

Saskatchewan flax Grower



Allen Kuhlmann
Chair,
Saskatchewan
Flax Development
Commission

Our Mission

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

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Commission*



SaskFlax

Chair's Report

As I write this report, snow is on the ground in some places, mud is knee deep in others, the southwest has seen drought and the flax harvest is not yet complete. In short, any dream of a season without problems has been thoroughly dashed.

Kochia weed has become a very real threat to southern flax crops and the area is rapidly expanding. Your board has been suggesting and reminding workers and companies to please help. We need your ideas, recipes and pressure on governments and chemical companies to move on this problem. Straw left unbaled, combines broken and bins of seed spoiled don't help flax move forward.

A chemical product registered in North Dakota called sulfentrazone (Spartan) promises some relief, if we can get permission to use it and a company to sell it in Canada. It may also be good in chickpea. It won't be available in 2007. SaskFlax is currently supporting work related to optimizing sulfentrazone rate in flax with Eric Johnson targeting Kochia and red-root pig weed.

I have spoken previously about plant breeding and seed regulation. High tech things with a 5, 10 or 20 year wait for results are much more exciting to government funders than varietal development and regional testing. The other end of the value chain is attracting the funding! Eastern producers and canola growers rely on the private sector to do these things. The realities in flax are somewhat different. The acreage is not large enough to really encourage the private sector. Gordon Roland at the CDC and Scott Duguid at Ag Canada Morden are the public breeders. Paul Dribnenki with Agricore United works mostly with Solin (Linola) and the program must show a profit or die. It is currently in a state of upheaval. Harry Nair with Bioriginal Foods works part time on flax. No one is in the wings to replace these dedicated folks and some or all are near retirement. When funding for plant breeding is so uncertain will anyone make the long term commitment to flax breeding?

How do we encourage our young people to become PhD's and do research when plumbers, oil drillers and heavy equipment operators receive the levels of pay now available in the oil patch?

This fall many people's energies are directed to biofuels and byproducts. Many meetings and workshops deal with these exciting "new" areas. Biodiesel and ethanol are already well known. Second generation biofuels are probably better and soon upon us. Dried distiller's grains, soy and canola meals and glycerol will be available in huge quantities and will soon need homes which return profits.

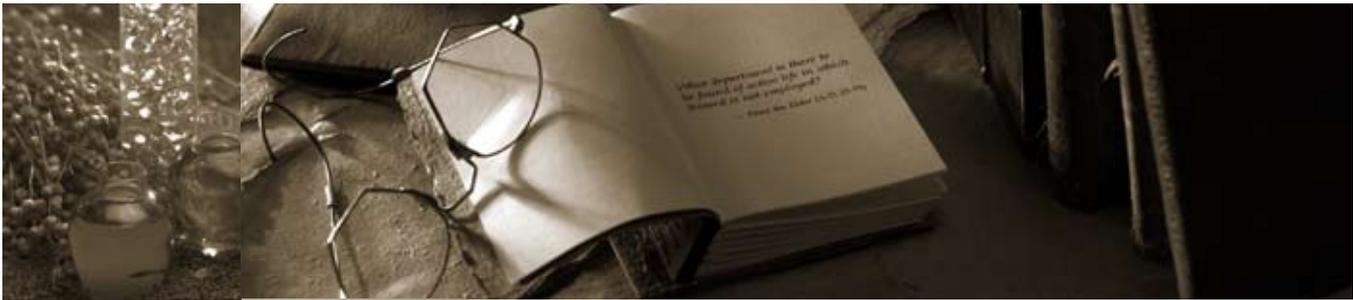
Flax may not be the feedstock of choice for biodiesel but certainly is for some other uses like lubricants, omega 3 fatty acids, fiber and a whole host of products such as bio plastics and composites.

As baseball manager Yogi Berra indicated, if you don't know where you are going you could end up somewhere else! Will we in Canada get a plan or do the Canadian thing and talk about and study the issue until the opportunities pass? We must jump on the opportunities offered. The challenges are to improve and invent technology to use plant based oils for the myriad of products petroleum based oils are used for now. Fuels may be the low end of this value chain.

Paying lip service to producer profits and rural development seem in vogue just now. We need reality! Producers somehow must be more than sellers of commodities. To truly improve we must be more than feedstock suppliers and "rural" development must happen in other than Lloydminster, Regina, Brandon or Red Deer. How about Foam Lake, Shaunavon or Dog River.

I hope to see many of you at Flax Day in January 8, 2007.

Allen Kuhlmann
Chair



N. Lee Pengilly
Researcher and Author

The Language and Lore of Flax

Although the threads that weave the story of the relationship between the first or given name *Linus* with flax are somewhat difficult to follow and ravel just a bit in places, for any history buffs or those with a *Linus* in the family it is an interesting story. Sources vary regarding the lineage of the Greek god known as *Linus*. For our purposes, we will follow the version that says he was the son of Apollo and Psamathe. She was the daughter of the King of Argos - Argos being one of the early Greek city states. The mother abandoned her infant on a hillside and he was devoured by dogs. When Psamathe's father, the King of Argos learned what his daughter had done, he had her killed. Apollo was so outraged by the actions of both Psamathe and her father that he cursed the region of Argos with a plague for which there would be no respite until such time as [the spirits/souls of] both Psamathe and *Linus* were appeased with appropriate prayers and songs of grieving.

The "*Linus Song*," is said to be a lament derived from this story and was sung at harvest time as a dirge for the dying vegetation. The English poet and novelist Robert Graves (1895 – 1985) made the suggestion that *Linus* symbolizes the spirit of the flax plant (*linos*) and the method in which it was harvested, dried and beaten. The celebration of the flax harvest involved music and dance, "plaintive dirges, and pounding rhythms, apparently found in the "*Linus Song*.""

Other sources have *Linus* as the son of the muse Urania and Amphimarlus (a son of Poseidon). He was killed by Apollo because he rivaled the god in his musical skill.

Although most books that reveal the history of names indicate the name *Linus* is of Greek origin

The Value Just Keeps Adding

N. Lee Pengilly

It doesn't seem so long ago the first research indicating flax was good for you began to rouse consumer interest. Initial value adding projects included such simple activities as the marketing of whole cleaned flax sold in small bags or in bulk bins.

and it means flax, from the word *Linus* and given to a child with "flaxen coloured hair" it is difficult to come up with any other direct linkage between, *Linus* and the genus *Linum* if indeed there is one beyond this ancient mythology.

In another flax connection however, (and going further back in time), Mercury is said to have invented the lyre. As this story goes, Mercury found a tortoise. He took the shell and made holes in the opposing edges of it, through which he drew cords of linen. When the instrument was complete, there were nine cords in the instrument in honor of the nine muses. It is said that Mercury gave the lyre to Apollo in exchange for the caduceus (a winged staff entwined with two serpents, associated with Greek god of healing, now a symbol of various medical organizations throughout the world.) In this version as well, it was Apollo who had *Linus* killed as *Linus* rivaled him in musical skill.

A Greek Mythology Guide

Mercury – also known as Hermes and the son of Jupiter and Maia. He presided over commerce, wrestling and other gymnastic games, even over thieving and everything which required skill and dexterity. He was the messenger of Jupiter and wore a winged cap and winged shoes. He bore in his hand a rod entwined with two serpents called the caduceus.

Apollo – the god of music, prophecy, healing and sunlight.

The Muses - the muses were the daughters of Jupiter and Mnemosyne (Memory). They presided over song and prompted the memory. They were nine in number, to each of whom was assigned the precedence over some particular department of literature, art or science.

Compiled from various internet searches

These products were often found at Farmer's Markets and health food stores, and eventually moved into main stream grocery chains. There was the arrival of cold pressed flaxseed oil brought about as more positive flax research made the headlines. Refrigerated brand name oils in dark coloured bottles were followed by flax oil based products ranging from capsules to salad dressings. They were processed in facilities running the gamut from the kitchens of

Farmer's Market vendors to plants owned by major pharmaceutical companies. And the expansion continues. Ongoing research confirms our society's need to be more mindful of our health and that health begins with the foods we eat. From human consumption to pet and livestock feeds and feed supplements, products containing flax and flaxseed oil are gaining an ever increasing market share.

Canada is a hotbed of innovation and entrepreneurship for flax and flax products. It's a rare trip to a big box grocery store, a health food store or a Farmer's Market that one's attention isn't drawn to a new flax creation. To keep readers updated on these products, targeted issues of The Saskatchewan Flax Grower, will feature updates on some of the companies and the value-added flax products they are promoting. These articles will feature food products, but we'd also like to do some fiber ones too. So if you discover a new flax product manufactured in Canada, let us know at saskflax@saskflax.com and we'll try to include it in an upcoming issue.

Canola Harvest[®] Non-Hydrogenated Margarine with Flaxseed Oil

Canola Harvest[®] products are manufactured by Canbra Foods Ltd., a wholly owned subsidiary of James Richardson International Ltd. As one of Canada's oldest and largest fully integrated oilseed/crushing/refining/processing/packaging operations, Canbra Foods Ltd. has many years of specialized experience in the production of canola-based products. Headquartered in Lethbridge, Alberta, Canbra Foods Ltd. takes canola from the field and transforms it into a wide array of products including cooking and salad oils and margarines. Canola Harvest[®] oil and margarine products are integral components of Canbra Foods Ltd. product lines, all made with exacting quality control standards. Their integrated facility allows them to convert the basic ingredient, raw canola seed, to a finished oil or margarine product within thirty-six hours.

Recently Canbra released their newest addition to the Canola Harvest[®] line, Canola Harvest[®] Non-Hydrogenated Margarine with Flaxseed Oil. This new product has boosted levels of omega-3 polyunsaturated fats thanks to the addition of flaxseed oil. It provides 1 gram of omega-3 fat in each 2-teaspoon serving through its mix of canola and flax oils.

Nutritionists consider polyunsaturated (omega-3 and omega-6) fatty acids as essential because the body cannot manufacture them from any other substances. That means they must be eaten as part of the diet. A unique feature of flaxseed is the high ratio of alpha-linolenic acid (an omega-3 fatty acid) to linoleic (omega-6 fatty acid). This, combined with the naturally occurring omega-3 and omega-6 fatty acids found in canola oil, makes the NEW Canola Harvest[®] Non-Hydrogenated Margarine with Flaxseed Oil a healthy addition to any diet. It is a source of Omega-3 polyunsaturates, is trans fat free, cholesterol free, low in saturated fat and a source of both Vitamin D and Vitamin E. (From the Flax Council of Canada and

Canbra Foods websites). (For more information www.canolaharvest.com)

Yoplait Canada Source Cardio Yogurt

Yoplait products have been at the forefront of Canada's yogurt and fresh cheese market for over 30 years, and are synonymous with quality, diversity, and innovation. In February of 2006, they presented the newest addition to their Yoplait Source family, Source Cardio. This yogurt contains omega-3 fatty acid, folic acid, and 8 other essential vitamins and minerals. Omega-3 is good for women's (and men's!) hearts and folic acid is a must for women who are pregnant or planning to get pregnant. This new Yoplait yogurt is ideal for couples-and any active person who wants to take good care of their heart!

Like all Yoplait Source yogurts, Source Cardio contains no dairy fat or aspartame, and is sweetened with fructose and sucralose (Splenda[®]). In addition to folic acid (also known as folate or Vitamin B9), Source Cardio also contains 8 other essential vitamins and minerals found in all Yoplait Source yogurts, namely vitamins A, B2, B5, B12, and D, calcium, phosphorus, and magnesium. What sets Source Cardio apart from all the other yogurts on the Canadian market is that it contains a natural source of folic acid and omega-3 fatty acid. Source Cardio contains 300mg of flaxseed oil per 100g serving.

Because Source Cardio is enriched with plant-based omega-3 polyunsaturates, it contains no marine-based allergens. The omega-3 fatty acids in Yoplait's Source Cardio help reduce the risk of cardiovascular disease, notably by reducing blood cholesterol level. Yoplait's Source Cardio offers a unique combination of ingredients that promotes heart health and fulfills the nutritional needs of people who like to maintain a healthy lifestyle. With the launch of this new functional yogurt, Yoplait is moving one step closer to helping to prevent certain diseases, including cardiovascular disease. (For more information www.yoplait.ca)

Prairie Orchard Farms Omega 3 Enhanced Pork[™] and Just Pork[™]

Prairie Orchard Farms is a Canadian company with a single goal – to produce delicious and nutritious pork for today's healthy and wholesome lifestyles. They start with a well developed strategy and rigorous program to control every facet of production. Their producers and family farms are registered and validated in the Canadian Quality Assurance Program[™], an on-farm food safety program. To maintain the high standards for their Omega 3 Enhanced Pork[™] and Just Pork[™] products, Prairie Orchard Farms has assembled a strong team of Canadian businesses including large and small independent hog producers, small family farms, grain farmers, specialty producers of non genetically modified crops and independent, federally licensed processing and cutting facilities.

Prairie Orchard Farms Omega 3 Enhanced Pork[™] is produced from hogs fed a diet enriched with vitamins and minerals supplemented with a

plant-source of essential fatty-acids. The enriched diet includes the addition of high levels of Vitamin E and the use of organic minerals which improves the colour, texture and taste of their pork. Customers will find reduced meat drip loss, improved meat colour and extended shelf life with this product. To enhance the quality of the meat, the hogs are fed ingredients specifically chosen for their fatty acid profile. The ingredients used are rich in alpha-linolenic acid, an essential omega-3 fatty acid that has been shown to have beneficial effects on human health. Initial tests confirm that levels of this important omega-3 fatty acid increased significantly in Omega 3 Enhanced Pork[™] products when compared to regular retail pork.

Prairie Orchard Farms Just Pork[™] products come from hogs raised on a diet rich in vitamins, minerals, kelpmeal and flax. The hogs are fed without antibiotics, animal by-products or genetically modified grains which consistently yields tender and juicy meat. They use a number of alternative feed ingredients in the diets of pigs in the Just Pork[™] program to maintain pig health and productivity in the absence of medications. In addition to the positive effects on pig health and performance, studies show some of these ingredients have potential benefits for human health. Just Pork[™] is also a sensible choice for those concerned with animal welfare. Pigs in the Just Pork[™] program are housed in straw based shelters where each hog is provided just the right amount of space to thrive. Consumers can be assured of high quality products with Just Pork[™]. The animals each have a P.I.N. – Pig Identification Number to allow every Just Pork[™] product to be traced back to a specific farm for added food safety. (For more information www.prairieorchardfarms.ca)

Burnbrae[™] Farms – Naturegg Omega 3 and Omega Pro Eggs

Burnbrae Farms has its origins near Brockville, Ontario. The operation has been within the Hudson family for over one hundred years and has been producing eggs for over fifty. With farms in Ontario, Quebec and Winnipeg they are one of Canada's leading egg producers. Burnbrae Farms sells eggs and egg products to major grocery store chains, food service operations and large bakery/industrial customers throughout Canada. The company has grading stations across the country in Quebec, Ontario, Manitoba and Alberta servicing all major retail chains nationally with the exception of Atlantic Canada. Processing operations are in Quebec, Ontario and Manitoba. Burnbrae Farms has proven itself a leader in Canadian agri-business through its award winning new product innovation. Five years in a row it was nominated for a Canadian Grand Prix New Product Award. This is a prestigious honour granted by the Canadian Council of Grocery Distributors and Canadian Grocery Magazine. To win four Grand Prix Awards puts Burnbrae in an elite class of Canadian Food Companies. Among the winning products have been Naturegg Omega 3 (1997) and Naturegg Omega Pro (2000). Burnbrae's products also carry the distinction

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N. Lee Pengilly
Researcher and Author

Stripper Header Update 2006

Harvesting for seed and straw using stripper header technology was the subject of a presentation to participants of Flax Day 2006 by Mark Stumborg, P.Eng. with Agriculture and Agrifood Canada, Swift Current. He outlined the challenges of how to take a harvesting system that is geared to optimizing the grain harvest and converting it into a system that optimizes not only the harvest of the grain, but also the straw and chaff. He emphasized that above all else, any change must improve producer economic potential in such areas as:

- maintaining or improving grain quality
- working in a multitude of crop types
- improving the quality and quantity of MOG (material other than grain)
- reducing the time of harvest
- reducing header inventory and/or
- reducing the cost of the combine.

He concluded his talk by outlining future plans for this project which included large scale demonstrations that could more effectively compare stripper header harvesting versus straight cutting. Such factors as straw yield and quality as well as the energy, time and machine depreciation impacts were to be examined. In addition he was looking for a continued evaluation of the biomass collected for thermal, physical and biological processes with the involvement of industrial cooperators, non-government organizations and federal partners. (For a pdf version of Mark's presentation go the SaskFlax website: www.saskflax.com/producer/fiber.html and click on stumborg.)

When Mark approached Lyle Simonson, a producer in the Swift Current area and a Director on the SaskFlax Board to participate in the trials for a second year, Lyle enthusiastically agreed. Lyle was eager to see the comparison of the straw quality between his rotary combine, a conventional combine and using the stripper header. During the first year, Lyle had used the 14 foot header and combine supplied by the Research Station in Swift Current, but during the summer of 2006 the Saskatchewan Flax Development Commission was approached by Mark as to the potential of them investing in a 28

foot header which in turn could be leased out to Ag-Canada and various other groups involved in the research. The Board agreed and Lyle was nominated as the one to look for a header to purchase. Much to everyone's surprise, he found one in the North Battleford area. Over the course of the summer it was retrofitted to work specifically on flax.

The trial area on Lyle's farm was the same size as in 2005, consisting of 80 acres with one third of it to be harvested with the stripper header, one third with a conventional combine and one third with a rotary combine. In all cases the straw was baled around the 14th of October. But that is where the similarity on the dates for completion of an operation ends! With a hot dry summer bringing crops on early, Lyle checked his flax in mid-August. Of course, the straw was as green as could be, but the seed bolls were ripe with four to five percent moisture content - ready to harvest by anyone's standards. He called Mark and they agreed. Lyle could go in and attempt to harvest the flax - and harvest it he did! In fact Lyle confesses to being tempted to harvest all 80 acres. However, there was one draw back; even though he wasn't putting the straw through the combine he still had to go through it. We all know what green flax straw is like! Because of that, Lyle didn't feel there was any great savings in fuel consumption, one of the usual benefits reported from using a stripper header.

Because this was Lyle's second year of involvement, that means he had to have some "stripper-header" stubble to deal with in the spring. Prior to the 2005 harvest, it was decided it would be best to leave some snow strips. Lyle was seeding barley into the flax stubble using his air-hoe drill with shanks. He indicated he had to seed the areas with the snow-strips on the angle, not being able to get through directly. But after he made the realization, everything went smoothly. Lyle figures one could get through it with a disc drill, but for his equipment, he needs to use the angle approach.

When asked about any other observations for the 2006 harvest, Lyle figures even though the straw was green, he was still able to travel a little faster and throw over was minimal, not to mention how early the harvest was complete. "It takes a bit of time and there's lots to deal with in properly adjusting the [stripper] header and figuring out how high or low you want it to be. So much depends on what the goals are for your straw crop. Do you want



it chopped or long? Right now, the longer the straw the better market value it has. But you have to have that market." When asked if he would be interested in participating in the trials another year, Lyle remains enthusiastic. "It sure is a nice way to harvest flax, and I'd be very interested in trying it on different crops!"

In the southeast corner of the province, Edmond Aime, a past Board Director for SaskFlax, was also a participant in this year's demonstration. Edmond does have a market for his flax straw and has had for the last several years with the entire production being sold to a Manitoba processor. Because of that, he is particularly interested in looking to improve the quality of the straw he has for sale. He was well aware the stripper header technology had the potential to increase the capacity of his combine in addition to providing for a better fiber sample and more of it. Those reasons and given his life-long interest in being on the leading

edge of new developments to improve the bottom line, Edmond was eager to work with Mark and the PAMI technicians who were collecting and compiling much of the data. It took some work to get the stripper header properly set and adjusted on his combine, but once it was, Edmond made some significant discoveries; primarily the speed with which he could efficiently harvest the flax. "Once set, it was unbelievable to a drive a combine as fast as you are comfortable with and not be losing anything! The increased capacity of my combine when it didn't have to harvest the straw was amazing!" Edmond uses a pre-harvest desiccant, so there was no problem in getting through the straw. After harvesting the seed, the standing flax straw was rolled and laid down on the soil surface. Edmond relates "Rolling the flax breaks the stems. The straw is allowed to rot for whatever period of time the buyer requires to achieve the standards they want. It is

then wheel raked and baled for removal off the field." Edmond sees that after removal of the straw, the field is left quite bare and he might have to consider leaving strips to hold the snow and prevent any wind erosion on his land.

In summing up his 2006 experience, Edmond is quick to explain, "I appreciated the opportunity to run the stripper header. There are extra field operations to account for and at the end of the day, they have to pay. I see lots of possibilities and I want to see the fiber industry move forward. Someone has to be the guinea pig! I've enjoyed working with PAMI and learned lots." And like Lyle, he sure would like to try the stripper header on another crop and also like Lyle, he is eager to be involved in the project for one more year.

The following companies are registered to collect the Flax Checkoff and have agreed to have their company names listed in the newsletter.

Agricore United
Box 6600
Winnipeg, Manitoba
R3C 3A7
204.944.5411/204.954.1177F

Bioriginal Food & Science Corporation
102 Melville Street
Saskatoon, Saskatchewan
S7J 0R1
306.975.1166/306.242.3829F

Bunge Canada
Box 750
Altona, Manitoba
R0G 0B0
204.324.2209/204.324.5995F

Bunge Canada
Box 2230
Humboldt, Saskatchewan
S0K 2A0
306.682.5060/306.682.5789F

Bunge Canada
Box 546
Russell, Manitoba
R0J 1W0
204.773.3422/204.773.3077F

C.B. Constantini
4 - 3002 Louise Street
Saskatoon, Saskatchewan
S7J 3J8
306.373.9730/306.373.7907F

C.B. Constantini Ltd.
730 - 1508 W. Broadway
Vancouver, B.C.
V6J 1W8
604.669.1212/604.689.4145F

Canary Island Seed Associates Inc.
Box 70
Sedley, Saskatchewan
S0G 4K0
306.885.4444/306.885.2035F

CanMar Grain Products Ltd.
2480 Sandra Schmirler Way
Regina, Saskatchewan
S4W 1B7
306.721.1375/306.721.1378F

Cargill Limited
P.O. Box 5900
300 - 240 Graham Avenue
Winnipeg, Manitoba
R3C 4C5
204.947.6369/204.947.6495F

Delmar Commodities Ltd.
Box 1055
Winkler, Manitoba
R6W 4B1
204.331.3696/204.331.3704F

Diefenbaker Seed Processors Ltd.
Box 69
Elbow, Saskatchewan
S0H 1J0
306.644.4704/306.644.4706F

Fill-More Seeds Inc.
P.O. Box 70
Fillmore, Saskatchewan
S0G 1N0
306.722.3353/306.722.3328F

Horizon Agro Inc.
Box 59 R.R. #1
Morris, Manitoba
R0G 1K0
204.746.2026/204.746.2343F

Johnston's
Box 160
Welwyn, Saskatchewan
S0A 4L0
1.800.324.7778

Keystone Grain Ltd.
P.O. Box 1236
Winkler, Manitoba
R6W 4B3
204.325.9555/204.325.2240F

Lakeside Pulse & Special Crops Ltd.
665 - 167 Lombard Avenue
Winnipeg, Manitoba
R3B 0V3
204.255.5550/204.255.5054F

Larsen Seeds
Box 39
Aylsham, Saskatchewan
S0E 0C0
306.862.7333/306.862.9552

Linear Grain Inc.
P.O. Box 219
Carman, Manitoba
R0G 0J0
204.745.6747/204.745.6573F

Maviga N.A. Inc.
209 - 845 Broad Street
Regina, Saskatchewan
S4R 8E9
306.721.8900/306.721.8988F

Mid-Sask Terminal Ltd.
Box 1208
Watrous, Saskatchewan
S0K 4T0
306.946.2225/306.946.3954

MJW Farms Ltd.
Box 24
Arcola, Saskatchewan
S0C 0G0
306.455.2509

North East Terminal
Box 177
Wadena, Saskatchewan
S0A 4J0
306.338.2999/306.338.2484F

North West Terminal Ltd.
Box 1090
Unity, Saskatchewan
S0K 4L0
306.228.3735/306.228.3877F

Parent Seed Farms Ltd.
Box 36
St. Joseph, Manitoba
R0G 2C0
204.737.2625/204.737.2248F

Parkland Pulse
Box 848
North Battleford, Saskatchewan
S9A 2Z3
306.445.4199/306.445.1650F

Parrish & Heimbecker Ltd.
1400 - 201 Portage Avenue
Winnipeg, Manitoba
R3B 3K6
204.956.2030/204.943.8233F

Paterson Grain
22nd Floor - 333 Main Street
Winnipeg, Manitoba
R3C 4E2
204.956.2090/204.926.9586F

Pioneer Grain Company Limited
2800 One Lombard Place
Winnipeg, Manitoba
R3B 0X8
204.934.5961/204.957.5614F

Prairie Flax Products Inc.
Box 789
MacGregor, Manitoba
R0H 0R0
204.252.2940/204.252.2983F

Precision Ag
Box 172
Carlyle, Saskatchewan
S0C 0R0
306.453.2255

Precision Ag - Carnduff
Box 909
Carnduff, Saskatchewan
S0C 0S0
306.482.4343

Precision Ag - Griffin
Griffin, Saskatchewan
S0C 1G0
306.457.2220

Pulse Depot
Box 790
Rosetown, Saskatchewan
S0L 2V0
306.882.4440/306.882.4434F

Rayglen Commodities
13815 Thatcher Avenue
Saskatoon, Saskatchewan
S7R 1A3
306.249.9617

Regina Seed
Box 28046
Richardson, Saskatchewan
S0G 4G0
306.586.8955/306.586.4171F

Roy Legumex Inc.
250 Caron Street
Box 40
St. Jean-Baptiste, Manitoba
R0G 2B0
204.758.3597/204.758.3260F

Saskatchewan Wheat Pool
2625 Victoria Avenue
Regina, Saskatchewan
S4T 719
306.569.4200/306.569.5133F

Seed Ex Inc.
P.O. Box 238
Letellier, Manitoba
R0G 1C0
204.737.2000/204.737.2102

Van Burck Seeds Ltd.
Box 7
Star City, Saskatchewan
S0E 1P0
306.863.4377/306.863.2252

Walker Seeds Ltd.
Box 2890
Tisdale, Saskatchewan
S0E 1T0
306.873.3777/306.873.5997F

Western Commodities Trading
Box 69
Spalding, Saskatchewan
S0K 4C0
306.872.2280/306.872.2283

Western Grain Trade Ltd.
#9 - 2155 Airport Drive
Saskatoon, Saskatchewan
S7L 6M5
306.657.3455/306.652.3450F

Weyburn Inland Terminal
Box 698
Weyburn, Saskatchewan
S4H 2K8
306.842.7436/306.842.0303



Eric Johnson
Weed Biologist
Agriculture and
Agri-Food Canada

Evaluation of SulfentraZone for Weed Control in Flax

Eric Johnson
Weed Biologist
Agriculture and Agri-Food Canada

There is a need to introduce herbicides with different modes of action to prevent the development of and to manage herbicide resistant weeds. Many broadleaf crops such as flax have limited broadleaf weed control options. Sulfentrazone is a Group 14 herbicide with a unique mode of action to Western Canada. It has been screened in a number of broadleaf crops, including flax. Sulfentrazone is a soil applied herbicide that requires rainfall for activation.

In the United States, sulfentrazone has a Section 18 Emergency Exemption Use registration for control of kochia in flax. Past research in Canada has shown sulfentrazone to be highly effective in controlling kochia and common lambsquarters. In registered crops in United States, the label states that it suppresses wild buckwheat; however, our Western Canadian studies have consistently indicated wild buckwheat control. It has also been effective in controlling redroot pigweed on some soils. Sulfentrazone does not provide consistent control of wild mustard.

The Value Just Keeps Adding N. Lee Pengilly

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of having been accepted into the Heart and Stroke Health Check Program.

Naturegg Omega 3 is a nutritionally enhanced egg for people looking for foods with more essential nutrients. While all eggs are nutritious, all natural and offer a great source of protein, vitamins and minerals, Naturegg Omega 3 eggs also provide an additional source of omega-3 fatty acids. To produce these eggs the chickens eat an all-natural, flax-based diet that was developed by researchers at the University of Guelph. Feeding a chicken flaxseed, which contains an abundant source of omega-3 fatty acids, modifies the fat in the yolk of her eggs to contain more of these good omega-3 fats, and less saturated fats and omega-6 fatty acids. A two egg serving of Naturegg Omega 3 provides 40% of

In 2006, experiments funded by the Saskatchewan Flax Development Commission were conducted across the prairies to evaluate flax tolerance to sulfentrazone as well as weed control efficacy. The experiments were located at Brandon, MB; Lethbridge, AB; Scott, Saskatoon (2 soil types), Melfort, and Indian Head, SK.

The data from the 2006 trials are currently being evaluated; therefore, I can only provide some general observations. Flax showed good tolerance to sulfentrazone at most locations; however some damage was noted at high rates on the lighter textured soil at Scott. It was effective on kochia, wild buckwheat, and redroot pigweed at Scott. One area of concern was the poor redroot pigweed control at Melfort. The highest rate tested (which would be uneconomical) resulted in only a 50% decrease in redroot pigweed biomass. The soil at the Melfort site has a high organic matter and clay content so it may be that the sulfentrazone is being tied up and unavailable for weed control. This raises a concern as to how well the product will work in the major flax growing areas of Manitoba, where the soils can be high in both organic matter and clay content.

More details on the sulfentrazone study will be made available in the annual report and in future newsletters.

the recommended daily intake (RDI) of omega-3 polyunsaturated fatty acids. For consumers looking to introduce more omega-3 fatty acids into their diets, Naturegg Omega 3 shell eggs are an excellent alternative to fish.

Naturegg Omega Pro, like Burnbrae Farms regular Naturegg Omega 3 eggs, is a nutritionally-enhanced egg for people looking for natural foods with more essential nutrients. These eggs also provide an additional source of DHA omega-3 fatty acids and lutein. Each single egg serving of Omega Pro provides 125 mg of DHA omega-3 and 300 ug of lutein. To increase the DHA omega-3 in this egg, a small amount of fish oil has been added to the chickens' feed in addition to the flaxseed. To ensure that each egg has 300 ug of lutein, alfalfa and corn have also been introduced.

(For more information www.burnbraefarms.com)



Chris Hale

Lyle Simonson

Annual General Meeting: Flax Day 2007 "Growing for the Market"

Monday, January 8, 2007
Canadian Room, Saskatoon Inn
Saskatoon, Saskatchewan

- 8:00 a.m. Registration/Refreshments
- 8:30 a.m. Saskatchewan Flax Development Commission Annual Meeting
- 10:15 a.m. Flax Canada 2015
- 10:30 a.m. Flax Council of Canada
- 10:45 a.m. AmeriFlax
- 11:00 a.m. "Growing For The Market": The Breeding Program – Panel (Scott Duguid, Gordon Rowland, Paul Dribnenki)
- NOON Lunch/Network Session (Ballroom A)
- 1:00 p.m. "Growing for the Market": Flax Genomics: Impact on you as a Producer (Jerome Konecni, Genome Prairie)
- 1:30 p.m. "Growing For The Market": Quality Feedstock For Fiber (Alvin Ulrich)
- 2:00 p.m. "Growing For The Market": Organics In Demand (Grant Whitmore, Bioriginal)
- 2:30 p.m. "Growing For The Market": Biofuels (Zenneth Faye, Milligan Bio-Tech Inc.)
- 3:00 p.m. Network/Refreshments
- 3:30 p.m. "Growing For The Market": Helping the Hurt – Flax Paks for Aches/Pains (Sharon Odegard, Comfort Pak)
- 4:00 p.m. "Growing For The Market": The Sell Game (Carman Read, Ag Clearing)

Registration is \$20 on site (lunch and refreshment breaks included). Take advantage of this great opportunity to catch the latest on flax from food and fiber to comfort paks; industry updates and a session on flax breeding with Canada's flax breeders. Network with industry leaders regarding breeding, production and value-adding of flax and flax products.

Leadership

Each year, the Commission's electoral process requires two director positions be filled from registered producers. Positions are advertised and nomination forms are provided in the Commission's newsletter.

For the 2006/07, Directors Chris Hale and Lyle Simonson chose to run for a second three year term. With no other nominations received, they are directors by acclamation.

Chris Hale

Chris Hale and wife, Nancy own/operate a medium sized grain farm near Rouleau, Saskatchewan, growing flax, lentils, wheat, barley and oats. Flax has been part of the rotation on this farm for over 50 years.

They have two grown children. Their daughter is a Crop Development Specialist with Saskatchewan Agriculture and Food, and does some part time research work on commercial applications for flax straw. Their son is a part time university student who works in car and truck sales.

As many of you know, Chris has had a long involvement with flax organizations, and still maintains a strong interest in flax. As a director of SaskFlax for another term, he will continue to help expand the opportunities for flaxseed and flax straw. He is interested in maintaining traditional markets and helping to develop the many potential non traditional uses developing for these products from human health to textiles to building construction materials, and so on.

Sask Flax is working on a system of providing price information to producers that Chris would like to help bring into existence. Sask Flax has created and supported a lot of interest and activity in flax since its inception. The use of the levy on flaxseed and straw has multiplied it many times over through matching fund projects for research and market development, joint activities with the Flax Council of Canada and Sask Flax's involvement with Flax Canada 2015. He is pleased to be able to continue supporting these types of endeavors.

Lyle Simonson

Lyle Simonson, together with wife Debbie, farm 2,500 acres in the Neidpath area, about 25 miles southeast of Swift Current. The farm is zero till, continuous crop with a four year rotation using cereals, pulses and flax as the oilseed crop. They direct seed with an air drill and straight cut the crop at harvest.

As a director with SaskFlax, Lyle has been involved in many flax related activities. He is the representative to Crop Production Week Inc. and served as its Chair for 2006. Lyle also participates on the finance and communications committees of SaskFlax board and has been involved with the fiber research. On the farm, they have been involved with field scale testing and research into different methods of harvesting to obtain the best quality of fiber for value-added uses.

Lyle states "Being involved with the SFDC has given me a good insight as to where flax production is headed in the future. I am very interested in promoting and developing new uses for flax straw and flax fiber. Flax as a health food is another developing market. With rising health costs, this is an area that needs much more research. Some testing of flax as livestock feed has shown improved animal health and better quality meat which may have implications with feedlot rations."

With increasing knowledge of health benefits from flax and more acres of flax being seeded, more detailed marketing information will be needed by producers. More production will also increase the demands for new and better agronomic information that can benefit all producers financially. As a director with SaskFlax, Lyle looks forward to seeing improving returns from flax for Saskatchewan producers.

Flax Checkoff Deadlines

Period 1 February 28, 2007

Period 2 August 31, 2007

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

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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

SaskFlax 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.

Saskatchewan Flax Grower is published bi-annually by the Saskatchewan Flax Development Commission, for registered flax producers, registered buyers and allied organizations.

Subscription rate for other individuals/organizations is \$50.00 per year. Contact office for more details 306.664.1901.

Help Us Be Accurate

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