice. Photos of oat successes and the oat challenges welcomed!

Bye for now, Jim Dyck, oat breeder, Oat Advantage
Saskatoon

Where Your Levy Dollars Go

Did you know that the Prairie Oat Growers Association (POGA) has been able to leverage \$2.4 M of grower funds into \$13.3 M of total money including government and industry support? This means producers are paying less than \$0.18 of every dollar spent on research and market development!

Oat producers across Western Canada are closely connected through the Prairie Oat Growers Association (POGA). This is unique among Western Canadian producer organizations as it represents Manitoba, Saskatchewan and Alberta oat growers through their provincial commissions and associations that are mandated to collect refundable levies on oat sales. The Board of Directors of POGA consists of the directors of each provincial organization. All share Executive Director, Shawna Mathieson, for maximum communication, efficiency and cost reduction addressing industry issues with provincial and federal governments. The arrangement also creates administrative efficiencies. The funding formula is unique in that POGA producer revenue is based on percentages of production on the prairies (so the province with the largest amount of oats grown pays the largest amount and also should get the largest benefit). This revenue is successfully matched by various funding agencies to conduct research and development programs which sustain and grow Canada's oat industry. Funding sources include: Growing Forward 2, a federal-provincial-territorial initiative, the Agri-Innovation Program and the Agri-Marketing Program; the Saskatchewan Ministry of Agriculture through the Agriculture Development Fund (ADF) and the Canada-Saskatchewan Growing Forward 2 bi-lateral agreement, the Agricultural Demonstration of Practices and Technologies (ADOPT) and the Industry Organization Development Fund (IODF), (both initiatives under the Canada-Saskatchewan Growing Forward 2 bi-lateral agreement); the Alberta Crop Industry Development Fund Ltd. (ACIDF); the Western Grains Research Foundation (WGRF); and industry partners.

Here is a summary of projects in progress (as of January, 2017).

Research and Development

- **Oat Breeding:** POGA, through the Manitoba Oat Growers Association, the Saskatchewan Oat Development Commission and the Alberta Oat Growers Commission, provides funding to the Brandon Research Centre in Brandon, MB, The Crop Development Centre in Saskatoon and Oat Advantage (private oat breeding) in Saskatoon.

- **Transposon-mediated Gene Tagging in Oats** conducted at McGill University by Dr. Jaswinder Singh: The objective of this five-year project is to lay the foundation for a new method of identifying genes to improve oat breeding. The goal is to be able to "turn on" a characteristic like higher beta glucan, more straw strength, etc. wanted by oat producers and/or millers.

- **Occurrence and Fate of Toxigenic Fungi and the Associated Mycotoxins in Saskatchewan Grown Oats and Oat Milling Products** conducted at the Canadian Grain Commission. This research will determine the occurrence of toxigenic fungi and associated mycotoxins in oats grown in Saskatchewan

and elsewhere on the Canadian Prairies, and evaluate the fate of fungi and mycotoxins during oat processing. Outcomes will allow oat producers, processors, and regulators to plan appropriate risk management strategies. The research will also determine if oats produced in certain regions are more likely to be infected by toxigenic fungi and contain mycotoxins than others. Oat producers in the identified regions can be advised to adapt their management practices to mitigate this increased risk.

- **Integrated Weed Management Strategies to Maximize Oat Production** conducted at the University of Saskatchewan by Dr. Chris Willenborg: the objective of this trial is to examine cultural weed control tactics for wild oat and kochia management in oat production



Shawna Mathieson, Executive Director, had the opportunity to meet with the Honorable Minister MacAulay and the Honorable Minister Eichler at the 2017 Crop-Connect Conference. POGA will continue the conversation with Minister MacAulay and others during a mission to Ottawa the first week of April.

and screen several herbicides for kochia and wild oat control in oats.

- **The Effect of Pre-harvest Glyphosate on the Quality of Milling Oats** conducted at U of S by Dr. Chris Willenborg: There are three objectives of this 3-year study: 1. To investigate the effect of pre-harvest glyphosate timing on oat yield, as well as on seed physical and functional qualities; 2. To investigate the interaction of cultural practices with pre-harvest glyphosate on seed physical and functional quality; and 3. To investigate alternative cultural / herbicide combinations for managing perennial weeds.

- **Update to Online Oat Grower Manual.** POGA has contracted Jim Dyck of Oat Advantage to review and update the Online Grower Manual including providing new agronomic and updated information by mid-2017.

- **Crop Sequencing of Large Acre Crops and Special Crops** conducted at Indian Head Agricultural Research Farm by Bill May. Special crops provide producers with opportunities to diversify both in crops and in value added enterprises; they require agronomic information on these crops. The effect of crop sequences and crop rotation is important agronomic information that is lacking and will help producers decide where these crops best fit in a crop sequence to optimize the crops they grow. Eight crops will be grown in different

sequences to determine moisture and residual N, plant density, volunteers (counts and biomass), disease ratings, grain yield and grain quality. The eight crops are: Wheat, Oat, Canola, Pea, Canaryseed, Hemp, Quinoa and Coriander.

- **Yield Response and Test Weight Stability of Oat to Fertilizer N** conducted at Indian Head, Yorkton, Redvers and Melfort. Led by Bill May, the objective of this research is to determine if the test weight of current oat cultivars vary in the stability of their test weight as the nitrogen rate is increased, as well as to expose growers to new oat varieties that may be better than the cultivars currently grown in the area of the trial.

- **Oats Improve the Gastrointestinal Health of Horses** conducted at Penn State by Dr. Burt Staniar: The study will investigate whether inclusion of whole oats in the horse's diet will influence the horse's gastrointestinal health. One hypothesis suggests that inclusion of oats in certain diets may reduce the risk of important health concerns including gastric ulcers, colitis, and laminitis. Any evidence for even small reductions in risk of some of these problems has a large value to horse owners. The expected outcomes of this study would suggest that oats not only be viewed as an energy source, but also as a health promoting dietary ingredient for horses.

- **Healthier Oat Oil Through Improved Stability and Fatty Acid Profile** conducted at the University of Saskatchewan by Dr. Xiao Qiu: The goal of this project is to improve the stability and nutritional properties of oat oil. This will be achieved by identifying oat germplasm with higher proportions of oleic acid, which is considered a healthy fatty acid, and lower levels of oxidative enzymes, which produce rancid off-flavors and lowered nutritional value. In addition, the genes responsible for these traits will be cloned. The impact of this work will be an oat with innovative nutritional and processing traits that will be desirable to consumers and industry and help Canadian prairie oat growers continue to be a supplier of high value oats.

- **Improving the Nutritional Value of Oat Through Increasing the Level of Water-Soluble Beta-Glucan** conducted at the University of Saskatchewan by Dr. Xiao Qiu: Oats are considered a functional food for heart health because of the water-soluble beta-glucan. However, the genes involved in the biosynthesis of water-soluble beta-glucan in oats has not yet been identified. Lack of this information has hindered the breeding effort for enhancing the beta-glucan content (a request of millers and retail companies). The purpose of this project is to clone the genes directly responsible for the biosynthesis of beta-glucan in oats and use the sequence information for functional marker development for oat beta-glucan breeding. This will allow effective breeding of oat cultivars with improved beta-glucan content.

- **Investigation of Avenanthramides - A Type of New Healthy Compound in Oat** conducted at University of Saskatchewan by Dr. Xiao Qiu: the goal is to improve the nutritional value of oat through increasing the level of avenanthramides, novel bioactive compounds in oats that have strong antioxidant, anti-inflammatory and anti-itching activities. Specifically, this project will survey the contents of avenanthramides in oat species, cultivars and breeding lines and identify the genes catalyzing the final step of the biosynthesis of avenanthramides. The sequence information of these

genes can be used to develop functional DNA markers for oat breeding programs to improve levels of these important bioactive compounds.

- **Crown Rust Marker Project** conducted at the US Department of Agriculture and in collaboration with the North American Miller's Associations: The project will identify molecular markers for oat crown rust resistance. These markers will allow breeders to know whether they have a resistant variety without having to expose the variety to crown rust. It will also allow breeders to more effectively combine multiple resistance genes into a single variety. The USDA ARS lab will take in samples from breeding programs from around the world, develop markers, validate them, and then characterize germplasm.

- **Breeding for Resistance to Leaf Blotch Pathogens in Saskatchewan Oat** conducted at the University of Saskatchewan by Dr. Aaron Beattie: Leaf blotch has become more prevalent in recent years, but very little is known about the impact of these diseases on oat production. Given the apparent susceptibility of some oat germplasm to these pathogens, concern exists as to the potential harm they may pose to oat yield and grain quality (i.e. test weight), which can negatively impact milling quality and price. This research looks at developing screening techniques to evaluate and understand oat leaf blotch pathogens, understand the genetics of resistance in oats to leaf blotch and identify and develop molecular markers for leaf blotch resistance in oat breeding.

- **Optimizing Oat Yield, Quality and Stand-ability in Central Alberta** conducted by Dr. Linda Hall at the University of Alberta. This project focuses on enhancing the yield and profitability of Central Alberta oat growers through the selection of varieties, optimizing nitrogen fertilizer and plant growth regulators (PGRs). The lack of regionally specific oat research has been a factor leading to relatively low acreage and yields in Central/Northern Alberta, despite the high yield potential and available local oat markets.

- **Optimizing Protein Quality of Alberta Oats and Food Application Development** conducted by Dr. Lingyun Chen at the University of Alberta. Research is on-going to analyze oat protein quality for both functionality and nutritive value as impacted by variety and agronomy practice. Analysis of the oat grains harvested in year 1 indicates that fertility level significantly impacts the protein content in oats. In addition, the University is collaborating with OatDeal, a Saskatoon based company, to develop a ready-to-drink oat functional beverage high in beta-glucan and protein.

- **Mitigating Mycotoxins in the Canadian Food Value Chain** led by Susan Abel of Food & Consumer Products. Currently, no level of mycotoxins is legally permitted under the provisions of Canada's Food and Drugs Act. Put in other terms, the current MLs for OTA and DON are in effect, zero. However, zero DON and OTA in milling quality wheat, oats and barley is not achievable in North America. One of the core strategies for getting the Canadian grain supply chain out of this intractable situation is to generate more and better information through mycotoxin research. Therefore, the objectives of this research include: 1. Develop a rapid reliable method for sampling and testing DON and OTA at grain elevator using aspirated dust particles

at primary storage sites; 2. Develop best practices for post-farm storage and processing to minimize the development of OTA; 3. Review agronomic practices to determine the relative benefits of the advances in seed and farming practices such as the use of fungicides and tools like forecasting; 4. Develop reliable, rapid, cost effective tests to quantify the presence of fungi responsible for toxin production both in raw and processed grain.

- **Development of an Oat Based Beverage**, conducted by Dr. Lingyun Chen at the University of Alberta. This collaborative industry project is focused on developing two oat protein based beverages. The initial oat based beverage will be a ready to drink oat protein enriched product. The second will be a nutritious oat based beverage that possesses the necessary sensory and nutritional properties to improve the quality of life of patients who are undergoing radiation therapy.

- **Oat Coffee Additive/Creamer** conducted by Dr. Lingyun Chen at the University of Alberta. Consumer demands for nutrition, convenience and plant proteins/fibres is generating a new market opportunity within the coffee creamer market. Through this research, U of A will attempt to develop a nutritious, functional oat based coffee additive that combines protein, beta-glucan and a probiotic into a functional and competitive lactose free coffee additive. This developed product will be the first of its kind on the market, and will generate a new market opportunity for and consumer awareness of oats.

- **Product Development from Gluten Free Oat Fractions**, conducted by Dr. Lingyun Chen at the University of Alberta. Traditionally, oats have been utilized in their whole ingredient form (flour, groats, flakes, rolled, etc.). In terms of fractionated ingredients companies supply growing markets for oat beta- glucan, oil, and proteins. Most fractionation methods that are currently used by industry focus on the extraction of one or two ingredients from oats, often resulting in the decreased quality, functionality, and usability of the non-desired fractions. This reduces the value-added potential of oats. This project is working on developing a cost- effective process that will allow for the extraction and utilization of all the oat ingredient fractions in coordination with two other POGA supported projects. The end goal is to develop 1-3 prototypes from each fraction (protein, fibre, starch and oil) and use these prototypes to engage retailers and finished product manufacturers.

- **Alberta Variety Trial**, led by Gateway Research Organization, will test 11 approved milling varieties and 4 approved feed varieties to investigate the impact of the variety and growing conditions on the yield and beta-glucan in both Westlock, AB and Fahler, AB. The goal of this trial is to determine if a variety with higher beta-glucan can outperform Morgan oats in Alberta to meet the oat miller's demand for higher beta glucan.

Marketing

- **Development of the Mexican Oat Market for Canadian Oats** led by Emerging Ag: Mexico is the 3rd largest importer of oats globally and several other Latin American countries who import oats could offer additional opportunity for Canadian exports. A long term strategy for POGA is to make use of the proximity to these markets and build on the strong Canadian reputation for products in Mexico which would support the efforts to differentiate Canadian oats. This project focuses on diversification of Canadian oat exports to Mexico. The activities aim to increase per capita consumption of oats; increase Canadian oat exports to Mexico and increase consumer awareness of the health benefits of oats.

- **Transportation Project** conducted by Emerging Ag: This project consists of continued work on the Canadian Transportation Act Review with goals of improved relationship between POGA and the transportation industry, increased export opportunity to international markets and impediment identification for better use of all modes of transportation. In addition, this project aims to find industry approved solutions from industry representatives on how the grain industry can work with the transportation industry for better service, more efficiency, higher volumes and better rates.

- **North American Oats Marketing Campaign "Oats Everyday"** led by Suckerpunch: This project will work to position oats as a tasty, versatile and healthy food ingredient in the USA market. It will focus on small dietary changes to incorporate oats, highlighting oat benefits to consumers, as well as ways to easily and quickly substitute oats into recipes for tasty and healthy results. There will be weekly recipe releases, professionally prepared, photographed and supported by a video illustrating the recipe preparation, as well as tips and techniques to utilize oats in many different ways. The campaign will utilize a website, and well as Facebook and Instagram as their primary social media channels.

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Oat Scoop
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e-mail" on the home page.

(After this is done, we will remove your name from the print mail out list)

Keep It Clean!

Farmers, generally speaking, say what they mean and mean what they say! This is an important principle when the vast majority of their grain is exported each year. World grain importers expect Canadian grain to be high quality, and expect that we, as the exporter, maintain our reputation as a reliable supplier and deliver what we say we are.

POGA has partnered with Cereals Canada to remind farmers of the guidelines to ensure quality grain is delivered every time.

The key messages from this campaign are:

Use registered pesticides only! Follow label directions, regarding application rates and timing and use only those pesticides registered for oats.

Keep attuned to the market place. Remember that you are growing for the market, not marketing what you grow. Make sure you check with your buyer to know what the market requirements are.

Disease causes yield and quality losses, not to mention toxins harmful to human health. Farm practices certainly help reduce disease incidence. Plant certified seed or at a minimum clean seed, scout for disease during the growing season and maintain recommended rotation practices on your farm.

Grain storage is important too! Proper storage helps prevent downgrading due to cross contamination, mycotoxin formation, and chemical residues. Store grain in bins that have been thoroughly cleaned and are cool and well ventilated. Plus, always check grain condition throughout the storage period.

Deliver what you declare! The declaration of Eligibility affidavit states the class of your grain, plus any residues specified. This is a legally binding document and is one more step in the system that maintains the good, reliable reputation of Canadian producers and exporters.

BeGrainSafe Program

Grain handling and grain storage are not risk free, on the farm or off the farm, and everyone needs to recognize the dangers of flowing or shifting grain. Grain entrapment (partial grain submersion) or grain engulfment (completely buried) can be described as what happens when someone becomes submerged either partially or completely in grain and cannot escape without assistance. It's said that a man can sink knee deep in flowing grain within 4 seconds, and can be completely buried within 20 seconds, frightful statistics.

Why are we talking about this? As we see larger acreage farms, larger equipment, larger storage facilities and older farmers; it is important to not only recognize the dangers but also ensure that your workplace is safe. Prevention will save lives, perhaps your child's, your grandchild's or even your own!

POGA, along with Canadian Canola Growers, Alberta Wheat and Pulse organizations have come together to support The Canadian Agricultural Safety Association's BeGrainSafe Program. These farm organizations are supportive of the program and are pleased to be involved in educating farmers, their families, and their workers about farm safety as it relates to grain. Shawna Mathieson, Executive Director of POGA, says, "by providing good, solid information on safe grain handling, we help our producers and their families, friends and employees stay safe while producing food for the world to enjoy."

This unique program includes a mobile grain safety

demonstration and training unit, trade show and table top displays, and resource materials designed to create awareness of the dangers of moving grain. In addition, it builds expertise for first responders who may be faced with these potential dangerous situations. Farmers and farm families can interact with these grain safe program resources at various farm shows and events across the prairies. Visit casa-acsa.ca/begrainsafe for more details.

The Canadian Agricultural Safety Association is a national, non-profit organization dedicated to improving the health and safety of farmers, their families and agricultural workers. CASA is funded in part by Growing Forward 2, a federal, provincial and territorial initiative and receives additional support from the agricultural and corporate sectors like POGA. Executive Director of CASA, Marcel Hacaault says, "Having producer support of the BeGrainSafe is vital to its success." All involved in the program agree that if one person is saved through this initiative then it is certainly worth the time, effort and cost.

Whole Oats and Equine Gastrointestinal Health:

Update from Dr. Burt Staniar at Penn State

Dr. Staniar and his graduate students have been working hard analyzing the samples collected from their study last year. The idea behind their work is that whole oats may contribute positively to the gastrointestinal health of the horse, mainly due to the physically effective fiber in their hull. This particular characteristic sets oats apart from other feed ingredients like corn and pellets. Briefly, Dr. Staniar's research group fed horses diets consisting of 60% whole oats and 40% grass hay or 60% pellets and 40% hay. They also fed a 100% hay diet as a negative control diet. The final analysis of all the data is to be completed in the next three months. Initial results indicate significantly less ulceration in the hay only fed animals. While the oats fed group appears to have slightly lower ulcer scores, these differences were not determined to be statistically significant. Their group also has measures of gut permeability/leakiness and systemic inflammation, but the analysis is incomplete at this time. Dr. Staniar and his graduate students are working hard to bring all of this information together and hope to present a number of reports on the data at the 2017 Equine Science Society Meeting in Minnesota this summer. The data from this study will result in several publications in the equine science and veterinary literature and highlights the oat growers' commitment to an important consumer of their products.

This project is partially funded by Western Grains Research Foundation(WGRF).

Save the Date!
POGA AGM 2017
December 7, 2017
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Book your hotel rooms now by going to
www.poga.ca and clicking on the link on the
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Rooms are only \$169 per night but rooms are
limited!

The Research Scene in Alberta

Although oat production in western Canada is recognized as a major export crop, Alberta production has been declining in recent years. Reasons cited for the decline include a lack of markets and non-competitive pricing with other crops. Several agronomic projects are now underway in that province, designed to maximize producer income, encourage increased acres and produce quality oats to meet the demands of both the milling market and the pony oats market. These research trials will provide much needed information for Alberta oat producers to have newer, high yielding, varieties specific to their region and agronomic tools that can be used to produce a quality and profitable oat crop.

Gateway Research Organization (GRO) in Westlock and Smoky Applied Research & Demonstration Assoc. (SARDA) in Fahler, provide local producers with cost-effective agricultural research, demonstration and extension services. Providing economically and scientifically sound information helps farmers make informed agronomic decisions.

Sandeep Nain, General Manager of GRO, reports that eleven milling and four forage oat varieties were tested in 2016. GRO and SARDA participated in the trial. The trials were seeded May 13 at GRO and May 17 at SARDA. Based on soil fertility recommendations, fertilizers were added to maintain optimal growing conditions. Seeding rates were calculated based on 1000 kernel weight, desired plant density and germination percentage. Small plot research seeders were used to seed the trial with three replications. The trial sites were maintained weed-free with the use of herbicides and hand weeding. Trial plots were harvested on Sept. 27 at GRO and Sept. 16 at SARDA. Small plot agricultural research combines were used at both sites. Grain yields were measured after cleaning and adjusted to 13.5% moisture. Samples were analyzed for Beta-glucan content at the University of Alberta.

Sandeep reminds us, "Trial results from one year are not reliable predictors of future yields." Having said that, Sandeep went on to say that based on one year of data, Seabiscuit performed well at both locations for yield and beta-glucan content. At the peace region trial (SARDA), Ruffian was the highest yielding milling type oat. Morgan and Seabiscuit yielded well but both Morgan and Ruffian displayed lower beta-glucan content compared to other varieties. Sandeep says, "with data from more trial years we should be able to speculate what varieties are best suited for the specific region." This work only happens with the generous support of our trial sponsors: POGA, Grain Millers Canada, Canadian Oats Milling, FP Genetics, D. Gibson, Canada Seed Depot, and La Coop Federee.

Linda Hall, University of Alberta, and her research team have been working on optimizing oat yield, quality and standability in Central Alberta, and reported to Alberta Producers at their annual general meeting on new Plant Growth Regulators (PGRs) for oat reduction in lodging. Currently, Morgan is the most widely grown oat

variety, and growers are able to increase yield through increased N. However, in wetter years, this can be a concern due to increased lodging. In their experiment (variety response to Nitrogen), conducted from 2014 to 2016 in Barrhead and St. Albert, AB, Hall reported, "There were significant differences between varieties in yield potential and increase of N rates. Optimal rates were approximately 100 kg ha, and with these rates Morgan had the highest yield followed by Norseman and Seabiscuit." However, Morgan is not outperforming when it comes to beta-glucan content.

The second experiment involved the use of Plant Growth Regulators (PGR) on oats, from 2014 to 2016 over three locations: Barrhead, AB., St. Albert, AB; and Indian Head, SK. PGR applications ranged from 0, 70, 100, to 130 g ha. The trials measured quality parameters of weight, % thins, beta-glucan, height, lodging and yield. Dr. Hall says, "Preliminary results indicate that PGRs work to decrease height, lodging, and may increase yields under wetter conditions with abundant nitrogen." She cautions, "PGRs are not currently registered for use on oats, not all oat varieties benefit from PGRs and lastly they are not useful every year! With more years undertaken, results will be certainly shared with all."



oat crop with 0 PGR but same high fertilizer



oat crop with 1000 PGR but same high fertilizer

Overnight Oat and Apple Pancakes

Ingredients:

- 2 ¼ cups (550 mL) cups 1% buttermilk
- 2 cups (500 mL) quick cooking oats
- 2 large eggs, lightly beaten
- 2 Tbsp (25 mL) melted unsalted butter
- 1 tsp (5 mL) vanilla
- 1 small apple, cored and diced or about 1 cup (250 mL)
- ½ cup (125 mL) ground golden flaxseed
- 2 Tbsp (25 mL) brown sugar
- 1 tsp (5 mL) baking powder
- 1 tsp (5 mL) baking soda
- 1/2 tsp (2 mL) ground cinnamon
- ¼ tsp (1 mL) salt
- dash of nutmeg
- canola oil for oiling griddle

Instructions:

1. In a bowl, combine buttermilk and oats. Stir well. Cover and refrigerate overnight.
2. Preheat griddle or large frying pan over medium heat. Add eggs, butter, vanilla and diced apple to oat mixture.
3. In another bowl, combine ground flaxseed, brown sugar, baking powder, baking soda, cinnamon, salt and nutmeg. Stir. Add to oat mixture and stir until just moistened.
4. If batter seems too thick, add up to 1/4 cup (50 mL) more buttermilk.
5. Lightly oil griddle. Using a 1/3 cup (75 mL) measure, scoop batter onto griddle smoothing to a 4 inch (10 cm) circle.
6. Cook 2 to 3 minutes or until bubbles appear on the surface and begin to pop. Flip and cook other side 1 ½ to 2 minutes until lightly browned. Keep warm in oven until all pancakes are cooked.

Yield: 15

Serving Size: 3 pancakes



Saskatoon Oat and Seed Bread

Ingredients:

- 1 cup (250 mL) oat bran
- ½ cup (125 mL) quick cooking oats
- ½ cup (125 mL) whole wheat flour
- 1 tsp (5 mL) baking soda
- 1 tsp (5 mL) baking powder
- ½ tsp (2 mL) salt
- 1/3 cup (75 mL) ground flaxseed
- 1/3 cup (75 mL) lightly packed brown sugar
- ¼ cup (50 mL) unsalted, toasted sunflower seeds
- ¼ cup (50 mL) unsalted, toasted pumpkin seeds
- 2 Tbsp (25 mL) whole flaxseed
- 2 Tbsp (25 mL) sesame seeds
- 2 Tbsp (25 mL) poppy seeds
- 1 ¼ cups (300 mL) 1% buttermilk
- 1 large egg, beaten
- 2 Tbsp (25 mL) canola oil
- 2/3 cup fresh berries (or frozen, thawed and drained) (150 mL)

Instructions:

1. Preheat oven to 350°F (180°C) and position rack in the center of the oven.
2. In a large bowl, combine oat bran, oats, flour, baking soda, baking powder, salt, ground flaxseed, brown sugar, sunflower seeds, pumpkin seeds, whole flaxseed, sesame seeds and poppy seeds. Mix well.
3. In another bowl, whisk buttermilk, egg and canola oil. Add to dry ingredients. Stir until moistened.
4. Gently stir in berries. Spoon batter into a 9 x 5 inch (22 x 12.5 cm) loaf pan that has been sprayed with a nonstick cooking spray.
5. Bake 50 to 60 minutes or until wooden skewer inserted in the centre of the loaf comes out clean.
6. Cool in pan 10 minutes before removing to cooling rack. Cool completely before slicing or wrapping.
7. How to toast seeds: Preheat oven to 350 F (180 C). Combine sunflower and pumpkin seeds in pie plate. Toast 3 minutes, stir, toast 3 minutes, stir again. If needed, toast another 2 to 3 minutes until lightly browned.

Yield: 1 loaf (16 slices)

Cook's Notes:

- Substitute for buttermilk: 1 ¼ cups (300 mL) 1% milk plus 2 tsp (10 mL) vinegar or lemon juice. Let sit 5 minutes.



MEET YOUR NEIGHBORS

Bruce Thomi

Working, Alberta farmer Bruce Thomi grows oats annually as part of his rotation of peas, canola, wheat and oats. When asked why oats, he replies "It is a money-making crop." He also adds, "oats grow well here withstanding early frosts and can take some water and drought stress." The majority of their production goes into the pony market. Pony oats differ from feed oats in that pony oats must have good color (white), weight (greater than 48 pounds/bushel), and specific moisture contents. Pony oats service a very selective customer base in high-end race and competitive horse markets in United States, Japan, China, Malaysia, Korea, Philippines, and Singapore. Bruce grows Morgan and Derby oat varieties as they differ in growing times with Morgan being a good standing variety that can be harvested earlier while Derby holds its grade longer. This provides a larger harvest window. He is carefully watching the POGA sponsored field variety trials at Falher, and the Ruffian variety may be introduced on his farm after next year. He says "Ruffian, after one year, exhibits yields comparable to Morgan and seems to have good kernel weight. I will make my decision after next year results are in." 2016 was a tough year for area farmers, although spring was quite dry, the growing season became wetter and wetter. Thomi says "We had maybe two weeks of decent harvest weather; thirty percent of our harvest is still out (oats and canola)." Fortunately, earlier harvested oats did make the pony oat specs even though it wasn't as white in colour as normally expected."

Regarding his involvement in the organization, it began with a call to help organize the Alberta Oat Growers Commission. He is excited about POGA's work developing markets like Mexico and China. He states, "Right now nearly 90% of Canadian oat exports go to the USA. We can't be dependent on one market, we need more and new markets to increase oat production in western Canada." He also agrees with research conducted across the prairies since, "Varieties developed in Manitoba don't usually work in the Peace County area of Alberta."

Thomi, along with his parents Andy and Erika, and wife April farm together. Each have their own land - base but they share equipment and exchange labour. Bruce and April have two children, Anita who is almost 3 and Vince who is almost 1.



April, Anita, Vince and Bruce Thomi

Nick Jonk



Nick Jonk

Nick's interest in oats has never waned and as early as the 1990's he was involved in organizations related to oats. He assisted with the formation of the Alberta Oat Growers Commission. When asked why, Nick responds, "Oats, as a crop, works very well for us, as we sell pedigreed seed for eventual entry into both the human and animal consumption markets. Varieties like Morgan, Mustang and Haymaker allow us to service grain farmers growing for the milling market as well as cattlemen who use oats as silage, green feed, or swath grazing." Jonk adds, "Oats are a lucrative crop for many of us in the Westlock-Barrhead region and investment in breeding, agronomy research and marketing help sustain this industry."

Nick, with wife, Renee, and son, Theo, farm 4,000 acres using a rotation of oats, peas, and canola. The family farm, located about 60 km north west of Edmonton, is on fairly level, good farmland. Theo's siblings, Nico (Calgary) and Jose (Camrose), practice geology and agronomy respectively. Coming from a large family of ten, Nick says, "there is always family around to help when needed!"

Looking back at his involvement with Prairie Oat Growers, he is happy that the organization is western Canadian in scope, representing oat growers on such issues as transportation and marketing. He believes the organization represents proud farmers who produce a quality product. "Oats is a smaller commodity, but it is well represented at provincial and national levels," adds Jonk. He sees POGA on the right path and a future that may have the industry offering more specialized contracts, varieties and IP production.

Nick plans to plant 1200 to 1500 acres of oats this spring, half of which will be pedigreed seed. He also plans on planting peas and canola. It is very important for him to have clean fields especially free of wild oats, barley and wheat contamination. He will continue to market his products through the local coop association seed plant at Westlock, as this arrangement has worked well for his clientele for the last 30 years.

During the summer, Nick and Renee enjoy relaxing at Long Island Lake about one half hour from home. Over the winters, trips are made visiting different countries and usually involves discussing farming with the locals.



Jenneth Johanson

Relative newcomer to the Board of Directors of POGA and MOGA is Jenneth Johanson, who owns and operates a farm near Lac du Bonnet, Manitoba. The farm, lying adjacent to the Winnipeg river system, is about 100 km north east of Winnipeg. Jenneth's rotation generally includes fall rye, oats, canola and soybeans. She introduced fall rye about four years ago, replacing winter wheat, to reduce fusarium, as well as quality and other production issues related to winter wheat. "Growing oats annually makes sense," she says as she likes the condition of the soil after harvest and it works very well for the soybean crop. Summit, to date, has been her oat variety of choice. Jenneth admits that she is still deciding about 2017 cropping decisions - "When I think about agronomic viability, what rotations work on the farm then my inclination is to follow my rotational schedule; however when I look at the spreadsheet it appears that we should be planting oats and vegetable oils and for me 1000 acres of oats in the ground is certainly possible."

Distance to market can be a disadvantage and grain storage a challenge. While working to increase storage capacity, Jenneth currently sells 100% of her oat crop directly off the field, having made the sale earlier in the season.

Jenneth is glad she joined POGA in 2016, although the learning curve is huge, she finds it a great opportunity to get to know other producers and players in the oat industry. "There are no egos around the table, very diverse skill sets, lots of integrity and a focus on what's best for oat producers in all of Western Canada," she adds.

Prior to farming, Jenneth was, and still is, a certified crop advisor. This background certainly guides her thoughts related to oat research. Larger yields, good standability, basically good agronomic packages will increase oats as a crop of choice farmers. She sits as an oat representative on the Prairie Grain Development Committee (PGDC), a forum that provides for the exchange of information relevant to the development of grain crops in western Canada. Within PGDC, there are four independent recommending committees responsible for the testing, evaluation and recommendation of grain crop candidate cultivars for registration (wheat, rye and triticale; oat and barley; pulse and special crops; and oilseeds).

"Consumers are paying a lot more attention to food production and processing so public opinions of Genetically modified (GM) grain; herbicide use and health will continue to create challenges for producers and processors," she adds.

Besides farming full-time, Jenneth has two boys Wyndham (age five) and William (age 4) and, two weeks after a very late harvest this fall, her family welcomed Rebekah to the family. Husband, Trevor has an off-farm career plus provides her with ample support for her chosen profession. Her spare time is dedicated to being a hockey mom, volunteering at parent fundraisers for the children's school and, when time and weather permit, snowmobiling and hunting.

Sodium Reduction- One Step Closer to Better Health

Sodium consumption, for the average Canadian is much too high (over double the recommended amount) according to Health Canada. Over consumption of sodium can lead to high blood pressure, stroke, cardiovascular disease and kidney disease.



You can better manage your sodium intake by leaving the salt shaker at the counter and selecting foods that are sodium free or reduced. Take for example, using rolled oats (oatmeal) vs dried bread crumbs. Grind rolled oats, using a food processor or blender with a milling blade to mimic the texture of bread crumbs. One cup (250 mL) breadcrumbs equals one cup (250 mL) ground oats. One cup (250 mL) of dried breadcrumbs contains 791 mg sodium while one cup (250 mL) of ground oats has none! The oat mixture can be seasoned with garlic or onion powders or dried spices, depending on your flavor destination. Store in airtight container for up to 3 months. Substitute ground oats for bread crumbs in any meatloaf or meatball recipes, without sacrificing taste or texture. The other advantage is that oats are naturally gluten free (just make sure the package specifies gluten free if you desire that trait)!

Oat Classics

Matrimonial cake, it seems, is a western Canadian tradition as other culinary regions often refer to it as Date squares, Date Sandwich cake or raisin or fig squares. Its origin is still debated, but what we do know is that oats have been a sustainable food source for hundreds of years. Matrimonial cake was very popular during the thirties here in Canada. The cake consisted of two solid but crumbly flour and oatmeal layers, with a layer of date filling in between. After baking, they were cut into squares to serve.

Today's versions for Matrimonial cake are diverse. In keeping with prairie tradition; we present Raspberry Scotch Squares, incorporating other prairie ingredients like flax and raspberry jam to the cake. Enjoy!

Raspberry Scotch Squares

250 mL (1 c) all- purpose flour
175 mL (3/4 c) lightly packed brown sugar
125 mL (1/2 c) ground flaxseed
5 mL (1 tsp) baking powder
125 mL (1/2 c) butter or margarine
375 mL (1 1/2 c) old fashioned rolled oats
25 mL (2 tbsp.) whole flax seed
250 mL (1 c) raspberry jam
75 mL (1/3 c) sliced almonds



Preheat oven to 190°C (350°F). Lightly spray a 23X33 cm (9X13 in) baking pan with non-stick cooking spray. In medium bowl, combine flour, sugar, ground flaxseed, and baking powder. Stir well. Add butter (or margarine). Cut it with a knife into smaller pieces, then use your fingers to rub it into the dry mixture until crumbly. Stir in oats and whole flaxseed.

Press two-thirds of the crumb mixture into prepared pan. Spread with jam. Add almonds to remaining crumbs and sprinkle over jam. Pat lightly. Bake 30 – 35 minutes or until golden. Remove pan to cooling rack. When cool cut into 18 squares. Store in airtight container for up to 3 days or freeze for up to 3 months. (Recipe a collaborative effort of SaskFlax and SaskOats)

Matrimonial cake (A Century of Canadian Home Cooking- Carol Ferguson and Margaret Fraser 1992)

Canadian Living version: 1 1/2 c all-purpose flour 1 1/2 c rolled oats; 1 c packed brown sugar; 1/2 tsp baking soda; 1/4 tsp salt; 3/4 c butter, softened. Filling: 2 c chopped, pitted dates; 1/2 c granulated sugar; 1 tsp lemon juice; 3/4 c boiling water. Cook filling ingredients over medium heat until dates are soft (15 minutes). Cool. Combine dry ingredients. Blend in butter until mixture is crumbly. Pat half mixture into prepared pan, spread filling evenly over top. Sprinkle with remaining crumb mixture. Bake, cool and cut as above.

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