Saskatchewan flax Grower

Gordon Cresswell
Chair,
Saskatchewan
Flax Development
Commission

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Chair's Report

Agriculture has an ever changing face - bringing new challenges every day. The strength of our dollar over U.S. currency has not been favourable for the marketplace, especially when we rely heavily on exporting our products. The detection of BSE in the beef industry is another set back. However, setting these problems aside, there are still a number of positives for our industry. The spring planting got off to a great start in most areas with some timely showers and rain to get the plants off to a good start. May this continue throughout the season!

Since our last newsletter, the Board and Executive Director have been busy participating in a number of meetings and seminars for the future expansion and development of the flax industry. Inquiries and opportunities in feed, food and fiber come in almost on a daily basis as the world markets are looking for alternatives. Flax holds great promise to fill these needs, but, as an organization we are always struggling with not enough funds to adequately support the research and development of the new and existing uses of our flax crop.

Although it may seem early, it is time to start thinking abut the election of the Directors for the upcoming year. The election will be held in late November or early December. Nominations need to be in our office by October so if you or someone you know would like to become part of a dynamic developing industry consider being a candidate for director for the Saskatchewan Flax Development Commission (see nomination form in this issue).

I know of interest to many besides those in flax production is our new cookbook that will be hot off the press late June or early July. It's free of charge and available in reasonable quantities. Order from the office.

With consultations from all players in the flax industry both Canada and the U.S. as well as abroad, the WCE worked to develop a new revamped flax contract to better reflect the need of all in today's environment. Some of the notable changes include trading in U.S. dollars, delivery months to better reflect marketing patterns and expansion of the delivery region into the U.S. as well as the Thunder Bay export terminal.

As we continue to promote the industry, may each and everyone have a successful summer and the agricultural industry continue to move forward and upward.

Gordon B. Cresswell

Gordon Cresswell

Events Calendar

July 9
Canada-Saskatchewan Irrigation Diversification Centre Field Day - Outlook, SK
306.867.5400
AAFC Annual Field Day - Scott, SK
306.247.2011

July 10
Organic Crop Production Field Day - Scott, SK
306.247.2011
Wheatland Conservation Area / AAFC Annual Field Day - Swift Current, SK
306.778.7289

July 16
North East Agricultural Research Foundation / AAFC Annual Field Day - Melfort, SK
306.878.8807

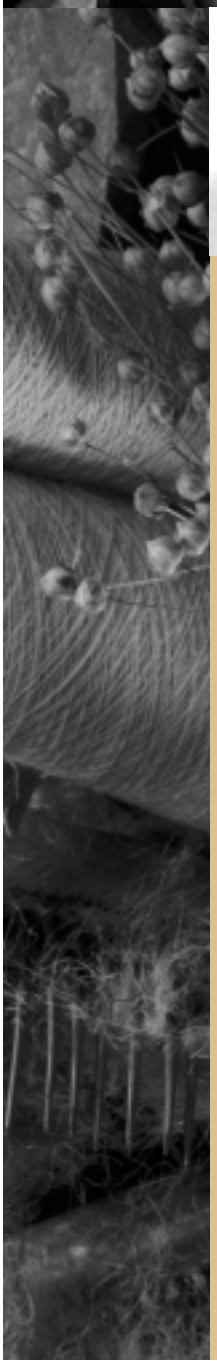
July 22
Zero Tillage Field Day - Indian Head, SK
306.695.4248
Conversation Learning Centre - Prince Albert, SK
306.53.2796

July 23
SPG / South East Research Farm Pulse Tour - Redvers, SK
306.452.3161 or 306.668.5556

July 24
SPG / East Central Research Foundation Pulse Tour - Canora, SK
306.563.5551 or 306.668.5556

July 29
SaskFlax / Saskatchewan Mustard Growers Field Day - Saskatoon, SK
306.664.1901
306.787.2756 (see inside for details)
Seager Wheeler Farm Bean and Pulse Crop Field Day - Rosthern, SK
306.933.5090

The Fiber file



Alvin Ulrich
Fiber
specialist SFDC

In Western Canada bast fiber content in oilseed flax straw can range from almost nothing to as high as 30% or more, depending on the growing conditions, location, variety and agronomic practices used. With the growing interest in profitably producing higher added value products from Saskatchewan flax straw, processors and farmers must start using more accurate methods to determine the bast fiber content. Biolin Research and a USDA lab in Athens, Georgia have made good progress in developing a Near InfraRed (NIR) system of rapidly determining the bast fiber content of flax straw in much the same way, and with the same speed, as protein content in wheat is now determined. However, a good testing method for fiber content in samples of flax straw is almost useless unless it is combined with procedures that ensure that the sample being tested is truly representative of the field or bales that it came from.

In 2002, Biolin Research received funding from SaskFlax and the Agricultural Development Fund of Saskatchewan Agriculture, Food and Rural Revitalization to start developing statistically valid methods of collecting truly representative samples of flax straw from fields and bales. In the fall of 2002, Biolin Research collected hundreds of flax straw sub-samples in the Redvers area of southeast Saskatchewan from 17 fields and from bales removed from four of the same fields. All sub-samples were then tested for fiber content using a NIR system of testing for flax bast fiber and more than 100 samples were also tested by water retting and extracting the fiber by hand as a check of the NIR system.

The variability in bast fiber content between sub-samples from each field, each group of bales and each single bale was statistically analyzed. This analysis calculated the number of sub-samples that would be necessary to collect to provide a statistically valid composite sample of the field, the group of bales or the single bale being analyzed so that, if sub-samples were repeatedly combined into composite samples, they would have a co-efficient of variation (CV) of 10%, 15% or 20%. These CVs are one way statisticians use to express the probability that a given composite sample truly represents the straw found in a field, a stack of bales or an individual bale. A low CV means that repeated sampling will give composite samples that show a higher degree of similarity. Conversely, a high CV means that repeated sampling will give composite samples that show a lower degree of similarity to each other.

Hence, there is a trade-off between the accuracy we need and the cost of collecting the necessary number of sub-samples to insure a given degree of accuracy. The more natural variation there is and the more accurate we want to be, the more sub-samples we have to take.

Based on the Redvers data, the variation in bast fiber content, straw yield and seed yield in oilseed flax is far greater than initially anticipated. This means that the number of sub-samples needed to provide a good representative sample of the flax straw from a 160 acre (64 hectare) field varies from 50 to 200 sub-samples depending upon the field and how much accuracy is required.

Each round bale tested was sub-sampled at the same six locations within the bale. The results showed that the straw in the very center of the bales tends to have significantly less fiber than straw further from the core. We suspect this is due to shives (i.e., the non-fiber part of the stem) breaking off of stems as they roll around the bale chamber. Some shives fall out of the cracks in the baler while other shives fall inward into the core of the bale when the bale is just starting to form. This process would tend to increase the amount of shive in the core and hence decrease the fiber content. Outside the core, no sub-sampling location had significantly more or less fiber content than the other sub-sampling locations. About 50% of the bales were consistent enough that only one sub-sample would be needed to represent that bale. In about 40% of the cases, two sub-samples would be required. Four to eight sub-samples would be needed to give a true representation of a given bale in about 10% of the bales, because of the high variation in fiber content within these bales.

Fiber content in baled straw was roughly five percent higher than the fiber content of the straw before it was baled. We believe this is because during the baling process, shives from the more retted pieces of straw break off and fall out of cracks in the baler. The fiber content of the straw remaining inside the bale chamber will correspondingly rise.

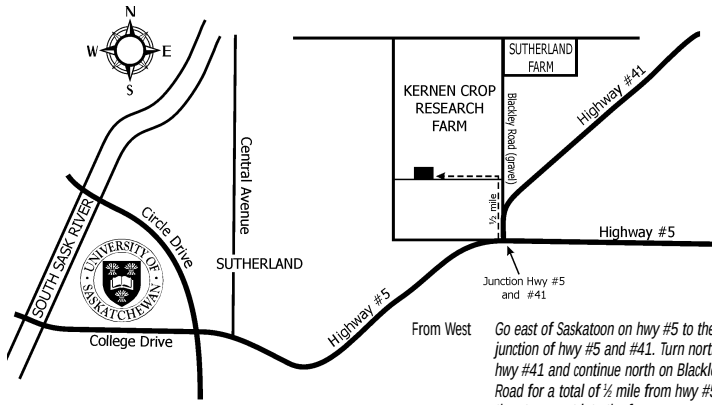
It will take a number of trials in different locations and years to check if there are ways to reduce the number of sub-samples required to produce a truly representative composite sample. At this time, we do not know, for instance, if fields in the Redvers area produce straw with more or less variation in bast fiber content compared to fields in other parts of the province or if other growing conditions will produce more or less consistency in bast fiber content. We can, however, say with confidence, that whether it is fields, stacks of bales, or individual bales, sampling accuracy is improved if many small sub-samples are taken and combined rather than using one or two big handfuls of straw taken at one spot to represent a field, stack of bales or a single bale.

The Language and Literature of Flax

N. Lee Pengilly

Since the earliest of times, people of all cultures have used plants and their flowers as emblems and symbols. In the western world, during the 19th century, a language of flowers appeared. Although the actual origins are not known, common thought is that this "language" arrived in Europe from Turkey. As the story goes, "harem ladies" depended on this secretive flower language to communicate with their lovers who were outside the confines of the household. From Turkey, this inspiration spread to Paris, where the French romantics embraced it with great enthusiasm. It was in Paris that the first "Language of Flower" dictionaries appeared. In theses documents, hundreds of plants and flowers were given specific meanings ranging from the most simple of words to more complicated phrases. Bouquets were created to deliver particular greetings, messages and sentiments between lovers and friends. The custom soon extended to England and America and became a popular trend in "genteel society."

If you received flax flowers in your bouquet, the sender may have been expressing sentiments of "feeling your kindness," with dried flax indicating "domestic industry." Both fresh flowers and dried plants were also used to indicate "fate." To find out more about the Language of Flowers or florigraphy, author, Jean Marsh's book entitled "The Illuminated Language of Flowers," is a good place to start. It is available in Saskatchewan through various Regional Library Systems and on-line at Amazon Books (www.amazon.ca). On a more practical note, Louise Riotte's book entitled "Carrots Love Tomatoes," tells us that flax is a good companion crop for carrots and potatoes, improving both growth and flavour. In addition, planting potatoes in and around flax will protect the potato plants from Colorado Potato Beetles and blister beetles. "Carrots Love Tomatoes" is widely available and was updated in 1998.



From West *Go east of Saskatoon on hwy #5 to the junction of hwy #5 and #41. Turn north on hwy #41 and continue north on Blackley Road for a total of ½ mile from hwy #5, then turn west into the farm.*

From East *At the junction of hwys #5 and #41, turn north on hwy #41 and continue north on Blackley Road for a total of ½ mile from hwy #5, then turn west into the farm.*

SaskFlax / Mustard Field Day

Plan to attend our field day on Tuesday, July 29, 2003. The day, a cooperative effort of SaskFlax and Saskatchewan Mustard Growers will feature flax and mustard plots; discussions with research scientists regarding varietal development, agronomic practices and flax utilization in feed markets; great food and opportunities for networking. Join us at 9:00 a.m. Tuesday, July 29, 2003 at Kernen Farm. Transportation will be provided from Kernen to AAFC and U of S Feed Department to Kernen.

Agenda

9:00	a.m.	Refreshments/Registration/Welcome - CDC, SaskFlax, SaskMustard
9:30	a.m.	Meet the Researchers
10: 30	a.m.	CDC Tour
12:00	p.m.	Lunch (provided)
12:45	p.m.	Transport to AAFC/U of S
1:00	p.m.	AAFC Plots, PGRC (flax and mustard)
1:45	p.m.	Transport to U of S Feed Department
2:00	p.m.	Flax as a Feed Ingredient for Fish and Poultry (fish facility)
3:05	p.m.	Return to Kernen Farm

A Word About Check-Off

The flax check-off ($1.18 per tonne seed; .50¢ per tonne straw) supports research, communication and market facilitation programs to further develop the flax industry in the province.

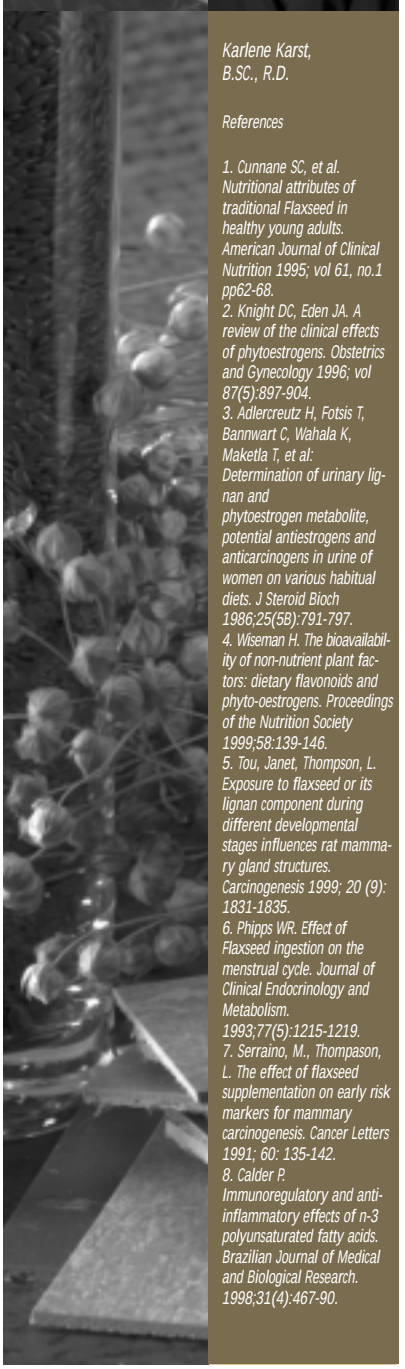
The regulations under which we operate stipulate that those producers wishing their check-off returned must file with the Commission using application forms provided by the Commission.

The process for rebate follows two periods; Period 1 (August 1st to January 31st) and Period 2 (February 1st to July 31st). Period 2 applications (for rebate on flax sold February 1st to July 31, 2003) must be filed with the Commission prior to August 31, 2003. Applications not received by this deadline or covering flax sold outside this period are not eligible for rebate.

Application forms are available by contacting SaskFlax at:

306. 664.1901
306. 664.4404 Fax
saskflax@saskflax.com
Saskatchewan Flax Development Commission
A5A - 116 - 103rd Street East
Saskatoon, Saskatchewan
S7N 1Y7

Karlene Karst, B.SC., R.D.
Karlene Karst is the clinical research and education coordinator at Bioriginal Food and Science Corp. She provides EFA-related educational seminars, lectures and presentations, as well as technical and regulatory advice. Karlene holds a BSc in Nutrition from the University of Saskatchewan's College of Pharmacy and Nutrition and is a registered dietitian. She recently co-authored Healthy Fats for Life, a book that explains EFAs and the research supporting their health benefits.



Karlene Karst, B.SC., R.D.

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Flax for Health: Nature's Richest Source of Lignans and Omega-3s

Karlene Karst, B.Sc., RD

Flaxseed is gaining popularity among health and nutrition experts as well as consumers. It's no wonder - research has shown flax can have a big impact on your health. Studies have shown flax to lower cholesterol, help rheumatoid arthritis, and most recently, treat and prevent breast cancer. Flaxseed offers a high content of the omega-3, alpha linolenic acid (ALA); large quantities of soluble and insoluble fibre; and is the richest known source of lignans.

Flaxseed - Good Source of Healthy Fats

ALA is an essential fatty acid and is one of the essential nutrients necessary for life. ALA is part of the omega-3 family of essential fatty acids and must be obtained from the diet, as the human body is not able to manufacture this essential fat. Studies reporting health benefits for omega-3s show that these fatty acids offer protective effects against coronary heart disease and stroke, hypertension, and inflammatory and autoimmune disorders. For example, researchers at the University of Toronto found that total blood cholesterol levels dropped by 9% and LDL ("bad" cholesterol) decreased by 18% when a group of 9 healthy women added flaxseed to their regular diets. The women consumed 50 g of milled flaxseed a day for four weeks.[1]

The Institute of Medicine, part of the National Academy of Science, has recognized the importance of omega-3 fatty acids and in September 2002 set an adequate intake (AI) level for men to receive 1.6 grams per day of the omega-3, alpha linolenic acid (ALA), and for women to receive 1.1 grams per day of ALA.

The Lignan Link to Health

Flaxseed is nature's most abundant source of lignans, containing a concentration of more than 100 times greater than other lignan-containing foods such as grains, fruits and vegetables.[2, 3] Lignans are naturally-occurring substances found in plants and are classified as phytoestrogens - plant compounds that can naturally balance the good and bad estrogen in the body. Over the past five decades, more than 1000 studies have examined the role of phytoestrogens in maintaining health, and in protecting against or modifying disease.

There are a number of reasons why we all should be interested in incorporating more lignans into our diet on a daily basis.

Lignans have anti-cancer effects

An impressive number of studies have shown that flaxseed lignans are very potent anti-cancer agents for hormone-sensitive cancers. Extensive studies on both breast and colon cancer indicate that flaxseed may play an important role in cancer treatment, as well as prevention. Dr. Lilian Thompson, Professor in the Department of Nutritional Sciences at the University of Toronto, has performed clinical trials using flaxseed with breast cancer patients.[4] The work was done in conjunction with Dr. Paul Goss, director of the breast cancer prevention program at the Princess Margaret Hospital and the Toronto Hospital. The study involved 50 women diagnosed with breast cancer. While waiting for surgery, half of the women received muffins containing 25 grams of milled flaxseed daily while the other half received ordinary muffins. The women who received the flaxseed muffins had slower-growing tumors compared to the other group. Dr. Paul Goss also conducted a clinical trial involving 116 women suffering from cyclical mastalgia (breast pain).[5] Women were given either a muffin containing 25 grams of flaxseed or a placebo and were followed for 4 menstrual cycles. The women who had received the flax muffins had a great reduction in breast swelling and lumpiness and their breast pain was alleviated. Interestingly, mastalgia has been linked to the development of certain types of breast cancer.

Flaxseed has been studied extensively in hormone-sensitive cancers (breast, prostate and colon) because of its known effects on hormone levels. Overall, flaxseed has tremendous potential in the area of cancer prevention and treatment.

Lignans naturally affect hormone levels

Intake of lignans on a daily basis results in hormonal changes that are beneficial to women of all ages. In menstruating women who consumed 10 grams (about 2 teaspoons) of flaxseed on a daily basis, significant hormonal changes have resulted. These changes are similar to those seen after consumption of soy isoflavones.[6] Positive effects included less cycle changes, along with a reduction in ovarian dysfunction. This, in turn, may decrease the development of breast and other cancers. In fact, the effects of lignans are similar to those observed with tamoxifen[6] an anticancer drug often used in the treatment of hormone-dependent breast cancer.

Lignans can reduce menopausal symptoms, including hot flashes, sweating, and vaginal dryness and have even been pro-posed as an alternative to hormone-replacement therapy in post-menopausal women. In a 1998 review of alternative treatments, the strongest evidence found for menopausal symptom relief was with phytoestrogens.

A new study published in September, 2002, was the first to examine the effects of natural therapies such as flaxseed supplementation in comparison with hormone therapy. Researchers at Universite Laval in Quebec, Canada, assigned 25 postmenopausal women with high cholesterol to a four-month cholesterol lowering diet, followed by two months on either flaxseed supplements or hormones. After a two-month break, the groups switched treatments. The flaxseed was provided in bread and in ground flaxseed that was added to other food. The study found that flaxseed supplementation and hormone therapy were equally effective in treating some menopausal symptoms such as hot flashes.

Flaxseed, with its high concentration of lignans, is a great choice for all women, whether younger, middle aged or older, as a natural way to normalize the menstrual cycle, manage menopause, and lower the risk of osteoporosis, cancer, and heart disease.

Lignans help reduce the risk of cardiovascular disease and osteoporosis

Bone maintenance and loss is affected by hormonal and nutritional factors. Daily dietary intake of lignans protects against bone loss, reduces the risk of osteoporosis, and may increase bone density. It also decreases the so-called "bad" cholesterol, increases the "good" cholesterol, decreases blood pressure, suppresses the development of atherosclerosis and inflammation, and enhances blood vessel tone. Increasing the lignans naturally through diet or supplements is an effective method to achieving health and preventing some chronic diseases.

Fibre it Up

We have all heard that fibre does the body good. The insoluble fibre in flaxseed acts as a natural "scrub brush" for the intestine by helping to regulate and increase the frequency of bowel movements, and preventing or treating bowel irregularities and constipation. Soluble fibre acts as a sponge and is helpful in lowering blood cholesterol levels as well as lowering blood sugar levels (important for people suffering from diabetes).

A Spoonful of Health

Flaxseed is one of the most nutritious functional foods available today. Because of its link to good health, flaxseed is fast becoming a new addition to many diets. In response to growing consumer demand for alternate ways to incorporate flaxseed into their daily diets, bakers and commercial food companies are now using milled flaxseed as a unique ingredient in everything from yeast breads to bagels and cookie mixes. To gain the most nutritional benefit from your flaxseed, grind it in a coffee grinder or purchase flaxseeds that have already been milled or ground. Moving beyond the traditional flaxseeds, stabilized, organic flax flours are now available which offer improved functionality, stability and taste in baking products as well as enhancing the bioavailability of omega-3 fatty acids.

The light, nutty taste of flaxseed enhances the flavour of food, and adds nutritional value to your diet. Flaxseed may be eaten on its own, sprinkled on cereal, popcorn, and salads, or added to oatmeal, yogurt and blender drinks. Although cooking does not destroy the lignans in the milled flaxseed, flax oil should not be used for frying as the high temperatures will denature the healthy fats. By incorporating flaxseeds and flax flour into your daily recipes, you will be well on your way to achieving the recommended daily levels of ALA.

Teaming Up For Tomorrow

There is a continual need to increase agricultural productivity and profitability within the province. To meet these goals, farmers collectively and collaboratively pool their resources to support research and development activities designed to further enhance their respective industry's growth. Flax is no exception!

The Commission, representing Saskatchewan's 18,000 flax producers is comprised of six registered producers elected from the membership. Two director positions are open annually. Directors are elected to three year terms and may serve for two consecutive terms.

Elections are held each fall (when required) and new directors' responsibilities are initiated at the close of the annual general meeting in January.

If you are a registered flax producer interested in becoming involved as a Director, complete this form and return on or before November 3, 2003 to:
Saskatchewan Flax Development Commission
A5A - 116 - 103rd Street East
Saskatoon, Saskatchewan
S7N 1Y7
Fax: 306.664.4404

NOMINATION FORM FOR DIRECTOR

SASKATCHEWAN FLAX DEVELOPMENT COMMISSION

In accordance with the Saskatchewan Flax Development Plan Regulations, I, the undersigned, hereby submit my name as a candidate for election to a seat on the Board of Directors of the Saskatchewan Flax Development Commission. I have sold flax within the past two years and have paid the check-off required pursuant to Sub Sections 15 (1) and (2) of the Saskatchewan Flax Development Commission Regulations.

First Name *Last Name*

Address

Town *Postal Code*

Telephone *Facsimile*

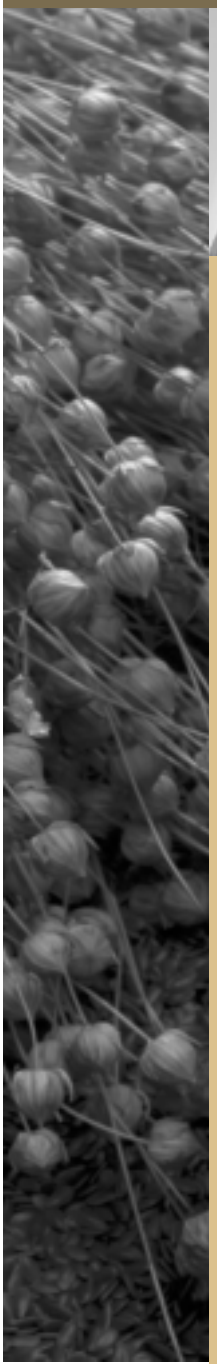
Signature

I nominate the above flax producer as a candidate for election as a Director of the Saskatchewan Flax Development Commission.

Registered Producer (signature) *Please Print Name* *Telephone/Fax*

Registered Producer (signature) *Please Print Name* *Telephone/Fax*

Registered Producer (signature) *Please Print Name* *Telephone/Fax*



Bill Greuel

Is The Current Variety Registration System Serving The Flax Industry?

Bill Greuel

It seems to me that since I started as the provincial oilseed specialist in 1999, the variety registration system has been under review and the discussion has no sign of ending. The debate over variety registration has made me question its validity and importance many times and I must admit that I have changed my mind. Currently I'm pro.

The Prairie Registration Recommending Committee for Grain (PRRCG) recommends varieties for registration of most crops in western Canada. The PRRCG has no legal authority to register a variety, they make a recommendation to the Canadian Food Inspection Agency (CFIA) based on the candidate cultivars performance versus check varieties in the areas of disease, quality and agronomy. The CFIA legally grants registration, allowing the owner to market the variety.

The PRRCG is organized into four subcommittees, the oilseeds subcommittee handles flax, along with mustard, sunflower and soybean. Voting members from several different disciplines assess crop varieties and include Agriculture and Agri-Food Canada researchers, plant breeders from the University of Saskatchewan and other western Canadian universities, private plant breeders, plant pathologists, chemists and producers. Three evaluation teams further subdivide the voting members based on their areas of expertise in breeding and agronomy, quality and disease. Proponents bring a candidate cultivar forward for consideration after it has undergone three yields of agronomic, disease and quality testing. Each of the evaluation teams (breeding and agronomy, quality and disease) review the cultivar separately and then make a recommendation to the subcommittee based on their area of expertise. They can make one of four recommendations including support, do not object, object or abstain. After all evaluation teams have reported, all voting members vote either to support or not to support the candidate cultivar based on all of the information, not just the information from the evaluation team they represent.

The current variety registration system takes into account all facets of the industry, right from the breeder to the end user and includes the producer. One of its strengths is that a diverse array of voting members can weigh the strength of one characteristic against the weakness of another and make an informed decision as to if a candidate cultivar will provide overall benefit to the industry. A guiding principle of variety registration in flax is that new cultivars provide benefit to the industry and perform better than the established check varieties, a system which leads to constant improvement.

The current push from the CFIA is redesigning the registration system to do away with agronomic testing for most crops and evaluate just for disease and / or quality. Presumably that would cut costs, but at what cost? If the PRRCG failed to collect agronomic data, voting members could no longer consider yield, lodging, days to maturity and other agronomic characteristics in the overall performance of candidate cultivars. That doesn't suggest that producers couldn't make an informed decision. I have heard that argument repeatedly throughout the variety registration debate, 'Just give us the data, we can decide what to grow on our own farm'. That may be true, but remember, variety selection can be tricky when you remove checks and balances. More importantly, if agronomic data is no longer required for variety registration, proponents may no longer collect it, making the statement, 'Just give us the data' a mute point.

The Saskatchewan Flax Development Commission supports maintaining the current merit system for variety registration and I think that by doing so they have considered the best interests of not only producers, but also the industry as a whole. Not only has the variety registration system served the industry well in the past, it could provide an important venue to tackle some big issues on the horizon, from the introduction of GMOs to KVD to identity preservation.

California Sushi Rolls with Flax

500	mL	medium grain sushi rice	2	cups
750	mL	water	3	cups
5	mL	salt	1	tsp.
50	mL	seasoned rice vinegar	¼	cup
10	mL	cooking sherry (optional)	2	tsp.
50	mL	whole flaxseed	¼	cup
1		ripe avocado, peeled, cut into eight lengthwise wedges	1	
1		17 cm (7 inch) length of English cucumber, peeled, cut in half lengthwise	1	
6		12.5 cm (5 inch) imitation crab sticks	6	
4		sheets nori (seaweed)	4	
1		bamboo sushi mat*	1	

• Rinse rice well in cold water and drain.
• In a 1.5 L (6 cup) saucepan combine rice, water and salt. Cover and bring to a boil over high heat.
• Reduce heat, simmer 20 to 25 minutes or until water is absorbed. Remove lid.
• Gently fold in seasoned rice vinegar, cooking sherry and flaxseed. Cool to room temperature.
• Take one half of the cucumber, cut into 4 lengthwise wedges, reserve other half for another use.
• Lay bamboo mat on counter with slats parallel to edge. Place nori sheet on top short end facing you and shiny side down.
• Spread 300 mL (1 ¼ cup) rice to a 7 mm (¼ inch) thickness leaving a 1 cm (½ inch) edge at the top.
• Lay two pieces of avocado end to end, one cucumber spear and one and a half crab sticks end to end on lower third of rice. Using thumb, push bamboo mat edge nearest you up and over the filling, holding the row ingredients in place with your fingertips.
• Continue lifting and rolling mat until shush is rolled, being careful not to roll mat into the sushi roll.
• Wrap each roll in plastic wrap, cover with damp towel and refrigerate until ready to serve.
• To serve sushi, slice each roll into 8 rounds. Serve with Wasabi, soy sauce, teriyaki sauce or pickled ginger.

**Bamboo or sushi mats can be purchased in the ethnic section of large supermarkets.*

Flaxseed, Turbinado Sugar and Black Pepper Phyllo Shards

50	mL	ground flaxseed	3	tbsp.
50	mL	turbinado (raw) sugar	¼	cup
15	mL	whole flaxseed	1	tbsp.
15	mL	coarse ground or cracked black pepper	1	tbsp.
4		sheets phyllo pastry 30.5 x 40.5 cm (12 x 16 inches) each	4	
45	mL	melted butter for brushing	3	tbsp.

• Preheat oven to 200° C (400° F).
• In a small bowl combine ground flaxseed, sugar, whole flaxseed and pepper.
• On parchment lined baking sheet, place one sheet phyllo. Brush top with 10 mL (2 tsp.) melted butter and sprinkle generously with flax mixture. Repeat with next sheets of phyllo, butter and flax mixture.
• With sharp knife cut sheets in half crosswise. Then cut at 5 cm (2 inch) intervals to form 16 5 x 15 cm (2 x 6 inch) rectangles. Cut each rectangle diagonally to form 32 triangles.
• Top with fourth sheet and brush with remaining 10 mL (2 tsp.) butter.
• Bake 12 minutes until golden, crisp and dry to the touch.
• Let cool 5 minutes then place on cooling rack.

Note: Turbinado Sugar: dry, coarse blond-coloured raw sugar crystals with a delicate molasses or brown sugar taste.

Yield: 16 servings
Serving Size: 2 shards

Flax Recipes

First Class Flax Recipes

Flax - whole, milled, brown or golden, raw or roasted makes for great eating. Flax enthusiasts like Recipe Developer, LeeAnn Bodnaryk (creator of over 40 fabulous fiber recipes) and Chef, Shona Pearson utilize flax and flax components to create exciting and appetizing dishes from baked goods to main entrees. Here's a sampling of their talents!

Our Mission

"To lead, promote, and enhance the production, value-added processing and utilization of Saskatchewan flax"

Our Logo Tells A Story

The bright and lively crown of the sheaf of flax represents the coming together of many members into a solid organization.

The stalks of the flax plant positioned in a woven manner represent fiber-based products as well as the close interaction between members of the organization.

The boll of the plant, made up of three oil droplet shapes, represents oil-based products as well as the overlapping areas of production, research and marketing.

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