



Annual Report

2016/2017

Introduction

This annual report details the ninth year of Manitoba Oat Growers Association (MOGA) operations. This is the twentieth year that oat growers from Saskatchewan, Manitoba and Alberta have worked together to give voice to the needs of oat growers.

Shawna Mathieson is now in her seventh year as Executive Director of the Prairie Oat Growers Association (POGA), SaskOats, as well as the Alberta and Manitoba oat commissions. She leads all the administrative duties of the three provincial organizations as well as POGA.

POGA

MOGA is the second largest funding partner in POGA, the prairie wide organization representing oat growers in Western Canada. POGA funding partners include the Saskatchewan Oat Development Commission (SaskOats), the Manitoba Oat Grower Association (MOGA) and the Alberta Oat Growers Commission (AOGC). SaskOats and AOGC are the equivalent oat grower check-off funded organization in their respective provinces.

All six Manitoba directors are represented on the POGA board. Currently, there are also six directors from Saskatchewan and six directors from Alberta on the POGA board.

The goal of POGA is to handle all administration duties of the provincial organizations and the overall approval and monitoring of projects of mutual benefit to SaskOats, MOGA and AOGC. Some projects continue to be provincially directed and therefore funded directly from the provincial organization. An example of this in Manitoba is the Prairie Oat Breeding Consortium which is oat breeding led by Dr. Jennifer Mitchell Fetch at the Brandon Research Centre.

Education

One priority of MOGA has been the education of producers and industry on current oat initiatives, issues, and relevant regulatory changes. As such, we distribute the "Oat Scoop" newsletter a minimum of two times annually to the MOGA, SaskOats and AOGC membership and oat industry organizations.

MOGA also hosts an Annual General Meeting every year to encourage Manitoba Oat Growers to learn about where their check-off is being used, talk to the industry and vote on important issues. These AGMs are held during the CropConnect Conference at the Victoria Inn and Conference Centre each year; the next one being on Feb. 14, 2018.

MOGA is co-host to the POGA annual conference, a day-long seminar on oat production and marketing seminar held every third year in Manitoba. In 2016 this

event was held in Hecla, MB where over 90 people, including over 45 farmers, attended. In 2017, this event will be in Banff, Alberta.

As a partner to the Prairie Oat Growers Association, MOGA directors have been active ambassadors to the oat milling and processing side of the industry, and have made many key contributions to promoting and advancing our oat industry.

Policy

MOGA has an ongoing dialogue with our provincial government. The MOGA directors met with the Minister of Agriculture, Minister Eichler in November of 2016 and again in November 2017 to discuss several current issues relating to oat growers.

MOGA, through POGA, holds a membership in Grain Growers of Canada (GGC) which represents oat growers on many policy issues at the national level. A current issue facing oat growers is the proposed mycotoxin standards in food grains in Canada. MOGA and POGA are actively providing input into these standards, have co-funded a publication of a study addressing these standards and are conducting further research, through the Canadian Grain Commission (CGC) to measure the occurrence of fungi and mycotoxins on oats. This project is partially funded by the Agricultural Development Fund (ADF) of Saskatchewan. In addition, MOGA, through POGA is funding a project titled "Mitigating mycotoxins in the Canadian food value chain," led by Food and Consumer Products Canada and partially funded by Western Grains Research Foundation and many industry participants. This project supports the development of the tools needed to manage the new reality of possible mycotoxin regulation, including tracking changes in mycotoxin profiles, developing rapid and reliable methods for sampling and testing Vomitoxin, also known as deoxynivalenol (DON) and Ochratoxin A (OTA) at grain elevators using aspirated dust particles, developing best practices for post-farm storage and processing to minimize the development of OTA, developing independent capacity to reliably test for emerging mycotoxins, and developing reliable, rapid, cost effective tests to quantify the presence of fungi responsible for toxin production both in raw and processed grain.

MOGA, through POGA, is also represented at the Western Grains Research Foundation (WGRF), the Prairie Grain Development Committee (PGDC), the Saskatchewan Weed Committee, the Canadian Field Print Calculator and the Canadian Roundtable for Sustainable Crops (CRSC).

MOGA, through POGA, has taken a very active role in the transportation issues that have plagued Canada. One aspect of their trip to Ottawa was to express concerns over the expiration of the Fair Rail for Grain Farmers Act. While the Fair Rail for Grain Farmers Act did expire on July 31, 2017 the new Canada Transportation Act has gone through the third reading and is expected to be passed in 2018. Other issues discussed were the next Policy Framework, the proposed Carbon Tax, oat market access to China and India, science based pesticide reviews including the PMRA review of neonics and the possible elimination of deferred cash ticket purchases for producers.

Continued work on building key relationships, such as the Ottawa trip, has been vital to POGA's position within the industry and government agencies. POGA has been requested at various government meetings for input, often where only few commodity groups are invited.

Select POGA Directors and the Executive Director have also been active advocates to the oat milling and processing side of the industry by attending and speaking at the North American Millers Association (NAMA) annual conference each year for the past nine years. Our strong industry support is demonstrated by our invitation to these meetings to provide a “producer perspective.” Oats continues to be the only commodity group represented at this event. In September 2016, Art Enns, POGA President from Morris, MB, represented POGA at the Canadian Millers Association meeting held in Winnipeg. POGA contributes to NAMA’s joint “Crown Rust Marker Project” which is working to identify molecular markers for oat crown rust resistance.

MOGA, through POGA, has been a part of the Oat Rust Initiative (ORI) as the sole grower voice. This initiative brings important research, breeding and collaboration aimed at mitigating the risks of oat rust diseases. POGA will move to sit on Oat Global board going forward, this Board oversees initiatives like the ORI.

MOGA, through POGA, is leading a National Oat Strategy Session in the fall of 2017. The intention is to develop a plan for long term research and development goals, and would address items such as the miller’s beta glucan minimum levels, producer yields, kernel size and quality, lodging goals etc. The hope is to align industry and producer needs in oat breeding programs so the maximum potential can be reached.

Research Projects

MOGA, through POGA, provides funding to the Brandon Research Centre for important work in oat breeding. As such, POGA, along with 5 other industry partners have agreed to fund a post doc student under Dr. Jennifer Mitchell Fetch at AAFC Brandon as part of a knowledge transfer plan. This person was hired in the spring of 2017.

MOGA, through POGA, continues to fund and administer an oat breeding collaboration project with the industry and the Government of Canada under the AgriInnovation program. This project, called the Prairie Oat Breeding Consortium (POBC) is designed to fund a breeding program aimed at developing food and milling quality cultivars adapted to the western provinces. POGA has agreed to fund 25% of the costs of this program in collaboration with a group of eight oat industry stakeholders. The Manitoba Oat Growers Association pays the full cost of the POBC membership.

MOGA, through POGA, also provides financial support to Oat Advantage, a private oat breeding program in Saskatoon, for further oat breeding in Saskatchewan. This funding supports four main goals 1) Improved oat line quality selection for low hull content 2) Improved oat line selection for variation of groat surfaceborne trichomes (hairs) 3) Improved seed purity in early generation harvest and 4) Steady flow of breeding material through winter nursery utilization.

MOGA, through POGA, contributes to Dr. Aaron Beattie’s project, “Breeding for Resistance to Leaf Blotch Pathogens in SK Oats,” at the University of Saskatchewan. This research looks to understand 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.

MOGA, through POGA, funds "Investigation of Avenanthramides, a New Healthy Compound in Oat" at the University of Saskatchewan. This project hopes to improve the nutritional value of oat through increasing the level of avenanthramides, novel bioactive compounds in oat that have strong antioxidant, anti-inflammatory and anti-itching activities. POGA will be contributing \$90,000 over three years with the remainder of the funding coming from WGRF and ADF.

One strong recommendation from the 2015, "Future of Oat Forum," was to improve the Oat Grower Manual and have more extension studies. As part of this, POGA has contracted Jim Dyck of Oat Advantage to update on the online grower manual in 2017. The Saskatchewan Industry Organization Development Fund (IODF) is co-funding this project. The updated version can be found on POGA's website, and the goal is to have this as an evolving document to continue to grow and change with new information.

MOGA, through POGA, supports Dr. Chen's, "Optimizing protein quality of Alberta oats and food application development," at the University of Alberta. The research looks to analyze oat protein quality for both functionality and nutritive values as impacted by variety and agronomy practices. After the first year, results show that fertility levels significantly impact the protein content in oats.

MOGA, through POGA, also funds, "Product Development from Gluten Free Oat Fractions," at the University of AB. Most fractionation methods extract one or two ingredients only, making the other non-desired fractions less usable. This project is working to develop a cost-effective process to allow for the extraction and utilization of all oat ingredient fractions. The hope is that if oats are easily fractionated in a cost effective way, companies can generate more revenue and producers will benefit through increased demand and prices.

MOGA, through POGA, funds two projects at the Indian Head Agriculture Research Farm: the first is "Crop Sequencing of Large Acreage Crops and Special Crops." The objective of this project is to determine the effects of a preceding crop using several large area plots and several special crops. The crops in this rotation will include Wheat, Oats, Canola, Pea, Canary seed, Hemp, Quinoa, and Coriander. Moisture and residual N at beginning of second year, plant density, volunteers during growing season of second year (counts and biomass), grain yield and grain quality will all be assessed.

The second project at Indian Head is, "Yield Response and test weight stability of Oat to Fertilizer N." The objective is to determine if the test weight of current oat cultivars vary in the stability of their test weight as nitrogen rates change.

MOGA, through POGA, is also funding "Transposon-Mediated Activation Tagging in Oat," at McGill University. The objective of this five-year project is to lay the foundation for a new method of identifying genes to improve oat breeding. The project will create an experimental oat variety with a transposon, which is a class of genetic element that can "jump" to different locations within a genome. The transposon will be programmed to jump in/out of genes of interest, turning them on/off. This will allow identifying the genes of interest by finding the location of the transposon. At the current stage, marker-assisted selection breeding in oat is in infancy and new unique resources are required to deal with the large genome of oat. This research, if successful, will lead to the identification of genome location carrying important traits such as beta glucan and oil contents. It will then be possible to

identify these traits at very early seedling stage then breeders can easily use these lines for further breeding programs.

MOGA, through POGA is also funding, "Comparison of Quality among International Oat Sources," led by Dr. Ames at Agriculture and Agri-Food Canada. Dr. Ames will conduct a direct comparison of quality between oats sourced from several major oat producing countries. This information will give the world-wide oat industry valuable marketing information, as well as provide breeding direction for Canadian oat researchers.

Research – Product Development

MOGA, through POGA, is funding a product development project being completed at the University of Alberta, "Development of an Oat Based Beverage." This collaborative industry project will focus on developing two oat protein based beverages. The initial oat based beverage will be developed in collaboration with Oatdeal, based out of Saskatoon and 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.

An extension of the development of an oat based beverage is the "Development of an Oat Coffee Additive (Coffee Creamer)." Approximately 65% of global consumers drink at least one cup of coffee per day, and 37 billion cups of coffee with non-dairy creamers are consumed annually. Consumer demands for nutrition, convenience and plant proteins/fibres is generating a new market opportunity within the coffee creamer market. Through this research, the University of Alberta hopes 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 could generate a new market opportunity for, and consumer awareness of, oats.

Research – Feed

A key recommendation from POGA's study of world oat markets highlighted the need to investigate the potential to recapture the USA oat feed market. MOGA/POGA then conducted a USA Equine Feed Study which clearly demonstrated the potential of these markets.

POGA contributed to two feed oat research projects – the first, "Oats Improve the Gastrointestinal Health of Horses," at Penn State University is co-funded by WGRF. This study investigated whether the inclusion of whole oats at varying concentrations in the horse's diet would influence a comprehensive group of response variables associated with the horse's gastrointestinal health. This project was completed this year, and the results provide evidence that dietary whole oats may provide benefits to sustaining equine gastrointestinal health. However, for conclusive results, more research would need to be done regarding under what management conditions dietary whole oats are most likely to be a health benefit to horses.

The second feed project, "Develop New strategies to Efficiently Utilize Oat Grains in High Production Dairy Cows to Maximum Economic Return and Benefit to Prairie Oat Growers," is a five-year project at the University of Saskatchewan. This project aims to identify the best oat variety or type of oat grain with the highest Feed Milk Value

(FMV) for dairy cattle, to improve the FMV of oats through processing, and to find the maximum or optimum level of oats in high production lactation dairy cow diets thus, ideally, promoting more oats in dairy rations.

Market Development Projects

MOGA, through POGA, received funding through AgriMarketing starting in the 2015-2016 year to advance the Canadian Oat Market in Mexico. This project has seen a 210% increase of Canadian oats moving into Mexico from 2014 to 2016. In June 2017 POGA representatives met with relevant importers, processors and government officials in Mexico to continue this mission. The Facebook campaign has also been a huge success, reaching many Mexicans daily. The current contract with Emerging Ag ends March 2018, and POGA is already working at securing another 3-year agreement, and will again apply for federal funding, to continue this important project.

This year POGA added the "American Oats Marketing Campaign 'Oats Everyday'" to their marketing projects. The goal is 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, as well as easy ways to substitute oats in recipes.

MOGA, through POGA, also contributes to the "Keep it Clean" Initiative led by Cereals Canada. This campaign was run in fall 2016 and spring 2017 targeting Western Canadian producers. The intention is to give producers information to get their cereals ready for the export market, highlighting important export standards and expectations.

Summary

MOGA has successfully contributed to the profile, representation and profit of Manitoba oat growers. Since 2008, oat growers in Western Canada have spent about \$0.18 of every dollar on research and marketing. The great collaboration of industry, government and the oat organizations is displayed by the amount of research and marketing work that is able to continue for our small crop.

MOGA will continue to develop the strategic relationship with POGA and work towards multiplying the producer investments in MOGA with both industry and government partnerships to expand oat profitability and profile both locally and around the world.

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Payee List for MOGA 2016-2017 Year

Total Director Honorariums and Out-of-Pocket Expenses

Directors

Honorariums

Ray Mazinke	\$	2,750
Doyle Penner	\$	200
Bob Lepischak	\$	0
Art Enns	\$	900
Philip Helen	\$	0
Jenneth Johanson	\$	112

Out of Pocket

Ray Mazinke	\$	710
Doyle Penner	\$	276
Bob Lepischak	\$	1,449
Art Enns	\$	998
Philip Helen	\$	0
Jenneth Johanson	\$	682