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Maurice Berry Board Chair

CHAIR'S MESSAGE

Demand Still Strong for Canadian Pulses



The venue provides participants the opportunity to meet with their customers. As a farmer in Saskatchewan, I

value the relationship I have with my buyers. I appreciate the opportunity to meet face to face with the people I do business with. The reality is that on a global scale, the thinking is the same. Good working relationships are extremely important for a successful pulse trading industry.

Attending meetings like this gives me a better appreciation of the pulse industry that extends far beyond the pit of the local pulse plant where I deliver my crops. Pulse growers in Saskatchewan can be proud that we are the world's largest pulse exporting region. In traditional pulse growing countries, there is concern about the reduction in pulse production as farmers in those countries switch from pulses to higher value crops like fresh vegetables. Growers can take comfort that moving forward there will be an ongoing demand for our pulses as we fill the needs of countries unable to fill their own domestic needs and the needs of those countries who are top pulse importers that desire our Saskatchewan grown crops.

I remember the red lentil varieties that were available 10 years ago and their capabilities at that time. The reality is that Saskatchewan's success in the red lentil trade (and the other pulse crops) would not be where it is today without grower investment and this investment is paying off with demand for our high quality crops. Your check-off dollars have paid for the red lentils we have available today.

...growers can take comfort that moving forward there will be an ongoing demand for our pulses... I enjoyed the opportunity to meet directly with the international buyers of our products to find out what they like and

what they would like to see from Canada. It was valuable to learn about some of the trade issues that SPG should be aware of such as Free Trade Agreements (FTA's) in Morocco, Peru and Colombia and trade barriers in India.

The convention in Turkey attracted a large presence from Canada including processors, buyers, brokers, trade representatives and government officials. As participants from Canada, we received a lot of attention and interest because of our dominance in the pulse industry. S

Maurice Berry



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In this issue we celebrate our local bounty and encourage producers to eat what they grow! Pulses make a healthy addition to any meal and could help combat health and nutrition related diseases.

Also in this issue we feature articles about scouting for diseases and grasshoppers and provide some harvesting tips to get the best return on your crop investment.

Finally, we have three open positions on our Board this year and we encourage all producers interested in becoming a Director to fill out the nomination form on page 18. Joining the Saskatchewan

Pulse Growers Board is a great way to get more involved in the Saskatchewan pulse industry.

We wish you a prosperous growing, marketing and harvest season.

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For more information about the Saskatchewan Pulse Growers please visit our website at www.saskpulse.com.

Saskatchewan Pulse Growers



by Jesse Bruce, Blaine Davey and Bert Vandenberg

Best Practices

5 IN BRIEF

Tips for harvesting your green or red lentils.

With an early start to the season for some, harvest will be right around the corner. To get the best possible return from

for Harvesting Your Lentils

your lentil crop, Saskatchewan Pulse Growers (SPG) has funded two projects to determine the best practices for harvesting lentils.

Green Lentils

Green lentil prices are ultimately determined by supply and demand, but the quality of the seed coat in terms of colour and condition affects the final value. Over the past few years, Blaine Davey, under the direction of Dr. Bert Vandenberg, investigated how to genetically improve the colour and condition of green lentil seed coats and some of the agronomic factors that can affect the final value of green lentils. Grading is based on colour and the uniformity of colour

We used an Acurum[™] instrument supplied by DuPont Canada to accurately describe what happened to the colour of the seed coat for 15 green lentil varieties. Replicated plots of the 15 lines were grown at two locations over two years. As harvest approached, they were either swathed or desiccated with Reglone at three different stages of maturity: too early, at the recommended time when the seeds are rattling in the lower third of the canopy, or too late. Normally the recommended stage for green lentil swathing or desiccation begins in late July for the early varieties in the drier southwest production areas and then harvest progresses northward and eastward through the first two weeks of August.

The research revealed that swathing almost always produced a better quality green lentil in terms of colour. The risk with swathing is that wind may blow the swath around or the swath may dry down very slowly, or even sprout if the weather becomes cool and damp. With desiccation, the risk of grade loss increases because the samples are prone to bleaching caused by exposure to sun and rain and darkening because sun and rain also promote darkening of the seed coat. Weather is uncontrollable and the choice of swathing versus desiccation is an individual decision based on equipment, time, and target market. In general, the growers who swath have fewer acres and usually aim for high quality. Growers who desiccate tend to have more acres and are focused on harvesting the crop in the shortest possible time to get it into the bin.

Variety is also important. Breeders have tried to move away from varieties that have sharp seed edges like Laird because it has a tendency PHOTO BY UNIQUITY PHOTOGRAPHY



Lentils can provide a great return on investment when using proper harvest techniques.

to chip, especially when the seed coat becomes more brittle as the lentils become drier with age. In the breeding program, we now have a strong focus on improving the ability to retain green colour in the seed coat. For example, when Eston was replaced with Milestone a few years ago, we gave up some colour retention in exchange for ascochyta blight resistance, but the release of the Viceroy combined everything into one package.

The best strategy for harvesting a good quality green lentil starts with seeding early and using varieties that tend to retain green colour. Good weed control and attention to potential disease development is also part of the best strategy. Timing of the pre-harvest treatments, either swathing or desiccation, is a critical factor for success. This research showed that for both swathing and desiccation, the recommended timing stage is best. Some growers reported good results when harvesting green lentils on the tough side followed by aeration. Also keep in mind that you need to monitor bin moisture. Differential moisture can lead to differential green colour and grade loss and therefore mixing may be helpful.

Good timing seems to be the key to managing the green lentil crop, but the plan does not always work out because of the weather.

Red Lentils

Jesse Bruce, a Masters candidate who also studied under the direction of Dr. Bert Vandenberg assessed the effect of common preharvest techniques (PHT) on the milling quality of red lentil.

Eight red lentil varieties were grown in the province's lentil producing areas and either desiccated with diquat (RegloneTM) or swathed at an early, recommended (when the pods on the bottom third of the plant have turned brown and rattle when shaken) or late stage of maturity. The results of this study showed that producers can minimize risk and increase their chances of harvesting a high yielding, high grade red lentil crop through proper variety selection and pre-harvest treatment.

The milling efficiency of red lentil is based on three principles. These are per cent milling recovery, per cent football recovery and per cent dehulling efficiency. Per cent milling recovery refers to the portion of the original sample that is suitable for sale following milling and dockage removal and including both split and whole seeds. Per cent football recovery refers to the portion of the dehulled sample with intact cotyledons. Football lentils are desirable and typically receive a premium in the market. Per cent dehulling efficiency indicates the portion of the seeds that have a minimum of 98 per cent of their seed coat removed following the dehulling process. Red lentil seed coats are removed to decrease cooking time and increase palatability and nutritional factors and therefore higher per cent milling recovery values are desirable.

Results from these experiments revealed clear trends in red lentil production and milling. Firstly, cool wet weather at harvest has a pronounced effect on red lentil yield and per cent milling recovery, per cent football recovery and per cent dehulling efficiency of milled red lentil seeds. These effects are relatively minor during premium harvest conditions. Secondly, red lentil producers and processors can manage risk in wet harvest situations through proper selection of variety and PHT. Specifically, varieties with grey seed coats, such as Redberry, which had the greatest standability and was most tolerant to cool wet harvest conditions were more capable of maintaining their grade in wet harvest conditions. Furthermore, early swathing caused significant increases in yield, per cent milling recovery, per cent football recovery and per cent dehulling efficiency. Conversely, early desiccation had the opposite effect, causing significant reductions in these values under wet harvest conditions. Varieties with larger seeds yielded higher per cent milling recovery while varieties with smaller seeds yielded higher per cent football recovery. Yield was generally optimized when PHT was applied at the recommended stage. As maturity progressed to the recommended stage, desiccation resulted in higher milling values.

It is advisable that a standardized procedure for consistent, accurate assessment of milling quality be adopted by the milling industry. Such a procedure, using a Satake laboratory dehuller has been developed by Dr. Ning Wang of the Canadian Grain Commission and was utilized to produce the results of this research project.

Best of luck with your lentils this harvest season! 5

Blaine Davey has a Master of Science degree from the Plant Science department at the University of Saskatchewan.

Bert Vandenberg is a Plant Breeder at the University of Saskatchewan's Crop Development Centre.

Jesse Bruce is currently completing his Masters of Science degree at the University of Saskatchewan.

PEST MANAGEMENT

by Mark Goodwin

New Forecasting Tool for Grasshoppers

5 IN BRIEF

A new grasshopper forecasting tool will give early 'heads up' information to pulse producers.

Grasshoppers are not on the minds of most pulse growers in Saskatchewan this year. Weather patterns over the past few years have kept grasshopper populations to relatively low levels. But, there will be a day when grasshoppers come back.

The Saskatchewan Pulse Growers (SPG) have been contributing funds to a leading edge grasshopper program being developed by Dr. Dan Johnson, graduate student Paul Irvine, and Dr. David Kaminski at the University of Lethbridge (U of L). One of the components of the program is a grasshopper forecasting tool that will give early 'heads up' information on hopper hatching and stagings. Early alerts are especially important for lentil growers because grasshoppers go straight for lentil flowers and can devour yields by consuming seed-producing flowers at thresholds of as few as two or three per square yard.

Up until now, the main source of data for grasshopper population forecasting has been a fall count of the insects. Population counts taken in the fall have been accumulated and loaded into a map. This is the basis to make a general forecast and has been useful for producers in the past. The U of L project builds on this by using mathematical modeling, deep knowledge of grasshopper biology and development, and sheer mathematics. Johnson's team gives the grower real time data on expected hatch date by location to provide more accurate information so producers can make a general forecast. The program can also predict ideal control timing based on which of the immature stages are likely to be present. As a result, all of this data can be put into a map format that allows growers to look specifically at the situation in their area. A trial version of the forecaster can be found at http://research.uleth.ca/spg/.

Early in the season, the information will consist of a simple guide to expected hatching



dates. As weather unfolds, more information will be calculated, including a map of where the grasshoppers have completed hatching and currently feeding. Growers using the site will be able to click and view photographs of grasshoppers so they can determine whether the species in their area is one that feeds on lentils, grains or oilseeds. It is one thing to monitor and alert growers about the onset of a grasshopper 'invasion,' but it is also important to be able to tell whether the grasshoppers you have are actually a species that eats crops. The site will also give bottom line summaries and advice on how to monitor for damage.

This work is being supported by SPG and Pulse Canada. Funding for U of L's work was attained through Agriculture and Agri-Food Canada's Reduced Risk program, coordinated by the federal Pest Management Centre. The project is also supported by the Saskatchewan Ministry of Agriculture.

Scientists working on the project know that grasshoppers are not the 'hot topic' for producers right now, but in the words of Dr. Johnson, "we don't know when the next big infestation is coming, but when it does, producers will be better ready." S

Mark Goodwin is a Pest Management consultant for Pulse Canada. He can be reached at mgconsulting@shaw.ca. The maps will give expected hatching and feeding dates and allow growers to click on photos of grasshoppers in their area to determine if they are a threat.

Note

The 2008 version of Grasshopper Identification and Control Methods is still available. Please call the SPG office at 306-668-5556 or email us at pulse@saskpulse.com to receive a copy.



NICHE VARIETY PROGRAM

by Patty Milligan

Breaking New Ground

5 IN BRIEF

The Niche Variety Program invites private seed companies to bid on the opportunity to grow, disseminate, and commercialize new pulse market classes.

PHOTO COURTESY OF WALKER SEEDS

All pulses are extraordinary. However, from time to time, thanks to the research scientists at the University of Saskatchewan's Crop Development Centre (CDC), emerging pulse market classes have come on the scene that are a little more extraordinary than the rest.

Whatever the case, these unique pulse market classes will not fit easily into the standard commodities market. Releasing it to growers in the usual way - through Saskatchewan Pulse Growers (SPG) wellestablished and very effective Variety Release Program does not provide a good fit.

When the slow-darkening pinto bean, a bean unlike any other in the world came along in 2005, SPG put in place a unique program to guide the release of this new market class of bean and others like it. Modeled similarly to SPG's Variety Release Program, the Niche Variety Program was adopted.

With the Niche Variety Program, SPG invites private seed companies to bid on the opportunity to grow, disseminate, and commercialize the market class. In exchange for the exclusive rights to the market class, or in some cases, a single variety, for a fixed period of time, a royalty fee is paid to SPG on all commercial sales. Not only does this innovative system enable SPG to generate income (non-niche pulse varieties are royalty-free), it also gives reputable Saskatchewan-based seed companies the chance to strut their stuff because they spearhead the move to get these unique varieties to market and to bring home



the benefits to Saskatchewan scientists, processors, and farmers.

According to Raelene Regier, SPG's Variety Program Administrator, companies best suited for the Niche Variety Program are already working outside of standard commodities. They have a broad knowledge of markets and a strong network of growers. It is important to SPG that they are local. The process of getting these niche varieties to market is entirely in their hands; they have a fixed amount of time to essentially build a market from the ground up.

The slow-darkening pinto was the first pulse to debut under this program when Walker Seeds Ltd. was awarded the tender in 2005. Unlike other pinto beans, this remark-

The White Mountain Pinto Bean is an example of a variety that has been commercialized through SPG's Niche Variety Program.

able market class, branded White Mountain by Walker Seeds, does not turn brown within two or three months of harvest; it remains shiny and white for up to a year. Because the consumer associates the shiny white coat with freshness, this pinto bean "gives us a bit of an edge," says Les Aubin, Country Operations Manager for the Tisdale-based company. "We've dealt with beans for years but not in Canada," Aubin says. "We're familiar with the market. We know many of the buyers. They come to us, asking if we can offer them beans. It'll be great to be able to offer them a bean from Saskatchewan."

Beans are, in fact, the most consumed legume in the world. Walker Seeds is focusing on markets in northern Mexico and the southern United States where pinto beans are a staple in diets. Despite the huge potential, Aubin says it is important to limit the production because "if we don't keep a cap on it, this bean will become the norm. We're focusing on premium, higher end markets in order to benefit farmers."

Aubin emphasizes that "we have to show the farmer that there's money in it. We can't pay them less than what the ordinary pinto bean market is paying." Not a lot of farmers in Saskatchewan have experience growing beans. In 2008, 5000 acres of pinto beans were planted in Saskatchewan, significantly less than Ontario, Manitoba, or Alberta. Expanding production capacity requires a lot of legwork including crop talks and presentations throughout the province. Aubin identifies a key challenge - if standard commodity prices are good, then farmers are less eager to try something new. "They have to know that there will be a pay off. Otherwise," Aubin says, "why stir the pot?"

While the slow-darkening pinto is the Niche Variety Program's first graduate, other niche market classes are quickly coming down the line. Walker Seeds is working on a second tender for a yellow bean market class. Mexico is one of the largest consumers of yellow beans, which command a large premium over the pinto bean. At this stage, just a few acres of yellow beans will be grown in 2009 and it will be more widely seeded in 2010. Walker Seeds also holds a third tender for a black bean market class, which is in the early stage.

Saskcan Pulse Trading is also working on two unique lentil varieties through the Niche Variety Program. King Red, as it has been branded by Saskcan "is the largest single red lentil that will be produced on a large-scale anywhere in the world," explains Saskcan CEO Murad Al-Katib. King Red will be available exclusively as decorticated and split; no raw lentils will be sold to other processors. This guarantees that the benefits of value-added processing will be retained in the province. Large-scale seed production will begin in 2009, with commercial production beginning in 2010. Saskcan also has a couple of other niche varieties in the works to be released in the future.

Once the seed is widely available, Saskcan will start promoting these varieties. The biggest push is on the marketing end – contacting large buyers and building new markets for these unique new pulses. "In order to preserve advantage, we first have to create it," Al -Katib says. He explains that although niche usually means "small-scale," these varieties have huge potential markets. Al-Katib feels that SPG's choice to use a niche marketing strategy is the most effective because these varieties are outside of traditional markets. They are unfamiliar to us and need special handling.

The Niche Variety Program is innovative for its synergistic approach. SPG partners with the CDC for research and then, as Al-Katib describes it, "they partner with companies like us for commercial trade. We have the buyers. We spread it out to the growers who are excited." The knowledge and development of the market then feeds back into research. Regier concurs that "research should be driven by the market. If there is a company in Italy that asks for a certain kind of lentil, then we can bring that back to the research scientists."

Both Aubin and Al-Katib agree that all parts of the value chain need to see an advantage. Their challenge is, as Al-Katib describes it, "managing the program so that every link in the chain makes money." The key goal of the SPG Niche Variety Program is to make the development and commercialization of niche varieties more efficient, economical and beneficial to the Saskatchewan pulse industry.

The Niche Variety Program is breaking new ground. Pioneering a new area of pulses cannot be an easy task, but from the looks of it, it will benefit the Saskatchewan pulse industry enormously. S

Patty Milligan is a freelance writer based out of Bon Acccord, Alberta.

TASTY RECIPES



5 IN BRIEF

From our kitchen to yours, celebrity chefs share their favourite pulse recipes.

The Celebrity Chefs column is designed to excite your taste buds and provide new ideas on how you can include pulses in your family meals.

In this issue we are featuring pulse recipes from the Saskatchewan Legislature. Our own Premier Brad Wall provides his Mediterranean Chickpea Salad recipe, a healthy addition to any barbecue and Deputy Minister of Agriculture Alanna Koch provides her Mom's Lentil Soup recipe, a family favourite.

Try all three and let us know which one your family likes best or if you have a favourite pulse recipe to share with our readers, send it via email to pulse@saskpulse.com or fax it to 306-668-5557, along with your contact information.

Happy Cooking! 5

Mediterranean Chickpea Salad

Brad Wall

1 15 oz. can of chickpeas, drained and rinsed (Saskatchewan-grown is best)



- 1 cup (250 mL) grape tomatoes, halved
- 1/4 cup (60 mL) sweet onion, finely chopped (optional)
- 1 tbsp. (15 mL) minced garlic
- $^{1\!\!/_2}$ tsp. (2 mL) dried parsley flakes
- 1/4 tsp. (1 mL) dried basil
- 1 tbsp. (15 mL) grated parmesan cheese
- 1 tbsp. (15 mL) olive oil
- 3 tbsp. (45 mL) balsamic vinegar
- 1/4 tsp. (1 mL) salt

In a large bowl, toss together chickpeas, cucumber, tomatoes, onion, garlic, parsley flakes, dried basil, and parmesan cheese. Drizzle with olive oil and balsamic vinegar, and season to taste with salt. Toss until well combined, and adjust seasoning as needed. Cover and refrigerate for at least 45 minutes before serving. Serve chilled.

Comments from Brad: This cool salad serves four and takes about twenty minutes to prepare. It is perfect for serving at any family supper.

Mom's Lentil Soup Alana Koch

3 cups (750 mL) lentils, washed 5 cups (1.5 L) water 1 large onion, diced 1 ham bone, with some meat on it ½ tsp. (5 mL) pepper 1 large bay leaf 1 garlic clove, finely diced 2 large carrots, thinly sliced 1 cup (250 mL) celery, diced

Place lentils, water, onion, ham bone, pepper, bay leaf, and garlic into a large soup pot. Bring to a boil; turn to medium low and simmer for two hours. Remove bone from pot and cut off meat into small serving pieces. Taste the broth to see if any salt needs to be added (though unlikely due to the salt from the ham). Put meat pieces into soup pot. Add carrots and celery. Simmer for two more hours. May need to add water as lentils will thicken the broth. Serve with cornmeal muffins or cake. At serving time, add a drop of vinegar and a dollop of sour cream to each bowl of soup.

Comments from Alana: This is my mom's recipe made with lentils my dad grew on our farm. I'm proud to say that my dad was one of the early growers of lentils in Saskatchewan. I recall my mom serving up this hearty soup on cold winter days along with my all-time favourite, cornmeal Johnny cake!



PULSE DISEASES

by Faye Dokken

Scouting for Disease in **Pulses**

S IN BRIEF

It is important to understand vour overall crop health when making crop management decisions.



Pulse seed quality was looking good heading into the 2009 season. However, the pulse disease forecast will be influenced by the weather (especially rainfall) and activity of plant pathogens in the soil and crop residue.

At this time of year you may start to notice seedling diseases when conditions for plant growth are poor. Soil-borne diseases such as seed rot, root rot, seedling blight and damping-off (sudden collapse/death of seedlings) of pulses may result in patchy stands due to poor emergence, root lesions, stunting, and/or collapsing of seedlings. While there is little that can be done about soil-borne diseases at this stage in the game, it is important to understand your overall crop health when making pest management decisions for this season and future seasons.

Foliar diseases, such as ascochyta and anthracnose, can be combated with a fungicide application if proper timing and good foliar coverage is achieved. Scouting for diseases in pulse crops involves accurate identification of plant diseases and/or the conditions that favour them in time to make management decisions and avoid economic loss. Timing and frequency of your scouting routine will depend on your crops and diseases.

You know your fields best, so design your scouting routine around this expertise, noting the history of crops, inputs, and pests in each field. 5

Faye Dokken is the Provincial Specialist, Plant Disease with the Saskatchewan Ministry of Agriculture. She can be reached at faye.dokken@gov.sk.ca or 306-787-4671.

Table 1: Scou	uting for Diseases in Pulse Crops											
	Chickpea	Lentil	Field Pea									
Who?	Growers and agronomistss should a neighbours and colleagues for advis information at 1-877-457-2377 or a	scout pulse crops for disease on a r ce, or contact the Saskatchewan Mir aginfo@gov.sk.ca or contact your loc	regular basis. Ask experienced nistry of Agriculture for more al Regional Service office.									
What?	Chickpea crops starting at the seeding stage	Lentil crops starting at the vegetative stage	Field pea crops starting at the bloom stage									
Where?	If time does not allow scouting of e Fields planted with infected seed Fields that had the same pulse Field margins adjacent to last ye Areas where the plants have bee Fields planted to the most disea	 If time does not allow scouting of every field, focus on higher risk areas including: Fields planted with infected seed Fields that had the same pulse crop in the previous two years Field margins adjacent to last year's infected pulse residue Areas where the plants have been stressed or have a dense plant canopy Fields planted to the most disease-susceptible cultivars 										
When?	Scout every three to seven days and watch the weather forecast. Rain increases disease risk by spreading ascochyta spores and providing moisture for germination and infection by the fungus.	Scout every seven days depending on disease risk. Rain and warm temperatures favour foliar diseases such as ascochyta blight and anthracnose.	Scout every seven to 10 days depending on disease risk. Rain and warm temperatures favour ascochyta blight, while stress caused by cold and very dry or very wet soils favours root rot.									
Why?	It is important to scout for and man diseases lesions reduce photosynth may result in severe blighting, stem and impeding harvest. Seed may a diseases.	It is important to scout for and manage pulse diseases properly to protect crop yield and quality. Foliar diseases lesions reduce photosynthetic efficiency, which translates into yield loss. Sometimes disease may result in severe blighting, stem breakage and dropping of leaves and blossoms, resulting in yield loss and impeding harvest. Seed may also be infected as a result of a late infection or spread of foliar diseases.										
	Ascochyta Blight (Ascochyta rabiei) Tiny light brown to dark brown spots expand into lesions with distinct margins on lower leaves and progress upwards to all above ground parts. Black fruiting structures (pycnidia) form within	Ascochyta Blight (Ascochyta lentis) Lesions begin as tiny brown spots and expand iinto lesions containing small, round fungal fruiting structures called pyncidia. Anthracnose	Ascochyta Complex (Mycospaerella pinodes, Ascochyta pisi, Phoma medicaginis var. pinodella) Look for small purple or brown spots on leaves, stems, flowers and pods.									
	lesions, indicating the pathogen is producing spores that can cause additional infections.	Symptoms are similar to ascochyta, but lesions are more often on stems and do not develop pycnidia, but rather irregularly shaped black fungal structures.	Root Rot Pathogenic fungi are seed and soil-borne, causing wilting, stunting and yellowing of foliage in patches, along with poor nodulation and root decay.									
How?	 Follow a regular scouting routine and pattern: Check at least five sites in a field of < 100 acres, and at least 10 sites for > 100 acres Walk a zigzag pattern throughout the crop to cover a large area Watch lower leaves and stems closely for early symptoms Mark specific areas with flags to aid in monitoring disease spread and/or to determine the effectiveness of fungicide applications Be mindful of your movements and take sanitation precautions between fields. It is possible to spread disease spores from crop-to-crop on tools, tires and shoes 											







The Amazing Legume only \$5.00 each (plus shipping and handling)

To purchase, please contact: Rachel Kehrig at 306-668-9988 or rkehrig@saskpulse.com



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Municipal Hail Insurance Business as usual.

As usual, SMHI and AMHL offers dependable and more cost effective coverage – acre for acre – with no changes to crop surcharges.

Farming in Saskatchewan comes with its fair share of challenges: if it's not one thing, it's another.

Saskatchewan Municipal Hail Insurance (SMHI) and Additional Municipal Hail Limited (AMHL) have been helping farmers weather the storm for over 92 years and this year is no different.

In fact, it's business as usual.

- SMHI & AMHL offer \$150 per acre coverage for a total of \$300 per acre (conditions apply).
- SMHI offers insurance on credit and discounts for prompt payment.
- AMHL premium payment options:
 - Cash or credit (VISA[™] or Mastercard[™]) at time of purchase.
 - Deferred cash payment due August 1 at cash rate.
 - Promissory note due October 1 (conditions apply).
- June 15 Last day to file SMHI crop reports.
- June 30 Last day for new SMHI applicants to apply for coverage.
- August 1 Last day to apply for coverage with AMHL.

Your local R.M. Administrator can help structure the hail insurance plan that is right for you.

For more information, please call 1-877-414-7644 or visit us on the web at **www.smhi.ca**



Saskatchewan Municipal Hail Insurance Association 2100 Cornwall Street Regina, SK S4P 2K7 John Eberl

Saskatchewan Pulse Growers

CHECK-OFF DOLLARS

by Ron Mantyka

New Pulse Research

SPG has recently approved a number of important agronomy, breeding and value added processes research

projects.

🕤 IN BRIEF



The Saskatchewan Pulse Growers (SPG) Board recently approved 26 new research projects in agronomy, breeding and value added processes for a total investment of \$3.1 million.

Please see the following information about some of the newly approved research projects that will benefit the Saskatchewan pulse industry.

AGRONOMY

Assessing Nitrogen Fixation of Faba Bean for the Prairies

- **Researcher:** Dr. Rosalind Bueckert, Department of Plant Sciences, University of Saskatchewan
- **Objective:** Research efforts on the prairies have concentrated on pea, lentil and chickpea. Faba bean is superior to peas in years with drought and heat and contributes more nitrogen (N) to the succeeding rotation crop. N contribution to cropping systems will be evaluated by:
- 1. Improving the nitrogen contribution of pulses to prairie cropping systems through faba bean;
- 2. Understanding the total nitrogen contribution and nitrogen fixed by a range of faba bean genotypes including zero tannin types; and
- 3. Identifying parental genotypes for use in development of new cultivars.
- Benefit to Saskatchewan Producers: Faba bean is a promising food and feed crop and production will likely increase. Superior biomass production, excellent stress tolerance and nitrogen contribution will make this an attractive crop for producers.

Funding Partners: This project is being cofunded by the Saskatchewan Ministry of Agriculture – Agricultural Development Fund (ADF).

Disease of Field Pea in the Black Soil Zone of Northern Saskatchewan

- Researcher: Dr. Sabine Banniza, Crop Development Centre, University of Saskatchewan
- **Objective:** Disease problems have been identified as a major impediment for the growth of pea production in the black soil zone. To better understand the pathogens impeding pea production in the black soil zone, research is being conducted to determine:
- 1. Yield losses associated with soil-borne pathogens in the black soil zone;
- 2. Identify the pathogens involved and evaluate seed treatments to stabilize and/or improve yield; and
- 3. Identify the pathogens of ascochyta blight complex in field pea.
- **Benefit to Saskatchewan Producers:** Determining the pathogens that cause significant yield and quality losses will allow appropriate recommendations for fungicide seed treatments and/or foliar treatments.

Validation of the Mustard Root Bioassay for Detection of New Group 2 Herbicides

- **Researchers:** Dr. J.J. Schoenau, Department of Soil Science, University of Saskatchewan
- **Objective:** The effect of soil and environmental conditions on carryover risk to pulse crops has yet to be determined on two new group 2 herbicides (Simplicity and Velocity M3) registered in Western Canada. Soil active herbicides have re-cropping restrictions for pulse crops; however no public research has been done on the carryover potential of the new products. A previously developed mustard root bioassay is effective in detecting the phytotoxicity of Group 2 herbicides in addition to being a reasonable predictor of herbicide carryover potential. This project aims to:
- 1. Determine if the mustard root bioassay is effective in detecting the two new residual Group 2 herbicides; and
- 2. Determine the phytotoxicity of the active compounds in different soil types relative to flucarbazone.
- **Benefit to Saskatchewan Producers:** Understanding the phytotoxicity of the active compounds in Simplicity and Velocity M3 in the various soil types will validate label re-cropping recommendations. This bioassay will also provide growers with a predictive tool for making re-cropping decisions.

BREEDING

Shortening Generation Time for Faster Commercialization of New Pulse Crop Varieties

- **Researchers:** Dr. Albert Vandenberg, Crop Development Centre, University of Saskatchewan
- **Objective:** Generation time is a limiting factor in pulse breeding. It also affects the rate of genetic improvement and in the case of recombinant inbred lines, understanding the genes responsible for quality and disease traits. Faster commercialization of new pulse varieties with new traits will be explored by:
- 1. Speeding up the introduction of new pulse crop varieties through efficient and cost effective in vitro techniques;
- 2. Apply the developed protocol to hybrids from interspecific projects to reduce time in incorporating new traits; and

- 3. Obtain seed from projects where plants cannot be rooted or grafted.
- **Benefit to Saskatchewan Producers:** Alternative breeding strategies will significantly reduce the duration of generation cycles and lead to faster delivery of new pulse crop varieties to producers, especially in the higher market classes.

Effect of Pulses on Glycemic Control and Cardiovascular Disease Risk Factors in Type 2 Diabetes: A Dose Response Study

- Researcher: David J.A. Jenkins, University of Toronto
- **Objective:** To determine if pulses improve glycemic control in non-insulin dependent diabetes, and to assess whether these outcomes relate to improvements in cardiovascular health. Positive results will support inclusion of pulses in the diabetic diet and promote advice to diabetics and those at risk of diabetes (family history, overweight, impaired glucose tolerance).
- Benefit to Saskatchewan Producers: The United States total annual economic cost of diabetes in 2007 was estimated to be \$174 billion. Many people with type 2 diabetes can control their blood glucose by following a healthy meal plan and exercise program, losing excess weight, and taking oral medication. (American Diabetes Association). This study will help define the role pulses can play in the diabetic diet and the wide range of coronary heart disease benefits of specific pulses. Equally importantly, the study will demonstrate consumer acceptance of low glycemic index legume breads developed by Dr. Jenkins and his colleagues.

Dry Bean Improvement Through the Use of Tepary Bean

- **Researchers:** Dr. Kirsten Bett, Department of Plant Sciences, University of Saskatchewan
- **Objective:** Tepary bean is a cultivated bean that is able to withstand stress better than the common bean. Tepary bean has also shown to be more nutritious. Tepary bean may also be better suited to the more extreme environments where common bean cannot be grown. The objectives for this project are to:
- 1. Under sub-optimal conditions, assess adaptation and productivity of Tepary bean relative to the common bean;

- 2. Provide a micronutrient profile of the lines that produce seed; and
- 3. Assess germination and emergence under cold soil conditions and field based tolerance of common bacterial blight.
- **Benefit to Saskatchewan Producers:** The development of traits from bean could lead to improved common bean varieties which would result in a high value marketing opportunity for Saskatchewan pulse producers.
- **Funding Partners:** This project is being co-funded by the Alberta Pulse Growers.

VALUE ADDED PROCESSING

An Investigation into Pulse Fibre Fermentation and Nitrogen Excretion in Patients with Chronic Renal Failure

- **Researcher:** Wendy J. Dahl, Food Science and Human Nutrition Department, University of Florida
- **Objective:** The North American incidence of chronic kidney disease (CKD) is growing rapidly. CKD is one of the most costly health care expenditures. The results of this project may demonstrate that pea fibre supplementation through acceptable pulse fibre fortified foods is an effective therapy for uremia of chronic kidney disease – a condition that at the present time lacks an effective treatment.
- **Benefit to Agriculture:** The results of this project will provide clinical testing of pulse fibre as components of therapeutic functional foods, i.e. medical nutrition therapy, a very high value-added industry. The findings of this study may also lead to the development of therapeutic pet foods because many geriatric canines and felines suffer from CKD.

Processing and Pea-Based Dog Foods: Maximizing Starch Resistance to Improve Obesity, Diabetes, Cardiovascular Health and Intestinal Health

- **Researcher:** Lynn P. Weber, University of Saskatchewan, Veterinary Biomedical Sciences
- **Objective:** To date, there has been limited use of pulses in dog food. Concern over the quality of pet foods has increased with awareness of human health benefits of a good diet. Concern over the pet food quality

and offshore ingredient sources has heightened since the recent melamine poisonings from pet foods. These events have created an opportunity to introduce pea-based foods into the pet food market. The results of this projecet will provide researchers and marketers the tools needed to substantiate the benefit of the quality and health of pea ingredients.

- **Benefit to Agriculture:** The results of this research will be used as a marketing tool to support health benefits of novel commercial dog foods that use peas as a carbohydrate source rather than the more commonly used rice, corn or sorghum. Pet food sales are worth more than \$5 billion in Canada and have been steadily climbing for decades
- **Funding Partners:** This project is being co-funded by Natural Sciences and Engineering Research Council of Canada Collaborative Research and Development (NSERC CRD).

Maximizing the Use of Field Peas in a Commercial Pig Barn

- **Researcher:** Pascal Leterme, Prairie Swine Centre Inc.
- **Objective:** The nutritional value of field peas in pigs is well documented. It has been scientifically demonstrated that growing pigs maintain their growth rate with diets containing more than 50 per cent peas. However, even with that information in hand, many feed and pork producers are not keen to incorporate field peas into rations for swine. The overall objective of the study is to demonstrate that peas constitute a basic feed ingredient for pigs and that a commercial pig barn where pigs are fed high levels of field peas have the same performances as pigs fed other feed ingredients.
- Benefit to Agriculture: The potential use of field peas in swine nutrition in Canada is estimated to be 3.3 million tonnes and in Western Canada, assuming that peas would be accepted as a basic feed ingredient, at the same level as wheat, barley, canola meal or corn/wheat dried distillers grains with solubles (DDGS). S

Ron Mantyka is the Research Project Manager with Saskatchewan Pulse Growers. He can be reached at rmantyka@saskpulse.com or 306-668-0591.

2010 Board of Directors **Nominations**

If you are a registered pulse producer (i.e. you have sold pulses and paid check-off to Saskatchewan Pulse Growers within the last two years), and would like to be instrumental in growing Saskatchewan's pulse industry, fill in the nomination form below. It must be signed by three other registered producers.

Three positions are open for Directors on the Board of the Saskatchewan Pulse Growers. Nominations are being accepted until **12:00** PM on FRIDAY, OCTOBER 23, 2009.

Responsibilities:

- 10 Board meetings per year (one per month except during harvest and seeding); conference calls as required
- Average time commitment of board members is 50 days per year
- Terms are for three years, with a maximum of two consecutive full terms

	Nominati	ion Form	
In accordance with the Saskatchev a candidate for election to	van Pulse Growers Reg a seat on the Board o	gulations, I, the und f Directors of the S	dersigned hereby submit my name as Saskatchewan Pulse Growers.
First Name		Last Name	
Address/Town			
Postal Code		Email	
Telephone		Fax	
Signa	ature		
I have grown the following pulse crops:	2008	200	09
I nominate the above pulse produce	er as a candidate for el	lection as a Directo	r of the Saskatchewan Pulse Growers.
Name of Registered Producer (signature)	Name of Registered P	roducer (signature)	Name of Registered Producer (signature)
Name (please print)	Name (please print)		Name (please print)
Address	Address		Address
Telephone	Telephone		Telephone
Fax or Email	Fax or Email		Fax or Email
Saskatchewan Pulse Grov Tel	<i>Please return</i> wers, #104-411 Down lephone: 306-668-555	this form to: ey Road, Saskatoo 6 Fax: 306-668-	on, Saskatchewan, S7N 4L8 5557

Note: Only registered producers can hold office, vote, or nominate others. If your dealings with the Saskatchewan Pulse Growers (e.g. check-off) have been through your company name, rather than your own name, you may have to sign the "Designated Representative Form" which designates you as a representative of the company for election and nomination purposes. Please contact the Saskatchewan Pulse Growers Office at 306-668-5556 if you think this might apply to you.

PULSE CANADA by Carl Potts

Pulse Trade

Agreement

Progress

5 IN BRIEF

Canada needs to establish Free Trade Agreements to be competitive with other pulse producing regions.

Pulse Canada

Access to international pulse

markets is a high priority for exporters. Phytosanitary barriers, import duties, taxes and preferential tariffs for products produced in competing countries such as the United States (U.S.) or Australia can restrict access for Canadian products, resulting in lower prices for growers. One barrier is the competitive disadvantage for Canadian pulses because of Free Trade Agreements (FTA) established by other pulse producing regions. Addressing barriers such as these continues to be a top priority for Pulse Canada.

Progress in Morocco

Canadian Agriculture Minister Gerry Ritz recently traveled to Morocco to meet with importers, exporters and government officials to discuss the possibility of a Canada-Morocco FTA. Pulse Canada staff, along with Pulse Canada Board Vice-Chair and SPG Director David Nobbs, also participated in the mission to support the Canadian government's efforts.

In Morocco, Canadian pulses face import duties ranging from 50 to 80 per cent, whereas product flowing in from other nearby countries face substantially lower or even zero duties. The U.S. free trade agreement with Morocco, which came into effect in 2006, will eventually phase out import duties on pulses imported from the U.S. Canadian pulses will continue to face high tariffs without a similar agreement. Pulse Canada has been supportive of a Canada-Morocco FTA because it would allow Canada to be competitive with other pulse producing countries that have FTA's in place with Morocco.

Following these meetings with Moroccan Agriculture and Trade Ministers, Minister Ritz made an announcement that Canada and Morocco discussed the possibility of entering FTA negotiations.

Pulse Canada also used this opportunity to meet with key pulse importers, who were supportive of a Canada-Morocco agreement because an FTA would facilitate more direct business with Canadian exporters. Differential duties provide incentives for product to move through other countries and be re-exported to Morocco. The elimination of import duties, which adds as much as \$400 U.S. per tonne to the cost of imported pulses, would remove these incentives, drive out additional costs for Canadian pulses and facilitate more direct trade flows. Importers also felt that the elimination of import duties would increase demand for Canadian pulses by reducing costs for consumers. Pulses are a staple in the Moroccan diet and demand is price dependent.

Gross Domestic Product (GDP) growth in Morocco is expected to continue to remain

strong. GDP growth has been running at about six per cent per year for the last few years and is expected to drop only about four per cent this year, despite the global economic slowdown.

Colombia, Peru and the Dominican Republic

Morocco is not the only trade agreement priority for the Canadian pulse industry. Columbia, Peru and the Dominican Republic are also FTA priorities. Canada has signed agreements with both Peru and Colombia that, once implemented, will eliminate the tariff disadvantage created by U.S. agreements with these countries. However, at time of writing, these two agreements were not yet approved by Canadian Parliament, but have been tabled in the House of Commons.

Pulse Canada traveled with Minister Ritz to Colombia and Peru in May to help to ensure these agreements are implemented as soon as possible. Pulse importers in Peru and Colombia have shown tremendous support for Canadian free trade agreements. Pulse buyers recognize the quality of Canadian product and want to remain competitive. Colombian importers recognize the growth opportunities that a Canada-Colombia agreement presents for peas for human consumption and animal feed. Flour millers have shown interest in pulses as a value-added ingredient. Eliminating import duties will also reduce food costs, which is particularly important given that pulses are a staple consumed by some of the poorest populations.

If passed by Canadian Parliament, the Canada-Colombia agreement will eliminate the 15 per cent import duty for Canadian lentils, peas and chickpeas entering Colombia. Colombia is one of Canada's top two markets for green lentils, a top-ten market for Canadian peas and a strong market for red beans. The Colombian agreement will also create duty-free access for 4,000 tonnes of Canadian beans compared to the current 60 per cent import duty applied to Canadian beans. This import duty is prohibiting direct bean sales. Canadian pulse exports to Colombia were more than \$63 million in 2008. The implementation of the Canada-Colombia FTA will ensure Canada is not at a disadvantage with the U.S. pulse industry.

The Canada-Peru agreement will eliminate the current import duties for Canadian pulses entering Peru that has been as high as 25 per cent recently. The U.S. agreement with Peru already places Canadian pulses at a tariff disadvantage relative to the U.S., since February 1, 2009 when the U.S.-Peru agreement was implemented. Peru is a solid market for Canadian peas and lentils, importing over \$16 million in Canadian pulses in 2008.

The Dominican Republic is a top-five bean market for Canada. The current U.S. agreement puts Canadian beans at a disadvantage by providing duty-free access for over 8, 500 tonnes of U.S. beans per year, while Canadian beans remain subject to a duty in the range of 25 per cent. Negotiations are in progress with the Dominican Republic and the goal is to achieve the same access that was granted to the U.S.

European Union

Canada and the European Union (EU) have formally launched trade negotiations. The EU is the second largest market region for the Canadian pulse industry, following the Indian subcontinent. EU countries are consistent, reliable and high value markets for Canadian pulses. EU customers often pay more for product quality, food safety, and traceability, something the Canadian pulse industry can provide.

Pulse Canada has a close relationship with the government trade negotiation teams and we have already had preliminary discussions about potential agreements and the importance of the EU to the Canadian pulse industry. We will be consulting with key industry representatives and continue to work closely with negotiating teams to ensure all key tariff and non-tariff barriers for Canadian pulses are addressed in all negotiations within the EU market and all international pulse markets.

In summary, significant progress is being made on the free trade agreement priorities of the Canadian pulse industry. We are close to eliminating the competitive disadvantage for Canadian pulses in Colombia and Peru, and negotiations are underway with the Dominican Republic that will hopefully put Canadian beans equal to the U.S. Progress is also being made towards launching negotiations with Morocco.

We are working to develop new FTA priorities to maintain and enhance market access for Canadian pulses, keeping our industry at the front of the pack in global markets. S

Carl Potts is the Director of Market Development. He can be reached at cpotts@pulsecanada.com or 204-925-3786.

by Bunyamin Tar'an

Chickpea Breeding At the Crop Development Centre

Chickpea is among the youngest pulse crop in Western Canada, but has taken a significant role in Saskatchewan's pulse industry.

The chickpea breeding program at the Crop Development Centre (CDC) is focused on making chickpea a less risky and easy to grow crop, while maintaining its high economic value. These efforts include improved resistance to ascochyta blight, early maturity, weed management, physical seed appearance and processing quality to widen the genetic base and enhance genetic knowledge of these important traits. Modern technology and effective collaborations at different levels are being put together to help achieve these objectives. It is important to note that many of these traits are complex and controlled by a few genes, some that are highly affected by the environments, making breeding an incremental process.

In ascochyta blight research, we have identified limited sources of resistance and are transferring this resistance into breeding lines. We have gained a better understanding on how the genetics of the resistance works. A molecular approach is being developed to pyramid the genes for resistance, but much more research is needed. We look forward to genomic tools to assist here. The availability of the irrigation system in research plots in Saskatoon provides favorable conditions for effective field selection of potential lines, with improved ascochyta blight resistance. Other research areas that are being actively pursued include cellular characterization of the infection process and best control strategy for ascochyta.

Reduction of time to maturity and less indeterminate chickpea crop will help to stabilize chickpea productivity in Western Canada. Few germplasm sources with very early maturity have been identified; however most of these germplasm are highly susceptible to ascochyta blight and have undesirable seed quality. Progress is underway to transfer the earliness trait into potential breeding lines

with acceptable quality and improved ascochyta blight resistance. More research in the area of management practice to hasten chickpea maturity is needed.

The chickpea breeding program has put more emphasis on breeding for medium to large seeded kabuli with acceptable canning and cooking quality. For the desi, we continue to focus on seed size, seed coat colour and seed shape. High milling (dehulling) efficiency is a desirable trait for desi chickpeas. To generate and sustain profitable returns for the desi chickpea, we need to increase the yield of desi chickpeas close to that of pea and/or create new markets and uses. The new Grains Innovation Laboratory, which is being built next to the plant breeding field lab at the University of Saskatchewan will provide facilities for screening breeding materials for processing quality. A strategic approach is being explored for the potential biofortification and improvement of nutrition for all conventionally bred pulses.

We are trying to make progress in improving the genetics of the chickpea crops as quickly as possible. Acceleration of the breeding through rapid generation turnover by tissue culture and the use of molecular tools to assist in selection for the difficult-to-evaluate traits are being pursued. Increased collaborations in genomic technology with research organizations such as the National Research Council/Plant Biotechnology Institute and Agriculture and Agri-Food Canada are being sought. Off-season advancement is routinely done on selected lines and during the pre-breeder seed development. Growth chambers and greenhouses are used all year long to increase high priority breeding materials and screen for disease reaction and other traits. All of these will enhance the pace of progress for cultivar improvement for Western Canadian chickpea growers. 5

Bunyamin Tar'an is a Plant Breeder at the University of Saskatchewan's Crop Development Centre. He can be reached at Bunyamin.taran@usask.ca or 306-966-2130.

5 IN BRIEF

The chickpea breeding program is focused on making chickpea a less risky and easy to grow crop.



Bunyamin Tar'an is a Chickpea Breeder at the University of Saskatchewan's Crop **Development Centre.**



Pulse Companies List

The *Canada Grain Act* requires some elevators and grain dealers to have a Canadian Grain Commission (CGC) license and post security to cover their liabilities – what they owe to farmers. Grain dealers and operators of primary, terminal and process elevators in Western Canada are licensed by the CGC. Seed cleaning plants that do not purchase grain, and feed mills do not have to be licensed.

As of December 1, 2006 the *SPG Pulse Companies List* will **only** include companies who are licensed and secured by the CGC (or exempted by regulation), and who are registered to submit check-off to SPG. The list is compiled based on the CGC's *List of Licensees* but also includes those who are exempted by regulation due to the nature of their business. It is the responsibility of the producer to ensure the company s/he is dealing with is reliable. For tips on how to do this, check the CGC's website (www.grainscanada.gc.ca) or call them at (800) 853-6705 or (306) 780-5035 in Saskatchewan. *As of June 9, 2009

	lible Peas	ed Peas	intils	ans	ssi Chickpeas	abuli Chickpeas	ıba Beans				
Company *DBA refers to Doing Business As	E	ъ.	Ľ	ä	ă	Kå	Fa	City/Town	Prov.	Telephone	More Info
Agricom International Inc.					-	-		North Vancouver	BC	604-983-6922	www.agricom.com
All Commodities (AC) Trading Ltd.			•					Winnpieg	MB	204-339-8001	kevin@allcommodities.ca
Alliance Pulse Processors Inc.		-	•	-	-	-		Regina	SK	306-525-4490	www.saskcan.com
Belle Pulses Ltd.		=			=			Bellevue	SK	306-423-5202	bellepulses@sasktel.net
Best Cooking Pulses Inc.								Rowatt	SK	306-586-7111	www.bestcookingpulses.com
Bissma Pacific Inc.	-		-	-	-		-	Winnipeg	MB	204-895-0144	www.bissma.com
Blue Hills Processors (2003) Ltd.		-			-	-		Avonlea	SK	306-868-4488	www.bhpl.ca
Bornhorst Seeds Ltd.								St. Gregor	SK	306-366-2158	bbornhorst@sasktel.net
C. B. Constantini Ltd.		-						Saskatoon	SK	306-373-9730	curtis.freeman@cbconstantini.com
C. B. Constantini Ltd.		-	-					Vancouver	BC	604-669-1212	michael.chong@cbconstantini.com
Cargill Limited – Animal Nutrition		-			-	-		Lethbridge	AB	403-329-4462	andrew.g.barwegen@cargill.com
Cargill Limited		-						Winnipeg	MB	204-947-0141	www.cargill.ca
Commodious Trading Inc.								Saanichton	BC	250-652-7807	dnewman@commodious.ca
Diefenbaker Seed Processors Ltd.		-	-	-	=	=		Elbow	SK	306-644-4704	lionelector.stulor@sasktel.net
Dunnington Holdings Ltd. DBA T.W. Commodities		-			=	=		Swift Current	SK	306-773-9748	www.twcommodities.com
Export Packers Company Ltd.	-		-	-	-	-	-	Brampton	ON	905-792-9700	www.exportpackers.com
FGDI, L.L.C.		-				=		Blenheim	ON	519-676-7510	www.fcstone.com
Fill-More Seeds Inc.		-			-	-		Fillmore	SK	306-722-3353	www.fillmoreseeds.com
Finora Inc.		-	-	-	=	=		Surrey	BC	604-597-5060	finora@istar.ca
Finora Inc.		-	-	=	=	=		Assiniboia	SK	306-642-5920	assiniboia@finora.com
Finora Inc.		-		-	-	-		Wilkie	SK	306-843-2507	wilkie@finora.com
GH Schweitzer Enterprises Ltd.					-	-		Eston	SK	306-962-4751	www.schweitzer.sk.ca
Globeways Canada Inc.					-	-		Mississauga	ON	905-712-1010	www.globeways.com
Great Sandhills Terminal Marketing Centre Ltd.		-						Leader	SK	306-628-4452	gary.lang@gst.ca
Great Western Grain Company Ltd.		-			-	-	Lloydminster SK 306-825-4344		bob@greatwesterngrain.com		
Hytek Ltd.		-					LaBroquerie	MB	204-424-6009	www.hytekmb.com	
IT & T Trading Inc.	ding Inc.		-			-	Vancouver	BC	604-681-8675	ctopham@itttrading.com	
J.K. Milling Canada Ltd.								Buchanan	SK	306-592-2002	jkm@jkmilling.ca

Saskatchewan Pulse Growers

Pulse Companies List

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Company *DBA refers to Doing Business As	Edible Po	Feed Pe	Lentils	Beans	Desi Chi	Kabuli C	Faba Bea	City/Town	Prov.	Telephone	More Info			
J.K. Milling Canada Ltd.	-	-	-		=	-		Vancouver	BC	604-696-9955	www.jki.com.au			
Johnson Seeds Ltd., S.S.			-					Arborg	MB	800-363-9442	www.johnsonseeds.com			
Keyser Farms Ltd.		-	-			-		Cupar	SK	306-723-4949	keyserfarms@sasktel.net			
Lackawanna Products Corp.	-	-	-			-		Nipawin	SK	306-862-2723	rslackawanna@sasktel.net			
Lakeside Global Grains Inc.		-	-					Wynyard	SK	306-554-3030	www.lakesideglobal.ca			
Lakeside Global Grains Inc.	-	-	-					Winnipeg	MB	204-255-5550	www.lakesideglobal.ca			
Linear Grain Inc.		-		-				Carman	MB	204-745-6747	www.lineargrain.com			
Louis Dreyfus Canada Ltd.		-						Calgary	AB	403-205-3322	www.louisdreyfus.ca			
Maviga N.A., Inc.	-		-	-	-	-	-	Regina	SK	306-721-8900	www.maviga.com			
Mobil Grain Ltd.	-	-	-	-	-	-		Regina	SK	877-487-8347	www.mobilgrain.com			
Naber Specialty Grains Ltd.	-	-	-	-				Melfort	SK	306-752-4115	nsgl@sasktel.net			
North East Terminal Ltd.		-						Wadena	SK	306-338-2999	www.northeastterminal.com			
North West Terminal Ltd.								Unity	SK	306-228-3735	www.northwestterminal.com			
Oleet Processing Ltd.		=	-	-		-		Regina	SK	306-543-4777	markfuessel@otfarms.ca			
Parent Seed Farms Ltd.		-	-			-		St Joseph	MB	204-737-2625	www.parentseed.com			
Parkland Pulse Grain Co. Ltd.	-	-	-		-	-		North Battleford	SK	306-445-4199	kirby.b@parklandpulse.com			
Parrish & Heimbecker Ltd.	-	-	-	-		-		Lethbridge	AB	403-320-9440	www.parheim.mb.ca			
Parrish & Heimbecker Ltd.		-	-					Winnipeg	MB	204-956-2030	www.parheim.mb.ca			
Paterson Grain – a division of Paterson GlobalFoods Inc.		=	-			-		Winnipeg	MB	204-956-2090	www.patersonglobalfoods.com			
Prairie Pulse Inc.			-					Vanscoy	SK	306-249-9236	info@prairiepulse.com			
Prairie West Terminal Ltd.		=						Plenty	SK	306-932-4446	kdorner@p-w-t.ca			
Prime Seeds International Inc.			-	-		-		Vancouver	BC	604-990-2500	simon@primeproseeds.com			
Provalcid Inc.	-		-	-		-		Varennes	PQ	450-652-3916	www.provalcid.com			
R Young Seeds Ltd.	-	-	-	-	-	-		Mortlach	SK	306-355-2221	rys.colin@xplornet.com			
Richardson Pioneer Ltd.	-	-	-					Winnipeg	MB	204-934-5961	www.jri.ca			
Roy Legumex Inc.			-					St Jean-Baptiste	MB	204-758-3597	www.legumex.com			
RW Organic Ltd.								Mossbank	SK	306-354-2660	rworganic@sasktel.net			
Sedley Seeds (2007) Ltd.	-	-	-					Sedley	SK	306-855-4444	sedleyseeds@sasktel.net			
Seedtec Ltd.	-	=		-		-		Qu'Appelle	SK	306-699-7368	www.terramax.sk.ca			
Shafer Commodities Inc.		-	-			-		Lethbridge	AB	403-328-5066	hgoodby@shafercom.com			
Simpson Seeds Inc.	-		-					Moose Jaw	SK	306-693-2132	www.simpsonseeds.com			
South West Terminal Ltd.								Gull Lake SK 306-672-4112 www.swt.sk.ca		www.swt.sk.ca				
Southland Pulse Inc.	-	-	-					Estevan	evan SK 306-634-8008 shawn.southland@sas		shawn.southland@sasktel.net			
Sunrise Foods International Inc.	-				-			Saskatoon SK 306-931-4576 gneufeld@sunrisefo		gneufeld@sunrisefoods.ca				
Veikle Grain Ltd.	-							Cut Knife SK 306-398-4714 veikle.seeds@sasktel		veikle.seeds@sasktel.net				
Ventures West Processors Ltd. DBA Canpulse Foods			•					Kindersley	SK	306-463-4444				

Saskatchewan Pulse Growers

Pulse Companies List

Company *DBA refers to Doing Business As	Edible Peas	Feed Peas	Lentils	Beans	Desi Chickpeas	Kabuli Chickpeas	Faba Beans	City/Town	Prov.	Telephone	More Info
Viterra Inc Dry Bean								Bow Island	AB	403-545-2227	www.viterra.ca
Viterra Inc Head Office	-	-						Regina	SK	306-569-4411	www.viterra.ca
Viterra Inc. – SK Special Crops	-	-	-			-		Regina	SK	306-751-4920	www.viterra.ca
Viterra Inc Special Crops	-	-						Lethbridge	AB	403-382-3400	www.viterra.ca or 1-888-442-8398
Walker Seeds Ltd.		-					-	Tisdale	SK	306-873-3777	www.walkerseeds.ca
Western Grain Trade Ltd.								Saskatoon	SK	306-657-3455	vicki@westerngrain.com
Weyburn Inland Terminal Ltd. (includes Vigro Seed & Supply an operating division of Weyburn Inland Terminal Ltd.)		-						Weyburn	SK	306-842-7436	www.wit.ca
Wilbur-Ellis Company of Canada								Saskatoon	SK	306-934-8244	

Feed Company	Edible Peas	Feed Peas	Lentils	Beans	Desi Chickpeas	Kabuli Chickpeas	Faba Beans	City/Town	Prov.	Telephone	More Info
These companies are exempted by regulation as	they a	are pro	ocessii	ng pul	ses fo	r feed	millin	g and are not reselli	ng.		
Big Sky Farms Inc.		-						Humboldt	SK	306-682-5041	www.bigsky.sk.ca
Chesterfield Stock Farm (1997) Ltd.		-						Mantario	SK	306-460-9344	
Elite Stock Farm Ltd.			-					Outlook	SK	306-243-2005	elite.sf@sasktel.net
Northern Feeds Inc.		-						Spiritwood	SK	306-883-5671	northernfeeds@sasktel.net
PSC Elstow Research Farm								Saskatoon	SK	306-667-7446	ken.engele@usask.ca
Western Commodities Trading Inc.								Spalding	SK	306-872-2280	blair.wct@sasktel.net

Grain Handling Facility	Edible Peas	Feed Peas	Lentils	Beans	Desi Chickpeas	Kabuli Chickpeas	Faba Beans	City/Town	Prov.	Telephone	More Info
L.A. Grain Ltd.	-		-			-		Lethbridge	AB	403-327-9787	1-888-284-7011

Producer Car Loading Facility	Edible Peas	Feed Peas	Lentils	Beans	Desi Chickpeas	Kabuli Chickpeas	Faba Beans	City/Town	Prov.	Telephone	More Info
This company is exempted by regulation because the	his company is exempted by regulation because they handle grain on behalf of producers which is intended for loading into producer cars and they do not purchase or sell grain.										
West Central Road & Rail								Eston	SK	306-962-4528	customerservice@WCRR.ca
White Water Coulee Cleaners Ltd.								Bracken	SK	306-293-2101	jackie.whitewater@sasktel.net

PULSE NUTRITION by Wendy Benson

Powerful Pulses

May Help Fight

Common Health

5 IN BRIEF

Pulses are powerful foods that may help prevent health issues from starting.

As a health professional, I have the power to capture people's attention by men-

PHOTO COURTESY OF ALBERTA PULSE GROWERS

As a health professional, I have th power to capture people's attention by mentioning foods that may help manage weight, lower blood sugars and cholesterol. While many people are hooked on the main nutritional benefits of pulses, they become even more excited when they learn pulse crops grow on the Canadian prairies and improve soil quality and the environment.

Diets containing pulses may help a vast number of Canadians with chronic diseases. Almost half of Canadians are considered to be overweight or obese and this contributes to the 40 per cent of Canadians with high blood cholesterol levels and more than two million Canadians with diabetes. Not only are pulses powerful foods that could help fight prevalent Canadian diseases, but they may also help prevent health problems from starting.

Overweight people are looking for ways to feel satisfied with fewer calories. Pulses provide an excellent choice. New research conducted by Pulse Canada shows adults consuming $\frac{1}{2}$ cup (125 mL) of pulses per day lose approximately the same amount of weight when following the standard weight loss advice of cutting 500 calories per day from their diet.

Two of the biggest benefits of high fibre pulse are controlling blood sugars and blood



cholesterol levels. The soluble fibre in pulses traps sugars and cholesterol. The sugar is released slowly from the fibre and provides a slow, healthy increase in blood sugars. The body has a way to get rid of its cholesterol with the aid of the soluble fibre. The liver releases cholesterol into the gall bladder and into the small intestine. Soluble fibre traps this cholesterol, carrying it through the intestine where it is excreted into a person's waste, These tex-mex bean bites are a nutritious and easy-to-make snack for any family.

PULSE NUTRITION

Tex-Mex Bean Bites

6 large flour tortillas

1-19 oz. can (540 mL) red kidney, black or pinto beans, rinsed and drained

1 cup (250 mL) chunky medium salsa

 $\frac{1}{2}$ tsp. (2 mL) chili powder (optional)

1 cup (250 mL) low-fat cheddar or low-fat mozzarella cheese, grated ¼ cup (50 mL) fresh cilantro, chopped Sour cream (optional)

Preheat oven to 350°F (180°C). Using a 4-inch (10 cm) cookie cutter, cut four rounds out of each flour tortilla. Alternatively, use a 3-inch (7.5 cm) cookie cutter to make seven rounds for mini muffin cups. Press the tortilla rounds into muffin cups. If the tortillas are not soft enough, carefully microwave the rounds for 15 seconds or lightly brush one side with water. Bake cups for 12-15 minutes, until light golden and crisp (these can be made several days ahead and stored in an airtight container). While cups are baking, combine the beans, salsa, chili powder, cheese and cilantro into a medium bowl. For regular muffin pans, spoon 1½ -2 tbsp. (20-30 mL) filling into the tortilla cups and ½-1 tbsp. (7-15 mL) into mini cups. Place the cups on a baking sheet and bake for 8-10 minutes. Serve warm with a dollop of light sour cream. Makes 24 regular bites

Nutrients for one regular bite (30 g)	Calories 94 kcal	Fat 2 g	Carbohydrates 14 g	Fibre 2 g	Sodium 258 mg	Folate 53
---------------------------------------	------------------	---------	--------------------	-----------	---------------	-----------

Lentil Chili Pie (pictured on front cover)

Crust:	
2 cups (500 mL) cooked brown rice	1 egg, beaten
1 cup (250 mL) grated, low-fat cheddar cheese	
Filling:	
1 cup (250 mL) green lentils, rinsed and drained	1 19 oz. (540 mL) can kidney beans, rinsed and drained
2 tbsp. (25 mL) canola oil	1 ½ tsp. (7 mL) chili powder
1 cup (250mL) chopped onion	1 tsp. (5 mL) seasoning salt
1 garlic clove, minced	1 cup (250 mL) grated, low-fat cheddar cheese
1 19 oz. (540 mL) can tomatoes, chopped	

Pre-heat over to 180°C (350°F). Grease a 22cm (9") pie plate or spray with a nonstick spray. To prepare crust, combine rice, cheese and egg. Mix well and press over bottom and sides of pie plate. Bake 20-25 minutes, until firm. Remove from oven.

Cover lentils with water in a large saucepan. Bring to a boil and reduce heat. Cover and simmer until lentils are tender, approximately 20 minutes. Drain water. In a skillet, heat oil and sauté onion and garlic until onion is translucent. Add cooked lentils, tomatoes and their juice, beans, chili powder and seasoning salt. Simmer uncovered over medium-low heat until liquid has evaporated (30-40 minutes). Spoon filling into pie crust and bake for 20-25 minutes. Sprinkle with cheese and bake five minutes or until cheese is melted. Remove from oven and allow to stand five minutes. Cut into six slices.

Nutrients for one slice	Calories 375 kcal	Fat 12 g	Carbohydrates 47 g	Fibre 9 g	Sodium 262 mg	Protein 21 g	Cholesterol 25 mg
Nutricinta for one ande	Galorica 373 Koar	101 12 8	carbonyulates 41 g	TIDIC J 6	30010111 202 Hig	11010111 21 8	

thereby lowering blood cholesterol levels. Pulse Canada has funded five human clinical trials in the area of pulse nutrition and plans to fund even more research in the future.

About one in every 100 people has celiac disease, a condition where the gastrointestinal tract cannot digest the gluten found in wheat, rye and barley. Since wheat is a staple in European and North American diets, glutenfree pulses provide an excellent, diverse range of meal options. Pulse flours, starch, protein and/or fibre are used to create gluten free foods. In fact, Kinnikinnick Foods based in Edmonton has become a global leader in gluten-free bread products using pea ingredients (www.kinnikinnick.com).

Because of the high fibre and protein levels, peas, lentils, chickpeas and beans should be the cornerstone meat replacement in a vegetarian diet. When pulses are combined with grains such as wheat, barley or rice, the meal contains complete proteins (or ample amounts of all essential amino acids). Many cultures and cuisines around the world have combined pulses and grains. Some examples are beans and rice in Central America, hummus and pita bread in the Middle East and lentils and rice in Southern Asia.

mcg

Pulses are one of the few foods that can use the claim 'excellent' or 'good' source of numerous vitamins and minerals – iron, potassium, zinc, manganese, magnesium, phosphorous, folate, thiamin, riboflavin and niacin. Canadians do not eat enough potassium and folate, and many children, teenage girls and 10 per cent of women (up to 50 years) need more iron in their diets.

The last nutritional benefit of pulses is what is not in the food. Pulses are low in fat and are free of saturated fats. Low-fat diets help lower calorie intake and diets low in saturated fats will help lower blood cholesterol levels. The combination of these attributes make pulses just what the dietitian ordered to help fight prevalent health problems and lead to a healthier Canadian population. $\mathbf{5}$

Wendy Benson is a Registered Dietitian and consulting nutritionist with the Alberta Pulse Growers. She can be reached at wbenson@pulse.ab.ca.

SPOTLIGHT ON RESEARCH

by Tiffany Mayer

Pulses in Your Organic Farming System

5 IN BRIEF

Farmers should increase seeding rates for an organic farming system.

Steve Shirtliffe had always been a little skeptical of lentils.

"The thing about lentils is they aren't the strongest crop," the University of Saskatchewan plant scientist said. "They are really short. They can be really weedy. Even conventional lentils are often a farmer's weediest crop."

But, a study about optimizing lentil and pea agronomy for organic production that began four years ago and completed in April has Shirtliffe seeing lentils differently.

"They are not as uncompetitive as you may think they are if you really increase the seeding rate," says Shirtliffe.

There was a void in establishing seeding rates for organic lentil and field pea production in Saskatchewan when Shirtliffe and University of Saskatchewan soil scientist Dr. Fran Walley embarked on their agronomy study in 2005. The province was and still is home to the largest number of certified organic farms in Canada and was producing the majority of organic field pea in the country, yet no organic seeding rates had ever been determined. Instead, organic growers had to rely on those recommended for conventional production.

"Essentially, (organic farmers) have been really under-serviced as a group. In general, there is very little agronomic information out there for organic producers," Shirtliffe explains. Given organic and conventional farming systems differ when it comes to inputs and pest management, the scientists wondered if conventional rates were not suited to organic production.

Previous studies had also shown higher seeding rates were the key to success for other crops. Therefore, Shirtliffe and Walley set out to find an organic seeding rate that would provide optimal yield and weed suppression, while leaving the soil in shape. Think nitrogen and phosphorus concentrations for future crops.

> "Even as seeding costs increase, there's still a really high benefit to a higher seeding rate. It's quite a positive story, actually."

Seed rate tests were done in fields on existing organic farms in Saskatchewan, meaning "what we got was what a farmer would get," Shirtliffe says.

With the help of graduate students Julia Baird and Boldsaikhan Usukh, Shirtliffe and Walley determined that roughly doubling the conventional seeding rates for lentils and peas had the greatest positive impact on yield, weeds, soil health and harvested seed quality. PHOTO BY GEOFF HOWE



Pulses fit well into an organic growing system with increased seeding rates. More specifically, organic farmers wanting to maximize returns while minimizing weeds should seed peas at a rate of about 150 seeds per metre-squared and lentils at a rate of 250 seeds per square metre.

Those rates correspond to about 250 pounds per acre of peas and 150 pounds per acre for lentil.

"Even as seeding costs increase, there's still a really high benefit to a higher seeding rate," explains Walley. "It's quite a positive story, actually."

They also found that the crops out-competed the weeds. With conventional seeding rates, Shirtliffe said, in many cases the weeds yielded as much as the crop. But doubling seed rates upped the crop count to a point where the crop could suppress the weeds.

"It's crowding the weeds. They don't produce as much and will not take as much yield," he said. "With organic farming, that is a big deal because they don't spray for weeds."

But what about the impact on nitrogen levels in soil? "The easy assumption is that more seeds, and therefore, more plants competing with each other, could drain the soil of the important nutrient," says Walley. That could be detrimental to future crops. The effect on arbuscular mycorrhizal fungus was also considered since it forms a symbiotic relationship with the plants, affecting phosphorus uptake.

"For a conventional producer, they have tools (chemical fertilizers) that can assist them if there is a breakdown at any point," explains Walley. What she found was that as seeding rates increased, the amount of nitrogen fixation also increased because of the greater production of biomass. As for the arbuscular mycorrhizal fungus needed to get phosphorus into the plant's system, its colonization rate increased slightly with the higher seeding rate for lentils.

"The bottom line is, there was no negative impact of seeding rates on either phosphorus or nitrogen and that's good news for subsequent crops," says Walley.

However, there is the potential for drawbacks with increased seeding rates. Shirtliffe noted that although they never observed it in their study, the chance of disease could increase because a higher seeding rate produces more of a closed plant canopy.

The biggest drawback of more seed in the ground is that the farmer is taking a greater financial risk, he says.

To Shirtliffe's surprise, response to their findings from organic growers has been positive so far.

"The hard sell with growers is getting them to plant above the seed rate they are using now. Farmers are people and people are creatures of habit. 'This is the way we have always done it,'" says Shirtliffe.

"That said, there's been pretty good uptake. The feedback we have been getting at farmer meetings is that people are very excited."

But the study doesn't just benefit organic producers, Walley notes. Any farmer interested in reducing input costs associated with weed control may want to heed these research findings. It is also beneficial for organic growers who have been reluctant to include peas and lentils into their rotation because of the crops' reputations.

"People might have felt peas and lentils did not have a good fit in an organic system, but this provides assurances that pulses do fit into an organic system," Walley says. "But you do have to increase seeding rates to make it a good fit." S

Tiffany Mayer is a freelance writer based out of St. Catharines, Ontario.

SPG UPDATES

by Amanda Olekson and Ron Mantyka

Visit the SPG website at www.saskpulse.com for news and updates listed on our homepage weekly.



Working For You

Research & Development (R&D) Ron Mantyka joined SPG in May to complete a term position as Research Project Manager. Ron will be responsible for the PUREnet program, and SPG's Research and Development program.

SPG staff participated in a meeting with the national Research Council, Agriculture and Agri-Food Canada, Ag-West Bio, Genome Prairie and the Saskatchewan Canola Development Commission to assess research infrastructure required to facilitate the commercialization of traits arising from genomics research.

Dr. Kofi Agblor, Director of Research attended the ProjectWorld and Business Analysts conference in Toronto this May. At this year's conference attendees were reminded of the critical role of project management during lean times. The conference theme – Work Smarter, Plan Harder, explored various ways to improve project management performance in the work place.

Variety Release Program

SPG put out a call for Tenders for Dun pea, Small green pea and Espace type small pea. Information is posted on the SPG website and an ad was placed in the Western Producer. Proposals are due June 30, 2009.

Communications

SPG announced funding for new scholarships for first year undergraduate students entering the University of Saskatchewan in a pulse related field. A total of five scholarships will be presented to students this summer, valued at \$5,000 each.

Communications Manager Amanda Olekson has been named Chair of the Crop Production Week Board. Her term will run until June, 2010.

SPG Board and staff met with Honourable Lyle Stewart, former Minister of Enterprise and Innovation on April 3 and Honourable Bob Bjornerud and Deputy Minister Alana Koch with the Saskatchewan Ministry of Agriculture on April 9 to present SPG's new business plan.

SPG Board and Staff participated in a press conference that took place in Saskatoon announcing \$5.3 million for the Pulse Research Network (PURENet) to create new economic opportunities in rural Canada. This initiative will explore new health benefits of pulses to create new and value added-markets, to help farmers improve their bottom line and boost the economy. PURENet is made up of about 50 scientists, researchers and industry experts.



Your Check-off Dollars At Work

Highlights from SPG funded research projects currently being conducted or have recently been completed. For more information, please contact Kofi Agblor, Director of Research at kagblor@saskpulse.com or 306-651-0859 or Ron Mantyka, Research Project Manager at rmantyka@saskpulse.com or 306-668-0591.

Characterization of the Flavour Properties of Selected Pea Varieties Grown in Saskatchewan

Dr. Joyce Boye of Agriculture and Agri-food Canada, Dr. Linda Malcolmson of the Canadian International Grains Institute, and Dr. Tom Warkentin of the University of Saskatchewan's Crop Development Centre recently finished a project that researched the flavour of foods as an important characteristic in food selection and processing. Pea flavour can be affected by variety, processing conditions, ingredient interaction and storage. The objectives of the project were to characterize the flavour profiles of pea varieties grown in Saskatchewan and determine the impact of primary processing and storage conditions. Research looked at the interactions that occurred between pea components (proteins, lipids, starches) and determine the impact on the flavour of pea flours. Research revealed there are methods to characterize the nine different families of compounds in peas and that there are differences in the concentration of the flavour compounds between varieties grown in Saskatchewan, which impacts the taste

and flavour of peas. The group also discovered that cooking peas resulted in significant reduction in specific flavour compounds.

Understanding and Improving Carbohydrate Composition to Add Value to Lentils

Dr. Ravindra Chibbar at the University of Saskatchewan recently completed a project to identify the variation and heritability of oligosaccharides in lentil germplasm to determine if it would be possible to reduce the oligosaccharides associated with abdominal discomfort and flatulence. He found domestic lentil germplasm had limited variation in carbohydrate traits and found that there was a higher variation in carbohydrates in the wild lentil accessions studied. He also found the environment influenced the concentration of undesirable oligosaccharides. His findings indicate there is enough variation amongst the pool of lentil germplasm available in gene banks to reduce the undesirable oligosaccharide concentration in lentils using conventional breeding strategies.

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WEETERN FRAIN

 AD years ago, in 1969, my father grew his first field of peas. Temember that first harvest how they finally agreed that the best way to harvest that crop was to keep the swather about 10 feet in front of the 4010 Massey combine.
 Years ago, in 1982, we opened our seed cleaning plant at Hamlin. Today, Western Grain salutes Sask Pulse Growers and the feedral and Provincial governments for the vision of creating the same that for the same to the same temperature.

a world-renowned crop breeding program at the Crop Development Center. Together with innovative farmers we have built an amazing industry with the intelligence generated from the CDC.

We are proud of our farmers and our industry.

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EATING LOCALLY

by Amy Jo Ehman

Feasting on Local Bounty

5 IN BRIEF

Cutting the mileage on our food odometer reduces the pollution and greenhouse gas emissions produced by shipping food around the world.

It is June, and that means

strawberries, asparagus and tender young salad greens are ripe for the picking. Eating locally is easy when Saskatchewan land produces such abundant and delicious food.

It is also the perfect time to start planning meals for the winter months, ensuring that you purchase, pick, and put away enough of summer's bounty to grace your dinner table long after the leaves have fallen and the last of the garden tomatoes have ripened indoors.

At my dinner table, we eat locally-produced food every day, in fact, almost everything I cook starts with a raw or processed food that began life in Saskatchewan. Flour, pasta, pulses, meat, dairy, vegetables, spices, fruit and berries – there is plenty to choose from when you live in the nation's agricultural heartland.

In 2005, my husband John and I began an experiment in local consumption. For one year, we served almost exclusively Saskatchewan products at our dinner table in Saskatoon.

Since then, we have discovered wonderful sources of local food, from farm gate to farmers' markets, from independent shops to regional processors. Once these supply lines are established, it is easy to keep the cupboard stocked with Saskatchewan products.

There are a number of good reasons to eat a local diet. Cutting the mileage on our food odometer reduces the pollution and greenhouse gas emissions produced by shipping food around the world. However, my prime motivation was not so much to reject what the world has to offer as to embrace what we have right here. Saskatchewan covers almost half the cultivated farmland in Canada; that is an amazing amount of food of which many of us, even our farmers, are not fully aware.

I was motivated by a desire to learn more about Saskatchewan agriculture to keep my food dollars in the local economy and to benefit from the superior taste and nutrition of eating freshly-harvested foods in their natural season.

Lentil sprouts are quick and easy to grow and they make a nutritious addition to any sandwich or salad.



EATING LOCALLY

Local Sources

I buy local pulses wherever I find them for sale. My prime sources are:

Cerridwen Farm in Medstead – I place bulk orders and they ship by mail.

Diefenbaker Seed Processors – Their products are branded Kashmir Valley.

Local grocery store – Lentils and chickpeas marked "Product of Canada" are most likely from Saskatchewan

Sask Made

Marketplace – They sell locally produced Saskatchewan products including conventional and organic pulses. It is located in Saskatoon.

Medina Food and Hala Meats – An ethnic grocery store in Saskatoon that carries the Kashmir Valley pulse products.

Lentil Sprout Wrap

2 tsp. (10 mL) minced onion 2 tbsp. (30 mL) mayonnaise 1 tbsp. (15 mL) plain yogurt ¼ tsp. (1 mL) ground cumin ¼ tsp. (1 mL) coriander Dash of salt and a few grinds of pepper 3 hard cooked eggs, chopped 1 cup (250 mL) lentil sprouts Chopped lettuce 4 whole wheat tortilla wraps

Mix together onions, mayonnaise, yogurt, cumin, coriander, salt and pepper and eggs. Gently stir in the sprouts. Place lettuce in the wraps and spoon mixture on top. Roll the whole wheat wraps and enjoy.

How to Sprout Lentils

You will need a large jar, piece of cheesecloth or other loose-weave fabric and an elastic band.

In the jar, soak ¹/₄ cup (60 mL) of whole red lentils (not the kind that are split known as footballs) in water for a few hours. Place the cheesecloth over the jar and secure with the elastic band. Drain the water. Tip the jar on its side, shaking to distribute the lentils evenly. Lay the jar on the counter. Twice a day, rinse the lentils with cold water, draining thoroughly and placing the jar on its side again. Sprouts will appear on day two or three and should be ready to eat by day five. Keep sprouted lentils in the fridge.

Menus

In my house, every meal begins with Saskatchewan ingredients. I like to cook pulses from scratch, but for quick meals, I keep the pantry stocked with canned chickpeas and mixed beans. Here are some typical examples:

Spring lunch: Lentil sprout wrap, carrot sticks, meringue nests with berry sauce.

Summer picnic: Cold baked ham, bean and corn salad, crusty buns, rhubarb crisp.

Fall lunch: Minestrone soup, hearty bread, apple cake.

Winter supper: Moroccan tagine with chicken and chickpeas, couscous, honeyed pears.

One of the biggest surprises in this journey of discovery was pulses. I already knew that Saskatchewan is a big pulse producer, but I had no idea how big. I was pleased to discover the wide variety of pulses grown here, from little red football or split lentils to pinto beans.

Some pulses are grown for speciality export and processing markets. For instance, a new white pinto bean, produced by the Crop Development Centre at the University of Saskatchewan is not available to local consumers, unless perhaps you are vacationing in Mexico! These speciality pinto beans are only being commercialized through Saskatchewan Pulse Growers Niche Commercialization program and are therefore sold only to specialty markets such as Mexico. Pulses play a big role in our local diet. While we love the organic and pastured meat produced in Saskatchewan, we often eat "vegetarian" meals made with pulses which, like meat, are good sources of protein, iron and B vitamins.

Yes, it is summer, but I am already thinking of winter: baked beans, hearty split pea soups, lentil casseroles, chickpea stews and quesadillas with refried beans. Soon I will be freezing, canning and storing summer's bounty so we can savour the local flavours all winter long. S

Amy Jo Ehman is a freelance writer based out of Saskatoon, SK. You will find more pulse recipes on her food blog HomeForDinner.blogspot.com. Her first book, A Prairie Feast, is expected early next year.

What the Seeding Intentions Report Really Means

5 IN BRIEF

Price performance after the release of the seeding intentions report influences what goes into the fields and that can be easily switched.

One thing immediately jumps out when you look at seeding intentions estimates

for Canadian peas and lentils over the past decade. Farmers almost always plant more than they said they would in March. This has been true 64 per cent of the time for field peas and true 91 per cent of the time for lentils.

While it takes several months for the final seeded area to be known, farmers make their final adjustments in April and early May. This means April is the last chance markets can influence what is finally planted. Price performance in the weeks just after the release of the seeding intentions report influences what goes into fields and that can be easily switched between crops.

The effect seems more obvious in lentils than field peas. Since 2002, average red and green lentil grower bids have been roughly half a cent per pound higher in April than they were in March. Improving spot market values has given growers more confidence in lentils. This is reflected both in the fact actual lentil area is usually higher than first intended, and that the average increase is 150,000 acres.

By contrast, field pea prices have not performed as well in April. Both green and yellow pea bids have declined in six of the eight years. The average decline for green peas has been 18 cents per bushel and for yellow 10 cents per bushel. The average increase was only two cents per bushel for green peas and seven cents for yellows.

While the final field pea seeded area has been higher 64 per cent of the time than originally intended, increases are generally smaller than declines. Since 1988, the average increase over the seeding intentions has been just over 66,000 acres; while the average decrease was just over 191,000. Over the past

Farmers almost always plant more than they said they would in March.

decade, the final area has averaged over 27,000 acres less than what was originally intended.

Clearly, there is not as strong a relationship between price and whether field pea area rises or falls from the intentions as there seems to be with lentils. There are two other things which affect interest in growing pulses. One of the most basic is how the income potential of peas or lentils compares to major

Table 1:	Lentil Seeding	Intentions Anly	/sis		*N/0	c = No Chang
	Intentions	Actual	Change	Price Trend	Competitive Trend	Demand Trend
1998	796,700	935,000	Up	Down	Down	N/C
1999	1,129,000	1,251,000	Up	Down	Down	N/C
2000	1,469,000	1,727,000	Up	Up	Down	N/C
2001	1,600,000	1,750,000	Up	Up	Up	N/C
2002	1,432,000	1,485,000	Up	Up	Down	N/C
2003	1,280,000	1,369,000	Up	Up	Up	N/C
2004	1,734,000	1,925,000	Up	Up	Up	N/C
2005	2,010,000	2,184,000	Up	Up	Up	N/C
2006	1,324,000	1,285,770	Down	Up	Down	N/C
2007	1,282,000	1,335,000	Up	Up	Up	N/C
2008	1,340,000	1,610,000	Up	Up	Up	N/C
2009	1,970,000			Up		

Table 2: Field Pea Seeding Intentions Analysis

*N/C = No Change

MARKET MUSE

	Intentions	Actual	Change	Price Trend	Competitive Trend	Demand Trend
1998	2,805,000	2,680,000	Down	Down	Down	Down
1999	2,275,000	2,104,000	Down	Down	Down	N/C
2000	3,039,000	3,065,000	Up	Down	Down	Up
2001	3,240,000	3,320,000	Up	Down	Up	N/C
2002	3,200,000	3,205,000	Up	Down	Up	Down
2003	3,350,000	3,220,000	Down	Down	Down	Down
2004	3,355,000	3,430,000	Up	Down	Down	Up
2005	3,373,000	3,375,000	Up	Down	Up	N/C
2006	3,454,000	3,115,515	Down	Up	Down	Down
2007	3,571,000	3,636,000	Up	Up	Up	Up
2008	3,785,000	3,995,000	Up	Down	Down	N/C
2009	4,205,000					

grains and oilseeds such as wheat or canola. Field pea returns were better than normal in the marketing years which began in 2000, 2001, 2004 and 2006. Actual seeded area for peas did rise in each of those years. The same pattern can be seen in lentils, with returns from lentils competing strongly with other crops in seven of the past nine marketing years, and actual seeded area rising above the spring seeding intentions.

Movement also affects how eagerly companies try to buy from farmers. Interestingly, lentil movement is less volatile than field peas during the March to April period. There have been huge swings in the volume of peas moving from farms to export between the time the seeding intentions survey is done and when seeding starts. Mediocre demand from local buyers during that period tends to discourage growers from sticking with peas because strong buying interest helps get growers more enthusiastic about a crop.

Looking at this year's seeding intentions, many market participants firmly believe the final lentil seeded area will be at least 150-200,000 acres higher in Saskatchewan. Markets believe there is another 150,000 acres in Manitoba and Alberta. Statistics Canada does not include those provinces in its lentil estimates.

Lentil markets are satisfying most of the conditions needed for the actual seeded area to rise above the intentions. Average grower bids in April were sharply higher than March. Movement from the country is very strong with exporters scouring the country for any green or red lentils they can find and prospective returns are sitting at a huge premium compared to competing crops.

Field peas are not doing as well. Demand for pea exports was strong throughout March and into April, forcing the industry to completely revise its outlook on ending stocks by slashing them from one million tons to around 650,000. Average grower bids declined six cents per bushel between March and April for green peas, but just one cent for yellow. On the other hand, field pea markets have not done a good job of holding their value relative to wheat, canola, or barley during the 2008/09 marketing year. The income relationship between those crops is among the worst for peas that we have seen during the past decade.

Faced with so many conflicting influences, it is hard to argue with the idea that actual field pea area will be less than intended. But, it is always hard to know which of the factors, in combination with normal rotational pressures was most important to farmers as they entered their fields this spring.

From the market's perspective, Canadian seeding intentions are important. They help set the tone for new crop markets, which can affect demand during the final three months of the current marketing year.

It needs to be stressed that if the intentions are too high or too low, the industry is very quick to find consensus around a number that it believes is more accurate. This year's acreage estimates will be released on June 23. People in the industry are absolutely certain the final area for lentils will be a lot higher than intended. On the other hand, attitudes toward peas have changed and plantings are expected to be closer to the intentions than originally thought.

The other big change since seeding began is markets have become unusually worried about this year's crop. It is shaping up to be one of the most intense weather markets the industry has experienced. From now until harvest is almost complete, every aspect of the weather will affect prices, whether lifting them higher or pushing them lower.

By the second week of June, pulse crops in Saskatchewan were developing much slower than normal because temperatures were unusually low. While believing a return to more seasonable temperatures would help crops catch up, markets were not happy to hear of overnight frost events in several locations around the province between the middle of May and early June. Some reseeding was reported while others were expected to "chem fallow" land where there was not enough time to reseed. Some losses to these kinds of events happen every year. This year's losses seemed more widespread than the industry had previously experienced.

Drought-like conditions also prevailed in the western third of the province, causing some farmers and processors to draw comparisons with the 1988 drought, resulting in the lowest average pea and lentil yields on record. Markets did not believe that would happen because dryness in the west was balanced by moister conditions in the east.

Looking at these events has many people are starting to think that every extra acre of peas and lentils that was planted this year is going to be needed to make up for the yield losses expected around Saskatchewan. The world is paying close attention because it needs a relatively good crop in Canada to prevent any shortages from developing between now and next year's harvest.

Information about seed sales, increases and decreases in production contracts signed with growers, seed cleaning activity, and a multitude of other inputs percolate through the market. While few people guess right about the final number, their thoughts normally move in the right direction. More importantly, this thinking is shared with end users more quickly through companies which operate both here and in other countries.

In simple terms, rising acreage is normally associated with flat to lower prices because it implies more product will be available to sell in the coming season. Falling acreage is associated with flat to higher prices because it implies tightening stocks.

The situation for lentils is complicated because for the second year in a row we grew less than we could sell. We are nearly sold out and end users have no choice but to buy new crop lentils. The result is that processors think August and September could be among the busiest months on record as they cover red and green lentil sales to the Indian subcontinent and Middle East. This is why markets are not discouraged by the idea farmers may plant 10 per cent more lentils than intended. Field pea stocks are not tight. While growers became reluctant sellers once they got busy with spring field work, there is no risk of running out of peas before new crop is available. As a result, the intention to increase land in field peas was weighing on markets.

Buyers are paying close attention to the difference in price between current and new crop peas, and they will only pay the premium for nearby delivery if their inventories are too low to wait. They are fully confident peas will be cheaper after harvest. From a more practical point of view, no one wants to own a lot of inventory which costs more than what is owned by their competitors.

The implication is Canada might sell more old crop peas if markets were convinced this year's crop will be smaller. If markets believe supplies will rise, users will try to wait until after harvest to buy. For lentils, the focus has already switched almost entirely to new crop shipping positions and the industry is preparing for an unusually hectic August and September. $\mathbf{5}$

Brian Clancey is the Editor and Publisher of the www.statpub.com market news website and President of STAT Publishing. He can be reached at editor@statpub.com.

on point

For more information about SPG activities, please call 306-668-5556 or email pulse@saskpulse.com or visit our website at www.saskpulse.com.

J IN BRIEF

News from and about Saskatchewan Pulse Growers (SPG).



SPG Welcomes Ron Mantyka

SPG is pleased to welcome Ron Mantyka who will be completing a term position with SPG as Research Project Manager. Ron will be working as the Recipient Agent for the Pulse Research Network (PUREnet), and working

with SPG's Research and



Ron Mantyka

Development program. Ron comes to SPG from the University of Saskatchewan. He can be reached at 306-668-0591 or rmantyka@saskpulse.com.

Getting to Know Your Board Members

John Bennett has farmed in the Biggar area for more than 30 years. He has a no-till operation

growing pulses, oilseeds and cereals. John is Past President of the Saskatchewan Soil Conservation Association (SSCA) and sat on the Board of the Saskatchewan



John Bennett

Research Council. He was named SSCA Farmer of the Year in 1993 and Canadian No-Till Farmer of the Year in 2000. In 2007, John was awarded an Honorary Life Membership with the Saskatchewan Institute of Agrologists. John joined the SPG Board in 2005.

John Buchan To be Inducted into the Saskatchewan Agricultural Hall of Fame

The late John Buchan was one of five people named to be inducted into the 2009

Saskatchewan Agricultural Hall of Fame in August 2009. Buchan was the first Special Crops Specialist ever appointed with Saskatchewan Agriculture. He laid the foundation for the Saskatchewan Pulse Growers by organizing the



John Buchan

initial meetings, publishing a regular newsletter, encouraging pulse producers to form a group under the Non-Profit Corporations Act and spearheading the movement towards a mandatory levy. Buchan was instrumental in building the Saskatchewan pulse industry and actively promoted it until his passing in 2006. The Agricultural Hall of Fame is housed in the Western Development Museum in Saskatoon, SK.

Nominations Open for SPG Directors

If you are a registered pulse producer (i.e. you have sold pulses and paid check-off in the last two years), and would like to be instrumental in growing Saskatchewan's pulse industry, fill in the nomination form found on page 18. It must be signed by three other registered producers and be submitted to the SPG office no later than 12:00PM on Friday, October 23, 2009. For additional information, please call the office at 306-668-5556.

Nominations Open for Pulse Promoter Award

Do you know someone that has made a substantial contribution to the development of the pulse industry? Nominations will be accepted for the Pulse Promoter Award until October 1, 2009. The SPG Board of Directors selects a winner from among the nominations. More information can be found online at www.saskpulse.com or by calling the office at 306-668-5556. This award is made possible through the support of BASF Canada, who has sponsored the award since 1995.

Save the Date

Mark it in your calendars – Pulse Days 2010 will be held on Tuesday, January 12, 2010. We will continue to offer the option of attending at either the Saskatoon Inn or Prairieland Park. Staff will be pleased to accept registrations starting Thursday, October 1, 2009 by calling





For more information about SPG activities, please call 306-668-5556 or email pulse@saskpulse.com or visit our website at www.saskpulse.com.

306-668-9988 or online at www.saskpulse.com. Watch the SPG website for updates to the agenda and more information about next year's conference.

Extension Services Expanded in Rural Saskatchewan

The Ministry of Agriculture has expanded their rural extension services by opening new offices throughout the province to ensure all Saskatchewan producers have direct access to the information and expertise they need when making production and business decisions. For a complete listing of the new Saskatchewan Ministry of Agriculture Regional Offices, please visit, www.agriculture.gov.sk.ca/RegionalDevelopmentTeams.

Walker Seeds Ltd. Named One of Canada's 50 Best Managed Companies

This February, Walker Seeds Ltd. was chosen as one of Canada's 50 Best Managed Companies out of the more than 500 compa-

nies who applied. Canada's 50 Best Managed Companies is a national awards program recognizing Canadian companies that have implemented sound business practices and created value in innovative ways. In



September 2008, Walker Seeds was also recognized as one of Saskatchewan's Top 100 Companies.

2008 Version of Identification and Control Methods Now Available!

The grasshoppers were out in full force last summer. Be prepared in 2009 and call the SPG office at 306-668-5556 or email us at pulse@saskpulse.com



to receive your copy of the new Grasshopper Identification and Control Methods Booklet.

Want More Pulse Recipes?

Do you want to include more pulses in your family's meal plans but you're not sure what to do with them? Sign up today to be added to our monthly recipe email list to get great pulse recipes emailed to each month. To sign up, email us at rkehrig@saskpulse.com and indicate that you would like to be added to



the new Monthly Recipe Email List.

Collaborative Funding Approved

The Natural Sciences and Engineering Council (NSERC) has approved collaborative funding of \$205,423 for the SPG funded research project "Can Arsenic Toxicity in Mammals be Reduced by Feeding Saskatchewan Grown Lentil?" This project is led by Dr. Judit Smits of the Western College of Veterinary Medicine. This brings NSERC funding for SPG projects to \$685,248 in the past year. Two additional SPG funded research projects received collaborative NSERC funding this year.

Getting too many copies of PulsePoint?

When you sell your pulse crops, the buyer provides your name and full mailing address information to SPG so that you receive important information such as election ballots, PulsePoint magazine and other material.

Problems arise when buyers are not made aware of an address change, or when growers use a slightly different name to sell their crops. Help us be more efficient by letting SPG know if you are getting more than one magazine. Please contact Shelly at 306-668-0590 or send an email to sweber@saskpulse.com. *S*

CLOSING THOUGHTS -5-

Garth Patterson Executive Director



THE TEAM

EXECUTIVE DIRECTOR Garth Patterson

DIRECTOR OF RESEARCH Dr. Kofi Agblor

RESEARCH PROJECT MANAGER

Ron Mantyka Allison Fletcher (on leave)

VARIFTY PROGRAM ADMINISTRATOR

Raelene Regier

COMMUNICATIONS MANAGER

Amanda Olekson

COMMUNICATIONS SPECIALIST Rachel Kehrig

CONTROLLER Helen Baumgartner

ACCOUNTING CLERK Melanie Goring

RECORDS ADMINISTRATOR Shelly Weber

ADMINISTRATIVE ASSISTANT Jennifer Saunders

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Research investments and our

ability to commercialize our research outcomes has contributed to our status as the world's leading exporter of pulses. SPG has historically targeted 50 to 60 per cent of our annual expenditures towards research in the areas of breeding, agronomy and value added processes.

We know that producers benefit directly from these investments. Dr. Richard Gray's 2008 Return on Investment study found that Saskatchewan pulse producers receive a return of \$20 for every \$1 of check-off invested in research.

This year, we will invest over \$5 million into 66 research projects. We do our best to leverage grower check-off dollars by collaborating with the Saskatchewan Ministry of Agriculture to utilize the Agriculture Development Fund for pulse projects. In addition, \$5.2 million of federal funding has been granted from Agriculture and Agri-Food Canada to support pulse research through the Pulse Research Network (PURENet).

We know from our survey conducted in February 2009, Saskatchewan producers believe Saskatchewan Pulse Growers investment in pulse breeding should continue to be top priority. Breeding is our largest area of research investment (Figure 1). We are currently funding 19 research projects in breeding worth \$5.8 million.

We have also increased our investment in value added processes research to develop new markets for Saskatchewan grown pulses with 28 projects being supported worth \$3.7 million. In addition, we are supporting 17 agronomy projects worth \$1.9 million and providing funding for two graduate scholarships at the University of Saskatchewan valued at \$20,000 each.

Information about the research projects we are currently investing in is available on our website at www.saskpulse.com, or turn to page 15 to see an article featuring some of these new research projects. 5







General: 2

As of 2009, 68 new pulse varieties have been introduced and made available to growers through the Variety Release Program (VRP). The VRP program commercializes varieties developed at the CDC through the Broad Release or Niche Commercialization programs.

Undergraduate Scholarships for First Year Students Enrolled at the University of Saskatchewan

Saskatchewan Pulse Growers is proud to announce funding for five entry level undergraduate scholarship awards.

Eligibility

- Parent(s) or applicant are a registered pulse producer (i.e. they have sold or grown pulses in the last two years)
- Accepted as a full time student at the University of Saskatchewan in the first year of an undergraduate program that is associated with the pulse industry or agriculture (Agriculture, Natural Sciences, Engineering, Nutrition)

Selection Criteria

- Academic achievement: Minimum Grade 12
 average of 70% based on official transcripts
- Interest in pursuing a career related to agriculture
- Demonstrated leadership
- Contributions to school and community life

Application Requirements

- Official high school transcripts
- Proof of acceptance to the University of Saskatchewan
- Written essay of a maximum of 500 words on:
 - Career plans and how applicant plans to contribute to agriculture industry
 - Situations where the applicant has demonstrated leadership
 - Contributions the applicant has made to school and community life

Value

• Five scholarships are available for \$5,000 each

For more information on eligibility and how to apply, please visit www.saskpulse.com or contact Raelene Regier at (306) 668-1053 or email to rregier@saskpulse.com.

Deadline for Applications is July 31, 2009



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