DEVELOPING THE MARKET FOR PULSES

Developing New Markets for Pulse Crops
*Increased production of pulse crops means creating new demands*

Rotations and the Cost of Production
*Pulses add multiple benefits to your cropping system*

Top 10 Grain Contract Questions
*What growers should know when they sign their contract*
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THE LONGSTANDING FUNDING ARRANGEMENT between Saskatchewan Pulse Growers (SPG) and the Crop Development Centre (CDC) at the University of Saskatchewan is unique in providing all pulse growers with solid value for levy, and has contributed greatly to the growth of the industry over the past 20 years. In this pulse crop breeding agreement, the up-front investment is provided to the CDC in exchange for the commercialization rights to new variety registrations. This allows for Saskatchewan growers to access varieties royalty-free.

It is important to note that SPG does not own these varieties. Ownership remains with the University of Saskatchewan. This is commonly the case with any publicly established and funded institution.

Commercialization rights gives SPG the authority to release the varieties to the benefit of those who put the risk money in at the front end, which is all of the levy paying, pulse growing farmers in the province.

The pulse crop industry has also expanded outside our provincial borders. Neighbouring provinces have been and are using varieties of pulse crops created with funding from the pulse crop breeding agreement. Until recently, SPG had a distribution agreement with Alberta Pulse Growers (APG) and Manitoba Pulse and Soybean Growers that allowed Alberta and Manitoba farmers to access the varieties. That is no longer the case as APG has decided to allocate their funding to other priorities.

SPG decided not to restrict access to varieties outside of Saskatchewan, but instead have Saskatchewan farmers, who have provided up-front funding, receive a return on that investment from those outside the province using the varieties. Therefore, in November 2017, SPG announced our licensing agreements with SeCan and Seednet for the distribution of pulse varieties outside Saskatchewan. These agreements create a seed royalty that will flow revenue back to SPG, to invest in priority areas.

Plant Breeders’ Rights (PBR) protection is important for varieties leaving our province and our country. It is the way intellectual property can be protected and ensures that those using the property pay for it. Farmers will have recently noticed that new pulse varieties now have Plant Breeders’ Rights protection attached to them. The owner of the varieties, in this case the University of Saskatchewan, has the authority to apply for PBR protection for their work and innovation. Anyone with questions on the implications of PBR on new pulse crop varieties should contact the SPG office for further clarification.

Costs for everything continue to rise and plant breeding is no different. At the same time, investments made now for future released varieties are more important than ever – improved disease tolerance, enhanced weed control systems, and various other agronomic and quality characteristics of pulse crops need further enhancement. This new structure helps ensure fair access and equitable investment by all that use the improved varieties.

Sincerely,

Corey Loessin
Chair
Executive Director’s Message

CANADIAN FARMERS ARE HEAVILY RELIANT ON EXPORT MARKETS FOR THEIR PULSE CROPS. Over 85 per cent of Canadian pulses are exported around the world. Throughout the last year there were questions surrounding Canada’s ability to maintain market access to India due to India’s regulatory requirements related to fumigation with methyl bromide. The Canadian Government continued to work with the Indian Government to find a long-term resolution and to showcase Canada’s systems-based approach that mitigated the need for fumigation, but a resolution has not yet been received.

In September, Canada was subjected to a five times import fee on pulses destined for India, if methyl bromide fumigation did not take place, while other competitors such as the United States and Australia maintained exemption from additional fees until December 30.

Then, in early November, the Government of India imposed a 50 per cent tariff on all peas destined for India, regardless of origin. This will have a significant negative impact on Canadian pulse exports and ultimately Saskatchewan pulse growers, who produce approximately 50 per cent of Canada’s peas.

The Canadian pulse industry is working closely with the Government of Canada to determine what, if any, resolutions can be found to limit the impact on Canadian pulse exports, but we anticipate that there is no immediate solution. It is already clear that this has closed the door on Canadian pea imports to India for some time to come.

When market access issues like these arise, it reinforces the need to continue our work in areas of new demand creation to ensure that Canadian farmers are not solely reliant on any one country, and that we have diversified markets for pulses. The Canadian pulse industry has set a goal of 25 per cent of pulse production into new uses by 2025. This work aims to build new demand equivalent to three times the size of Canada’s current pea exports to India.

To achieve this, SPG is supporting work in the area of market development and promotion to increase consumer awareness and demand for pulses, and in research to find new ways to utilize pulse ingredients in food manufacturing.

Interest in pulse ingredients in food products continues to grow, with major food companies working to incorporate pulses into product formulations for added nutritional properties, and to achieve company’s product sustainability goals. Research SPG funds in this area builds base knowledge that answers questions food companies may have, allowing them to integrate pulses into their products and more quickly.

Recent announcements in value-added pea processing facilities in Western Canada will create more than 500,000 tonnes of new demand for pulse ingredients. Once on stream, this new demand will be our third largest market for peas.

As companies look to add pulses to their products, SPG is also working to build the consumer demand for pulses and products that are made with them. Under the Lentils.org promotional brand, and through the collaboration with Pulse Canada and the U.S.A. Dry Pea and Lentil Council on the Pulse Promotion Campaign, SPG is using consumer influencers such as dietitians and bloggers to increase consumer interest in pulses. SPG is also working closely with the Culinary Institute of America and university and college dining programs to integrate lentils and other pulses into dining halls across campuses. This is an area SPG believes there is the ability to have a more immediate impact because of the volume of food being served on a daily basis.

Maintaining access to key export markets is a critical piece to the success of the Canadian pulse industry. The Canadian pulse industry is what it is today because of the ability to export to markets like India. But as we face current challenges, it is a good reminder that to continue to be successful the industry needs to grow, diversify, and evolve into new markets and new demand opportunities, limiting the reliance on any one market.

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SPG Field Trials Translate to Knowledge for Producers

Results focused on maximizing profitability

BY NOELLE CHORNEY

IN 2017, SASKATCHEWAN PULSE GROWERS (SPG) FUNDED applied research and demonstration (ARD) projects as well as grower field trials to generate data for producers. Small- and large-scale projects were conducted, studying related issues including seeding rates, fertilizer applications, and intercropping. Results for each of the projects will be reported on the SPG website in early 2018.

Nine ARD projects took place across Saskatchewan this year, from small plot to field scale projects. Each project had its own focus and was carried out in different regions of the province, so growers can see how the application works in their area. “It is the first step in testing emerging research in different regions to see if results still hold true under various environments,” says SPG’s Agronomy Manager, Sherrilyn Phelps.

The 2017 demonstrations included dry beans, faba beans, chickpeas, lentils, dry peas, and soybeans. Many of the projects took place at AgriARM (Agriculture-Applied Research Management) sites. Phelps and others at SPG work closely with AgriARM sites to identify projects that are important to growers and can help with addressing agronomic issues for the pulse industry.

The 2017 ARD projects included the following:

- Sulphur response in peas and lentils
- Phosphorous management in lentils and faba beans
- Intercropping flax/chickpeas and mustard/lentils
- Predicting yields using normalized difference vegetation index mapping in soybeans and field peas
- Mapping for Aphanomyces and root rots in lentils

Some of those projects will be carried over into 2018 so that results can account for variations in weather from year to year.

“With the applied research projects testing at multiple locations, you can see the influence of different environments. We can identify which applications or practices may work best in specific regions, as well as which practices we would recommend overall,” says Phelps.

This was also the first year that SPG conducted Pulse Replicated On-Farm Independent Trials (PROFIT) with participating producers. “We are pretty excited about these trials, because they help to address limitations in the results from small-plot tests,” says Glenda Clezy, SPG’s
Agronomy Specialist, who is responsible for overseeing of the PROFIT Trials. “We want real-farm results for producers.”

SPG provided the protocol, which can be done with typical farm implements. “We try to keep the procedures as simple as possible,” says Clezy, “but it does take a bit of extra effort for producers during seeding and harvesting.”

One of the projects that was scaled up from a research demonstration project to an on-farm trial relates to seeding rates in lentils. The on-farm tests will evaluate if the results from the smaller plots hold true when replicated on a larger scale. Another PROFIT project tested inoculant rates for soybeans — and whether the rate of inoculant impacts yield or protein content, including if there is an economic benefit. “We are trying to get as much use out of our trials as possible, measuring multiple outputs when we have known inputs,” says Clezy.

“The more people willing to participate, and the more information we can get from different areas of the province, the more confident we can be in our recommendations to growers.”

SPG’s agronomy program is also gathering data from regional variety trials on 48 different soybean varieties, ranging from 0006 to 006 maturity groups. Ten locations, from the southeast to north-central and north-east regions will help provide data to growers regarding how different soybean varieties mature in their regions.

“It gives perspective and guidance on the different maturity groups perform across Saskatchewan,” says Clezy, “and gives growers a chance to consider new varieties and compare them to ones they have already grown.” Results for the regional soybean trials will be available in early 2018.

Pulse growers in Saskatchewan will have more solid data to help them in their crop planning for 2018, thanks to these ARD and PROFIT trials. There will be more projects happening in 2018, so be sure to get involved.

**Field Scale Pea Leaf Weevil Trials**

Dr. Meghan Vankosky (Agriculture and Agri-Food-Saskatoon) and her collaborators are conducting SPG-supported research in Saskatchewan to test the efficacy of different insecticide products against pea leaf weevils in field pea crops. The first year of small plot trials was completed in 2017.
Research

To complement data collected in plot trials, Dr. Vankosky is looking for volunteers for field scale insecticide trials. Cooperators will be asked to keep an unsprayed/untreated check strip of field peas in their fields to allow comparison of yield from treated and untreated plants.

Producers from southern Saskatchewan, in areas where pea leaf weevils have been of concern in the past few years and who are interested in participating in this research, can contact Dr. Vankosky directly (meghan.vankosky@canada.ca or 306-385-9362) to express interest or for more information regarding this project.

Noelle Chorney is a freelance science writer, interpretive planner, content manager, and owner of Tall Order Communications. She can be reached at tallorder@sasktel.net.

How to get involved

Growers who are interested in participating ARD projects or PROFIT trials can sign up to participate by contacting 306-668-5556 or pulse@saskpulse.com.
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Pest and Disease Survey Results

Summer surveys reveal pest and disease pressure on pulses for 2017

BY TRUDY KELLY FORSYTHE

SASKATCHEWAN PULSE GROWERS AND THE SASKATCHEWAN MINISTRY OF AGRICULTURE (SMA) conducted pest and disease surveys this summer to see exactly what pulses were encountering in the field.

Peas and Lentils

Pea and lentil root rot levels were specifically monitored through a root rot disease survey conducted with samples collected from 100 pea crops and 93 lentil crops in Saskatchewan in June and July. The samples were sent to Dr. Syama Chatterton, Research Scientist at Agriculture and Agri-Food Canada’s lab in Lethbridge, for analysis, which revealed that 100 per cent of the pea and lentil crops had at least trace levels of root rot.

Keeping in mind that a severity rating of less than three is considered healthy, incidence of root rot, where the number of plants assessed within the field with root rot severity of greater than three was highest in peas at 43 per cent and lowest in lentils at 9.5 per cent.

In addition to the root rot survey, Barb Ziesman, the Provincial Specialist, Plant Disease with SMA, lead the Ministry’s specific lentil disease survey to evaluate other diseases, from late July to early August, in 52 lentil crops. In this second survey root rots were again identified, and 54 per cent of the lentil crops evaluated had the root rot complex, with highest prevalence in the southwest.

The lentil survey evaluated foliar diseases as well and found Anthracnose to be the second most prevalent followed by Stemphylium blight. Anthracnose was found in 38 per cent of lentil crops across Saskatchewan. Stemphylium blight was found to be present in 33 per cent of all fields. White mould was present in only two per cent of surveyed crops while grey mould was absent.

“Generally speaking, disease levels were lower in 2017 compared to 2016,” Ziesman says. “A major reason for this is the dry conditions experienced across most of the province this year.”

This makes sense since disease development is largely driven by the environmental conditions, and most fungal diseases favour wet conditions.

Year-to-year variations are largely due to differences in environmental conditions during the growing season. As a result, disease management decisions need to be made during the growing season by scouting crops and assessing disease risk.

Changes in disease incidence year-to-year are common because disease is the result of the interaction between the pathogen, the environment, and the host. “Most diseases are favoured under wet conditions,” explains Ziesman. “The level of disease in field the last time a susceptible crop was grown may also influence the amount of pathogen present to cause disease.”

Chocolate Spot

Foliar lesions were present in 100 per cent of the 21 faba bean fields surveyed this year, although the severity of infection was low.
Pea leaf weevil was lower than expected but range expansion was occurring at the same time,” Vankosky says. “Additionally, they were worse in faba beans than in field peas. There were reports they moved into soybeans in the fall, but they were not likely associated with yield loss.”

Prager and Vankosky add that it is their impression that weather was a much larger factor in losses than any of the common insects.

Looking Ahead

There are a number of considerations growers should keep in mind heading into the next growing season.

First, it is important for growers to know their disease risk. This means knowing the level of susceptibility of the variety being planted, the pathogen presence, and the history in the field.

Within the growing season, make sure to scout regularly,” says Ziesman. “Fungicides are not required every year and fungicide application decisions should be based on disease risk which will be influenced by environmental conditions.”

As for pest control, Prager says the provincial maps will be available from the government and Prairie Pest Monitoring Network Blog in January.

“They are the best available tools for planning,” he says. “We also recommend talking to the local professional agronomists.”

Scouting remains important and producers should consult the previous year’s results as a guide to which insects to scout for. Watch the Prairie Pest Monitoring Network’s blog for weekly updates during the growing season.

Stemphylium blight in a field of lentils this summer.
WE ALL KNOW CANOLA-SNOW-CANOLA IS NOT A RECOMMENDED ROTATION, but what is the ideal way to integrate pulses into a sustainable rotation? The trend of plant-based proteins, combined with the benefits of pulse crops in a rotation, has encouraged growers to increase pulse acres across the Prairies. Researchers in Western Canada, in association with commodity groups such as Saskatchewan Pulse Growers (SPG), are taking efforts to understand the impact this change has on factors like soil water and nutrients, and implications of including pulses in rotations on soil biology and health.

Perhaps the most well-known benefit of growing pulses is the positive effect on nitrogen in the soil. Alberta Agriculture and Forestry states that pulses “provide a nitrogen benefit that can replace 10 to 15 kilograms of nitrogen per hectare.” Not only do pulse plants fix nitrogen from the atmosphere for their own requirement for optimal growth, but also leave some nitrogen in the soil. The nitrogen from the decaying roots and plant material of a harvested crop release nitrogen into the soil. The following crops benefit from the soil residual nitrogen through the growing season. This is important for a crop like wheat, which requires nitrogen available during the seed filling period to increase protein content and seed quality.

“Pulses provide significant benefits to crops that require nitrogen, which could be almost any crop,” says Sherrilyn Phelps, Agronomy Manager with SPG. “There are also non-nitrogen benefits of including pulses in rotation.”

Manitoba Agricultural Services Corporation’s crop insurance data shows that flax does very well on pea stubble. Phelps suggests this is because flax forms associations with arbuscular mychorrhizal fungi in the soil, which helps the crop access nutrients. Pulses are also mycorrhizae compatible, so they stimulate these fungal organisms in the soil, which helps the crop access nitrogen. Pulses add multiple benefits to your cropping system.

Pulses add multiple benefits to your cropping system

BY MEGAN MADDEN

Research led by Dr. Yantai Gan and his team at the Swift Current Research and Development Centre, Agriculture and Agri-Food Canada (AAFC), has been studying various rotation systems. “In a 2017 publication, we showed that the inclusion of two or more pulses in four-year crop rotations caused a significant shift in the composition of the soil fungal community, a decrease in fungal diversity, and an increase in the proportion of fungal pathotrophs compared to continuous wheat or rotations with only one pulse crop,” says Gan.

However, depending on the pulse type, for example faba beans or chickpeas, which are partially resistant to Aphanomyces, two or more pulses in a rotation may offer a rotation benefit.

As the project leader, Gan indicated that microorganisms often interact with each other in the soil, and some beneficial microbes can inhibit disease-causing microbes. “Microbial communities in the soil, on the rhizosphere (for example, the soil attached on plant roots), and those within the surface of a root (called endophytic microorganisms) can function differently and the outcomes of the beneficial/pathogenic microbial interactions will have a real impact on the health of the soil,” Gan said. In designing a rotation, canola and pulses are both affected by sclerotinia. This should be considered if growing canola on pulse, or pulse on canola stubble.
“Cereals are ideal prior to pulses,” says Phelps. She recommends growing cereals prior to pulses offers the best weed control for the following year’s pulses. “Pulses can perform well when grown on canola stubble with no-till management” says Gan. However, volunteer canola management is important if grown prior to a pulse, whereas volunteer cereal control is well established in most pulse crops.

Dodsland area farmer Jeff Bennett incorporates lentils into a cereal and oilseed rotation for exactly that reason. “Lentils are a great fit to allow greater flexibility of herbicides,” he says. “It is also a benefit not to rely solely on two crops for income. The year break from buying nitrogen is nice too.”

While currently known benefits are primarily nitrogen and fertility related, pulses like peas and lentils are good in a rotation due to their short growing seasons, which leaves more residual soil water in the ground for the subsequent year’s crop. This is a significant advantage in dry soil areas. Conversely — faba beans can help draw down moisture in areas where it is excessive as they are longer in maturity.

Early harvest with some pulses also opens the option of adding winter cereals to a rotation, but the lack of stubble with pulse crops could be a concern for maintaining snow cover and assisting with winter survival.

An AAFC Swift Current research project studied 14 different rotation systems with variable levels of pulse intensity from 2010 to 2016. The four-year rotations included field peas, lentils, and chickpeas from zero to three times with wheat. Peas and lentils before wheat, or the rotation systems with peas or lentils included more than once in the rotations, had the highest residual soil water and nitrogen in the 30-90 centimetre depths. Peas and lentils before the wheat increased the grain yield of the wheat by 26 per cent (peas) and 18 per cent (lentils), compared to continuous wheat.

Regardless of the reason for incorporating a pulse into your rotation, you will gain benefit both in the cropping season, and the subsequent ones, especially when other factors such as disease and weed control are managed properly.

Megan Madden is the owner of southpaw PR Inc., a strategic communications consultancy. She can be reached at @southpawMegan or megan@southpawpr.com
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**XTEND SOYBEANS**

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SEED TREATMENTS ARE A VALUABLE RESOURCE FOR PRODUCERS looking to protect the viability of their seed, and there are a variety of seed treatments for pulse crops on the market these days.

“Seed treatments protect against seed- and soil-borne pathogens, and provide some protection to poor quality seed and to seed germinating in poor conditions,” says Barb Ziesman, the Provincial Specialist, Plant Disease with the Saskatchewan Ministry of Agriculture (SMA). “But, they will not cure a poor seed lot with high levels of dead, damaged, or infested seed.”

Protecting the seed where there is disease pressure will help to improve seedling emergence and seedling vigour. The economic benefits are highest when there is high disease pressure and/or when the crop is growing in adverse conditions. Ziesman says producers need to judge whether to treat their seed based on seed test results and the history of the field.

Think About It
There are a number of factors producers need to keep in mind as they consider seed treatments.

For example, many of the treatments have more than one active ingredient in them — such as a combination of insecticide and fungicide. Often more than one fungicide is included because not all fungicides are effective against all pathogens or diseases. As a result, the SMA encourages producers to know what disease they want to manage, and to choose the treatment that is going to be effective against that disease.

Producers also need to keep in mind that products can be systemic or contact. “Only systemic fungicides are effective against pathogens occurring in the seed or embryo,” says Ziesman. “With contact fungicide, the level of seed coverage is more important. You want to ensure you get complete coverage.”

And, it is important to look at the level of control or suppression. “If possible, producers want a treatment that is registered for control, not just suppression, because they want a product that is going to give the highest level of protection,” Ziesman says, pointing out there are no seed treatments registered for control of Aphanomyces root rot, only treatments registered for suppression.

Growers should also get seed tested for germination, vigour, and disease levels as this will help them decide whether to use the seed or to get the seed treated.

Finally, producers need to remember that treatments will only be effective when the crop is in the seed to seedling stage. “That is because the active ingredient is only active for a finite period of time,” says Ziesman. “If they are treating on farm, they need to ensure a good level of seed coverage since seed coverage will impact seed efficacy.”
When To Treat

Dale Risula, a Provincial Specialist, Special Crops with the SMA, says many of today’s seed treatments require commercial application. This means it is important for growers to book times with their dealers well in advance so they will not miss out on seed protection that is required for the coming year.

“Seed treatments are applied following consideration of seed-borne as well as soil-borne organisms that may cause a problem to their specific crop planned for the coming season,” Risula says. “Pulse crops are legumes that require inoculation with Rhizobium bacteria, a living organism that is probably very sensitive to seed treatments, particularly those containing fungicides.”

Producers should also look for compatibility ratings on the seed treatment label, but consider treating the seed first with the fungicide, or multi-purpose, seed treatment before inoculating with the Rhizobium bacteria as recommended by the SMA. “This will give the bacteria a better chance to survive and do their job,” Risula says.

Most seed treatments will only last about two to three weeks in the soil and they are variable in their times of effectiveness. That is why it is important to follow the directions on the label for the best results and to remember that there is some variation between products.

“Some products may still be available for home application but having the correct equipment to apply the product is essential,” Risula adds. “Coverage is essential too as you must ensure complete coverage to get the results you need. Incomplete coverage is basically as good as not treating at all.”

Part of the issue is changing conditions causing moisture and temperature conditions after planting to vary from year to year. The levels of moisture and temperature will impact the critical level needed for seed treatment.

Producers can learn more about seed treatments recommended for pulses at saskpulse.com or the SMA website.

Provincial Recommendations

While there are no set thresholds for tolerance levels in pulse seed for planting, the SMA maintains an updated list of recommended thresholds and products for producers to refer to. But, Ziesman stresses, “they should only be used as guideline, or rule of thumb, because they are not true thresholds, but more of a general guide.”
FOR GROWERS ACROSS SASKATCHEWAN, the end of harvest marks the beginning of the planning season. Soil testing can be one of the most important pieces of information for planning when it comes to determining what and where to plant in the upcoming seeding season.

“It is a means of predicting the nutrients that are available in the soil,” says Dr. Jeff Schoenau, Professor and Ministry of Agriculture Strategic Research Chair, Department of Soil Science, University of Saskatchewan. “This kind of prediction can inform and enable better decisions regarding crop rotation and fertilizer requirements for the following year.”

There are several factors that alter the amount of available nutrients in soil and influence nutrient uptake and removal — from weather during the growing season, to the kind of crop that was previously in the field. Soil testing can reveal the amounts and supply of plant available nutrients such as higher-than-normal available nitrogen, which will inform decisions for the upcoming season.

The best time to test the soil is as close to seeding as possible. But often, that kind of timeline is not realistic.

“When you do test, you want to make sure are taking samples when the soil has cooled enough for the nutrient turnover processes to have slowed down to similar levels that you would see in the spring,” says Schoenau.

“Apart from dry beans, which have poor nitrogen fixation capability, pulse crops are legumes that have the capability of fixing most of their nitrogen needs in symbiotic relationship with crop specific Rhizobium bacteria species,” says Panchuk. “But, if a field has more than 35 pounds of nitrogen per acre in the top foot, the onset of nodules and the fixation process will be delayed.”

Conversely, knowing that a field shows lower-than-normal levels of nitrogen will help inform immediate seeding decisions and can even impact long-term planning.

“If a stubble is low in available nitrogen, it would be a good candidate for a pulse, as this will enable more of the plant’s requirement for nitrogen to be derived from fixation rather than soil or fertilizer,” says Schoenau. “The nitrogen fixation process in pulses is an external source that can help replenish nitrogen levels in the soil for future crops in the rotation.”

Just like any other crop, there is more than one nutrient that plays a role in producing vigorous plants and larger yields.

“Pulse crops require phosphate for early, uniform, and healthy root growth, which is the first step in ensuring early onset of nodules and nitrogen fixation,” says Panchuk. “It is also needed for the energy intensive nitrogen fixation process, so it is important that phosphate levels be adequate.”

Soil Testing for Pulses

When it comes to pulse crops, knowing the amount of available nutrients in the soil when seeding can lead to greater yields and a successful harvest.
With snow already blanketing many fields across the province, it may be too late for soil testing this year. But, as the snow begins to melt, make sure to take a few core samples and send them to get tested. After all, “understanding your soil means better yields,” says Schoenau.

Labs that do nutrient analysis of soil and plant tissue can be accredited by the North American Proficiency Testing Program (NAPT).

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IN EARLY NOVEMBER, SASKATCHEWAN PULSE GROWERS (SPG) ANNOUNCED that they had licensed distribution rights for select Crop Development Centre (CDC) pulse varieties in provinces outside of Saskatchewan to SeCan and SeedNet for a 10-year period.

The change comes after Alberta Pulse Growers (APG) discontinued their agreement with SPG that provided Alberta farmers with royalty-free access to CDC pulse crop varieties. For a number of years APG and Manitoba Pulse and Soybean Growers had been making financial contributions towards the CDC’s pulse breeding program that provided growers in Alberta and Manitoba access to CDC varieties royalty-free. After APG expressed interest in moving away from that arrangement, SPG began looking for alternative ways that Alberta growers could pay for access to varieties in a different way.

“Saskatchewan pulse producers contribute significant upfront funding towards the development of CDC varieties,” says Carl Potts, Executive Director of SPG. “These contributions are made through SPG’s investment of pulse levy towards the CDC pulse breeding program. In exchange for this investment, SPG ensures that Saskatchewan growers are provided with royalty-free access to CDC developed varieties.”

By licensing the distribution of these varieties for sale in provinces outside of Saskatchewan, SPG is ensuring that growers in other provinces are paying for access to varieties developed by the CDC. “By working together with SeCan and SeedNet, we are creating a mechanism for growers in Alberta and Manitoba, or other regions of Canada, to pay for access to CDC varieties through a seed-royalty system,” says Potts.

Royalties paid by growers accessing licensed varieties outside Saskatchewan will flow back to SPG. “SPG will utilize the revenue generated from these licensing agreements to invest into projects and program areas that are in alignment with SPG’s strategic key result areas,” explains Potts. Those key results areas include work to improve yield potential for existing pulse crops, and to develop a pulse crop option for every acre of arable land in the province.
Varieties with Licensed Distribution Rights

**SeedNet (Canada, outside Saskatchewan)**
- CDC Inca (yellow pea)
- CDC Proclaim CL (small red lentil)
- CDC Palmer (Kabuli chickpea)

**SeCan (Canada, outside Saskatchewan)**
- CDC Spruce (green pea)
- CDC Forest (green pea)
- CDC Spectrum (yellow pea)
- CDC Athabasca (yellow pea)
- CDC Canary (yellow pea)
- CDC Jasper (forage pea)
- CDC Blazer (maple pea)
- CDC Kermit (small green lentil)
- CDC Roxy (extra small red lentil)
- CDC Impulse CL (small red lentil)
- CDC Redmoon (small red lentil)
- CDC 3674-15 (small red lentil)
- CDC 4371-4 (small red lentil)

SeedNet will have distribution rights for the varieties they have been awarded for all of Canada (excluding Saskatchewan). SeCan will have distribution rights for the varieties they have been awarded across Canada (excluding Saskatchewan).

“SeCan members have grown CDC varieties in the past and we felt it was critical to ensure that our members continued to have access to the varieties,” says Todd Hyra, Business Manager for Western Canada with SeCan. “With more than 500 independent member companies in Western Canada, SeCan is ideally suited to ensure that the CDC varieties are broadly available across all areas of adaptation.”

“SeedNet wants to provide growers with the best genetics to satisfy the increasing demand for pulse crops in Canada,” says Elizabeth Tokariuk, General Manager for SeedNet. “Each farm is unique, so SeedNet means to provide a range of varieties from the many excellent Canadian breeders, which certainly include those at CDC in Saskatoon.”

For seed growers outside Saskatchewan that are interested in accessing the varieties that have been licensed for distribution outside Saskatchewan, they can contact SeCan and SeedNet for more information.
This story first appeared in Canola Digest September 2017 issue.

WHILE GRAIN CONTRACTS HAVE SIMILAR CORE ATTRIBUTES, the specific clauses and terms can differ significantly from one grain buyer to another. Here we share the 10 most common questions farmers have about grain contracts.

1. Contracts seem to be written to protect the buyer. What can farmers do to achieve balance?

Reading and understanding your grain contract is critical. Always obtain a complete copy of the contract’s terms and conditions prior to agreeing to the sale and make sure to read and understand the conditions before signing.

Compare different terms. Some comprehensive contracts on the market contain protections for both the buyer and seller.

2. What happens if I deliver less than the contracted amount? Do tolerances exist (i.e. Five per cent over and under)?

There is not a magic number. If you think you will be short on your contract, talk to your grain elevator or processor. Buyers will consider several factors such as stocks position, the likelihood of sourcing the grain elsewhere, and the size of your contract. Your grain buyer may be in the position to discuss alternate solutions, and the sooner you speak to them the better your options may be.

3. What recourses do farmers have if their grain is not accepted in the contracted delivery period?

All contracts allow for extended delivery periods.

As written, you are obligated to deliver in both the initial and extended delivery period. If you are unable to deliver in the extended period, talk to your elevator or processor about making changes, look for contracts with shorter extensions, or arrange for alternate delivery terms.

Ask what storage fees are available. As of August 1, 2014, all grain marketing contracts must contain provisions to compensate farmers for grain not accepted within the stipulated delivery terms. The application and available compensation varies between companies (some more favourable than others), and by signing the contract you agree to the terms.

4. Does a verbal agreement form part of the contract?

Verbal agreements are legally enforceable if they contain the specific elements that constitute a deal, but they can be difficult to prove when the two parties disagree on what was said. Furthermore, make sure to add any verbally agreed upon terms to the Remarks or Special Terms section of your contract or amend them to the contract.
5. Have farmers been successful at negotiating changes to a contract?

Some farmers have successfully renegotiated terms within a contract, especially around price and delivery terms. Remember the more farmers that request changes, the greater the chance grain companies will consider it.

6. Is there a process for arbitrating contract disputes?

There is no one system for recourse. The best defense is to establish a positive business relationship with your grain buyer and to fully understand the buyer and seller obligations to avoid any dispute. Some contracts reference the arbitration rules established under the National Grain and Feed Association. If there is a dispute over the delivery penalty, farmers can raise the issue directly with the Canadian Grain Commission who may appoint an arbitrator. Legal recourse through a contract lawyer is also an option.

7. Has the Canadian Canola Growers Association considered pushing for a standardized contract?

CCGA is not currently advocating for a standardized grain contract. While we recognize that common language would streamline the process, it would also eliminate an element of competition in the market. Companies currently compete for grain based on their contract provisions, and farmers have the choice of selecting contract terms that work best for their farm and its marketing plans.

8. How are liquidated damages calculated?

Most grain contracts outline precisely how damages will be collected. The formula is normally an administration fee, plus the difference between the contract prices and the replacement cost, plus any additional losses the company will incur. If your contract does not stipulate the process for collecting damages, ask your elevator or processor in advance how damage is assessed and consider including this in the notes to the contract.

9. Do contracts contain acts of God clauses?

Act of God or Force Majeure provisions are rare in grain marketing contracts. A handful of companies do provide them, but they are generally offered at a premium or available on specialty or production contracts.

10. Can I get out of my contract?

Once signed, the terms and conditions are binding, and most often the contract cannot be broken without buying it out or paying the liquidated damages. Grain contracts can differ significantly from one grain buyer to another, so always remember to read and fully understand your grain contract before signing it. If you are unsure of anything in your contract, talk to your grain elevator or processor to ensure a common understanding of the obligations. Good communication is key to ensuring you maintain a good business relationship throughout the entirety of the contract.
Developing New Markets for Pulse Crops

IMPACTING DEMAND is one of the main areas that Saskatchewan Pulse Growers (SPG) is investing in to move the pulse industry forward.

SPG’s goal is to impact demand by expanding the use of pulses through increased export demand and new market opportunities. SPG recognizes that profitable growth of the pulse industry will require the expansion of pulse utilization in traditional supply chains, as well as developing new uses and new market opportunities for pulses.

“Canada, particularly Saskatchewan, is the largest producer and exporter of pulses. With 70 per cent share of global trade for some pulse crops, we cannot just focus on producing more, we also need to focus on creating demand for that production,” explained Carl Potts, Executive Director of SPG. “With most of Saskatchewan’s pulse crops going to the same few countries, there is a need to diversify demand into new uses.”

SPG can diversify demand by developing new markets for pulses and a lot of this work is being done as part of research projects being funded in part by SPG through their research and development program.

“When making research investments in utilization projects — whether it is pulses in pet food, or pulses for human consumption such as pulse flours in baked goods or pulses being used as a meat binder, we are looking at projects that can create the most value and demand possible. We are looking for growth areas with the biggest impact to the pulse industry, in the shortest amount of time.”

And, the Canadian pulse industry has established a major goal to create new market demand as well.

“The Canadian pulse industry has established a goal of creating demand for 25 per cent of its productive capacity in new use applications for pulses by 2025. Doing so will create nearly three million tonnes of additional demand for the pulses we produce in Canada,” added Potts.

With SPG also focusing efforts on increasing yields of existing pulse crops, and providing growers with new crop options for every acre of land in Saskatchewan, there needs to be new uses for these additional acres. Investment in research projects that create new market opportunities for pulses is one of the areas SPG is engaging in, working towards impacting demand. Here are a few of the projects that are currently underway.

A Pulse-Based Summer Staple

Next summer your barbecued burgers could have a new ingredient in them that not only offers high fibre and low glycemic index, but tastes great too.

Michelle Sigvaldson, a Food Scientist with the Alberta Agriculture Food Processing Development Centre (FPDC) in Leduc,
Alberta has been looking at how a pulse-based bread crumb could be used as a functional binder for processed meats, such as beef burger patties.

“Our goal was to produce a pulse-based crumb that provided similar or improved functionality and was accepted by consumers. A pulse-based bread crumb can provide the meat industry with an alternative to the traditional toasted wheat crumb and result in an expanded market opportunity,” explained Sigvaldson.

The project, which has just wrapped up, evaluated processing methods on pulse flours by looking at the effectiveness of reducing the aroma and flavour of pulses as a result of heat treatment. Researchers then evaluated two manufacturing methods to create pulse-based crumbs — a traditional sheeted and baked process, as well as an extruded crumb processing method. In all methods, 100 per cent pulse flours were used for the manufacture of extruded pulse crumbs, and 60 per cent pulse flours were used for the sheeted crumb processing method.

Sigvaldson and her research team explored three different types of dehulled pulses — low-tannin faba beans, yellow peas, and red lentils. All three showed promising results for a pulse-based bread crumb as a binder in a beef burger patty, but further research concluded that yellow pea and red lentil crumbs/flours would work best in the closed structure extrusion process.

“An important pillar in our strategic plan is to impact demand by expanding the use of pulses through increased export demand and new market opportunities. We see a lot of value when there is uptake in the domestic market with increased domestic consumption,” explained Dr. Constance Chiremba, Research Project Manager for SPG. “Pulses can be a great alternative in what has become a growing food market.”

Sigvaldson also sees a lot of potential for more domestic consumption of pulses and the value it brings to Saskatchewan pulse producers.

“Sharing these results will allow food ingredient suppliers to apply our research results, which in turn reduces product development costs, and enables them to get a pulse based crumb product to market quicker,” explained Sigvaldson.

More Peas for Pets

Healthy eating is a significant and steadily growing trend among consumers but, humans are not the only ones trying to watch what they eat. Pets are also an important part of this growing food trend and healthier, more nutritious pet food sales are skyrocketing.

Dr. Lynn Weber has been studying the inclusion of pulses in pet food for the past eight years and has concluded that, “pulses such as peas, lentils, and low-tannin faba beans in pet foods is healthier to use as a dietary starch source rather than a corn or rice based starch.”

Too much sugar is never a good thing. Both corn and rice contain starch that is rapidly digested, which results in a spike in glucose levels and excessive insulin release, which can damage the organs. By using a pea-based starch, this allows for a slow release of the sugars into the blood, meaning a low glycemic index, and less risk of diabetes and ultimately obesity down the road.
Market Development

“With 50 per cent of cats and dogs overweight, and over half being obese, there is a strong desire to get better control of your pet’s diet and overall health,” says Weber.

A 12-week study showed that using pulse starches improved the overall health of a pet. For the pets that consumed the pulse-based diet, the result was a lower glycemic index and better glucose and insulin sensitivity. Weber believes a longer study would have revealed that weight control would be a long-term benefit as well.

If you were to walk into a smaller scale pet food store today, you will very likely already find some products on store shelves with pulses incorporated in them, but some of them have been rejected by cats and dogs due to taste, particularly for cats who tend to be fussier eaters.

During the long-term study, it was discovered that the taste profile of pet foods that contained pulse starch was not favoured by felines. The focus was then shifted to get rid of the bad taste, but still retain the health properties by using a fermentation method, particularly for pea starch.

“We have been working with AGT Food and Ingredients, as they are interested in adopting methods our group has developed of fermenting pea starch with torula yeast. This yeast is common in a lot of animal feed already, and it is widely used for flavouring processed pet foods due to its strong meaty taste,” explains Weber. “We think this fermentation process will allow the food to taste better, while still using pulses to enhance the nutritional profile.”

Ingredient companies like AGT can take this fermented pea starch product and sell it to pet food companies as a great tasting ingredient with proven nutritional properties.

Weber noted that in the last eight years, the pet food market has changed a lot and pulses have already made a major entry into the pet food market. In order to make sure this food trend sticks around, pet food manufactures need to ensure the food tastes good too.

“With the ability to use 30 per cent pea starch in pet food products, this could mean a huge market potential for Saskatchewan pulses. If we can create better tasting food to begin with, there is a ton of market opportunity,” added Weber.

Dr. Chiremba could not agree more.

“There is already an increased demand and steady increase for pulses in pet food with a move to more grain/meat free diets for pets,” she explains. “And a certain segment of people will pay a higher price for healthier food for their pets if there are known health benefits, so there is a definite economic gain here for the pulse industry.”

These are the kind of new market opportunities that align with SPG’s strategic plan to diversify pulse demand in the long term.
“This research shows opportunity for market growth. The more the public knows about using pulses in pet foods and the benefits, the more value it can create for growers,” added Potts. “When we invest in utilization research projects, the goal is to build demand and create the most value and impact in the shortest amount of time. This project creates that demand potential.”

Once research confirms an improved taste and enhanced health benefits, the next step is to share this information with the pet food industry and further expand the use of pulses as a main ingredient in pet food.

“The high-end pet food market is advancing quickly and sales are skyrocketing each year,” added Weber. “There is no slow down or end in sight, and the demand for pulses in pet food will only increase. The pet food market is a very sustainable market for pulses and it is not going anywhere, anytime soon.”

**Faba Beans Offer Advantage as a New Food Ingredient**

While faba bean acreage may be down slightly across Canada, the market potential for this new crop still remains high and new opportunities are on the horizon.

Faba beans are grown mainly in the wetter areas of Saskatchewan. In 2016, almost 51,000 acres of faba beans were seeded in the province.

Faba beans can be processed into protein, starch, and fibre. Their biggest benefit to the food ingredient industry is the high amount of protein they contain, something food ingredient companies are always on the hunt for.

Dr. Shannon Hood-Niefer, Vice President, Innovation and Technology at the Saskatchewan Food Industry Development Centre Inc. (Food Centre) sees the opportunities for faba beans and is undertaking new research to increase the functionality of faba beans in food products like baked goods.

“Faba bean has clear advantages from the perspective of food processing: neutral colour of seed, flour, and fractions, bland flavour of seed, flour, and fractions, high in protein, and it is a glycemic index-friendly starch. Faba beans can be used in baked goods by partially replacing wheat flour.”

Hood-Niefer and the staff at the Food Centre have been testing 25 different faba bean samples, which includes 10 different varieties from locations across Saskatchewan. They have been testing the faba bean starch and protein in various food applications. Faba bean starch has been tested in banana bread, pudding, pancakes, sugar cookies, and gravy, while the faba bean protein has been tested in smoothies, muffins, meringue, and protein bars.

“We have been testing it in cupcakes, cookies, and pancake mixes, but it can also be used in other food applications like sauces or a deep fried coating,” adds Hood-Niefer. “We are hoping to learn which faba bean is best suited for dehulling and fractionation, and what applications the fractions or isolates work well in.”

For the faba bean starch applications, initial results show that faba bean starch has a less beany flavour compared to other pulse starches, and in most cases had similar colour and structure to the wheat flour baked goods. For the faba bean protein application, it was used in a muffin as a potential egg replacer and as a protein source in a protein bar. Depending on the variety — the result was either a dense product, or airy and light for the muffin, and some varieties provided good structure for the protein bar.

“The next phase is sensory trials, which we have scheduled, and after that, this technology and research will be open for food companies to access,” explains Hood-Niefer.

Faba beans are fairly new to the food development industry, as past varieties have contained anti-nutritional qualities. As a result, new varieties have been bred to reduce anti-nutritional levels, which opens up a whole new marketing opportunity for faba beans in the domestic market.

“There has been a limit with human consumption for faba beans in the past, but with new varieties and lower levels of anti-nutrients, this research project will help fill that gap and help get over the barriers of faba bean utilization we have faced in the past,” says Dr. Chiremba.

Some of the other challenges working with faba beans Hood-Niefer identified were improving dehulling efficiency due to size and shape, presence of convicine/vicine related to favism, and a lack of knowledge of utilization. We are working through evaluations of the flour, protein, and starch samples in food applications and analysis of the vicine/convicine levels of the products.”

While this project is still in its infancy, the results are promising and Hood-Niefer and her team are hoping this research will lead to a differentiation of markets for faba beans.

“Market diversification is important in the current economy to ensure there is a market for crops grown in Saskatchewan,” says Hood-Niefer.

“Faba bean is a new crop option in Saskatchewan, and at SPG we have a mandate to increase production, but also market demand,” explains Chiremba.

Potts notes, “Our goal for faba beans is to increase production and build a market for them. If we want to actually grow more pulse crops and introduce new crop options, we need to find food uses for them too.”

Faba beans, according to Potts, have a lot of potential due to their ability to withstand certain types of diseases, including a higher resistance to root disease, something many pulse growers face each year.

While opportunity continues to grow in the field for faba bean production, Hood-Niefer and her team at the Food Centre are continuing to work on new food uses for faba beans, and utilizing their beneficial qualities to improve the nutritional profile of our favorite baked goods. •

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Rethinking Food Formulations

AGRICULTURAL PRACTICES ARE MORE EFFICIENT THAN THEY HAVE EVER BEEN, but there are more mouths to feed on fewer resources every day.

“We need to focus on food systems rather than agricultural systems,” says Denis Tremorin, Director, Sustainability with Pulse Canada. “At the end of the day, our crops are food and often when we talk sustainability, farm gate sustainability gets too technical to resonate with consumers and food companies.” Pulse Canada wants to shift the focus from farm production sustainability, to manufacturing and food reformulations as viable solutions that will contribute to feeding nine billion people. “Solutions can come from the supply chain, not just the farm level,” Tremorin emphasizes.

To work towards this goal, the pulse industry is working on integrating existing research with new projects to develop new markets and products. The Saskatchewan Research Council recently conducted a systematic review of numerous rotational research studies to evaluate the impact of pulses in a rotation. This review analyzed studies from across Western Canada to determine how pulses in a rotation impact greenhouse gas emissions and the carbon footprint of the end product, not only in the pulse crop year, but in cereal crops following a pulse.

That farm-level data was then fed into a food focused project with ETH Zurich, a research based university in Switzerland. This project was designed to calculate the carbon footprint and nutritional quality of bread, pasta, and breakfast cereals currently consumed in Canada, and how those values changed once the products were reformulated with pulse flour.

This project launched in the summer of 2016 with the evaluation of three wheat-based products. These products were reformulated with yellow pea flour on a sliding scale of ratios from zero per cent pea flour and 100 per cent wheat flour, to 100 per cent pea flour and zero per cent wheat. At each ratio, evaluations were done on greenhouse gas emissions, nutritional value, and 17 indicators in the environmental life-cycle impact.

The ratio of pulse flour was not the only changing factor, as the wheat flour used also came from different crop rotations — monoculture, oilseeds, and pulses. “Initial results show that carbon footprint decreases through pulse reformulations. Using wheat flour coming from a farm with pulses in rotation has lower carbon footprint than wheat flour coming from a farm with traditional wheat-wheat or wheat-canola rotations,” reveals Abhishek Chaudhary, Ph.D. with ETH Zurich’s Institute of Food, Nutrition, and Health in the Department of Health Science and Technology.

“The most significant benefit was when they were in an optimized crop rotation under conditions like no-till,” adds Tremorin.

Nutritionally, pulses are rich in protein and fibre and contain high levels of vitamins and minerals such as folate and iron. Whole and dehulled split pulses are already being milled into flour and incorporated into a variety of processed foods to enhance the nutritional content. Banza, a chickpea pasta available in the United States, claims two times the protein, four times the fibre, and nearly half the net carbohydrates of traditional noodles. Tremorin says this project showed similar results: higher protein and fibre, as well as an increase in some micronutrients.

“Results also show that the nutritional quality increases through reformulations mainly because of higher amounts of essential nutrients (e.g. fibre, protein, etc.) in the yellow pea flour than wheat flour,” explains Chaudhary.

Success of lines like Chickapea (a Canadian chickpea pasta company), a UK pulse-based bread sold through Warburtons, and Banza,
prove consumers are demanding plant-based, high protein ingredients.

“We really want people and companies to think of food sustainability from a reformulation perspective,” says Tremorin. “We want to make food better, but also benefit the environment at the same time.”

The Canadian industry has a goal of developing non-traditional markets for 25 per cent of Canada’s pulse production by 2025.

“In addition to targeted engagement with food manufacturers, food service, and consumers, we want to achieve this goal by driving demand at a higher level, working with corporate leaders to see reformulation and non-traditional uses as an opportunity for products that are improved in both nutrition, and environmental impact,” says Tremorin. “For example, if a corporation has a goal of cutting their carbon footprint in half, we want them to consider reformulating products for results rather than focusing solely on going back to the farm gate to try and squeeze out incremental efficiency improvements.”

Megan Madden is the owner of Southpaw PR Inc., a strategic communications consultancy. She can be reached at @southpawMegan or megan@southpawpr.com
Flavour-packed turkey lentil ragu. Find this recipe at lentils.org
Lentil and Turkey Influencer Campaign Leaves Lasting Impressions

SOME SAY FIRST IMPRESSIONS ARE THE KEY TO SUCCESS. For those behind a recent influencer campaign involving Lentils.org and Canadian Turkey, however, it was the next 38 million impressions that made all the difference.

Running for eight weeks from August 7 – October 2 of this year, the campaign sought to create and share, through established influencers, the creative ways that Canadians can feed their families using tasty, nutritious, and easy-to-prepare turkey and lentil dishes.

“When Canadian Turkey reached out to us about a joint campaign, we saw it as a natural fit as we already use turkey in many of our recipes,” said Amber Johnson, Manager of Market Promotion for Lentils.org.

“We see great value in partnering with fellow agriculture associations to further the common goal of supporting Canadian growers and promoting their food products to consumers through influencers such as bloggers.”

Ready, Aim, Influence

The campaign set an ambitious target of 25 million impressions and involved six influencer-created recipes, five agency-created recipes, 15 participating bloggers, and 13 consumer contests.

“Our primary goal was to drive awareness of turkey and lentil recipes within the mom community,” said Daniela Duriavig, Partner at Wink Marketing, which specializes in digital planning and social media strategy, and led the campaign on behalf of Canadian Turkey.

“In targeting moms and consumers making everyday shopping decisions around meal planning, we hoped to get people trying and using these two great foods in their everyday cooking.”

To that end, the campaign focused on accessible content in the form of recipes and first-hand experiences from bloggers focusing on food, parenting, and lifestyle. The focus was to help people understand how to incorporate lentils and turkey on a daily basis.

Benefits Package

“Both Lentils.org and Canadian Turkey felt we could talk to consumers through influencers in a way that aligned these ingredients in terms of core benefits,” said Duriavig. “They are both healthy foods with an excellent protein component, so they are ideal for showcasing together.”

Partnership amplifies messaging

BY GEOFF GEDDES
“This was a back-to-school campaign when people are moving from summer holiday routines to meet the challenges of busy, everyday family life in the fall. Parents are grappling with how to create meals on the fly that are easy and nutritious, and lentils and turkey are up to the challenge.”

**Cooking Up Solutions**

To reach those parents, the program had to find influencers who would work with recipes while talking about their experiences and giving preparation tips.

“The results exceeded our targets for the program,” said Johnson. “We wound up with 37.9 million impressions and conveyed some strong messaging of interest to consumers. It was not just saying ‘eat lentils and turkey’, it was providing solutions for busy families while still keeping the budget in mind.”

They also promoted the idea of the turkey/lentils “blend” as a means of incorporating lentils for those who have not eaten them before, by pairing them with something familiar.

“Many of the influencers were moms themselves and could share how they used lentils and turkey in providing practical yet delicious meals for their families,” said Duriavig. “That was a long way to creating the kind of engagement we were looking for and educating people about benefits that related to them rather than just giving product information.”

For Johnson, the outcome reinforced her belief in the power of teamwork.

“Collaboration is something we feel strongly about as an organization. This shows that creating authentic alliances with like-minded partners is a concept we can really leverage. It just makes sense to forge those connections and present the consumer with a streamlined message from agriculture as a whole. At the end of the day, we are all working towards the same goal with a similar message.”

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Acceleron® seed applied solutions for corn (fungicides only) is a combination of three separate individually-registered products, which together contain the active ingredients metalaxyl, prothioconazole and fluoxastrobin. Acceleron® seed applied solutions for corn (fungicides and insecticide) is a combination of four separate individually-registered products, which together contain the active ingredients metalaxyl, prothioconazole, fluoxastrobin and clothianidin. Acceleron® seed applied solutions for soybeans (fungicides only) is a combination of three separate individually-registered products, which together contain the active ingredients fluxapyroxad, pyraclostrobin and metalaxyl. Acceleron® seed applied solutions for soybeans (fungicides and insecticide) is a combination of four separate individually-registered products, which together contain the active ingredients fluxapyroxad, pyraclostrobin, metalaxyl and imidacloprid. Acceleron® seed applied solutions for corn (fungicides plus DuPont™-Lumivia® Seed Treatment) is a combination of two separate individually-registered products, which together contain the active ingredients metalaxyl, prothioconazole, fluoxastrobin, corriodimicin and benzimidazolone. Acceleron® seed applied solutions for corn (fungicides plus an insecticide) is a combination of four separate individually-registered products, which together contain the active ingredients metalaxyl, prothioconazole, felodimorph and dinofuran. Acceleron® seed applied solutions for soybeans (fungicides only) is a combination of three separate individually-registered products, which together contain the active ingredients metalaxyl, prothioconazole and fluoxastrobin. Acceleron® seed applied solutions for soybeans (fungicides and insecticide) is a combination of four separate individually-registered products, which together contain the active ingredients fluioxastrobin, prothioconazole, metalaxyl and imidacloprid.

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SAVE THE DATE!
2018 Winter Regional Pulse Meetings

Saskatchewan Pulse Growers and the Saskatchewan Ministry of Agriculture will be bringing pulse information to the province this winter. Check for a location near you:

- **MONDAY, FEB. 5**
  8:30 AM - 3:45 PM
  - North Battleford
    - Dekker Centre
  - Regina
    - Delta Regina Hotel

- **TUESDAY, FEB. 6**
  8:30 AM - 3:45 PM
  - Rosetown
    - Rosetown and District Civic Centre
  - Moosomin
    - PC Sportsplex

- **WEDNESDAY, FEB. 7**
  8:30 AM - 3:45 PM
  - Assiniboia
    - Prince of Wales Cultural & Recreation Centre
  - Melfort
    - Kerry Vickar Centre

- **THURSDAY, FEB. 8**
  8:30 AM - 3:45 PM
  - Swift Current
    - Stockade Building
  - Humboldt
    - Humboldt Uniplex

Hear what opportunities are available for Saskatchewan pulses and what is being done in market development.

- Get new and relevant pulse agronomy information from SPG agronomists.
- Learn what Regional Crop Specialists observed in pulse crops this season.
- Get the latest information on pulse varieties and more!

To register for a meeting in your area, contact the Ag Knowledge Centre at 1-866-457-2377 or aginfo@gov.sk.ca

#pulses18
EverGol® Energy seed treatment fungicide provides soybeans with protection against the most important seed and soil-borne diseases caused by rhizoctonia, fusarium, pythium, botrytis and phomopsis. It provides quicker emergence, healthier plants and higher yields for your soybeans.

Create the complete package of protection by combining the power of EverGol Energy with Allegiance® seed treatment fungicide for early season phytophthora, and Stress Shield® seed treatment insecticide for superior insect protection to help your soybeans thrive during critical early development stages.

Learn more at cropscience.bayer.ca/EverGolEnergy
On Point

SPG Board of Directors Profile

Jean Harrington

Jean Harrington joined the SPG Board of Directors in 2014, and was re-elected in the fall of 2017. Jean and her husband John crop 7,400 acres as part of a family farm operation in the Glenside area. Pulses and specialty crops generally make up one-third of their rotation, with canola and wheat rounding out the balance. Marketing crops on the family farm turned into a business for her in 2001 when she founded Prairie Farm Brokerage. The business operated as a full service brokerage until 2012 when it began to function as a consulting arm for ag marketing. Since then Jean has been a market consultant for a small group of clients. Jean previously served on the Pulse Canada and Soy Canada Boards and was SPG’s representative to a producer association coalition tasked with preparing a joint submission for the Canada Transportation Act Review. Jean is currently Chair of SPG’s Research and Development Committee and serves on the Audit and Finance Committee. She also serves on the Canadian Grain Commission Western Standards Committee.

SPG Director Election Results

Saskatchewan Pulse Growers held its Director Election from October 24 to November 24. Three candidates were vying for two positions on the SPG Board of Directors. The SPG Board of Directors remains unchanged for 2018, after Corey Loessin of Radisson and Jean Harrington of Glenside were both re-elected in SPG’s recently concluded Director Elections.

Corey Loessin farms 3,000 acres in northwestern Saskatchewan with his wife Joan Heath and their children Audra and Aidan. On their farm, they grow lentils, faba beans, canola, and wheat. Corey has served on the SPG Board of Directors since 2012, serving as Board Chair in 2017.

There were 1,780 votes cast by 986 voters in this year’s election. Nearly all votes were received through the online voting platform. The final votes results were:
- Lynnda Berg — 227
- Jean Harrington — 704
- Corey Loessin — 849

Feed Benchmark Reports

Saskatchewan and Alberta Pulse Growers provide information and estimates of the feeding value of dry peas and faba beans in Western Canada, based on the value of competing feed ingredients in swine rations on a bi-weekly basis. Models have been updated to reflect the latest nutrient compositions of feed ingredients, which is done periodically. For the latest feed prices for Saskatchewan, Alberta, and Manitoba visit the Markets section of saskpulse.com.

SR&ED Tax Credit

Growers who contribute pulse levy dollars to Saskatchewan Pulse Growers (SPG) are eligible to earn a federal investment tax credit through the Scientific Research and Experimental Development (SR&ED) program. The tax credit is based on the amount of levy funds spent on research and development (R&D) that meet specific criteria set out by the Canada Revenue Agency (CRA).

For the 2017 tax year, 62 per cent of the Saskatchewan pulse levy qualifies for the federal SR&ED tax credit.

SPG at Agribition’s Grain Expo

Saskatchewan Pulse Growers participated in the Grain Expo during Agribition in Regina, November 21 and 22. This year’s Grain Expo was an opportunity for growers to hear about how soybeans fared in Saskatchewan during the 2017 growing season from SPG-invited guest speaker Dale Risula, Provincial Specialist, Special Crops with the Saskatchewan Ministry of Agriculture.

Upcoming Events

Saskatchewan Pulse Growers Annual General Meeting
January 8, 2018, Saskatoon

The SPG Annual General Meeting will be held Monday, January 8, 2018 in Galleries C & D at TCU Place, downtown Saskatoon (35 22 St. E, Saskatoon) beginning at 5 p.m. Supper will be served at 4:30 p.m. You do not need to be registered for CropSphere to attend the AGM.

2016/17 Annual Report

Find SPG’s 2016/17 Annual Report online at saskpulse.com.

FarmTech 2018
January 30 – February 1, 2018, Edmonton

FarmTech is Alberta’s premier crop production and farm management conference held annually at the Edmonton
EXPO Centre at Northlands. This year’s conference features more than 50 sessions featuring world class speakers, and the opportunity to network at the Agricultural Showcase. Keynote speakers include The Right Honourable Stephen Harper, Darrell Bricker, Robynne Anderson, and more.

This event is hosted by the Alberta Canola Producers Commission, Alberta Pulse Growers, Alberta Barley Commission, Alberta Wheat Commission, and the Alberta Seed Growers’ Association. To find out more about this year’s event, visit farmtechconference.com.

SPG 2018 Regional Meetings  
February 5 – 8, 2018  
Additional New Locations for 2018: Melfort, Humboldt, Moosomin, Assiniboia

The winter regional meetings will be held across Saskatchewan in eight locations from February 5–8, 2018. Check for the location nearest you:

• Monday, February 5 — North Battleford (Dekker Centre) and Regina (Delta Regina Hotel)
• Tuesday, February 6 — Rosetown (Rosetown and District Civic Centre) and Moosomin (PC Sportsplex)
• Wednesday, February 7 — Assiniboia (Prince of Wales Cultural & Recreation Centre) and Melfort (Kerry Vickar Centre)
• Thursday, February 8 — Swift Current (Stockade Building) and Humboldt (Humboldt Uniplex)

To register for a meeting in your area, contact the Ag Knowledge Centre at 1-866-457-2377 or aginfo@gov.sk.ca. To find out more about topics and speakers for this year’s event, visit the Events page at saskpulse.com.

CropConnect Conference 2018  
February 14 & 15, 2018, Winnipeg

The CropConnect Conference 2018 will take place February 14 and 15, 2018 at the Victoria Inn Hotel and Convention Centre in Winnipeg.

The conference is hosted by the Manitoba Canola Growers Association, Manitoba Corn Growers Association, Manitoba Flax Growers Association, Manitoba Pulse Growers Association, the National Sunflower Association of Canada and Manitoba Wheat and Barley Growers Association. This conference will run for two days, offering a wide range of speakers, access to crop specific information, a tradeshow, and more.

To find out more about the conference, visit cropconnectconference.ca.

Agri-Visions  
February 14 & 15, 2018, Lloydminster

A two-day interactive information event that features tradeshow, keynote speakers, seminars, demonstrations, and special events for the agriculture industry. This event brings under one roof the latest information on both grain and cattle industries. For more information about this event, visit lloydexh.com/agri-visions.

Herbicide Resistance Summit  
February 27 & 28, 2018, Saskatoon

The Herbicide Resistance Summit aims to facilitate a more unified understanding of herbicide resistance issues across Canada and around the world.

This bi-annual conference promotes awareness that everyone engaged with agriculture has a role to play in managing the growing threat of herbicide resistance. Leading researchers will present on key issues faced by farmers, agronomists and crop protection researchers in meeting the challenges herbicide resistance poses to agricultural productivity in Canada.

This conference will be held in downtown Saskatoon at TCU Place. For more information about this event, or to register, visit weedsummit.ca.

Soils and Crops 2018  
March 6 & 7, 2018, Saskatoon

Soils and Crops is an annual two-day workshop organized by the Certified Crop Advisory Board and the Departments of Plant Sciences and Soil Science in the College of Agriculture and Bioresources. Save the date for the upcoming Soils and Crops workshop. Plan to attend one or both days. If you cannot make it in person, the second day of the conference is offered by live webinar.

For more information on the workshop, speakers, and how to register, please visit the event website: usask.ca/soilsncrops.
I am an agronomist with Blairs family of companies, and I farm at Haywarden, SK (between Kenaston and Outlook). I farm about 1,800 acres with my two brothers. We grow canola, wheat, durum, barley, and lentils.

Why did you choose to participate in SPG’s 2017 research field trials?
I was thinking of doing similar research on my own — I learn a lot of things from attending workshops and conferences such as the agronomy research update. I had heard talk about the lentil seeding rate research by Dr. Steve Shirlcliffe and what had been replicated in the labs and small plot trials. I like to try different research trials on our farm, and the lentil seeding rate research was one of the projects that I wanted to see how it worked with our land and our cropping system.

We have always had lentils as a staple in our crop rotation. Dad first started growing them in the 70s. We are always looking for new ways to increase productivity, and this research was showing weed control benefits and some yield advantages.

What did you learn?
From what I observed, there was taller plant growth when using higher lentil seeding rates. This was interesting as there was less lateral growth and less branching in the plant. Because the plants were taller, the branches were higher off the ground, which in a heavy rain or wind event, meant fewer lentils would be in contact with the ground.

Unfortunately our trial was hammered with hail before we could harvest, but before the hail damage we did observe weed suppression. It was disappointing because it had been looking like a great crop before the hail, and the damage itself was localized to that field area. We would be interested in doing this kind of trial again next year, just to see if we can get the expected results.

Do you feel these types of research trials are important?
Absolutely, they are important. Every situation is different on every farm. Year over year trials are different, things change all the time. The environment and microclimate is different depending on where you go in Saskatchewan. To test these kinds of research trials on your own farm is important as a producer. Seeding rates should be fairly general across the board, but seeing how it applies on your own farm helps you make cropping decisions for the future. We will try things many different times and in a number of different ways, just to see what works best on our farm.

Based on your participation in this research trial, how do you hope this will benefit the pulse industry in the future?
I think this type of extension is a huge benefit to the pulse industry. I did a crop tour of the lentil seeding rate trial site this summer, and there was a lot of interest from growers. In fact, I received many questions about the trial following the tour, in anticipation of yield results. Pulse growers are interested in this research, and as an agronomist I hear a lot of questions coming in at retail locations. I believe there can always be more research into pulses. There seems to be adequate work being done on the chemistry side of things, so it is good to see more research on non-chemical ways to control weeds and increase yields. I would be interested to see more research in fertility management for pulses.
Get your soybeans through their critical weed free period with Express® SG

Express® SG burns to the roots with no re-growth. Add Express® SG to your pre-seed glyphosate burn-off and you’ll eliminate your toughest weeds from the shoots to roots with its complete systemic activity. For cleaner fields and higher soybean yields, get a head start this spring with Express® SG. Visit FMCcrop.ca or call 1-833-362-7722 to learn more.

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HAVE YOU SEEN THIS BEAN?

DIDN'T COME HOME WITH THE HARVEST

Species:
Soybean

Colour:
Fuzzy golden coat

Last seen:
Dangling low on the home section

REWARD OFFERED!!

Higher pods mean higher yields.

Elite® soybeans from BrettYoung deliver higher pods ensuring every bean makes it home with the harvest.

brettyoung.ca/soybeans

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