


SaskFlax

CHAIR'S REPORT

We can't control the weather, but we are working hard to ensure the long-term success of flax

Shane Stokke, Board Chair



"Farming looks mighty easy when your plow is a pencil and you're a thousand miles from the corn field."
– Dwight D. Eisenhower

Well to say that 2018 was an easy year for farming would be confusing to say the least and ignoring reality. The growing conditions were dry in most areas of the province, but there was enough soil moisture to get the crop out of the ground and off to a good start. There were some much appreciated rains during the crop year, but not enough across the province to ease everyone's mind that yields would turn out to be good. The dry summer meant an early start to harvest for many. Then the smoke from the British Columbia (B.C.) forest fires came in August and slowed down harvest and crop maturity. The delays meant that harvest for many was not even started when the wet weather arrived in September. That wet weather then continued into October and turned into yet another year with harvest dragged out into the fall for many across Saskatchewan.

As harvest started, the flax crop looked like it was good quality and average yields, although Canadian production was estimated to be down

from last year due to reduced acres. At the same time global interest in flax is growing. Kazakhstan and Russia are estimated to produce more than Canada, which will put pressure on flax prices in North America if we are to remain competitive in China and the European Union. Canadian flax is desired by many markets and processors because of its high quality and reputation, but price is a major factor for the competitiveness of the Black Sea flax. As demand for flaxseed and oil continues to grow in China there will be a demand for Canadian flax. Several companies in China are considering or planning to establish facilities in Canada to secure a Canadian supply of flaxseed. These Chinese buyers of Canadian flax see the opportunities for flax in the Chinese market. Learn more about growing opportunities in China on Pg. 6.

Looking ahead to the winter months, our Board will be working hard to determine how we can understand and nurture these opportunities through market development and research.

However, while we have been looking overseas, we have not forgotten the opportunities and demand in the North American market either. The consumer in North America will continue to be an area of interest for SaskFlax.

Over the past year SaskFlax has been working hard have a strong research program. We hired Michelle Beath as a flax agronomist earlier this year, which was an important part of the commitment SaskFlax has made to the flax producer in Saskatchewan and Western Canada. SaskFlax has taken on a significant role to fund research activities for variety development and agronomy. These activities are long term efforts, but there are many successes along the way that are for the benefit of flax producers.

While this growing season has turned out to be stressful for a lot of you, our Directors are working to ensure flax is a viable option in your crop rotation, both economically and agronomically.

SASKFLAX AGM

January 14, 2019 TCU Place, Saskatoon

New this year, we will be combining registration efforts for the SaskCanola, SaskFlax and SaskBarley AGMs. All three meetings will take place in Gallery B, TCU Place, Saskatoon.

The schedule is as follows:

11:00 AM Registration for all three meetings

11:30 AM SaskCanola AGM

12:30 PM Lunch – Guest Speaker: Michael Landsberg

1:45 PM SaskBarley AGM

2:30 PM SaskFlax AGM

Registration will also be available in advance of each individual meeting

Please note, if you are attending the AGM and are NOT registered for CropSphere, please stop at the Conference Registration Desk on your way in to pick up your “AGM ONLY” attendance pass.

CROSPHERE 2019

January 15 & 16, 2019 TCU Place, Saskatoon

The fourth annual CropSphere agricultural conference will be held in Saskatoon January 15&16, 2019, with host group AGMs taking place Monday January 14.

CropSphere 2019 will be held at TCU Place, in downtown Saskatoon (same venue as 2018).

For more information on registration, agenda and more, visit www.cropsphere.com



CropSphere

Ideas, Innovation, and Knowledge

IDEAS, INNOVATION AND KNOWLEDGE

CROSPHERE 2019 – JANUARY 15 AND 16

Location: TCU Place, Saskatoon (35 - 22nd St E)

Hosted by: SaskBarley, Saskatchewan Pulse Growers, SaskFlax, SaskCanola, SaskOats, and Sask Wheat

SaskFlax AGM: Monday, January 14 from 3:00 p.m. to 4:30 p.m. in Gallery B of TCU Place

FEATURING SPEAKERS:

Brad Wall

Former leader of the Saskatchewan Party and 14th premier of Saskatchewan

Katie Dilse

North Dakota farmer and motivational speaker

Michael Landsberg

Former Host, TSN's Off the Record, mental health advocate and founder of SickNotWeak.com



@CropSphere

REGISTRATION:

Early registration:

\$200 – Available from November 1 to 30, 2018

Regular registration:

\$225 – Available from December 1, 2018 to January 4, 2019

Registration at the door: \$250

One-day registration: \$225

For more information visit CROSPHERE.COM

SASKFLAX CROPSHERE SESSIONS

This year we will have three flax-specific sessions at CropSphere.

Flax market outlook – Chuck Penner, LeftField Commodity Research

Chuck is the owner and grain market analyst for LeftField Commodity Research in Winnipeg, Manitoba. He has almost 30 years of experience in the Canadian grain industry working for various organizations and grew up on a farm in the Red River Valley of Manitoba. Chuck routinely analyzes developments in the Canadian, North American and Global markets for grains, oilseeds, pulses and special crops. Chuck will provide a market outlook for flax during CropSphere.

A look at AgOpenGPS software – Brian Tischler, Genetic Potential Ltd

Brian is a Mannville, Alberta-area grain farmer who has been gaining notoriety as the developer of an opensource software program, called AgOpenGPS, that enables farm equipment to be remotely controlled using the existing GPS system. He originally developed the software to assist with section control and mapping using his air seeder, but the software has since evolved and can now be used for many other applications. Brian demonstrated AgOpenGPS' capabilities at FarmTech, CanolaPALOOZA, Ag in Motion in 2018 and he was recently nominated for an ASTech Foundation award for the development of the software. Brian will share the story behind the development of AgOpenGPS, his on-farm experience and will provide insight into where the future may lead with this type of technology.

Are components of flax neuroprotective: Impact of dietary ALA in animal models – Dr. Kendra Furber, University of Saskatchewan

Kendra is a Research Associate in the College of Pharmacy and Nutrition at the University of Saskatchewan. She will present on the findings to date of the SaskFlax funded research she has been conducting over the last several years on the effects of dietary alpha-linolenic acid (ALA) from flaxseed on repairing damage to the myelin sheaths around nerve cells and/or protecting against their degradation, one of the common effects of Multiple Sclerosis (MS).

SASKFLAX 2018 ELECTION UPDATE

We Are Pleased To Welcome New Members To Our Board

The Saskatchewan Flax Development Commission (SaskFlax) is pleased to announce the results of its fall 2018 election.

Three positions on our Board were up for election.

One was filled by incumbent Director Jordon Hillier, who has been on the Board since 2015.

The other two positions were filled by acclamation by Scott Sefton and Patricia Lung.

Scott Sefton farms approximately 4,000 acres in the Qu'Appelle Valley area north of Broadview, where he grows spring wheat, canola, soybeans and flax. Scott has a Diploma in Agriculture from the University of Saskatchewan and was previously a Director on the Farm Leadership Council. He also participated in the Agricultural Producers Association of Saskatchewan's Youth Mentorship Program. Scott is interested in ensuring flax is a viable option in Saskatchewan by improving on-farm practices and investing in agronomy and research and



Scott Sefton

development for the industry.

Patricia Lung farms more than 3,200 acres in a family partnership north of Humboldt, growing cereals, pulses and oilseeds. She has an undergrad degree in Chemical Engineering from the University of Alberta and a graduate degree in Agriculture and Bioresource Engineering from the University of Saskatchewan. She has



Patricia Lung

more than 20 years' of experience working with engineering associations, agriculture research organizations and community organizations.

On behalf of SaskFlax, we would like to congratulate our new and returning Directors and we look forward to another successful term.

BOARD DIRECTOR

SaskFlax Director Erwin Hanley has flax in his blood

Erwin Hanley's passion for flax is deep rooted.

His late father was involved in the flax industry for many years and Erwin grows and sells the crop on his family farm and retail seed business south of Regina.

So when a good family friend encouraged him to join the Saskatchewan Flax Development Commission (SaskFlax) Board of Directors ten years ago, he gave it some serious thought.

"Flax is near and dear to my family based on the work my dad did and it's something that I have a passion for," he says. "So I took the time to think about it and in the end decided it was something I wanted to pursue, to do my part to help the industry."

Now after ten years on the Board he is happy to be able to contribute to the strategic direction of the organization.

"When I started I just went in there with an open mind. It takes some time to understand how the Board and the industry works. But now the most important thing, in my mind, is getting caught up on the genetic side of things."

Given that there is currently only one remaining flax breeding program in Canada, it's critical that the Crop Development Centre breeding program is supported and continues to develop new and relevant flax varieties for farmers, he says.



SaskFlax's board member, Erwin Hanley

"In the past ten years that I've been on the board, flax has fallen behind. Not because of a lack of effort but because of many other factors."

Over the same time period other crops with larger acreages have put more money and effort into breeding programs, which have benefitted them greatly, he says.

Another factor that is going to be critical going forward is ensuring that flax is an attractive option for farmers to grow, especially with the anticipated increasing competition from bigger crops such as soybean and corn.

"If you ask a farmer the number one

reason why they hesitate to grow flax, it's because of demands on the plant, specifically during harvest time and with the straw."

Another issue, as farms continue to increase in size, it's a tougher sell to ask farmers to commit a percentage of their acres into flax, Erwin says.

"They're looking for time management and it's easy for them to have three-year rotations rather than four year. As farms change, it's going to continue to be a challenge to get producers to consider having flax as part of their rotation."

The Board is currently working on strategies to fund sustainable solutions to these three issues, Erwin says, and will continue to do so.

One part of the solution will be capitalizing on growing opportunities for flax in new markets. The Flax Council of Canada (FCC) had already begun working on opportunities for flax in human food markets through its Healthy Flax campaign. SaskFlax will continue to work on this file going forward.

"At the grocery store if you look closely enough there are lots of products on the shelf with flax in them and I think there are lots of opportunities to build on that. Specifically in North America that market is growing and we will continue to explore those opportunities for sure."

FIGHTING FLAX DISEASE

SaskFlax-funded research aims to help resistance, management options for pasmo

Pasmo remains the Number 1 disease affecting flax crops in Western Canada.

According to the Flax Council of Canada (FCC), pasmo is very prevalent in the prairies, affecting up to 60% of the crop foliage and causing between 10-30% yield loss.

That's why it is a priority for SaskFlax to fund research aiming to address the issue.

One such study wrapped up earlier this year. It aimed to help producers in the battle against pasmo by developing resistance to the disease.

However, this is a tall order, says Dr. Rashid Khalid, the lead investigator for the project.

"The resistance to this disease is a bit complex; it's not easy to find reliable sources of resistance that you can breed into commercial cultivars," says Dr. Khalid, who is also a Research Scientist for Agriculture and Agri-Food Canada.

"It's a gene pyramiding system so you have to build so many genes into the cultivars to achieve field resistance."

Dr. Khalid has been screening flax samples for resistance to pasmo and another flax disease, powdery mildew, for 15 years through the flax research program at the Morden Research and Development Centre. The same program identified three dominant genes for resistance to powdery mildew, one of which is now in most Canadian flax cultivars.

As part of the recently completed project, researchers spent four years testing flax accessions from Plant Gene Resources of Canada (Agriculture and Agri-Food Canada) germplasm collection, looking for pasmo resistance.

It was a long and very thorough process, says Dr. Randy Kutcher, a co-investigator on the study.

"It was a fair bit of work to screen all the samples over the last couple years," says Dr. Kutcher, who is a Professor & Researcher at the University of Saskatchewan.

"We screened them all at least twice between two different years and then picked out the best ones."

The final results of the study identified approximately 100 accessions with the greatest resistance to pasmo, meaning they scored <2 on a scale of 0 to 11.

Now that the study is wrapped up, the successful accessions will be further tested, Kutcher says.

"Now we will do replicated trials with the 100 accessions selected."

Any successful accessions to come out

"The resistance to this disease is a bit complex; it's not easy to find reliable sources of resistance that you can breed into commercial cultivars."

Dr. Rashid Khalid

of these trials will be passed on to the flax breeding program at the University of Saskatchewan's Crop Development Centre (CDC), run by Dr. Helen Booker, Kutcher says.

"We hope to find something that Helen can cross with to improve pasmo resistance."

But because developing genetic resistance is such a complex and lengthy process, another aspect of the same study aimed to help producers control the disease through currently-available measures, says Dr. Rashid.

"We took the short objective to identify fungicides that producers can use to reduce the impact of this disease on this crop," he says.

This part of the project conducted

field trials throughout different growing seasons, using several different fungicides, in several different growing conditions, and with early and late application times.

Overall the results were pretty good in terms of yield loss and disease reductions, Dr. Khalid says.

"In every year we reduced the disease significantly and improved the yield or reduced yield loss significantly."

"There are few fungicides that are relatively effective in reducing disease by significant amounts. Sometimes we can improve the yield by one hundred percent."

Generally, he estimates the study saw yield loss reductions between 70-80% and disease reduction rates between 50-70%.

The discrepancy in numbers came from differences in environmental conditions between the growing years.

The study also tested the effectiveness of fungicides for treating powdery mildew, which is the second most prominent disease affecting flax in Western Canada right now.

However, this disease is not as much of a concern as pasmo, Dr. Khalid says.

"This disease is not as damaging or severe and usually comes later in the season so doesn't impact as much on the crop."

However, the same fungicides that are used to control pasmo are effective in reducing the amount of powdery mildew as well, he says.

"I find it's not very economical to apply fungicide to control powdery mildew alone but if it can control and reduce both diseases and improve yields then the application might be beneficial or economic."

Given the results of this research, Dr. Khalid's advice to producers is to weigh the risk of the disease (considering their environmental area and how severe the disease has been in previous years) versus the cost of applying

fungicide. And he says it's critical to start monitoring for the disease early.

"It starts at seedling stage on leaves and if there's rainfall or humidity it can spread from one to another quicker. Monitor for the disease on lower leaves early in the season when the plants are maybe 10-20 centimeters or so and if you start finding lesions on the leaves you might

have to spray."

He says it's also important for producers to seek clean seed sources with minimum diseased seed.

"Unfortunately very few growers use seed treatment to reduce the impact of seedling diseases or diseases that affect the crop early in the growing season."

"If seed distributors distribute seed to

producers that is 10-20% infected with disease that's going to translate into more disease in the producer's field so seed producers have to be more careful than producers themselves."

Learn more about the outcomes of this research at saskflax.com

OPPORTUNITIES IN CHINA CONTINUE TO GROW

A recap of my recent trip to China and what I learned

Wayne Thompson

In September, I travelled to China to present at the China International Pulse and Flax Conference in Qingdao.

The presentation included an overview of flax production statistics in Canada along with information about flax for food and livestock uses. The conference was attended by about 200 people.

In addition to attending the conference, I met with three companies around China. The first meeting was with Ronghai Biotechnology, a company that is also a major funder of the local university's research program, which is focused on food and health components from plants. Ronghai Biotechnology has developed technologies to process different oilseeds into fractions for hydrolyzed protein peptides, edible oils, purified linolenic acid, flax gum, lignans, vitamin E and other nutrients. The company currently processes soybeans for high value fractions and plans to begin processing flax in the near future.

The next company I met with was Feuder, a company that produces flax oil, blended flax oil, and flax capsules. Feuder processes approximately 200 tonnes per day of flaxseed and it uses Canadian flax because of its high quality and reputation. The company's first processing line was built in 2010 and it has since adopted newer automated equipment and expanded into several facilities in China.

The third company that I was scheduled to meet with was FlaxMega in Shenzhen. However, our meeting had to be delayed

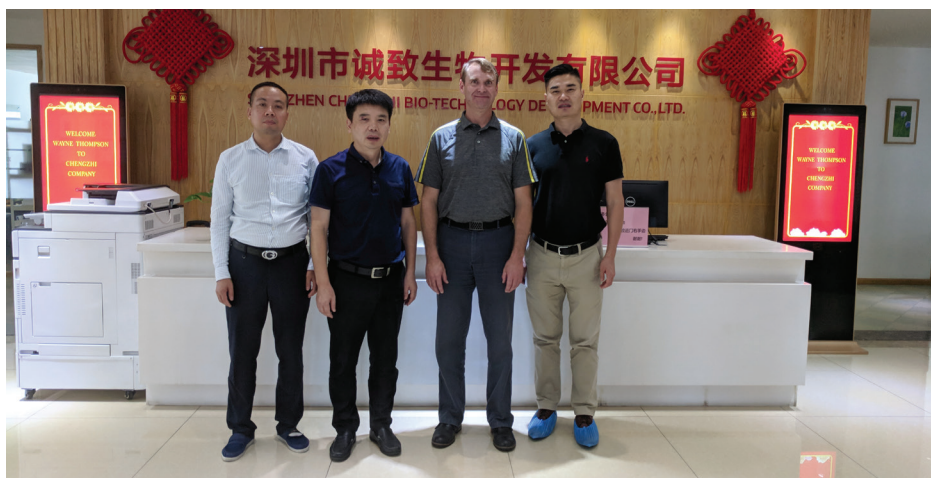


Meeting with Ronghai Biotechnology, a company that also funds research on food and health components from plants.

two days because of Typhoon Mangkhut. After the typhoon passed through Hong Kong and Shenzhen, we were able to reschedule our meeting. FlaxMega uses Black Sea region flax, as their crush plant is close to Kazakhstan. The flax oil is trucked to Shenzhen where it is refined

for retail packaging and flax capsules. Going forward, FlaxMega is interested in developing a facility in Saskatchewan to source a Canadian product.

A common theme that was heard at each of these three meetings was a desire to



Meeting with FlaxMega, a Shenzhen-based company that is interested in developing a facility in Saskatchewan to source Canadian product.



Some of the products made by Fueder, a company that uses Canadian flax to make products including flax oil, blended flax oil and flax capsules.



此大次航班使用

I was surprised to find flaxseed on the packaging of the meal I was served by a Chinese airline.

produce a flax oil without the bitterness of the flax oil currently on the market. Ronghai has developed a process to remove the bitterness and expects this process will result in a greater consumer demand for flax oil. Chinese consumers are increasingly demanding healthier food products and are becoming more aware that flaxseed and flax oil offers several health benefits.

I was also scheduled to be part of the Saskatchewan Premier's event in Beijing during this trip, but I had to change my travel plans again because of the typhoon. Fortunately I was still able to attend a meeting in Beijing with the Canadian Embassy and Chinese Ministry of Agriculture and Rural Affairs. This was a valuable meeting, as it provided good information about flax production in China, which has increased to 400,000 tonnes in the last year as farmers see increased consumer demand. The increased production explains some of the decreased imports of flax from Canada. The imports from Canada have also decreased as the Black Sea region flax is cheaper because of transportation costs.

The trip to China resulted in many good conversations, with a lot of information shared and relationships developed between Chinese companies and the Saskatchewan flax industry. China's interest in flax for both food and feed continues to grow. Chinese companies see the opportunities increasing for both these areas and intend to take advantage of the demand. Chinese companies will continue to develop the market in China and expand their production capacity, while also increasing the volume of flax they source from Canada and setting up facilities in Canada to process and export flax.



SaskFlax was established in 1996 and represents registered flax producers in Saskatchewan. Directed by flax producers, SaskFlax operates via a mandatory but refundable producer levy on flaxseed and straw. These dollars are leveraged whenever possible to execute programs ultimately geared to increase net returns to its producers members and advance Saskatchewan's flax industry.

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