

SASKFLAX NEWSLETTER



EXECUTIVE DIRECTOR REPORT

Wayne Thompson

2022 brings new challenges – and opportunities for SaskFlax

The world is a different place in 2022. The weather has made seeding a guessing game for many farmers this spring and determining where flax fits in the rotation has probably kept a few of you wondering what to do.

The Statistics Canada estimate for flax acres in Saskatchewan is 653,200 acres and 864,200 for the Prairies. This is a dramatic decrease from the 1 million acres for the Prairies in 2021. The price of flax is still strong and new crop prices in the high 20s are very encouraging, especially compared to the \$12 to \$14 per bushel going into the fall of 2021. At the same time, the price of almost all commodities are at highs we have not seen before. As world production remains uncertain, market volatility is likely to continue.

The drought of 2021 has made flax production unknown for this season. We still need moisture for a lot of the flax growing area to have a good crop in 2022. At the same time, increased prices have kept demand in check outside of North America. However, high value markets like food and petfood have been favourable markets for Canadian flax.

At SaskFlax we have been watching all of the activity locally and internationally to understand where the flax industry may be going and how that will impact the flax we produce in Saskatchewan. It is likely that food security will be the topic to follow for the foreseeable future.

In August of 2021 the European Union implemented a new regulation that established a maximum limit for cadmium, which will impact the ability of Canadian flax traders to access the EU market. For SaskFlax, the long-term goal is to have new flax varieties that reduce their uptake of cadmium. In the short term we are looking for agronomic solutions. This summer,

through Saskatchewan Ministry of Agriculture ADOPT funding, we have Agri-ARM sites (Redvers, Scott, Indian Head, and Yorkton) carrying out demonstrations using zinc and gypsum applied with fertilizer at seeding to see if this reduces cadmium uptake in flax.

SaskFlax is also looking at research proposals for the upcoming Diverse Field Crop Cluster. We hope to submit a successful DFCC application for the next federal funding program that will start on April 1, 2023. This gives farmers the opportunity to leverage federal funds that support flax levy dollars and result in longer term research.

The flax research program is one of the key areas the SaskFlax Board is focusing on as part of the new three-year strategic plan. The Board has developed a strategic plan that will lead the way for flax production so that flax is a profitable and sustainable crop on your farm.

In addition to well thought out research goals, SaskFlax anticipates a return to in-person market development activities to meet demand for both domestic use and growing international markets. The need for food security and consumer demand for healthy food will lead to opportunities for Saskatchewan flax. We are well positioned to take advantage of these opportunities with all our partners along the flax value chain.

As a flax grower, if any of this information interests you, we are looking for new directors for the Board. Nominations are now open. You will find details on page 4 of this newsletter or at the SaskFlax website, www.saskflax.com.

“Maturity is the capacity to endure uncertainty.” — John Huston Finley

Research Update:

Pre-harvest Weed Control and Desiccation Options for Flax

The problem

Harvestability has been and continues to be a significant challenge for flax growers and, when combined with subsequent residue management issues, is an important reason that many non-flax growers express resistance to including this crop in their rotation.

It is not uncommon for cool, wet fall weather and/or early snowfall to leave many flax acres unharvested and growers looking for ways to accelerate crop dry-down and improve harvestability for this crop. Depending on the weather, regrowth in the fall can also create significant challenges. One of the more obvious things to consider for improving flax harvestability, particularly with straight-combining, is the use of pre-harvest herbicides and desiccants.

The research

A research project funded by the Government of Saskatchewan and the Government of Canada under the Canadian Agricultural Partnership (CAP), with support from the Saskatchewan Flax Development Commission, was implemented to determine the effectiveness of pre-harvest weed control and desiccation options in flax.

Specifically, objectives for this project were to demonstrate the effects of pre-harvest herbicide and desiccant options for flax on seed and straw dry-down, as well as provide a forum for discussion on the potential advantages and disadvantages with respect to both weed control and efficacy as a harvest aid.

Evaluating these pre-harvest options for a selection of the dominant flax varieties grown in Saskatchewan will increase the overall robustness of results. It will also improve the ability to detect treatment differences while potentially providing insights towards genetic variation in flax ripening and stem dry-down.

2021 was the second year of a two-year project.

Methodology

In the spring of 2021, flax field trials were initiated with locations at Indian Head, Swift Current and Yorkton. The treatments were a factorial combination of three varieties (CDC Bethune, CDC Glas and CDC Sorrel) and three pre-harvest herbicide/desiccation options for a total of nine treatments. The specific equipment used to apply the pre-harvest treatments varied across locations; however, the target crop stage was when 75% of the bolls had turned brown and a minimum solution volume of 185 l/ha was used for all treatments.

The treatments were arranged in a four replicate randomized complete block design (RCBD) and are listed in Table 1.

#	Variety	Pre-harvest Application ^z
1	CDC Bethune	Untreated
2	CDC Bethune	894 g glyphosate/ha
3	CDC Bethune	400 g diquat/ha
4	CDC Glas	Untreated
5	CDC Glas	894 g glyphosate/ha
6	CDC Glas	400 g diquat/ha
7	CDC Sorrel	Untreated
8	CDC Sorrel	894 g glyphosate/ha
9	CDC Sorrel	400 g diquat/ha

^z Applied in a minimum solution volume of 185 l/ha when 75% of bolls had turned brown

For all locations, the flax was seeded directly into cereal stubble with a target depth of 2-3 cm; however, the actual depth at Indian Head was greater than desired which resulted in slow, variable establishment and lower than targeted plant populations. For seeding rates, a flat rate of 55 kg/ha was used for all varieties at Indian Head while, at Swift Current and Yorkton, adjustments for seed size were made in an attempt to equalize plant populations across varieties.

Weeds were controlled using registered pre-emergent and post-emergent herbicides. Foliar fungicides were applied preventatively at Indian Head and Yorkton to reduce the potential for pasmus as a yield limiting or confounding factor. No fungicide was applied at Swift Current; however, the risk of disease was extremely low at this location. The plots at Indian Head were sprayed for grasshoppers late in July. The pre-harvest treatments were applied as per protocol and the application dates were July 28 at Swift Current, August 15 at Yorkton, and August 25 at Indian Head. The plots were straight-combined using small plot harvesters.

Various data were collected during the growing season and from the harvested grain samples. Plant densities were assessed by counting plants in 2 x 1 m sections of crop row for each plot. The maturity date was recorded for each plot whereby maturity was declared when approximately 75% of the bolls had turned brown. Visual stem dry-down ratings were completed at predetermined times relative to the pre-harvest treatment applications. Straw moisture content at harvest was determined from wet/oven-dry weights of unchopped straw subsamples that were collected from behind the combine.

Research Update Continued

Results

Indian Head

This was the wettest of the locations and received above-average precipitation during the 2021 growing season. While much of this precipitation came too late to truly benefit the flax, it had a considerable effect on crop dry-down. Both glyphosate and diquat were effective in drying down seed and plant material but the specific nature of the responses to the two products differed. Diquat worked very quickly with striking differences noted as early as four days after application; however, under the wet conditions late in the season, a certain amount of re-growth occurred 14-21 days after application. Glyphosate was slower to take effect but still worked extremely well under the conditions encountered.

Yorkton

Both glyphosate and diquat provided benefits in terms of improved seed and straw dry-down, but not to the extent observed at Indian Head. In particular, and attributable to the drier conditions and higher plant populations, the untreated control plots dried down much better at Yorkton than they did at Indian Head. While the visual ratings suggested that diquat may have started working more quickly, the later ratings and actual seed and straw moisture measurements revealed that it did not terminate the crop and dry it down to the extent achieved with glyphosate. Despite the weaker performance of diquat at Yorkton, it did provide significant seed and stem dry-down benefits in the end, just not necessarily as well as expected or to the extent of glyphosate.

Swift Current

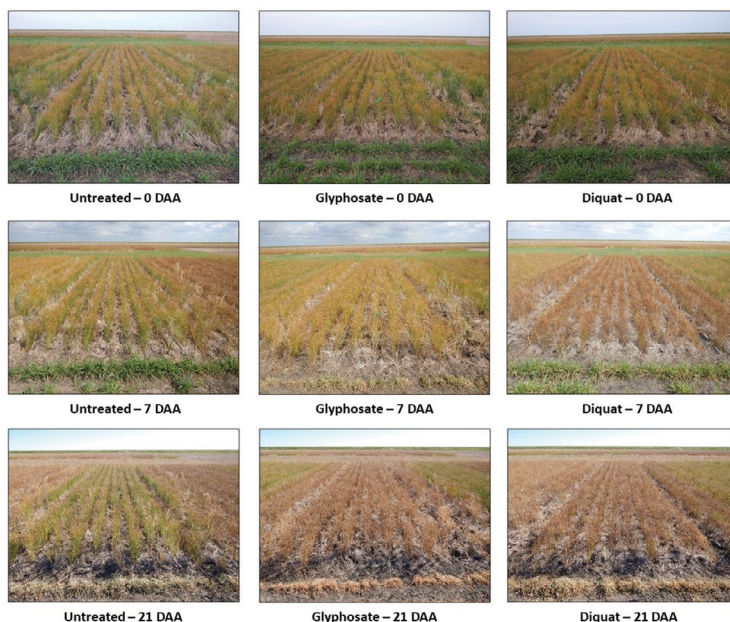
This region is the driest of the regions where field trials were located. With less than 80% of normal precipitation and well-above normal temperatures, the conditions at Swift Current were not conducive to requiring pre-harvest applications to assist with crop dry-down. The visual ratings confirmed that stem dry-down progressed steadily as the crop matured, regardless of variety or pre-harvest treatment and despite high variability. There were no differences between the treatments in stem colour change or stem moisture content at harvest.

Conclusions & Recommendations

Diquat appeared to be the most effective treatment, as it showed the quickest dry-down response after application in as little as four days. However, glyphosate tank-mixed with saflufenacil had an increased amount and speed of crop dry-down as compared to glyphosate alone. Although diquat was the fastest and glyphosate was the slowest treatment to show dry-down, at harvest (which was 14-17 days after the treatment) glyphosate and diquat had the same amount of stem moisture content.

While the glyphosate tank-mixed with saflufenacil treatment provided the benefit as both a desiccant and weed-control option, it was also the most expensive of the treatments evaluated.

Diquat proved the fastest dry-down of the treatments and preformed as an effective crop desiccant, but it lacks weed control. It was also the second most expensive of the treatments. Glyphosate proved to be just as adequate as a desiccant with a slower response, but is the least expensive of all the treatments. Keep in mind, glyphosate applied as a harvest aid can severely impact germination and should not be used when planning to save seed for seeding.



Change in appearance of CDC Glas (Indian Head 2021) after treatment with glyphosate and diquat
DAA = Days after application

Research Update Continued

Not surprisingly, temperature and moisture had significant impact on the efficacy and efficiency of the treatments being compared. Under dry conditions, glyphosate was determined to decrease the straw moisture the most. Under wetter conditions, the type of pre-harvest treatment was less of a contributing factor to amount of stem moisture content at harvest as compared to the seed variety, but a treatment is still recommended.

CDC Sorrel proved to have the lowest stem moisture content and straw moisture, but was also the lowest yielding of all the varieties. However, the most interesting observation made was that the untreated control had the highest yields of all the treatments despite having the greatest amount of stem moisture content at harvest.

Pre-harvest herbicides or crop desiccants are least likely to improve crop dry-down under hot, dry conditions where annual crops will often terminate and shed moisture reasonably well without being sprayed.

For more information, see the full reports:

2021: <https://iharf.ca/wp-content/uploads/2021/04/Pre-harvest-weed-control-and-desiccation-options-for-flax.pdf>

2020: <https://iharf.ca/wp-content/uploads/2021/04/Pre-harvest-weed-control-and-desiccation-options-for-flax.pdf>



SaskFlax Director Elections

The Saskatchewan Flax Development Commission call for nominations for directors is currently open. The nominations opened on June 1 and will close at 4pm on September 16.

Nominations are open for five positions. Three positions are for a four-year term and two positions are for a two-year term. Terms begin at the Annual General Meeting in 2023.

The nomination form can be found on the SaskFlax website (www.saskflax.com). Nominees must be a registered flax producer (any producer that has sold flax in either of the 2020/21 or 2021/22 crop years and has not requested a levy refund for the sales in the 2021/22 crop year).

Nomination forms may be submitted to:

The Returning Officer, Nicole Yip
Agriculture Council of Saskatchewan
2335 Schuyler Street, Saskatoon, SK S7M 5V1

Elections

If there are five or fewer valid nominees, the director positions will be acclaimed. If more than five valid nominations are received an election will be held. The election will open on November 1 and close at 4pm on November 30. Voting will be online, with a paper ballot option available upon request.

The results will be announced at the SaskFlax Annual General Meeting on January 10, 2023.

Director responsibilities

Directors are expected to prepare for and attend nine board meetings per year. Directors represent SaskFlax on associated boards and committees as well as attend events on behalf of the Association.

Access to internet and current technology is important for online meetings. Travel to in-person meetings will be required.

Directors receive compensation for the work.

For more information about the Saskatchewan Flax Development Commission and the nomination process, please contact:
Wayne Thompson, Executive Director wayne@saskflax.com **306-664-1901**



Welcome to our new Agronomist



SaskFlax extends a warm welcome to Anne Nerbas, our new agronomist. Anne started at SaskFlax at the end of February. We look forward to working with her and to her contributions to the flax industry.

Shaping the future through research

Anne grew up on a mixed cattle and grain farm south of Waseca, Saskatchewan. After completing her BSc in Agriculture at the University of Saskatchewan in 2017 majoring in crop science, she pursued a Master's degree, also at the U of S. Working with Tim Sharbel, she put her energy into studying apomixis and how the asexual reproduction method could be used to reduce the cost of seed to producers.

Although Anne came from a farm background, she wasn't sure where she fit in agriculture.

"I've always loved science. It became a full-fledged career path when I began studying plant biotechnology. And growing up in such a beautiful place like Saskatchewan fueled my love of the environment." It was the combination of this passion and her roots that convinced Anne that agronomy was the right career choice.

It's about the conversations

Prior to coming to SaskFlax, Anne's research experience had prepared her for working in a laboratory. Although she enjoyed it, she missed talking with people. When she saw the agronomist job that SaskFlax was advertising, she knew it would be a great fit.

"As an agronomist working with a grower group, it gives me the perfect opportunity to talk with people AND talk about science," she says. "It provides the ability to learn and teach at the same time. I enjoy having conversations with people where everyone can come out of it having learned something new and having contributed to the conversation."

The importance of agronomy

Nerbas hopes to share with growers the relevance of good agronomic practices to crop productivity.

"Flax as a plant requires a lot of agronomics to maximize yields," she states. "We have a great research team and breeders who are developing new varieties, but understanding the agronomics is crucial. About 50% of the puzzle to growing flax is applying agronomic tools in such a way that can maximize the yield potential of the genome."

When asked what she felt the three most important agronomic issues were, she answered:

"Number one in my mind is pesticide use – it's such a balancing act. We have this amazing technology to control pests, with weeds being a big concern, but as stewards of the land we have to use that knowledge appropriately or else we will lose it."

"Secondly, we need to consider the value of soil health. As the daughter of a soil scientist, that has been drilled into me from a very young age. Our soils are a resource. How can we use agronomic practices to protect our soils as much as possible and make sure we are leaving behind productive soils for the next generation?"

"Another priority is rotation. Increasing the number of crops that we use is extremely important to a healthy farming system. It would be awesome for flax to be an essential part of the crop rotation."

Contributing to the future of flax

Research is vital to ensuring that flax continues to evolve to be a viable crop for growers. While there are critical projects on disease resistance and variety development being conducted at the Crop Development Centre at the U of S, there are additional studies that have piqued Nerbas' interest.

"I am very excited about working with some of the projects this year. For one, John Stavrinides' study on straw decomposition looking at microbes that is taking place at the University of Regina. I am also very interested in our ADOPT demonstration plots that will exhibit how soil treatments may reduce the uptake of cadmium into flaxseed to improve the marketability of flax."

She adds, "The research that SaskFlax is involved in is so important to growers. With the research experience I obtained through my studies, I hope to be able to bridge the gap between researchers and producers to help them to better understand and utilize SaskFlax research."

Serving flax growers

Nerbas says she looks forward to interacting with flax growers more than anything. She welcomes your calls to discuss any agronomic questions you may have, including herbicide residues, insect management, spraying, grain storage – and much more!

You can contact Anne at 306-664-1901, ext. 3 or anne@saskflax.com – or she welcomes you to drop in if you are in Saskatoon.



AN AFFINITY FOR FLAX: Profile of director Scott Sefton

Family ties

Flax has been grown at the Sefton farm near Broadview, Saskatchewan for many years now. Scott Sefton is serving his fourth year as a director on the SaskFlax Board, and it runs in the family. His father, Dave, sat on the very same board, serving from 2002 to 2018.

“Flax is one of my favourite crops,” says Scott Sefton. “It’s fairly easy to grow, and it’s done very well for us on the farm. I’ve grown flax ever since I bought my first land in 1997. I like handling it and it’s one of the higher return crops per acre.”

Challenges = incredible potential

“The biggest challenge with flax is the straw,” says Sefton. “In the past we’ve baled and sold it, but we’ve also just chopped it off with the combine and seeded into it.”

However, he also sees straw as having amazing potential. His experiences with SaskFlax have made him recognize the opportunities for straw.

“There’s so much you can do with it. It could be used for biocomposites, textiles and has many other applications. It’s such a versatile crop because you can do things with the straw as well as the seed.”

Another challenge is markets; EU restrictions have been especially difficult to navigate. “But SaskFlax is always working towards developing new markets. It’s a crop that is not grown everywhere in the world and growers here produce high quality flax that is always in demand. It has the potential to open doors to different markets.”

“It’s been difficult convincing growers to try flax because of the straw issue, but the more we can focus on the benefits and on expanding markets, the easier it will be to get more farmers on board,” Sefton adds.

A wide range of learning experiences – and achievements

Sefton credits his years on the board with improving his understanding of variety development and research.

“I appreciate how challenging it is running a commodity group like SaskFlax because of the need to meet farmers’ needs as well as the requirements for funding that the government sets out,” he says. “I also now understand why it takes such a long time to get a new variety to market because it involves such intensive research.”

And the research is reaping rewards for the industry.

“During the time I’ve been a Director of SaskFlax we’ve been working on new varieties of flax that are higher yielding, have improved disease resistance and are better in terms of straw management. There are very exciting results coming out of the research being done at the Crop Development Centre.”

A grower-led organization

Sefton says that one of the main benefits he sees of SaskFlax is that it enables growers to have more control over where and how their money is spent.

“We can direct levy funds towards areas where farmers’ levy dollars will have maximum benefit,” he comments. “Research dollars from other places sometimes aren’t farmer-led and we don’t have a voice. Our board aims to do what’s best for farmers and for flax. That is extremely important for evolving the crop in a way that meets our needs.”

The future is bright

When asked where the industry is going, Sefton doesn’t hesitate to paint a positive picture for flax.

“Our market opportunities are expanding. There’s potential to get it into Mexico as a feed ingredient, for increased export to the EU because of the war in Ukraine. India could be a market, along with many other countries. We just need to continuously explore our options and actively pursue new markets.”

“We also need to champion the benefits of flax as a feed source for livestock, in fibre applications and in food because health-wise, it’s a very healthy seed to eat,” he says.

“There is just so much potential for flax in Canada and worldwide. If we can get more acres seeded to flax, the sky is the limit. There’s so much you can do with it – we just need patience to see it through.”

Survey

WE NEED YOUR INPUT

Please assist Saskflax by taking this quick survey.

The Saskatchewan Flax Development Commission (SaskFlax) wants your input into what issues are most important to you as a producer. The survey can be either filled out and returned to the SaskFlax office by fax, email or mail (see instructions below) or filled out online. (To complete an online version, please visit www.saskflax.com.)



1. WHAT DO YOU THINK ARE THE MOST PRESSING FLAX BREEDING OBJECTIVES?

Please assign each objective a ranking between 1 to 7, 1 being least important and 7 being most important.

Category	Ranking (from 1 to 7)
Yield	
Straw management (able to chop and spread)	
Determine growth (stops flowering)	
Oil Content	
Disease resistance	
Lodging	
Consistent seed colour	

Other (please specify)

2. WHAT AGRONOMIC ISSUES ARE MOST IMPORTANT TO YOU AS A FLAX PRODUCER?

Please assign each issue a ranking between 1 to 5, 1 being least important and 5 being most important.

Issue	Ranking (from 1 to 5)
Fertilizer recommendations	
Disease control	
Harvestability	
Seeding dates	
Weed control	

Other (please specify)

3. WHERE ARE YOU GETTING YOUR FLAX INFORMATION?

Please assign a ranking between 1 to 6, 1 being least important and 6 being most important.

From	Ranking (from 1 to 6)
SaskFlax	
Retailer	
Agronomist	
Email	
Newsletter	
Social Media	

Other (please specify)

THANK YOU! YOUR INPUT IS GREATLY APPRECIATED!

MAILING INSTRUCTIONS:

Send your completed form to:
Saskatchewan Flax Development Commission
8-3815 Thatcher Avenue
Saskatoon SK S7R 1A3

FAX INSTRUCTIONS:

Fax to 306-664-4404.

EMAIL INSTRUCTIONS:

Scan the form and email to saskflax@saskflax.com.



SaskFlax

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 producer members and advance Saskatchewan's flax industry.

SASKATCHEWAN FLAX DEVELOPMENT COMMISSION

8-3815 Thatcher Avenue
Saskatoon, SK S7R 1A3
Phone: 1-306-664-1901
Email: saskflax@saskflax.com
Twitter: @SaskFlax
Website: www.saskflax.com



healthyflax.org

HEALTHY FLAX

Twitter: @HealthyFlax
Facebook: facebook.com/healthyflax
Instagram: [HealthyFlax.org](https://www.instagram.com/HealthyFlax.org)
Website: www.HealthyFlax.org



FLAX COUNCIL OF CANADA

FLAX COUNCIL OF CANADA

8-3815 Thatcher Avenue
Saskatoon SK S7R 1A3
Email: flax@flaxcouncil.ca
Website: www.flaxcouncil.ca



**MANITOBA
CROP
ALLIANCE**

MANITOBA CROP ALLIANCE

Box 188
38 - 4th Ave NE
Carman MB R0G 0J0
Phone: 1.204.745.6661
Email: hello@mbcropalliance.ca
Website: www.mbcropalliance.ca

Return Undeliverable Canadian Addresses to:
Saskatchewan Flax Newsletter
8-3815 Thatcher Avenue
Saskatoon, SK S7R 1A3

PM40025241