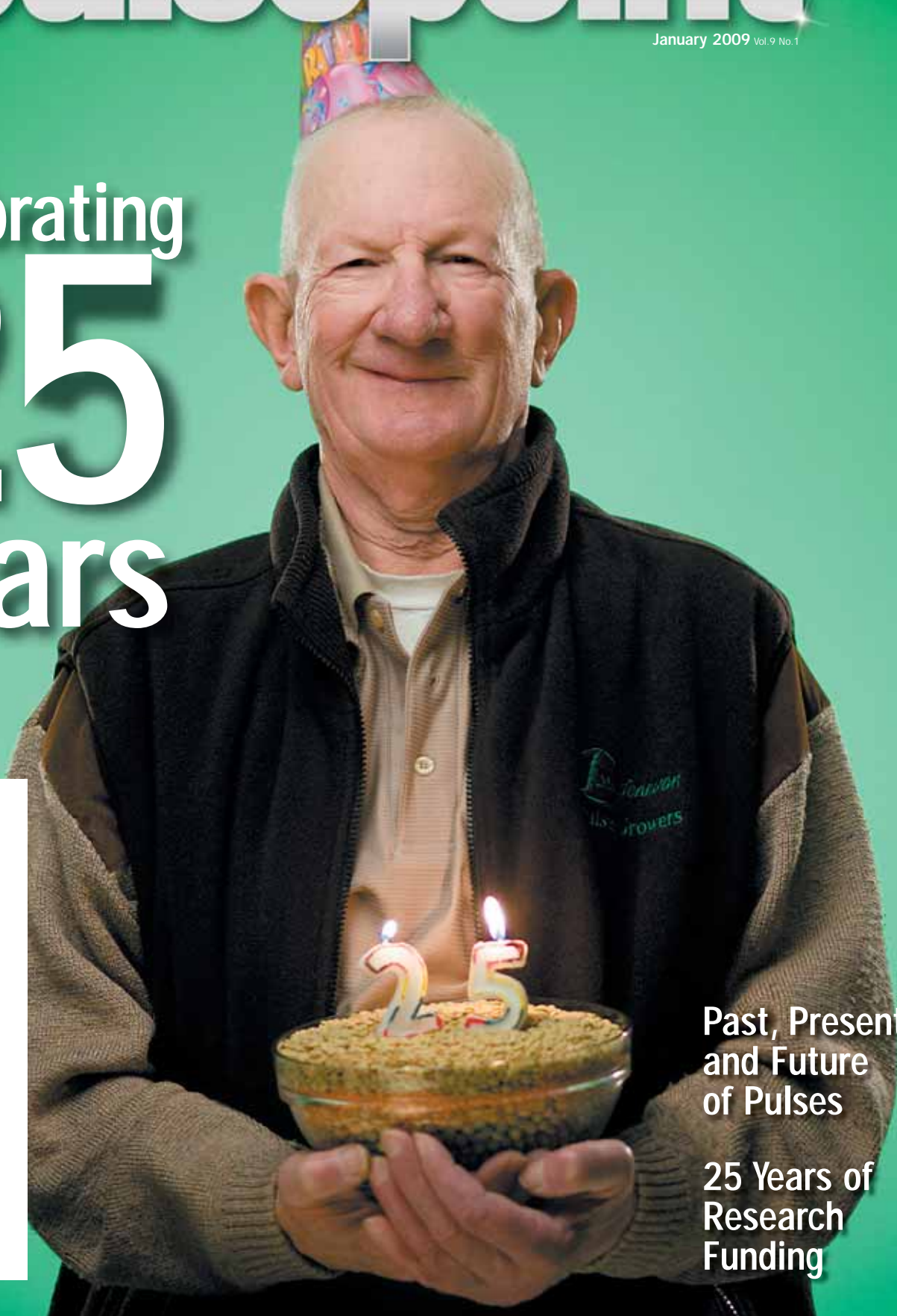


## Celebrating 25 Years



Past, Present  
and Future  
of Pulses

25 Years of  
Research  
Funding



# Making your inoculant choice is no time for a leap of faith.

Make your inoculant decision based on facts.  
**Performance You Can Count On™**  
Trust Nodulator® inoculant for pea, lentil and chickpea.



**Nodulator®**





**Maurice Berry**

Board Chair



# Celebrating 25 Years of SPG

In this issue of PulsePoint we are celebrating 25 years as the Saskatchewan Pulse Growers (SPG).

When the Saskatchewan Pulse Crop Development Board (known today as Saskatchewan Pulse Growers or SPG) was established in 1984, pea and lentil producers finally had a voice and the resources to influence the development of the industry. SPG was preceded by the Saskatchewan Pulse Crop Growers Association (SPCGA). It was established as a society in 1976 thanks to the hard work of some of the pioneers of our industry including Don Tait, Earl Peters, John Buchan and Dr. Al Slinkard.

The SPCGA was a forum for the early pulse producers to share information on research, production and marketing of pulse crops. Their early success included the formation of the Western Pulse Growers Association and the development of a pulse cookbook. However, their most significant accomplishment was the establishment of SPG on July 25, 1984 when Provincial Cabinet approved the plan establishing SPG. The SPCGA was dissolved and their Directors served on the first Board of SPG at the annual general meeting on January 7, 1985. The founding Directors were Ron Blais (Chair), Ron McKinnon (Vice Chair), Don Tait, Grant Carlson, Keith Jones (the father of current SPG Director Barbara Podhorodeski), Earl Peters and Ken Naber.

The pulse industry is a perfect example of a Saskatchewan agriculture success story.

The highlights of our success over the past 25 years include:

- Over \$1 billion of pulse exports in 2007/08;
- Release of 64 new pulse varieties that are royalty free through a long term breeding agreement with the Crop Development Centre (CDC) at the University of Saskatchewan;
- Leading the development of Pulse Canada;
- SPG research investments of \$4.02 million in 2008, compared to \$31,280 in 1985;

- A return to producers estimated at \$15.60 for every \$1 of check-off paid;
- Recognition by the provincial Ministry of Agriculture as a model producer organization;
- World's leading exporter of pea and lentil;
- Expansion into chickpea and dry bean production;
- Improved pulse crop coverage in crop insurance;
- Mandatory licensing and security for pulse crop buyers;
- Inclusion of pulse crops in the federal Cash Advance Program;
- Inclusion of producer check-off for agriculture research in the Federal Research Tax Credit Program;
- Four pulse breeders and one pathologist leading the CDC pulse research program, compared to one person in 1985;
- A Pulse Production Manual that set a new world standard for production information;
- National Awards recognizing SPG communication program including Pulse Days, Pulse Point Magazine and the SPG Website;
- Going from just over 50 attendees at the annual pulse meetings to over 1700 attendees at Pulse Days in 2000; and
- Marketing information delivered to producers in the form of a Pulse Market Report – a monthly market news publication.

The Board remains committed to the objectives of the founding Directors: to provide a voice for pulse producers and to encourage the profitable and sustainable growth of the industry through research, communications and market development.

Thank you for a successful and memorable 25 years!

Maurice Berry

## board

### CHAIR

Maurice Berry  
Carievale, SK  
(306) 449-2241

### VICE-CHAIR

John Bennett  
Biggar, SK  
(306) 948-2852

### DIRECTORS

Lloyd Affleck  
Beechy, SK  
(306) 858-2558

David Nobbs  
Kindersley, SK  
(306) 463-3277

Barbara Podhorodeski  
Shipman, SK  
(306) 426-2350

Murray Purcell  
Pike Lake, SK  
(306) 241-7432

Jeff Sopatyk  
Saskatoon, SK  
(306) 227-7867

SASKATCHEWAN  
pulse  
Growers  
Celebrating 25 Years





## Published for:

Saskatchewan Pulse Growers  
104 - 411 Downey Road  
Saskatoon, SK S7N 4L8  
Phone: (306) 668-5556  
Fax: (306) 668-5557  
Email: [pulse@saskpulse.com](mailto:pulse@saskpulse.com)  
Website: [www.saskpulse.com](http://www.saskpulse.com)

## Published by:

Sunrise Publishing  
2213B Hanselman Court  
Saskatoon, SK S7L 6A8  
Phone: (306) 244-5668  
Fax: (306) 244-5679  
Email: [news@sunrisepublish.com](mailto:news@sunrisepublish.com)  
Website: [www.sunrisepublish.com](http://www.sunrisepublish.com)

## Publication Dates:

January, March, June, October

## Publisher:

Twila Reddekopp

## Editor:

Amanda Olekson

## Associate Editor:

Rachel Kehrig

## Contributors:

Kofi Agblor, Sabine Banniza, Maurice Berry, G. Chandrashekhar, Yves Dooper, Amy Jo Ehman, Allison Fletcher, Rachel Kehrig, Patty Milligan, Amanda Olekson, Carl Potts, Garth Patterson, Bunyamin Tar'an, Brenda Tjaden-Lepp, Bert Vandenberg, Tom Warkentin, Shelly Weber, Craig Zawada

## Art and Production:

Trevor Sellar

## Marketing:

Sunrise Publishing

Saskatchewan Pulse Growers and Sunrise Publishing make no expressed or implied warranties of merchantability or fitness for a particular purpose or otherwise, concerning the use of any product, advice provided, and market insights, and assumes no liability for any injury or damage, direct or consequential, which may be incurred from the use of such products or services therein. Federal, Provincial and Municipal laws and regulations supersede the information contained herein.

Canadian Mail Publications  
Sales Agreement #40021625  
Postmaster please return undeliverable copies to Saskatchewan Pulse Growers  
104 - 411 Downey Road  
Saskatoon, SK S7N 4L8  
ISSN 1701-9125  
PRINTED IN CANADA

## Cover Photo:

Geoff Howe

# Celebrating 25 Years

In this issue we are *Celebrating 25 Years* of the Saskatchewan Pulse Growers (SPG) organization and the success of the Saskatchewan pulse industry.

This issue highlights the history of the pulse industry, recognizing how it all began in Saskatchewan and where it is going in the future. We also honor three of the many pulse pioneers who contributed to the success of our industry. Finally, we look at a historical perspective of SPG research funding and how it has grown in the last 25 years.

SPG would like to thank all Saskatchewan producers, trade and industry representatives, researchers, and government for their support and dedication to our organization for the past 25 years. We look forward to working with you to build on the success of the pulse industry for another 25 years!



## in this issue

- 3 Chair's Message
- 5 Reflecting on the Past  
Saskatchewan Pulse Growers profile three hard working pulse pioneers who have made extraordinary contributions to the pulse industry.
- 11 Past, Present and Future of Pulses  
In the last 25 years, Saskatchewan has grown to be one of the leading exporters of peas and lentils.
- 14 25 Years of Research Funding  
SPG's research investments have always been to increase producer profitability and contribute to the sustainable growth of the Saskatchewan pulse industry.
- 16 Regional Pulse Development Workshops
- 17 Plant Pathology at the Crop Development Centre  
With old and new diseases we try to get a handle on the best disease management practices.
- 18 Pulse Markets Hit Hard by World Financial Crisis  
With the collapse of the global credit and finance industries, we are seeing the effects in pulse markets in terms of reduced demand and prices.
- 20 Celebrity Chefs: 'Tis the Season for Entertaining  
From our kitchen to yours, celebrity chefs share their favourite pulse recipes.
- 21 Pulse Company List  
A list of companies who are licensed and secured, or exempted by the Canadian Grain Commission who purchase pulse crops and submit check-off to SPG.
- 24 Pulse Days 2009: Celebrating 25 Years
- 27 Growing Market Access for Canadian Pulses  
Pulse Canada has worked to reduce or eliminate trade barriers that inhibit the growth of the Canadian pulse industry.
- 29 New Pulse Varieties for 2009  
This spring, several new pulse varieties will be available for commercial growers.
- 35 Market Muse: India: An Emerging Market Opportunity  
Higher disposable incomes, urbanization and nuclear families in India is causing changes in traditional eating habits and opening up new market opportunities.
- 39 Sweet Success in Chickpeas  
Chickpea cherry chocolates were created using a chickpea and cherry variety that was bred at the University of Saskatchewan's Crop Development Centre.
- 40 Call for Resolutions
- 41 From Field to Plate  
There are many different destinations for pulses and each is important because they create demand for the pulses we produce.
- 43 On Point: News Briefs
- 45 SPG Updates
- 46 Closing Thoughts

For more information about the Saskatchewan Pulse Growers, please visit our website at [www.saskpulse.com](http://www.saskpulse.com).



FSC logo



# Reflecting on the Past

## in brief

**Saskatchewan Pulse Growers profile three hard working pulse pioneers who have made extraordinary contributions to the pulse industry.**

In Saskatchewan in 1984, Devine was in. In Canada, Trudeau was out. On the ice, Gretzky was only warming up to his full greatness. In Los Angeles, the Olympics were underway. On a national scale, Canada's federal deficit reached a record \$29.36 billion. The dollar, not yet known as the loonie, dropped to US 74.86¢. On a global scale, the world economy was slowly coming back from a severe recession in 1981/82.

In 1984, producers in Saskatchewan were under siege from skyrocketing costs, burgeoning debt loads, and adverse climate conditions. That year, the province experienced severe drought and flooding and crop production fell to 16.1 million tonnes, 20 per cent lower than 1983. World market prices for grain were depressed and farm receipts dropped about \$600 million. In his throne speech opening the Fourth Session of the Twentieth Legislature, the Lieutenant Governor called upon the "traditional Saskatchewan values of self-reliance and co-operation" to help navigate these dire straits. In a bid to keep producers "economically viable in the increasingly competitive and technologically sophisticated agriculture indus-

try," he urged Saskatchewan to "respond to these events by adapting our traditional industries as necessary and by exploring the potential of new industries that may arise."

If these words went unnoticed by a small group of people in 1984, it was because they already had their ears pressed to the ground. An important movement – part traditional and part new was already afoot: the pulse crop industry. The seeds of Saskatchewan's pulse industry had been planted in the early 1970s and for a decade and a half, it grew steadily despite the fact that funds were so limited that board members often had to shell out their own money to carry out the association's business. In 1983, a compulsory check-off or levy had been supported through a plebiscite, which applied to all commercial sales of pulse crops in Saskatchewan. By 1984, when the levy came into effect, the Pulse Crop Development Board (known today the Saskatchewan Pulse Growers or SPG) was established and the pulse industry blossomed, becoming what Graham Scoles, acting dean of the College of Agriculture and Bioresources at the University of Saskatchewan (U of S), would describe



Dr. Al Slinkard was instrumental in the development of two of Saskatchewan's most notable and recognized lentil varieties – Laird and Eston.

years later as “one of Saskatchewan's best agricultural success stories.”

The numbers that attest to this success story are staggering. According to Statistics Canada in 1984, producers in Saskatchewan seeded 190,000 acres of pulse crops and produced a total of 61,600 tonnes of lentils and peas. In 2008, Saskatchewan seeded 4.64 million acres of pulses, producing more than three million tonnes total of peas, lentils, and chickpeas. In the span of 25 years, pulse production in the province increased almost two and half times in the number of acres seeded and more than five times in production. Pulses, once a novelty crop viewed with a certain amount of skepticism, are now widely grown. While a handful of producers planted peas and lentils in the late 1960s, today 18,000 producers cultivate pulse crops in Saskatchewan. Currently, the province produces 99 per cent of Canada's lentil crop, 88 per cent of Canada's chickpea crop, and 80 per cent of Canada's pea crop, contributing to an industry which now exceeds one billion dollars.

While the pulse industry's success is built on the shoulders of many, SPG profiles three hard working pulse pioneers who have made extraordinary contributions to the pulse industry: Al Slinkard, John Buchan, and Lyle Minogue. Call them forerunners, early adopters, or innovators – these men lent significant energy to fuel the industry's amazing growth. They each brought a unique set of skills to the table, but they also had a lot in common: farming backgrounds, strong work

ethics, immense knowledge, higher education, and excellent communication skills. Not surprisingly, they are all past recipients of the Saskatchewan Pulse Growers/BASF Pulse Promoter of the Year award. In different ways, they brought together people, ideas, and energies. They served as catalysts, building the pulse industry from the grassroots up.

### Al Slinkard

“I knew it was going to pick up, but I had absolutely no idea how big it would become,” marvels Al Slinkard, whose work, Graham Scoles says, is at the heart of the success of Saskatchewan's pulse industry.

Dr. Al, as he is known to most, wears his godfather status with great humility. He is a member of both the Saskatchewan and Canadian Agricultural Halls of Fame, yet, laughingly, he says of himself, “I feel that I really haven't done that much. I'm not that smart but I worked hard. I had fun.”

He was raised on what he calls a “stump ranch” – a quarter section of partially cleared timberland in northern Idaho. His family had a mixed farm. Growing up, Slinkard wanted to be a farmer, but in high school a teacher suggested that he go to university. Slinkard did not know what university was and his teacher ended up filling out the application. When his acceptance came, he thought “well, I guess I'd better go!” and he never looked back.

A couple of decades later in 1973, the U of S recruited him from the University of Idaho to work in their newly established Crop Development Centre (CDC). He immediately saw the tremendous potential of special crops in Saskatchewan. There were 42 million acres of cultivated land right on the doorstep. He was supposed to focus on peas, but he discovered that lentils held just as much promise, and he soon released two landmark lentil varieties, Laird and Eston. Dale Risula, Special Crops Specialist with the Saskatchewan Ministry of Agriculture believes, “these varieties kick started the whole thing.” Both were quickly adopted by producers and are now so widely grown that they constitute their own market classes.

Don Tait, a pulse producer who grew the first plot of Laird lentils and was a founding member of the Saskatchewan Pulse Crop Growers Association remembers Al Slinkard as an approachable person who related well to the producers and loved to get out in the field. Slinkard traveled to virtually every town

in Saskatchewan to talk to producers about growing pulse crops. He remembers one winter when he made three or four presentations every single week after word got out that a producer growing lentils on a demonstration plot had grossed \$700 per acre. Ray McVicar, current Manager of Production Technology in the Crop Development Branch, traveled with him often in those days. He says, “just riding in the car with him, I learned a lot. He was always educational and entertaining.” Slinkard had many memorable experiences. For instance, during a field day, a producer waved the crowd silent to announce to everyone, “my son and I would not be farming if it hadn’t been for this gentleman.” Another producer once came up to him at an annual meeting, shook his hand and said “I want to thank you for helping me be a successful producer.” Slinkard says, “I was happy because I certainly wanted producers to make money.”

His input into the development of SPG was crucial. Not only did he encourage producers to organize, he also brought to the table his knowledge of check-off in the states of Washington and Idaho. He recognized a flaw in their systems – their check-off was based on a fixed number of cents per bushel so even if it was a bad year, the producers still paid. To avoid this, Slinkard insisted that SPG institute a levy on a percentage basis. Slinkard saw many things that others did not – the potential for pulse crops, that lentils were going to be more important than peas initially and that chickpeas had potential in southern Saskatchewan. In his retirement, he continues to support the industry. Though he has never sought Canadian citizenship, he says, with characteristic modesty “you won’t see me leaving! Saskatchewan has been good to me and I hope I’ve been good to it.”

### John Buchan

John Buchan possessed an amazing combination of attributes, all of them an asset to the Saskatchewan pulse industry, especially in the early years of its development. Buchan was part producer, part extension agent, part scientist, part organizer, part lobbyist. He goes down in Saskatchewan’s history as the first Special Crops Specialist ever appointed with Saskatchewan Agriculture. Dale Risula, Buchan’s current successor, and Don Tait both described Buchan as “exactly the right person at exactly the right time.” When Buchan was hired for the job in the early 1970s, he himself



recognized that, “It was exactly the job I wanted.” He worked throughout the province with passion and dedication, promoting the cultivation of pulses.

The wealth of knowledge and skills that Buchan brought to his work came from a rich variety of experiences, both personal and professional. He grew up on a mixed farm near Southey where his family farmed and raised purebred Shorthorn cattle. He attended the University of Saskatchewan, receiving a Bachelor of Science in Biology and Bachelor’s degree in Crop Science. He traveled extensively, working in New Zealand and Australia, and then making his way home through Asia and Europe. He witnessed the importance of pulse crops in countries half a world away and understood instinctively the huge market opportunity that Saskatchewan producers were missing out on. Back in Canada, he farmed with his dad, taught farm business management courses, obtained a Master’s degree in Crop Science with a focus on field peas and worked for Agriculture Canada. Finally, he climbed on board with Saskatchewan Agriculture’s Crop Development Branch, where he stayed for more than two decades.

A big part of John Buchan’s contribution to the Saskatchewan pulse industry was the grassroots work he did with producers throughout the province. He quickly realized more extension work was needed and began a long, steady campaign to create a critical mass of pulse producers, one producer at a time. He traveled, taught, talked, and held

The late John Buchan was a founding member of the Saskatchewan Pulse Crop Growers Association and the first Special Crops Specialist ever appointed in the province.



PHOTO BY GEOFF HOWE



Lyle Minogue is an early adopter who planted lentils in the 1970s and has established a reputation as an important contributor to the pulse industry.

demonstrations and producers responded. Don Tait says Buchan “was really able to connect with producers.” If the Saskatchewan pulse industry had its own Johnny Appleseed, it might just have been John Buchan. He was a hard worker, and was generous with both information and time. Tait recalls that Buchan “wasn’t the type to keep 9-5 hours, if something had to be done, he got it done – even if it was after supper. He never viewed his position as an office job.” Ray McVicar recalls instances in which producers tried growing pulses and had become discouraged by major weed problems. Buchan was able to convince them to try lentils again. To help producers combat weeds he organized herbicide trials. He was innovative, persistent, and supportive.

Several of Buchan’s contemporaries see the formation of a pulse growers association as his most important contribution to the industry. Buchan laid the foundation for the Saskatchewan Pulse Crop Growers Association by organizing the initial meetings (where he was thrilled to have 50 producers show up), establishing a mailing list and publishing a regular newsletter, encouraging pulse producers to form a group under the Non-Profit Corporations Act, developing a constitution for the group, serving as the secretary/treasurer for the first years, and most importantly, spearheading the movement towards a mandatory levy. According to Don Tait, Buchan was the one who first proposed working under the Natural Products Marketing Act (now called the Agri-Food Act)

to establish a check-off. Tait says, “there was controversy about it, but we needed that check-off. We couldn’t survive on \$10 membership fees. The legislation was sitting there and I’m sure it was John who decided that it was the route to go.” Al Slinkard also sees this move as a crucial accomplishment because it guaranteed the financial viability of the pulse industry, eventually paving the way for funding from the provincial Agriculture Development Fund (ADF).

Even after Buchan left his position as Special Crops Specialist to become the Director of the Plant Industry Branch at Saskatchewan Agriculture, he remained a strong supporter of the industry until his passing in 2006. He was immensely knowledgeable and had an incredible network of contacts throughout the Saskatchewan agricultural industry. Buchan always sought out good advice from others and passed it on. All these attributes (and more) played a part in turning a budding pulse industry into a successful one.

## Lyle Minogue

Lyle Minogue is what marketers call an early adopter – someone who tries new things with a sense of optimism and high expectations. Despite a high level of risk, early adopters take new developments that might benefit their farm and try them out. According to Dale Risula, early adopters played a key role in the establishment of Saskatchewan’s pulse industry and Lyle Minogue was one of them. Minogue planted his first crop of lentils in 1970 on his farm near Lacadena and today, almost forty years later, he has become an elder statesman of a thriving industry.

Like his fellow pioneers, Minogue has a diverse past with a long list of accomplishments. He achieved a Bachelor degree in Agriculture and a Master’s degree in Agricultural Economics from the University of Saskatchewan. He worked as a Farm Management Specialist, a Research Economist, and the Director of the Planning and Research Branch with Saskatchewan Agriculture – all the while farming with his father. When he eventually settled down to farm full-time he took a strong interest in farming methods and farm diversification, which eventually lead him to become one of the first producers in the province to grow lentils.

Lyle has worked on innumerable boards in a volunteer capacity. He traveled extensive-



ly, including a two-year stint with his family in Tanzania working on the Canada-Tanzania Wheat Project with the Canadian International Development Corporation.

Don Tait, whose farm in Elrose is only about 20 miles away from Minogue's describes Minogue as an exceptionally good producer. "He's knowledgeable, educated, and a good communicator," explains Tait. Al Slinkard also sings Minogue's praises, identifying him as one of the outstanding lentil producers in Saskatchewan.

By now, Minogue is a long-time producer of lentils and he has an established reputation as an important player in the pulse industry. But that was not always so. Of his beginnings as a lentil producer, Minogue says, "it was a difficult start. No one knew how to seed pulses and there were no registered chemicals and almost no experience to build on. Harvesting was attempted using conventional wheat equipment without desiccants or special equipment." It was a hard road and Minogue went down it with determination and optimism.

Slinkard describes Minogue as "very innovative," as someone who "thinks outside the box." Through years of trial and error, Minogue developed an efficient and unique system for achieving outstanding lentil yields and durum wheat yields in the years following the lentils. While Minogue and his contemporaries had no one to turn to for advice in their early years, now he has become a mentor to young producers. Minogue is keeping the tradition of the family farm alive. Today he farms 7800 acres together with his son Rob.

Minogue has achieved countless success in the field, but he has also been successful in the boardroom. Minogue spent several years on the SPG Board from 1995 to 2001, including two years as Vice Chair and two as Chair. As a man with an expansive vision and an ongoing belief in the importance of research, Minogue was the founding chair of both Pulse Canada and Pulse Research Canada. Minogue has paid a lot of attention to one crucial component of the pulse industry: market development, something that Dale Risula underlines as crucial to the existence of a strong industry. Marketing involves many elements including working with producers, export companies, brokers, processors, and both provincial and federal governments. A lot of effort goes into estab-


lishing and maintaining markets. Minogue has done it all – both inside and outside of Canada. He has found himself in many parts of the world on trade missions and talking to potential trade partners.

Whether talking to a fellow producer, a Member of Parliament, a current board member, a roomful of listeners at Pulse Days, or an international trade delegation, Minogue's recommendations and ideas are accepted. His knowledge and experience and his willingness and dedication have served to place SPG on the world map.

### A Strong Industry

The exact forces that have come together to create such a strong industry cannot always be pinpointed. What is certain is that they combined to make the pulse industry a shining light across Saskatchewan and Canada for reasons that are agricultural, economical, and environmental. While early meetings may have attracted 50, today's gatherings attract hundreds. Where people used to express skepticism, they are now believers. The number of pulse producers in Saskatchewan is high and still climbing. A look to the future may see more pulses grown, more varieties developed, an increased number of processing facilities, and expanded markets.

Many people from multiple sectors served to fuel the early momentum of the pulse industry: producers, government officials, research scientists, marketers, and more. These people, including Slinkard, Buchan, and Minogue, put aside personal or political interests in order to work together and create a movement. They sat on boards, weeded demo plots, and experimented with plants, equipment, and chemicals. These three individuals traveled the province, country, and the world. They wrote production manuals and they proposed legislations. Combine these innumerable actions, add a dash of optimism, and let it simmer over twenty-five years – this might quite possibly be the recipe for the resounding success of the Saskatchewan Pulse Growers.

This success is a wonderful testament of what can be achieved in the spirit of "traditional Saskatchewan values of self-reliance and co-operation." 

Patty Milligan is a freelance writer based out of Bon Accord, AB.

# IT REALLY MAKES YOU THINK



1930 Dust Storm, Photo credit - NOAA.

## About Sustainability

The number one comment from producers about the Saskatchewan Environmental Farm Plan is that, "It really makes you think..."

Sign up for an EFP workshop in your area by calling 1-866-298-7222.  
Developed and delivered by farmers, an EFP turns thoughts into actions.



ENVIRONMENTAL FARM PLAN

# EFP

# Past, Present and Future of Pulses

## in brief

**In the last 25 years, Saskatchewan has grown to be one of the leading exporters of peas and lentils.**

Plants capture the sun's energy by photosynthesis and turn it into sugars that form carbohydrates and many other organic molecules. Most biological processes are controlled by enzymes that are made mostly of protein. Proteins are rich in nitrogen, which is why the story of legumes is so important. Of the more than 200,000 plant species on earth, roughly 10 per cent are legumes.

Almost all legumes form associations with specific bacteria that invade their roots. These bacteria (rhizobia) are capable of fixing atmospheric nitrogen into useful biological forms, using the products of photosynthesis as an energy source. Until less than 100 years ago, the main source of biological nitrogen was derived from fixation associated with legumes, and most of the entire planetary biological system was in a sense, dependent on legume plants and their associations with bacteria. About 100 years ago, a chemical process was developed that used natural gas to produce nitrogen fertilizer from atmospheric nitrogen. Today, about 50 per cent of the "new" nitrogen in the ecosystem is produced this way. Even the natural gas-fired system is simply using the ancient products of photosynthesis, petrochemicals that are mined from pockets in the earth's crust.

There are more than 20,000 legume species that come in all shapes and sizes and



are found in every ecosystem. About one third of them are trees, ranging from small shrubs to giant rainforest species. Most, but not all, have very recognizable features such as nitrogen-fixing root nodules, seeds that form in pods, and leaves that are similar to the basic shape and arrangement of the leaf of a lentil plant.

Humans began as hunter-gatherers, collecting their food from locally available plants and animals. They started to develop sedentary farming systems about 10,000 years ago, when agricultural systems were based on domesticated plants and animals began originating in many

Work at the Crop Development Centre began in 1973, first in peas and lentils and then in beans, chickpeas and faba beans.



PHOTO BY UNIQUITY PHOTOGRAPHY



Pulse crop exporting companies flourished and developed overseas markets despite transportation problems.

parts of the world. These regions had domesticated sources of storable carbohydrates (cereals like corn, wheat, rice and tubers like potato), as well as protein-rich legumes (either pulse crops or forages), and fruits, vegetables and spices. The cereal-legume system evolved almost everywhere and these crop combinations became staple foods. For example, in the Americas, the combination was corn-beans; in the Middle East it was wheat-barley with pulses like lentil, pea, faba bean, and chickpea; in India the combination was rice with pigeon pea, black gram and green gram; in sub-Saharan Africa it was sorghum-millet with cowpea; and in China it was rice with soybean. These ancient civilizations clearly recognized the importance of the cereal-legume system as the basis of a sustainable production system that provided environmental (nitrogen) and health benefits (nutrition). Over the past 80 years or so, scientists learned that pulse seeds are a nutritious source of food containing mainly protein, fibre, starch, micronutrients and vitamins with very small amounts of oil, in most cases.

Pea, lentil and chickpea were domesticated in southeastern Turkey and regions to the east, in winter-based production systems that also developed wheat and barley. The crops we grow today were those species that consistently produced the most grain. The process of focusing on the most productive crops continues today, and will eventually have a major impact on our own pulse industry.

Saskatchewan's pulse industry started in the late 1960s and early 1970s, being one of the last places on earth to introduce pulses into the cropping system. Some grain producers felt the need to diversify, and the energy crisis in the 1970s stimulated this when energy prices spiked dramatically. The Crop Development Centre at the University of Saskatchewan was established in the early 1970s. It was the combined efforts of Dr. Al Slinkard, some of his research colleagues and a handful of some pioneering pulse growers that would set the stage for future growth. With a lot of enthusiasm and very little funding, they made tremendous progress. A culture of strategic investment in agronomy and genetics developed. In 1984, the Saskatchewan Pulse Crop Development Board (known today as Saskatchewan Pulse Growers) was formed and the industry took off.

The lentil crop was the first to take hold in the late 1970s and early 1980s, followed by field pea in the 1980s and early 1990s. The chickpea

crop took root in the 1990s, while the dry bean crop developed in some specific pockets. Faba bean was also started in the 1980s, but faded away and is now beginning to expand again.

Compared to most other parts of the world, the development of the pulse industry in Saskatchewan over the past 25 years has been spectacular. The success of the industry is based on many factors. At the root of it all was the entrepreneurial spirit of committed pulse growers who invested their own time, money and effort to develop the pulse crop sector during a period of rapid and profound change in our crop-based farming systems. Partners along the way included the Saskatchewan Ministry of Agriculture, the research community, suppliers of inputs in the form of crop protection products, specialized harvesting equipment, the introduction of semi-leafless pea varieties from Europe and a wide range of necessary materials and infrastructure. Other factors included the removal of subsidies for traditional grain production in Canada, and the retention of subsidies on cereals and nitrogen in other pulse production regions around the world.

Pulse crop exporting companies flourished and multiplied. These were also instrumental in their efforts to develop overseas markets in spite of transportation problems. Many of the successful exporters originated as commercial growers or seed growers. The formation of the Saskatchewan Pulse Crop Development Board in 1984 was a key development in the pulse industry because it became a focal point for development strategies that included representatives from all sectors within the industry. The levy or check-off on the sale of a pulse crop has provided a means for focusing research on the most important pulse issues, and the growth of the industry has allowed the check-off investment to generate significant returns on investment. Twenty-five years later we have a profitable industry and Saskatchewan has become the world's leading exporter of lentils and peas. From 1971 to 2007, Canada became a supplier of pulses to more than 120 countries. Table 1 shows the historical trends of production of some selected pulse crops compared to the largest four grain crops in the world: corn, rice, wheat and soybean.

In the 1960s, more pulses were produced than soybeans. Since then, pulses have increased by less than 40 per cent while soybeans have increased more than 540 per cent. On a percentage annual growth basis, all pulse

crops are increasing at annual rates far lower than that of wheat, with the exception of lentil. It could be argued that if the feed component of soybean were ignored, lentil may be growing faster than the other four major food crops. This is likely because dehulled lentils cook in less time than milled rice, saving time and energy, while other pulses take a lot longer to prepare.

What does the future hold for the Saskatchewan pulse industry? Saskatchewan now produces 750-900 thousand tonnes of lentils every year. The annual growth of production in Saskatchewan over the past 20 years roughly equaled the global growth of lentil consumption over the same period. Pea crops have grown dramatically in Canada, especially in Saskatchewan, but not on a global scale. This means that we have we have primarily displaced production from other regions. These trends for lentil and pea will continue. If global lentil consumption continues to grow even at six per cent per year, we will need to produce more than 200,000 additional tonnes each year.

We will continue to diversify pulse crop production in terms of new crops and new products. Growth in chickpea, faba bean and dry bean are expected to rise based on improvements in genetics and competition for production area in the regions where these crops are now produced. Our long term goal is to have economically viable pulse production on 20 to 25 per cent of the annual cropped area in Saskatchewan in rotation with cereals and oilseeds. We are over half way and it took 25 years to get there. The rate of change in agriculture seems to be accelerating all over the world, so it may not take another 25 years to get to 20 per cent of the Saskatchewan land base.

We are going to see the rate of genetic gain in pulse crops accelerate. Over the next five to 10 years, we will see much more integration of plant breeding with the genomic tools that are becoming less expensive. This will allow us to gain an understanding of how to improve the yield and other genetic traits of our pulses. If we can do this in a cost effective and market responsive way, our pulse industry will continue to grow. Genetics is only part of the future – our agronomic systems will continue to improve and we will make gains through better understanding of the agricultural ecosystem, especially underground where beneficial bacteria and fungi can have positive


**Table 1:** Average global production for five years in the mid 1960s and the mid 2000s. Increase in production over the 40-year period and mean annual growth rate for selected pulses, soybean, corn, wheat and rice.

Crop	Mean annual production for first and last 5-yr period (Mt)		Increase in production over 40 years (%)	Mean annual growth for last 40 years (% per year)
	1963-67	2003-07		
Bean*	12.1	19.0	57.8	1.4
Chickpea	6.3	8.4	34.1	0.9
Pea	10.5	10.6	1.5	0.0
Lentil	1.0	3.6	273.8	6.8
Pigeon pea	1.7	3.3	94.1	2.4
All pulses	43.5	60.1	37.9	0.9
Soybean	32.7	209.8	542.3	13.6
Corn	236.0	714.6	202.8	5.1
Wheat	272.8	604.8	121.7	3.0
Rice (paddy)	260.5	624.1	139.5	3.5

\*May include some tropical bean species like black gram and green gram  
Source: Food and Agriculture Organization (FAOSTAT)

impacts on productivity. We will also become more market responsive, by developing systems where we can tailor our production and products to the need of specific markets. This will allow for decommmodification of the pulse industry. We may start to even think of pulses as a nutritious dried vegetable product instead of a relatively expensive grain product (compared to soy, rice, wheat and corn).

On a global scale, the trends of the past 25 years will likely continue. We will see some pulse production regions continue to slowly replace pulses with other higher value crops. The most important factor for our industry in the future will be our relationship with consumers in South Asia, where growing populations will continue to eat more pulses as incomes rise. Some forecasts suggest that in the next 20 years, India alone will require an additional 10 million tonnes of pulses.

The future for pulses in Saskatchewan looks bright because we have natural comparative advantages based on climate, and an industry driven research sector. 

Bert Vandenberg is a Plant Breeder at the University of Saskatchewan's Crop Development Centre. He can be reached at bert.vandenberg@usask.ca.

## 5 in brief

SPG's research investments have always been to increase producer profitability and contribute to the sustainable growth of the Saskatchewan pulse industry.



# 25 Years of Research Funding

## When the Saskatchewan Pulse

Growers (SPG) Board was established 25 years ago their Research and

Development (R&D) priority was to increase producer profitability and contribute to the sustainable growth of the pulse industry in Saskatchewan. This remains a priority for the R&D program at SPG today.

Pulse research began back in 1973 when Dr. Al Slinkard started working in pulse crop breeding at the newly

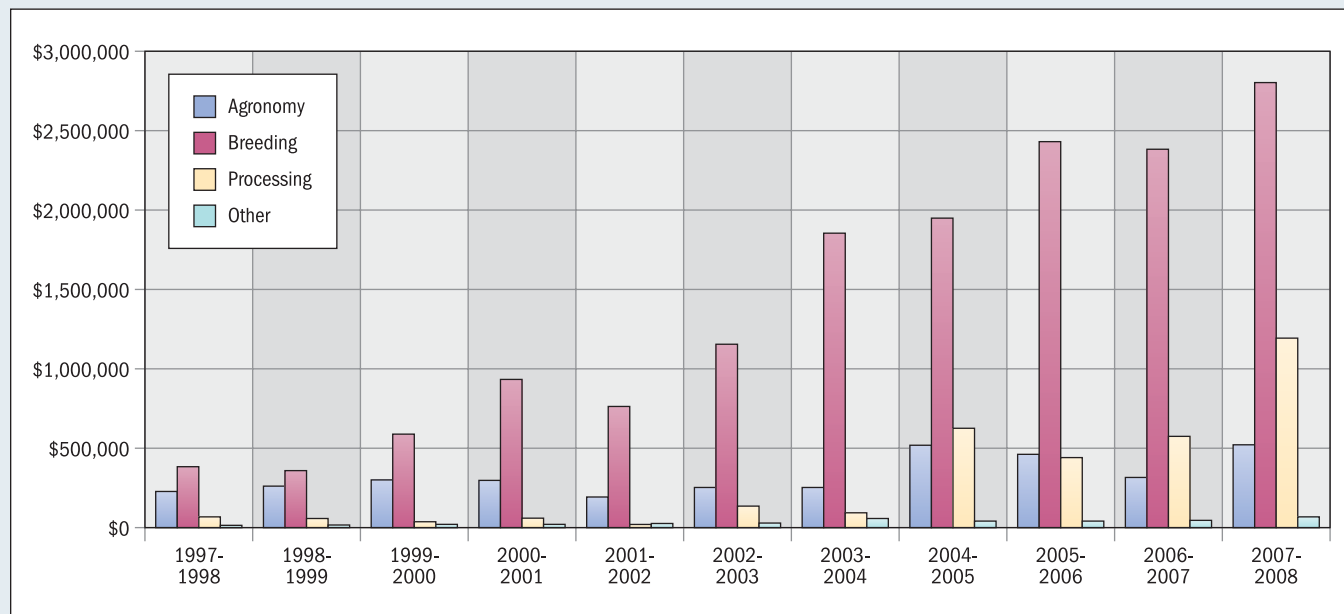
formed Crop Development Centre (CDC) at the University of Saskatchewan (U of S). Dr. Slinkard began his work in peas and lentils. His research was fundamental to the release of the Laird green lentil variety in 1978 and the Eston green lentil in 1980, both of which charted the course for the development of the lentil industry in Western Canada.

In 1974, John Buchan was hired as he first Special Crops Specialist at the provincial Department of Agriculture. In the early years, pulse industry pioneers worked closely with the Saskatchewan Ministry of Agriculture (formerly Saskatchewan Agriculture and Food) to answer basic questions on production and marketing. After its formation in 1984, SPG teamed up with Saskatchewan Agriculture to identify priorities and co-fund pulse related research projects targeted at agronomy and genetic improvement. Funding from the provincial government was administered through the Agriculture Development Fund (ADF). The first projects funded in 1984 were Companion Cropping Canola and Peas by Richard Peterson, Nitrogen Fixing Capacity of Lentils by Dave Mercer and Pulse-Cereal Rotational Study by Dave Bates. SPG and Saskatchewan Agriculture continue to jointly fund pulse related research projects.

The growth of the industry and an increase in the check-off rate has allowed SPG





**Figure 1:** Level of Funding by Project Area From 1997/98 to 2007/08

Information courtesy of Saskatchewan Pulse Growers

to increase investments in research. Projects are funded under three main areas – breeding, agronomy and processing. SPG has an R&D Committee comprised of staff, Board members, researchers, industry, and government to provide advice to the SPG Board about research investments. In 2002, the R&D Strategy identified two main goals to increase the net farm value of pulse production:

1. To advance science in the areas genetic improvement and sustainable crop production, and;
2. To increase value added processing and manufacturing by understanding pulse quality attributes and developing new uses for pulses.

SPG targets research investments under three programs, the Pulse Breeding Program, Research Proposal Program, and the Pea Genetic Improvement Program.

The Pulse Breeding Program is a collaborative research agreement between SPG and the CDC at the U of S, which commenced on April 1, 1997. The objective is to develop new and/or improved varieties of pulse crops to be made available to Saskatchewan pulse producers on a timely and cost-effective basis. Producers benefit by getting improved varieties and new market classes royalty free. The CDC benefits through stable, long-term funding. Commercialization of the pulse crop vari-

eties occurs under SPG's Variety Release Program (VRP).

The CDC is world renowned for its excellence in pulse crop breeding. According to a recent survey of 800 pulse producers in Saskatchewan, SPG's investment in the CDC is the most valuable and should continue to be top priority. A new pulse crop breeding agreement was signed in 2005 for an additional 15 years. It includes an expanded scope of research that integrates pulse pathology and seed quality assessment into crop genetic improvement. SPG will provide about \$21 million to the CDC under this agreement. There are five principle scientists involved including Dr. Bert Vandenberg, Dr. Tom Warkentin, Dr. Bunyamin Tar'an, Dr. Sabine Banniza, and Dr. Kirstin Bett.

The Variety Release Program (VRP) was initiated to encourage the growth of the pulse sector through rapid uptake and acceptance of new varieties developed at the CDC. The high quality Breeder seed is made available to eligible Select status seed growers in Saskatchewan and Alberta in large quantities, with no royalty requirements. Alberta seed growers are included in the program because the Alberta Pulse Growers provide core funding to the pulse breeding program. To date, 64 new varieties have been introduced and become available to growers since 1997.


From 1984 to 2002, R&D expenditures accounted for 38 per cent of SPG's total investments. Since then, R&D expenditures have been increasing from 45 per cent of SPG's total investments in 2002/03 to 60 per cent in 2006/07 and 60 per cent in 2007/08. This past year SPG invested a record \$4.02 million into R&D projects, with 24 genetic improvement or breeding projects, 18 agronomy and 31 value-added processing projects. Recognizing the need to foster interest in pulse research, SPG established two annual scholarships each valued at \$20,000 to be awarded to students pursuing pulse crop related graduate research at the U of S.

SPG has also been successful in receiving matching funds or leveraging additional research funding from other sources such as the Natural Sciences and Engineering Research Council (NSERC), Agriculture and Agri-Food Canada (AAFC), Saskatchewan Ministry of Agriculture and the Agriculture Development Fund (ADF). We have also received matching funds from Alberta Pulse Growers Commission and the Manitoba Pulse Growers Association for project and program based R&D funding.

SPG research played a crucial role in the development of the Pulse Research Network (PURENet), a Canada wide network of pulse related research projects approved for 5.3 million under the AAFC's Agricultural Bioproducts Innovation Program (ABIP). SPG will be acting as the Recipient Agent for this program.

This year also marks the first year the SPG research program has provided funding to international organizations involved in research of interest to SPG. We are providing research funding to Tamil Nadu Agricultural University (TNAU) in Coimbatore, India. TNAU will engage in food product development research on the inclusion of Canadian split green lentils in selected Indian foods.

Our R&D program has grown substantially in the past 25 years. In a 2003 study, *Returns on Producer Investments in Pulse Crop Research*, it was reported that for every dollar of check-off SPG invests in research, there was a \$31.00 benefit to the industry and a \$15.60 benefit to producers. SPG is currently conducting an updated Return on Investment (ROI) analysis to reflect our increased R&D funding in the last few years and determine new grower return rates to ensure SPG continues to invest in research that is beneficial to Saskatchewan producers.

Investments in R&D in the past 25 years have provided significant benefits to the pulse industry including improved disease resistance, higher yielding pulse crops, and value added processing and utilization of pulses as products. For 2008/09 SPG has an overall R&D budget of \$5.6 million. This increased R&D budget will allow for significant investments in breeding, agronomy and processing, assisting in the development and sustainability of the pulse industry in Saskatchewan. 

Allison Fletcher is the Research Project Manager at Saskatchewan Pulse Growers. She can be reached at 306-668-0591 or [afletcher@saskpulse.com](mailto:afletcher@saskpulse.com). Amanda Olekson is the Communications Manager at Saskatchewan Pulse Growers. She can be reached at 306-668-0032 or [aolekson@saskpulse.com](mailto:aolekson@saskpulse.com).

## Regional Pulse Development Workshops

Saskatchewan Pulse Growers and the Saskatchewan Ministry of Agriculture are teaming up again to offer the Regional Pulse Development Workshops in February. These meetings are an opportunity for producers to meet with researchers, industry representatives and other producers. The program includes:

- **Your Check-off Dollars at Work**  
Saskatchewan Pulse Growers
- **Market Outlook Panel**  
Chickpeas – Bryan Dagenais, JK Milling Canada  
Peas – Greg Kostal, Kostal Ag Consulting  
Lentils – Brian Clancey, STAT Publishing
- **Disease, Insect & Pests:  
What to Expect for 2009**  
Dale Risula, Saskatchewan Agriculture
- **New Pulse Crop Varieties for Your Area**  
(Faba beans and beans included in Yorkton and Weyburn) Dr. Bert Vandenberg/  
Dr. Tom Warkentin/Dr. Bunyamin Tar'an, U of S
- **The Nitrogen Contribution of  
Pulse Crops to Next Year's Crop**  
Jeff Schoenau, U of S

### Yorkton

Monday, February 2, 2009

St. Mary's Parish Ukrainian Cultural Centre  
240 Wellington, Yorkton, SK

### Swift Current

Tuesday, February 3, 2009

Credit Union iplex  
2001 Chaplin Street East, Swift Current, SK

### Moose Jaw

Wednesday, February 4, 2009

Heritage Inn  
1590 Main Street North, Moose Jaw, SK

### Weyburn

Thursday, February 5, 2009

McKenna Auditorium  
317 – 3rd Street North East, Weyburn, SK

All meetings begin at 8:30 AM with coffee and registration. The program will begin at 9:00 AM. Pre-register by calling the Agriculture Knowledge Centre at 1-866-457-2377 by January 30, 2009.

### Registration fee (includes lunch):

\$15 at the door

**Payment:** Cash or Cheque (payable to Saskatchewan Pulse Growers)

Check our website [www.saskpulse.com](http://www.saskpulse.com) for more details.

# Plant Pathology at the Crop Development Centre

## in brief

**With old and new diseases we try to get a handle on the best disease management practices.**




Ever since people abandoned the hunter and gatherer lifestyle and started to grow crops they have been confronted with diseases that threaten to devastate their crops. Despite enormous advances in agricultural production systems and a much better understanding of plant pathogens, diseases are still an issue and will continue to be in the future. Pulse crops grown in Saskatchewan are no exception to this and breeding for disease resistance remains among the most important breeding objectives in pulse breeding programs in Saskatchewan and in other parts of the world.

A considerable amount of time and effort in the pulse crop pathology program goes into screening breeding material for resistance to the major diseases, primarily the ascochyta blights, anthracnose and the bacterial blights. Every year we screen over a thousand breeding lines in the field and in the greenhouse. This is done in close coordination with the pulse breeders who select the best lines for the development of resistant varieties.

Pathogens and pathogen communities can change over time and pathogens can adapt to resistant cultivars, resulting in the breakdown of resistance. The earlier we know that a pathogen population is changing, the better we can prepare. Another component of the research activities at the CDC concentrates on keeping an eye on those pathogens. Breeding a new variety can take a considerable number of years and therefore this information is vital to the breeders so they can proactively start breeding for resistance to the 'new enemy' as early as possible. We also

pay attention to 'new' pathogens or those that have been around for a long time, but only as secondary pathogens. One side effect of successful resistance breeding to one pathogen can be that a previously secondary pathogen becomes more damaging when there is less competition on a lentil or pea leaf. This is why there is more recent discussion about pathogens such as stemphylium blight.

With old and new diseases we try to get a handle on the best disease management practices with research funding from Saskatchewan Pulse Growers and the Saskatchewan Ministry of Agriculture. These projects are focused on determining whether, when, how or what to spray, and what can and should be done to prevent or reduce the impact of diseases on pulse crops. This information is passed on directly to producers at grower meetings. We also connect with colleagues in the Saskatchewan Ministry of Agriculture to make sure that new knowledge is incorporated into fact sheets on crop production and disease management.

Although we are highly productive, we are a relatively small group of people tackling the many pathogens affecting pulse crops. To make this work, and to use every dollar as efficiently as possible, we have developed productive collaborations with colleagues in Saskatchewan, across Canada and around the world. It is important for plant pathologists to stay ahead of pulse diseases. 

Dr. Sabine Banniza is a Plant Pathologist at the University of Saskatchewan's Crop Development Centre. She can be reached at [sabine.banniza@usask.ca](mailto:sabine.banniza@usask.ca).

Dr. Sabine Banniza is a Plant Pathologist at the Crop Development Centre.





**in brief**

With the collapse of the global credit and finance industries, we are seeing the effects in pulse markets in terms of reduced demand and prices.

# Pulse Markets Hit Hard by World Financial Crisis

To some, the collapse of the global credit and finance industries may have initially seemed like an event distant to the day-to-day business of marketing crops. Many believed it would blow over and last year's high price environment would be restored. However, we are seeing the effects directly on our markets in terms of reduced demand and prices in 2008/09.

Virtually no market, futures-traded or otherwise can avoid being negatively impacted by the collapse of the credit crisis and global economic slowdown. The reach of these issues extend throughout global businesses. While the worst could be behind us, recovery is still a long way away and may not be seen until 2010.

Prairie pulse crop fundamentals were hurt by the events of late August in two ways. First, access to credit has been cut deeply, and since short-term financing is necessary to trade crops internationally, we have seen an immediate slowdown in buying. Second, the global fallout of the collapse of the investment banking industry and other sectors, led into the spreading economic

recession and continues to weigh on consumptive demand.

Reduced demand prospects ran head-on into a very large production outcome in 2008. Pulse crop yields came in above average levels, above predictions forecasted by analysts, and even what was expected by growers themselves up until the point they began combining. The simultaneous realization there was a huge crop of pulses to begin the 2008/09 marketing year, and new concern about who was going to buy it has brought the industry to a difficult place today. Red lentils are an exception because of reduced production in Turkey and Australia, prices have remained strong.

FarmLink is not an active trader at the processor or exporter level. We help individual primary producers manage their marketing issues on a day-to-day basis, including negotiating and advocating on clients' behalf with the network of local buyers for pulse crops. In this line of work, we have been having a difficult time finding a buyer willing to take delivery of and pay for chickpeas for six to eight months. The

# Managing Risk with Contracts

by Craig Zawada

Contracting is a necessary but sometimes dangerous part of farming. In most cases, the buyer has the advantage because they deal with contracts every day, and often have superior financial resources. Yet with some care, producers can reduce much of the risk and ensure that they are properly paid. Here are some things to look out for:

- **Read the contract.** The common response when a printed “standard form” contract is put in front of you is to sign it. Resist that impulse and take some time to look it over. Take it to a lawyer if you do not understand the agreement. Remember, if the contract was drafted by the other side, you will probably be promising to do more than they are.
- **Look for clear pricing and delivery terms.** If you do not understand how the price is calculated, make sure it is clarified. All grading provisions should be clearly defined. Be sure that the buyer is obligated to accept the product within specific dates. Sometimes they are allowed to delay delivery, which shifts the storage costs on to you.
- **Avoid discretion clauses.** Contracts will often allow the buyer to make decisions on their own, such as grading, time of delivery, and so on. Always assume that these will be exercised in the buyers best interests, not yours. It is far better to have such terms dependent on mutual agreement, or at least the opinion of a neutral third party.
- **Listen to your gut.** If something is gnawing at you, pay attention. Sellers often try to wring the last few pennies out of a contract, while ignoring whether the buyer is trustworthy, or has a good reputation. If you have a strong relationship with a buyer it can be worth much more than the few extra dollars you might get from an unknown party.
- **Read the contract.** Just in case you missed it the first time. This really is important.

For information about producer contracts, please visit our website at [www.saskpulse.com/selling/index.php?page=99](http://www.saskpulse.com/selling/index.php?page=99).

*Craig Zawada is a lawyer with WMCZ Lawyers & Mediators. He has spoken at Pulse Days on the topic of producer contracts.*


situation has now become similar for peas and lentils.

In the case of chickpeas, the absence of local bids and delivery opportunities stemmed from an over-supply situation that was a problem long before the 2008 harvest. Starting late last winter, limited processing and shipping capacity was found to be better allocated to other crops, that were in greater demand. Without a place to move them, local buyers have not been able to bring chickpeas in, and in many cases, irrespective of what production or pricing contract terms might otherwise state.

Some buyers are also pushing back the delivery window for peas and lentils, presenting us with the same struggles we have been encountering with chickpeas. The problem is figuring out how to proceed in attempting to get paid quickly for crops pre-sold at last summer's market highs. Another problem is buyers refusing to take delivery. We know this is largely due to end users in foreign markets backing out on the other end of these contracts.

Growers have some tough choices to make in this environment. This can only begin with growers becoming fully cognizant that global business is in the midst of a crisis and as sellers in these markets, we are too.

It is time to review the farm's current situation and up-to-date outlooks for the crop portfolio and consider what it could mean if the global economic problem extends further. We have already seen a reduction in global demand that has trickled back to delayed delivery and payment for several important pulse crops. We cannot say if the worst is over.

As in any tough marketing situation, the best way to proceed will depend on the farm's own risk tolerance, ongoing business requirements and relationships with local pulse crop buyers. 

Brenda Tjaden Lepp is Co-founder and Chief Analyst for FarmLink Marketing Solutions, an independent marketing consulting service helping individual prairie farms to maximize profitability. She can be reached at 204-997-0347 or [Brenda@farmlinksolutions.ca](mailto:Brenda@farmlinksolutions.ca).

# Celebrity Chefs



## in brief

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

## 'Tis the Season for Entertaining

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 *Celebrating 25 Years* of Saskatchewan Pulse Growers (SPG) by recognizing three important contributors to the Saskatchewan pulse industry. All three of our Celebrity Chefs have been recognized for their efforts and dedication to the pulse industry as Pulse Promoter of the Year Award recipients. These three innovators of the pulse industry bring you recipes that are perfect for holiday entertaining.

Rick Holm, former Managing Director of the Crop Development Centre and Pulse Promoter recipient in 2006 shares with us his Mixed Slaw with Apples and Lentils recipe, a perfect addition to your Christmas dinner. Germain Dauk, a past Director with SPG and Pulse Promoter recipient in 2007 warms things up with his homemade Lentil Spaghetti Sauce. Finally, Don Tait, Pulse Promoter recipient in 1995 and founding Director of the Saskatchewan Pulse Crop Growers Association shares with us his Lentil Shepherd's Pie recipe, a perfect winter dish for your holiday guests.

Try all three and let us know which one your family likes best. Would you like to add more pulses into your meal plans? Sign up NOW to receive our monthly pulse recipe. Just email [rkehrig@saskpulse.com](mailto:rkehrig@saskpulse.com) and indicate that you would like to be added to our new Monthly Recipe Email List. Happy Cooking! 

### Mixed Slaw with Apples and Lentils

Rick Holm



- 4 cups (1 L) shredded cabbage (mixture of red and green)
- 1 cup (250 mL) cooked or canned lentils (rinsed)
- ½ cup (125 mL) carrot, grated
- ½ cup (125 mL) celery, chopped
- 2 green onions, chopped
- 1 unpeeled red apple, diced
- 2 tbsp. (30 mL) raisins
- 3 tbsp. (45 mL) cider vinegar
- 1 tbsp. (15 mL) lemon juice
- 1 tbsp. (15 mL) vegetable oil
- 1 tbsp. (15 mL) sugar
- ½ tsp. (2 mL) salt

In a large bowl combine cabbage, lentils, carrot, celery, green onions, apple and raisins. Whisk together cider vinegar, lemon juice, vegetable oil, sugar and salt. Pour over salad and mix well. Chill for at least two hours. Makes 4 to 6 servings.

**Comments from Rick:** This red and green dish will make a colourful and great tasting addition to your Christmas dinner.

### Lentil Spaghetti Sauce

Germain Dauk



- 2 cups (500 mL) large green lentils
- 3 cups (750 mL) water
- 1½ tbsp. (22.5 mL) vegetable oil
- 3 garlic cloves, crushed
- 1 green onion, chopped
- 1 medium yellow onion, chopped
- ½ cup (125 mL) tomato paste
- 1 bay leaf
- ¼ tsp. (1 mL) oregano
- ½ tsp. (2 mL) basil
- ⅛ tsp. (0.5 mL) marjoram

Combine lentils and water and simmer for approximately 40 minutes. Heat oil in a saucepan. Add garlic, green onion, yellow onion, tomato paste, bay leaf, oregano, basil and marjoram. Add cooked lentils and simmer uncovered for 30-60 minutes. You may need to add more water as the sauce simmers. Remove bay leaf and put in portions through a food processor. Serve with your favourite pasta while warm.

**Comments from Germain:** This spaghetti sauce tastes great. It is difficult to tell the difference from a meat sauce.

### Lentil Shepherd's Pie

Don Tait



- 1 cup (250 mL) dry green lentils
- 4 tbsp. (60 mL) butter
- 2 large onions, chopped
- 1 clove garlic, crushed
- 1 15 oz. can tomatoes, diced
- 2 tbsp. (30 mL) soya sauce
- 3 tbsp. (45 mL) parsley, chopped
- Salt and pepper to taste
- 1.5 lbs potatoes, cooked and then mashed

Put lentils into a large saucepan, cover with water and boil gently until tender (about 45 minutes). Drain. For canned lentils, drain and rinse. Preheat oven to 400°C. Use half the butter to grease a shallow ovenproof dish. Sauté onion in the remaining butter in a large saucepan until translucent. Add garlic, tomatoes, soya sauce, parsley and salt and pepper. Add lentils. Spoon mixture into the dish. Spread mashed potatoes evenly over the top. Drag tongs of a fork over the surface to make ridges. Dot the whole surface with butter. Bake for 45 minutes, until the potato topping is golden brown.

**Comments from Don:** This can be made ahead and cooked up just before serving at Christmas. This dish also freezes well for last minute company.



# 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](http://www.grainscanada.gc.ca)) or call them at (800) 853-6705 or (306) 780-5035 in Saskatchewan.

\*As of December 4, 2008

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
Agricom International Inc.		■	■	■	■	■	■	■	North Vancouver	BC	604-983-6922	<a href="http://www.agricom.com">www.agricom.com</a>
All Commodities (AC) Trading Ltd.		■		■					Winnipeg	MB	204-339-8001	<a href="mailto:kevin@allcommodities.ca">kevin@allcommodities.ca</a>
Alliance Pulse Processors Inc.		■	■	■	■	■	■		Regina	SK	306-525-4490	<a href="http://www.saskcan.com">www.saskcan.com</a>
Belle Pulses Ltd.		■	■			■			Bellevue	SK	306-423-5202	<a href="mailto:bellepulses@sasktel.net">bellepulses@sasktel.net</a>
Best Cooking Pulses Inc.		■							Rowatt	SK	306-586-7111	<a href="http://www.bestcookingpulses.com">www.bestcookingpulses.com</a>
Bissma Pacific Inc.		■		■	■	■		■	Winnipeg	MB	204-895-0144	<a href="http://www.bissma.com">www.bissma.com</a>
Blue Hills Processors (2003) Ltd.		■	■	■		■	■		Avonlea	SK	306-868-4488	<a href="http://www.bhpl.ca">www.bhpl.ca</a>
Bornhorst Seeds Ltd.		■	■						St. Gregor	SK	306-366-2158	<a href="mailto:bbornhorst@sasktel.net">bbornhorst@sasktel.net</a>
C. B. Constantini Ltd.			■	■					Saskatoon	SK	306-373-9730	<a href="mailto:curtis.freeman@cbconstantini.com">curtis.freeman@cbconstantini.com</a>
C. B. Constantini Ltd.			■	■					Vancouver	BC	604-669-1212	<a href="mailto:michael.chong@cbconstantini.com">michael.chong@cbconstantini.com</a>
Canary Island Seed Associates Inc.		■	■	■					Sedley	SK	306-885-4444	<a href="mailto:sedleyseeds@sasktel.net">sedleyseeds@sasktel.net</a>
Cargill Limited - Animal Nutrition			■	■		■	■		Lethbridge	AB	403-329-4462	<a href="mailto:andrew.g.barwegen@cargill.com">andrew.g.barwegen@cargill.com</a>
Cargill Limited		■	■						Winnipeg	MB	204-947-0141	<a href="http://www.cargill.ca">www.cargill.ca</a>
Commodious Trading Inc.		■		■			■		Saanichton	BC	250-652-7807	<a href="mailto:dnewman@commodious.ca">dnewman@commodious.ca</a>
Diefenbaker Seed Processors Ltd.		■	■	■	■	■	■	■	Elbow	SK	306-644-4704	<a href="mailto:lionelector.stulor@sasktel.net">lionelector.stulor@sasktel.net</a>
Dunnington Holdings Ltd. DBA T.W. Commodities		■	■	■		■	■		Swift Current	SK	306-773-9748	<a href="http://www.twcommodities.com">www.twcommodities.com</a>
Export Packers Company Ltd.		■		■	■	■	■	■	Brampton	ON	905-792-9700	<a href="http://www.exportpackers.com">www.exportpackers.com</a>
FGDI, L.L.C.		■	■	■			■		Blenheim	ON	519-676-7510	<a href="http://www.fcstone.com">www.fcstone.com</a>
Fill-More Seeds Inc.		■	■	■		■	■		Fillmore	SK	306-722-3353	<a href="http://www.fillmoreseeds.com">www.fillmoreseeds.com</a>
Finora Inc.		■	■	■	■	■	■		Surrey	BC	604-597-5060	<a href="mailto:finora@istar.ca">finora@istar.ca</a>
Finora Inc.		■	■	■	■	■	■		Assiniboia	SK	306-642-5920	<a href="mailto:assiniboia@finora.com">assiniboia@finora.com</a>
Finora Inc.		■	■	■	■	■	■		Wilkie	SK	306-843-2507	<a href="mailto:wilkie@finora.com">wilkie@finora.com</a>
GH Schweitzer Enterprises Ltd.		■		■	■	■	■		Eston	SK	306-962-4751	<a href="http://www.schweitzer.sk.ca">www.schweitzer.sk.ca</a>
Globeways Canada Inc.		■		■	■	■	■		Mississauga	ON	905-712-1010	<a href="http://www.globeways.com">www.globeways.com</a>
Great Sandhills Terminal Marketing Centre Ltd.			■						Leader	SK	306-628-4452	<a href="mailto:gary.lang@gst.ca">gary.lang@gst.ca</a>
Great Western Grain Company Ltd.		■	■	■		■	■		Lloydminster	SK	306-825-4344	<a href="mailto:bob@greatwesterngrain.com">bob@greatwesterngrain.com</a>
Hytek Ltd.			■						LaBroquerie	MB	204-424-6009	<a href="http://www.hytekmb.com">www.hytekmb.com</a>
IT & T Trading Inc.		■	■	■	■	■	■	■	Vancouver	BC	604-681-8675	<a href="mailto:atagaki@itttrading.com">atagaki@itttrading.com</a>

# Pulse Companies List

Company											
	Edible Peas	Feed Peas	Lentils	Beans	Desi Chickpeas	Kabuli Chickpeas	Faba Beans	City/Town	Prov.	Telephone	More Info
J.K. Milling Canada Ltd.	■	■	■		■	■		Buchanan	SK	306-592-2002	jkm@jkmilling.ca
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
Southland Pulse Inc.	■	■	■		■			Estevan	SK	306-634-8008	shawn.southland@sasktel.net
Sunrise Foods International Inc.	■	■	■	■	■	■	■	Saskatoon	SK	306-931-4576	gneufeld@sunrisefoods.ca
Tradex Commodity Group Inc.		■	■			■		Saskatoon	SK	306-975-7066	www.tradexgroup.net
Veikle Grain Ltd.	■	■						Cut Knife	SK	306-398-4714	veikle.seeds@sasktel.net

# 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
Ventures West Processors Ltd. DBA Canpulse Foods				■					Kindersley	SK	306-463-4444	
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

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 are processing pulses for feed milling and are not reselling.											
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.engle@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 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 Days 2009

**Celebrating 25 Years**

**January 13, 2009**



We are looking forward to *Celebrating 25 Years* with you at Pulse Days 2009! Our Opening Reception and Poster Session kicks things off on Monday, January 12 starting at 7:00 PM at Prairieland Park in Hall B. The Poster Session is a terrific way to learn more about the latest agronomic and processing research being done in Western Canada.

The theme for Pulse Days 2009 is all about *Celebrating 25 Years* of Saskatchewan Pulse Growers. The conference will focus on the growth and success of the Saskatchewan pulse industry in the last 25 years, and what we can expect in the future.

Our speakers will look at the past, present and future of the Saskatchewan pulse industry, discuss the trade and investment opportunities in the Indian megamarket, explain how the check-off is being invested in Research and Development projects, and we will have the always popular market outlooks. We are dedicating the entire afternoon to three Market Outlook Panels on chickpeas, peas and lentils. Our expert panelists will present market outlook predictions and take questions from the audience. Don't miss these exciting speakers and topics!

SPG continues to offer Pulse Days at two locations – the Saskatoon Inn Hotel and Conference Centre (where the speakers are live) or at Prairieland Park (in conjunction with the Western Canadian Crop Production Trade Show).

Your Pulse Days pass gives you access to a program featuring qualified speakers, networking opportunities, great food and:

- Access to the Opening Reception and Poster Session
- Free admission to the Western Canadian Crop Production Trade Show on Monday and Tuesday, plus a pass for Wednesday or Thursday
- A copy of the Conference Proceedings Booklet
- Breakfast, lunch, coffee and snacks

The conference runs on Tuesday, January 13, 2009 starting at 7:00 AM with FREE breakfast at both locations.



PHOTO BY GEOFF HOWE

We will have a number of high-caliber speakers sharing their expertise about the pulse industry.

**Early Registration – SK residents save 50% by registering before December 19, 2008 at 4:30 PM!**

**Early bird rate is \$20 CDN per person!**

**Register online at [www.saskpulse.com](http://www.saskpulse.com) or call us at 306-668-9988.**

**Registration at the Door – \$40 CDN. Pay by cash, cheque or credit card.**

**Residents outside of SK – \$40 CDN.**

**Registration is open from 12:00 PM – 5:00 PM on Monday, January 12, 2009  
and 7:00 AM – 4:00 PM on Tuesday, January 13, 2009 at both locations  
(Saskatoon Inn and Prairieland Park).**

Don't forget that Pulse Days is part of Crop Production Week, a whole week of activities organized by Saskatchewan commodity groups, including flax, canola, mustard, wheat, canaryseed, oats, fruit, and seed growers. There is also a Special Session about Fertilizer Supply, Demand and Outlook on Wednesday, January 14th at Prairieland Park. For the full week agenda, visit [www.cropweek.com](http://www.cropweek.com).



## Pulse Days 2009

## Agenda

### MONDAY, JANUARY 12, 2009

7:00 PM Opening Reception and Poster Session  
Prairieland Park, Hall B. Sponsored by EMD Crop BioScience

### TUESDAY, JANUARY 13, 2009

7:00 AM Free Breakfast

7:30 AM Annual General Meeting

9:00 AM Special Session – Global Perspective of the Pulse Industry  
– Past, Present and Future: The Saskatchewan Pulse Industry  
Dr. Bert Vandenberg, University of Saskatchewan

9:45 AM Pulse Markets: Where Do Saskatchewan Pulses Fit?  
– Trade and Investment Opportunities in the Indian Megamarket  
G. Chandrashekar, The Hindu Business Line  
– Developing Pulse Markets  
Gordon Bacon, Pulse Canada

11:00 AM Your Check-off Dollars at Work  
– Assessing the Benefits of Inoculation at Field Scale – Is Inoculation Necessary on Long-Term Pulse Land?  
Dr. Fran Walley, University of Saskatchewan  
– Agronomic and Genetic Effects on Maintaining Green Seed Coat Colour in Lentil  
Blaine Davey, University of Saskatchewan  
– High Potential for Selenium Biofortification of Lentils  
Dil Thavarajah, University of Saskatchewan  
– Variety Specific Agronomy: Red Lentil Quality  
Jesse Bruce, University of Saskatchewan

12:00 PM Awards Presentations featuring the Pulse Promoter Award sponsored by BASF

1:00 PM Moderated Market Outlook Q&A Panels  
– Moderated by Kevin Hursh, Hursh Consulting and Communications  
– Outlook panel for chickpeas, lentils and peas  
– Each panel is followed by a Q&A period  
– Speakers include Marlene Boersch – Mercantile Consulting Venture, Peter Wilson – JK International, Greg Kostal – Kostal Ag Consulting, Daniel Holman – North West Terminal, Carsten Bredin – Richardson Pioneer, Brian Clancey – STAT Publishing, Gerald Donkersgoed – Finora Inc., and Greg Simpson – Simpson Seeds

Check our website for more details about Pulse Days – [www.saskpulse.com](http://www.saskpulse.com)

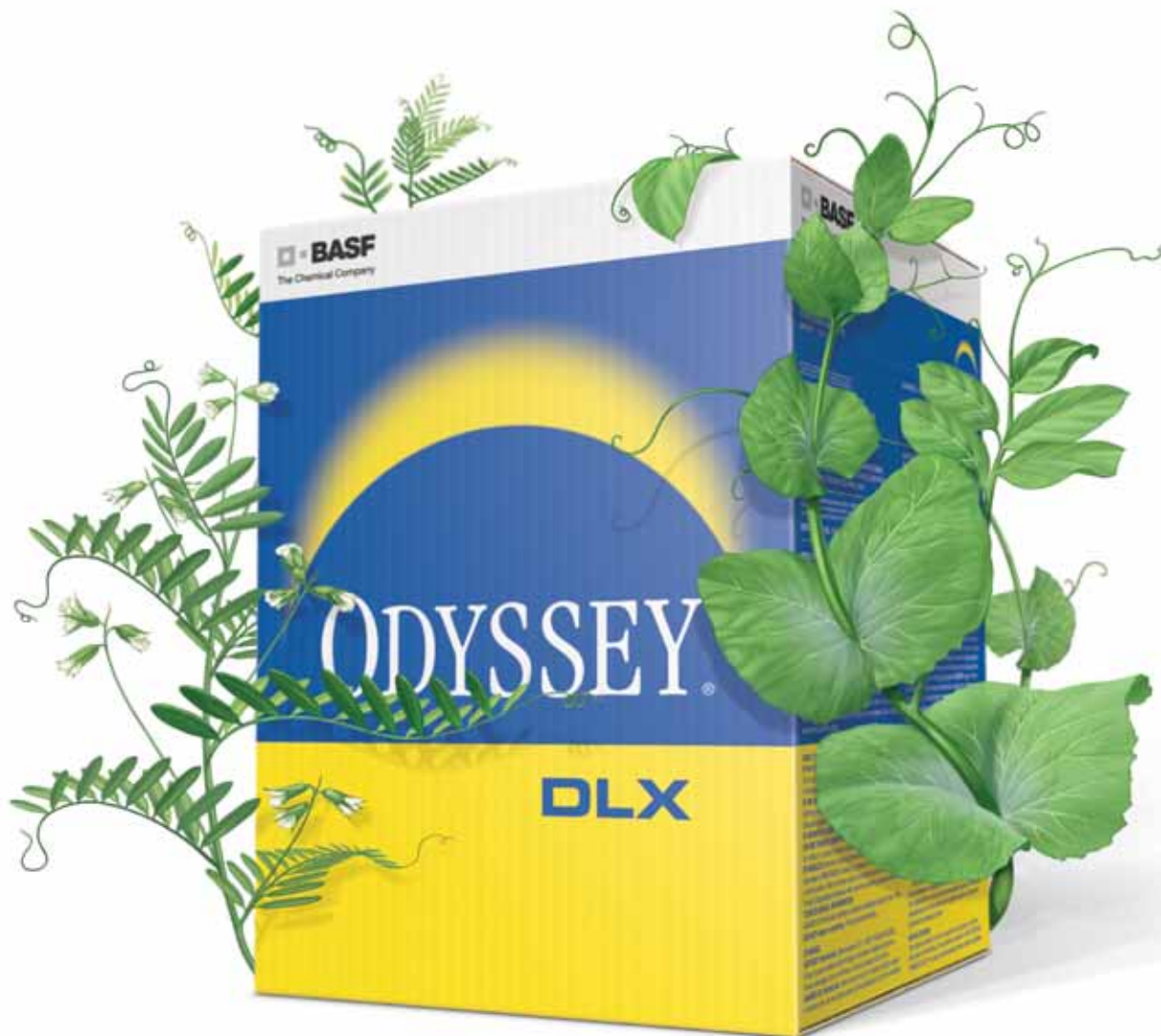


A special thank you to our Platinum Sponsors for making Pulse Days 2009 possible!





**CLEARFIELD®**  
production system | for lentils



Always read and follow label directions.  
AgSolutions, **CLEARFIELD**, ODYSSEY and the UNIQUE **CLEARFIELD** SYMBOL are registered trademarks and GrowForward is a trademark of BASF. © 2008 BASF Canada Inc.



The Chemical Company

## With better grass control, what's not to love?

ODYSSEY® DLX has it all for peas and **CLEARFIELD®** lentils. With the true 1-Pass flushing weed control of ODYSSEY enhanced with a second mode of action, ODYSSEY DLX delivers premium grass control and a wider window of application. To learn how you can save on ODYSSEY DLX with GrowForward™ Rewards, visit [www.agsolutions.ca](http://www.agsolutions.ca) or ask your retailer.



# Growing Market Access for Canadian Pulses

## in brief

**Pulse Canada has worked to reduce or eliminate trade barriers that inhibit the growth of the Canadian pulse industry.**

Pulse Canada 

Access to new and existing markets for Canadian pulses has been a long-standing priority for the Canadian pulse industry. For more than 10 years, Pulse Canada has worked to reduce or eliminate trade barriers that inhibit the growth of the Canadian pulse industry. We have made many strides in reducing tariffs and have explored options for non-tariff barrier reduction through avenues such as the Asia-Pacific Economic Cooperation (APEC). In Asia, we have achieved targeted tariff reduction for nearly every country within our focus.

**Chile:** Following the implementation of the Canada-Chile Free Trade Agreement (FTA) in the late 1990's, Pulse Canada pressed for changes that would allow Canadian peas for feed use to be competitive with other feed ingredients. Chile agreed to create a separate tariff line for peas for feed use with zero tariff, effectively eliminating any tariff disadvantage in Chile for peas as a feed ingredient.

**China:** Pulse Canada was heavily involved in discussions with negotiators regarding China's accession to the World Trade Organization (WTO) to achieve tariff parity with competitive feed ingredients (corn and soy meal). Pulse Canada was also involved in having future reduction in those tariffs linked to a reduction in the tariff for peas. In 2002, Pulse Canada was successful in achieving a reduction in the tariff and value-added tax (VAT) for feed peas into China. This resulted in peas being subject to the same tariff and tax

rates as other major feed ingredients such as soybean meal, to ensure peas were not artificially disadvantaged.

**Thailand:** After several years of work by Pulse Canada and the United States (U.S.), Thailand reduced its import tariff on peas, lentils and chickpeas from 60 per cent to five per cent in 2007. This significantly reduced barriers to marketing pulses to Thailand.

**Taiwan:** Pulse Canada worked with the Taiwan government to ensure that the tariff on peas was phased out on a percentage basis, resulting in today's zero tariff.

*Pulse Canada is continually working with federal negotiators to ensure Canada's pulse industry interests are achieved.*

**Vietnam:** Pulse Canada worked with the government to secure a commitment in 2007 for Vietnam to reduce the tariff on peas for food to 20 per cent and for feed peas to five per cent.

**South Korea:** After years of work by Pulse Canada and the Korean Feed Association, a quota for peas was established with an in-quota rate of zero per cent. This provided tariff-free access for a set quantity of peas that could move into Korea. In 2007, Korea elimi-

PHOTO COURTESY OF PULSE CANADA



Pulse Canada has been successful in ensuring the federal government negotiates trade agreements with our industry's priority countries to maintain competitiveness.

nated its quota for peas for feed, thereby eliminating all tariff and quantity barriers to importing peas for feed into a country that imports approximately 15 million tonnes of feed ingredients per year.

**Mexico:** After three years of collaboration between the Canadian pulse industry, Mexican growers and the Mexican government, Mexico transitioned to a completely open market for beans from Canada and the U.S. on January 1, 2008. To date, potential access disruptions that concerned the industry have not materialized.

#### Where Are We Now?

Over the past two years, we have been successful in ensuring that the federal government negotiates trade agreements with our industry's priority countries to maintain competitiveness in some of our most important and established markets. The pulse industry recognized the importance of this competitive issue, while others were still focused on (and some continue to be focused on) only multilateral trade negotiations (i.e. WTO negotiations). Canada has now signed FTAs with Peru


and Colombia. U.S. agreements with Peru and Colombia would have resulted in a 15 to 20 per cent tariff disadvantage for Canadian pulses and threatened Canadian access to these markets which are worth approximately \$70 million per year. Colombia is one of Canada's top markets for green lentils and Peru is an important market for both peas and lentils.

Canada is also negotiating an FTA with the Dominican Republic, which is a top-five market for Canadian beans. An agreement could eliminate the progressively-larger tariff disadvantage for Canadian beans into the Dominican Republic created by the existing U.S.-Dominican Republic agreement. The tariff disadvantage could be as large as 25 per cent.

By working closely with other agriculture industry players such as the Canola Council of Canada, the Canadian Wheat Board, and the pork sector highlighting the importance of strategic trade deals to federal Ministers and Members of Parliament, we were able to achieve political action on this issue. Pulse Canada is continually working with federal negotiators to ensure Canada's pulse industry interests are achieved and that Canada's agreements with these countries will ensure, at a minimum, tariff parity for Canadian pulses in these important markets.

#### Where Are We Headed?

There is no doubt that access to existing global markets for Canadian pulses will be critical to continued profitability and growth in our industry. Much of our work will continue to focus on keeping markets open, while dealing with market access problems as they arise. We are looking for new priorities for bilateral FTAs that either eliminate pending tariff disadvantages for Canadian pulses or create advantages for Canadian pulses in export markets.

As our industry matures and we look up the value chain for new opportunities to become ingredient suppliers in food, feed and bio-product applications we need to understand the key market access issues for value-added products such as starches, proteins, fibres and flours. We will work to identify the tariff and non-tariff barriers to trade in value-added pulse products and develop and execute plans to reduce these barriers. 

Carl Potts is the Director of Market Development at Pulse Canada. He can be reached at 204-925-3786 or [cpotts@pulsecanada.com](mailto:cpotts@pulsecanada.com).

**in brief**

**This spring, several new pulse varieties will be available for commercial growers.**

## LENTILS

The three newest varieties in the seed production pipeline are CDC Impala CL, an extra small CLEARFIELD variety, similar to CDC Rosetown. CDC Maxim CL is a CLEARFIELD variety that most closely resembles CDC Redberry, but the seed size is a little smaller. CDC Red Rider is a conventional variety with the seed size a little bigger than CDC Redberry. Seed supplies will be in short supply because there was less than 1000 acres of production of all three varieties in 2008. Even



## RED LENTILS



Impala



Maxim



Red Rider



Greenland



Improve



IBC-112

## GREEN LENTILS

with average yields of 30 bushels per acre, the total maximum possible production for all three varieties combined would be around 100,000 acres. Therefore, book early if you are switching from an older variety like Crimson, to one of these new small red varieties.

Growers are reporting that the CLEARFIELD varieties do mature earlier because of the lack of herbicide injury, while the reduced weed pressure also improves yield potential and reduces dockage. We fully expect that herbicide tolerant varieties with a higher yield potential like CDC Maxim CL and CDC Impala CL will experience rapid uptake. Conventional varieties may grow slowly. High yield potential should not be overlooked for varieties like CDC Red Rider, which we suspect may also have some tolerance to stemphylium blight, a foliar disease that is increasing in severity in Saskatchewan.

Now that dehulling and splitting capacity is expanding rapidly, growers may also be able to attract premium prices as our industry develops the ability to cater more specifically to customer needs. On a global scale, 95 per cent of red lentils are purchased in dehulled form and therefore the characteristics that affect milling will become the focus of how to establish value for red lentils. Recent research on pre-harvest treatments by Jesse Bruce (presenter at Pulse Days 2009) and ongoing research on the effects of moisture and storage will help us develop better systems for maintaining and increasing value of dehulled red lentils. In the long run, dehulling will create some efficiency in transportation because the seed coats will stay behind.

### Looking Ahead

In 2009, Breeder seed may be released for two new conventional red lentil varieties (one extra small red, one small red and one

CLEARFIELD small red lentil variety). These will not have commercial impact for a couple of years, but we know that they maintain or improve the disease resistance profile, maintain good lodging tolerance, and most importantly, show higher yield performance to date. We are aiming to release only those varieties that consistently show five per cent or more yield advantage compared to those previously released.

## MARKET CLASS: GREEN LENTILS

### In The Market/New Varieties

Green lentils account for the other half of Saskatchewan's lentil production, with the large green lentil varieties making up about 70 per cent of the total green lentil area. Of the large greens, CDC Plato has about 40 per cent of the area, Sovereign about 20 per cent, Laird and CDC Grandora make up 10 to 12 per cent each and the remaining seeded area is made up of a collection of CDC Glamis, CDC Sedley and some unknowns.

CDC Greenland and CDC Improve CL are on the upswing in the seed production system. CDC Greenland has good yield combined with improved colour retention, and CDC Improve CL is a CLEARFIELD type with seed size close to CDC Sedley. Supplies of both varieties are still limited.

Small green lentils account for about 20 per cent of the total green lentil area with CDC Viceroy making up about 60 per cent and the rest being split between Eston and CDC Milestone. A CLEARFIELD variety known as IBC-112 CL (name to be determined) will be released in 2009. It is similar to CDC Viceroy.

Medium green lentils represent about seven per cent of the total green area, and about 30 per cent of that is reported as CDC Richlea. The rest are a combination of

unknown, CDC Vantage and CDC Meteor. CDC Impress CL is a CLEARFIELD variety that resembles CDC Meteor.

French greens are a small market class and make up for one per cent of the total green lentil area. CDC LeMay is the dominant variety but a CLEARFIELD variety known as IBC-188 CL (name to be determined) will be a candidate for replacing CDC LeMay.

### Looking Ahead:

Steady improvements are being made in quality in terms of retaining seed coat colour and in lodging tolerance for green lentil. Medium and large green breeding lines with much better anthracnose resistance are now entering registration trials. We are also beginning to see good yield gains across all green market classes as we diversify the genetic base of the breeding program. We also have evidence of impressive gains being made in ascochyta

resistance breeding. In many parts of Saskatchewan in 2008, conditions were favourable for the development of ascochyta blight, but the disease was hard to find in the fields. In our breeding nurseries we still use some susceptible checks like Laird, Eston and CDC Richlea and at our Saskatoon location the seed coats were covered with lesions.

We will continue to implement multiple breeding strategies to help decommodify green lentil production by catering specifically to customer demand for specific size, shape and colour characteristics. One of our goals is to create more consistency and increase demand in markets where dehulled green lentils are an economical alternative to other yellow pulses. These markets will require extra high yield. Expanding the markets for dehulled green lentil should help reduce supply and maintain better prices for premium products sold on the basis of seed coat colour.

## PEAS

### MARKET CLASS: YELLOW PEAS

#### In The Market:

CDC Golden was the most widely grown field pea variety in Saskatchewan in 2008, based on data from Saskatchewan Crop Insurance Corporation. It has been popular with growers due to its consistently high yield, powdery mildew resistance, lodging resistance and smooth, round durable seeds. Area of production of CDC Bronco also increased sharply in 2008. It also has good yield, powdery mildew resistance, lodging resistance and well branched growth habit. Based on research conducted by Master's student Joshua Spies, improved branching may allow for somewhat reduced seeding rates. Based on Lasantha Ubayasena's PhD research, CDC Bronco is a round, brightly coloured, non-dimpled seed type. Cutlass has good yield, good lodging and powdery mildew resistance. It was developed through collaboration between the CDC and Alberta Agriculture. Cutlass is the yield check variety in the pea Co-op test, as well as in the Saskatchewan and Alberta regional variety trials. CDC Mozart, CDC Handel, and CDC Minuet have been in the marketplace for several years. All have been strong performers in terms of yield, powdery mildew resistance, maturity, and seed quality for food and feed markets.

#### New Varieties:

Breeder seed of CDC Meadow was released in 2006. It had good yield and good lodging and powdery mildew resistance in the Co-op registration trials, and was a strong performer in provincial regional trials. In addition, CDC Meadow is about three days earlier maturing than most of the other CDC varieties, which results in earlier and more flexible harvest timing. Certified seed of CDC Meadow will become widely available in 2009 and 2010. Breeder seed of CDC Centennial (named in honour of the University of Saskatchewan's 100th anniversary) was released in 2007. It has also been a top yielder in the Co-op and regional trials. Certified seed of CDC Centennial should become available in 2010.

#### Looking Ahead:

CDC 1410-15 (name to be determined) was supported for variety registration in 2007. During the Co-op trials it had improved yield – 108 per cent compared to the mean of the yellow checks (Cutlass and Eclipse). It matured two days earlier than Cutlass and four days earlier than Eclipse. CDC 1410-15 had good lodging resistance, round seed shape, powdery mildew resistance and better Fusarium wilt resistance compared to Cutlass and

## YELLOW PEAS



Golden



Meadow



1410-15

## GREEN PEAS



Striker



Patrick



1932-201

Eclipse. In the 2008 Saskatchewan regional trial, it had the best lodging resistance out of 26 varieties in the test. We plan to release Breeder seed of CDC 1410-15 in spring 2009.

### MARKET CLASS: GREEN PEAS

#### In The Market:

CDC Striker was the most widely grown green pea variety in Saskatchewan in 2008, based on data from Saskatchewan Crop Insurance Corporation. It has been popular with growers due to its consistently high yield, lodging resistance, and smooth, round durable seeds, which have excellent bleaching resistance and are preferred in the market. Based on Lasantha Ubayasena's PhD research, CDC Striker seeds are slow to bleach even when exposed to high intensity light for an extended time period. CDC Sage was the first green pea variety in Western Canada to combine powdery mildew resistance, good lodging resistance, good seed bleaching resistance and medium-small seed size, traits that are desired in the marketplace. Certified seed of CDC Sage will become widely available in 2009. CDC Montero has been a strong performer in terms of yield, ascochyta blight resistance, maturity, and seed quality for food markets.

#### New Varieties:

Breeder seed of CDC Patrick was first released in 2008. It was a strong performer in the Co-op trials, as well as in the 2007 and 2008 Saskatchewan regional trials. In the Co-op trials, CDC Patrick had good yield – 104 per cent compared to the mean of the green checks Cooper and CDC Striker, good lodging resistance, similar to the checks, good green colour bleaching resistance, similar to CDC Striker, but better than Cooper, powdery mildew

resistance, and good Fusarium wilt resistance, similar to the checks. CDC Patrick had medium-small seed size, suitable for most green pea markets.

#### Looking Ahead:

CDC 1812-5 could potentially be released in 2010. It is an 'Espace type' variety with a somewhat blocky seed shape. This type of variety has specific demand in China. CDC 1932-201 could also potentially be released in 2010. It has the more widely accepted smooth, round seed type. It was the top yielding green pea variety in the Co-op trials in 2007 and 2008.

### SPECIALTY MARKET CLASSES

#### In The Market:

CDC Acer maple pea has good yield, powdery mildew resistance and fair lodging resistance. It has small seed size which is desirable in bird seed markets. CDC Sonata is a forage pea variety with high biomass yield, powdery mildew resistance, fair lodging resistance and normal leaf type. It produces a large biomass which has good nutritional value for ruminant animals.

#### New Varieties:

CDC Rocket is a new maple pea variety with good yield, powdery mildew resistance and fair lodging resistance. It is earlier maturing than CDC Acer, with somewhat larger seed size and a lighter seed coat colour. Certified seed of CDC Rocket should be available in 2010. CDC Tucker is a forage pea variety with high biomass yield, powdery mildew resistance, good lodging resistance and a semileafless leaf type. It produces a slightly larger biomass than CDC Sonata, both of which have good nutritional value for



ruminant animals. It also has smaller seed size than CDC Sonata, reducing planting costs. CDC Leroy is a second forage pea variety which was released for the first time in 2008. It has similar characteristics to CDC Tucker, however, CDC Leroy produces somewhat greater seed yield and has slightly smaller seed size.

#### Looking Ahead:

A new forage pea variety with increased biomass production, a new maple pea variety with improved lodging resistance, and a dun pea variety (tan seed coat without the mottled maple pattern) with improved yield and lodging resistance could potentially be released in 2010.

## CHICKPEAS

#### In The Market:

In 2009, we will have an unlimited supply of certified CDC Frontier seed which is now being established in production. CDC Frontier is a medium size kabuli (8-9 mm) with fern leaf type. It has consistently high yield in both the Brown and Dark Brown soil zones and fair resistance to ascochyta blight. Initial fungicide application is still needed at the seedling to pre-flowering stage in order to limit early spore development and spread. CDC Frontier is rated as having relatively late maturity. It is recommended that producers avoid heavy soils and poorly drained fields. Seeding on stubble is recommended, especially in a wet year.

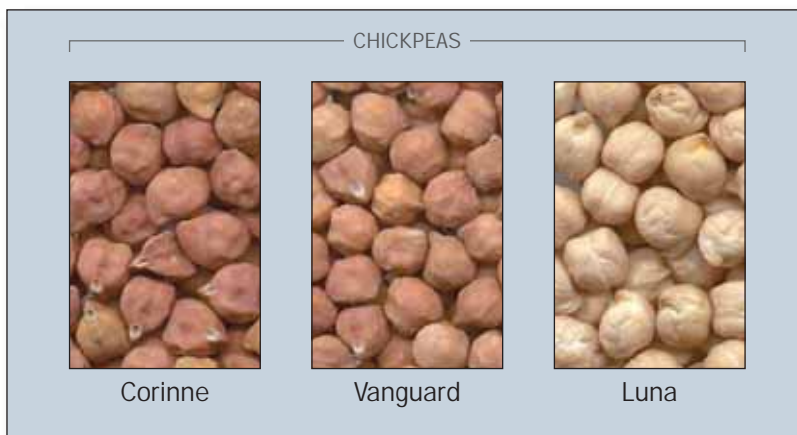
#### Looking Ahead:

In 2009, we will be at the seed increase stage for three new varieties: CDC Vanguard (desi), CDC Luna (kabuli) and CDC Corinne (desi). A limited amount of registered CDC Vanguard seed will be available in 2009. CDC Vanguard is a high yielding variety with fair resistance to ascochyta blight. It is classified as having medium maturity and has a tan coloured seed coat with a plump seed shape. The long-term average seed weight is 218 grams per 1,000 seeds. These plants have fern type leaves and slightly spreading growth habit.

CDC Luna is the latest kabuli variety with good yield and fair resistance to ascochyta blight. Initial fungicide application is also needed at the seedling to pre-flowering stage to limit early spore development and spread. It is slightly earlier maturing with a larger seed size than CDC Frontier. The Breeder seed was released to Select status growers in 2007. In the near future, we will begin to see improvements in seed size and earliness on the kabuli class, while improving the resistance to ascochyta blight to be better or similar to CDC Frontier.

CDC Corinne is the latest desi variety, released to Select growers in 2008. CDC

Corinne has fair ascochyta blight resistance and is consistently high yielding in both the Brown and Dark Brown soil zones. It has an average seed weight of 248 g per 1000 seeds, which is larger than CDC Vanguard, but slightly smaller than CDC Cabri. The seed shape is angular to plump with a tan coloured seed coat at harvest. Average days to flower are 54



days from seeding and average days to maturity are 109 days from seeding. It has a fern leaf type and the average plant height is 42 cm. The growth habit is tall and slightly spreading.

As the chickpea industry grows, we will start to pay more attention to milling efficiency for the desi chickpea, which is defined as the percentage of dehulled splits or whole seeds after dehulling and cleaning. The micro scale analysis using a Satake grinder (dehuller) shows that this value is usually somewhere in the high 70 per cent to low 80 per cent range. Varieties with larger seed size tend to have higher milling efficiency. S

Dr. Bunyamin Tar'an, Dr. Bert Vandenberg and Dr. Tom Warkentin are pulse crop Plant Breeders with the Crop Development Centre at the University of Saskatchewan. For more information on their research, please visit: [www.pulse.usask.ca](http://www.pulse.usask.ca).



**ROY  
LEGUMEX<sup>INC.</sup>**

Since 1948

**Buyers and Processors of:**

- Yellow and Green Peas
- Lentils (all types)
- Chickpeas (all types)
- Beans (all types)
- Canaryseed
- Sunflowers
- Flax
- Millet

Roy Legumex now in Regina:  
306-586-8955



**1-800-785-7857 (toll free)**

[www.legumex.com](http://www.legumex.com)

250 Caron Street (Box 40), St. Jean, MB R0G 2B0

**WESTERN GRAIN**

Trade Ltd.

From your field to the world grain markets,  
Western Grain thrives on finding the best  
places in the world to sell your commodities.

Because we are growers too, we know how  
important the best markets in the world are  
to you, your family, and your farm.

**SASKATOON**  
Ph: (306) 657-3455 Fax: (306) 657-3450  
Email: [heidi@westerngrain.com](mailto:heidi@westerngrain.com)

**NORTH BATTLEFORD**  
Ph: (306) 445-4022 Fax: (306) 445-4033  
Email: [vicki@westerngrain.com](mailto:vicki@westerngrain.com)

**Thank You!**  
– The Dutton family  
and our amazing staff

PEAS • CHICKPEAS • LENTILS • CANARY SEED • MUSTARD • FEED GRAINS • FLAX



**CFT  
CORPORATION**



**Your transportation link to world markets**

**CFT CORPORATION**

2020 Winston Park Drive Suite 300  
Oakville, Ontario L6H 6X7 Canada

Telephone: (905) 829-5829 Fax: (905) 829-5219  
Toll Free: (800) 561-8238 Email: [cft@cftcorp.com](mailto:cft@cftcorp.com)

[www.cftcorp.com](http://www.cftcorp.com)

**INSURE**

**YOUR LIVELIHOOD**

*It's your farm...your life*



Make sure you have  
the right insurance

- ✓ Threshed Grain
- ✓ Farm Buildings
- ✓ Farm Machinery
- ✓ Farm Earnings

**Martensville Insurance**  
Martensville, Saskatchewan  
Ph (306) 931-2888  
[rsawatzky@martensvilleinsurance.com](mailto:rsawatzky@martensvilleinsurance.com)

**Lakeview Insurance**  
Saskatoon, Saskatchewan  
Ph (306) 955-4038  
[gpoier@lakeviewinsurance.com](mailto:gpoier@lakeviewinsurance.com)

# India:

## An Emerging Market Opportunity

### in brief

**Higher disposable incomes, urbanization and nuclear families in India is causing changes in traditional eating habits opening up new market opportunities.**

#### Indian Macro-Economy

Breaking out of a decade-old 'low level equilibrium trap', India has emerged in an incredible manner in the last five years as one of the world's fastest growing significant economies. Robust macro-economic fundamentals and growth potential indicate the country is set to exert a significant impact on world commodity markets (energy, metals, and agriculture) over the next two to three decades.

Positive economic indicators include a strong Gross Domestic Product (GDP) growth (annual average rate is eight per cent), sizeable foreign exchange reserves (over \$270 billion), expanding foreign trade (15-20 per cent annually), soaring two-way Foreign Direct Investment (FDI) flows, and steadily rising food production (world's third largest food producer).

The advantage of demography is stronger than ever. The current population of 1.14 billion is growing at 1.8 per cent a year. In other words, each year, India's population increases by two thirds of the population of Canada. India's promising age-profile would deliver what we call 'demographic dividend'.

Rising incomes and demographic pressure combine to create a humungous market of over a billion people with ravenous appetites, consuming of a wide variety of goods and

services. Of the nearly 200 million families (average family size 5.7), one-third represents the growing 'middle-class' who are largely engaged in manufacturing and services sectors and living in urban and peri-urban areas.

Robust growth in manufacturing and services sectors (together employ a third of the workforce) means more money in the hands of people. As existing per capita consumption is low, it is only natural that every increase in income translates to a higher demand for a range of goods and services. Food tops the list and currently constitutes as much as 50 per cent of the monthly family budget for large sections of the population.

It is obvious that food, clothing, housing, energy, health, education and leisure have a strong growth potential. For policymakers, it is an extraordinary challenge and for entrepreneurs and investors, it is an extraordinary business and investment opportunity.

In the country's evolving socio-economic scene, a combination of higher disposable incomes, urbanization and nuclear families is beginning to cause changes in traditional food habits. There is growing demand for ready-to-cook and ready-to-eat convenience foods that are packaged and branded. Food safety and health awareness is also rising. Emerging



trends in the food market include expanding product variety, improved packaging, and most importantly, advent and rapid expansion of organized food retail across the country.

Not so well known is India's agricultural production base. It is the world's largest producer of milk (102 million tonnes (mt)), second largest in rice (96 mt), wheat (75 mt), sugar (26 mt), cotton (31 million bales) and fruits and vegetables (170 mt). Yet, given the large population, per capita availability of even essential food products is modest and consumption is skewed in favour of those with higher purchasing power. The potential for consumption growth is enormous given rising incomes and demographic pressure.

However, overall robust economic growth concerns remain. Currently, growth is lopsided. While the healthy performance of manufacturing and services sectors ensures higher incomes to those engaged therein, agriculture has been a laggard. Nearly 60 per cent of the population draws its livelihood from agriculture and related activities. The annual average growth of the agriculture sector in the last 10 years has been a paltry 2.3 per cent, with wide inter-year variations. As a result, incomes in rural areas have been rising rather modestly. Of course, some of the government's welfare programs such as food-for-work continue to generate incomes, but insufficient to meet all food needs.

India may not exactly be food insecure, but recent trends cause concern.

With demand growth continually outstripping output growth, shortages are becoming chronic. Equally worrisome is nutrition security with pervasive calorie and protein deficiency. Skew in income growth, food consumption, and its socio-political fallout is now a matter of concern for policymakers.

## Indian Pulses Sector

In this constantly evolving economy, the food sector must examine the status and prospects of pulses. India is the world's largest producer, consumer and importer of a variety of pulses. The sector has been characterized by stagnant acreage, low yields and fluctuating output for several decades and more recently, rising consumption demand, supply shortage and rising import dependence (see Table 1).

Sixty per cent of pulse output is harvested in the Rabi season (spring – February/March) and 40 per cent in Kharif season (fall – September/October). Normally, desi chickpeas (gram) constitute approximately 50 to 60 per cent of total pulse output, followed by pigeon peas (tur/arhar) at 20 per cent. Other pulses grown are black matpe (urad), moong beans, lentils (masur), dry peas (muttar) and small quantities of black-eye beans and kidney beans (see Table 2).

While 2007/08 saw a one million tonne increase of pulse production, the prospects are less than satisfactory in 2008/09. According to the Government of India, Ministry of Agriculture, the 2008/09 target for the Kharif season was 5.9 million tonnes but the actual output is lower at 4.7 million tonnes. The Rabi season target is 9.6 million tonnes.

Cultivation on small and marginal lands, low levels of irrigation (three million hectares or less than 15 per cent), suspect quality of inputs, traditional agronomic practices, lack of breakthrough in seed technology, poor rural infrastructure, tardy flow of price and market information to growers results in fluctuating output and volatile prices.

Pulses are a basic ingredient of the staple diet for a vast majority of Indians. The popular expression for food is: 'Dal Roti,' meaning a thick soup of pulses and Indian wheat bread. Pulses deliver a perfect mix of biological value when used with cereals. They also serve as feed for livestock. They sustain farming by improving the physical, chemical and biological properties of soil through nitrogen fixing properties.

**Table 1:** Stagnancy in Acreage, Output and Yields

Year	Acreage (Million Hectares)	Output (Million Tonnes)	Yield (Kilogram/hectare)	Population (Million)
1961	23.6	12.7	539	442
1971	22.6	11.8	524	551
1981	22.5	10.6	473	688
1991	24.7	14.3	578	851
2001	20.3	11.0	544	1033
2005	22.8	13.1	577	1102
2006	22.4	13.4	598	1120
2007	23.1	14.2	616	1137
2008	NA	15.1	NA	NA

Source: Government of India, Ministry of Agriculture

**Table 2: Share of Major Pulses in 2007-08 (Million tonnes)**

Pulse	Share
Pigeon peas (tur/arhar)	3.09
Desi chickpeas (gram)	5.91
Black matpe (urad)	1.52
Moong	1.56
Others	3.03
<b>Total</b>	<b>15.11</b>

Source: Government of India, Ministry of Agriculture

**Table 3: XI Five Year Plan Projections (Million tonnes)**

Year	Production	Demand	Shortfall
2007-08	14.3	16.8	2.5
<b>Actual</b>	<b>15.1</b>	<b>N/A</b>	<b>N/A</b>
2008-09	14.5	17.5	3.0
2009-10	15.0	18.3	3.3
2010-11	15.5	19.1	3.6
2011-12	16.1	19.9	3.8

Source: Government of India, Ministry of Agriculture

**Table 4: India's Pulse Imports**

Year (April/March)	Volume (Million tonnes)	Value (Million/\$USD)
2007-08	2.8	1257
2006-07	2.3	886
2005-06	1.6	528
2004-05	1.3	383

Source: Ministry of Food and Consumer Affairs, Government of India

Government schemes to promote production have yielded little. Despite efforts, the stagnating output, rising consumption demand and import dependence have become the norm. More worrisome is the falling per capita availability – from 70 grams a day in the 1950s to 35 grams a day now. As the cheapest source of vegetable protein for a large country predominantly vegetarian, pulse consumption should be rising instead of declining.

Not only is per capita consumption falling, there is a skew in the consumption patterns with a wide divergence on the two extremes of the purchasing power spectrum. Consumer-friendly prices would make pulses more affordable to the needy population, as nearly 200 million people live on less than one dollar a day.

Nutritionists recommend each person should consume a minimum of 15 kilograms of pulses each year. For the current population this translates to over 17 million tonnes, which is higher than what India's current output is. Based on the Behaviorist Approach, demand for pulses is estimated to be even higher than 15 kilograms per person every year. If the existing skew in consumption is corrected by making pulses affordable to the poor, the total requirement would be close to 20 million tonnes. India is unlikely to reach these desired production levels any time soon.


Indian Planning Commission's projections for the XI Five Year Plan (2007/08 to 2011/12) do not inspire confidence (see Table 3).

In the future, competition for acreage is expected to become more intense. Pulses will have to compete with grains and oilseeds.

To protect growers from falling prices, the government announces every year a Minimum Support Price (MSP). Despite rising MSP, pulse output has failed to respond. Simply put, the risk-reward profile is unfavorable for pulses. Climate change and global warming can potentially affect Indian agriculture in general because of the vulnerability of tropical countries.

### Indian Pulse Sector Outlook

From demand growth perspective, the outlook is positive. India will continue to be a dominant producer, consumer and importer for years to come (see Table 4). India's inability to boost output means continued and rising import volumes.

Inflation is a matter of concern. Pulses have a high weight in consumer price index. Therefore, policies will be designed to ensure uninterrupted availability of pulses at affordable prices. This opens up opportunities in each link of the value chain in areas of production, processing and marketing. The evolving food market creates opportunities for nutritious and value-added pulse-based snacks. Foreign Direct Investment of up to 100 per cent is permissible in the Indian food processing industry. Canadian companies have an opportunity to go beyond being mere suppliers of pulses in bulk. There are long-term trade and investment opportunities in the entire agribusiness spectrum, including partnerships with Indian companies that deserve to be explored. 

G. Chandrashekar is the Associate Editor of The Hindu Business Line in Mumbai, India.

# ATTENTION PULSE CROP GROWERS

SEE US AT THE CROP  
PRODUCTION SHOW  
(BOOTH D141 & D142)

## This is the key to Direct Cut Harvesting

High velocity air feeds the crop  
off the knife resulting in  
greater ground speeds  
and increased yield potential

**AWS** *ADVANCED WIND-REEL SYSTEMS*

Temp Farm Equipment Ontario, Canada NOK 1N0 Ph: 519-348-0066 Cell: 519-276-8376 [www.awsairreels.com](http://www.awsairreels.com)

# FINORA

“The Special Crops Company”

Green and Yellow Peas • Canaryseed  
Lentils • Chickpeas • Mustard

Finora Offers:

- Prompt delivery opportunities
- Timely payment
- Great customer service

**1-800-898-1122**

**Assiniboia (306) 642-5920**

E-mail: [assiniboia@finora.ca](mailto:assiniboia@finora.ca)

**Wilkie (306) 843-2507**

E-mail: [wilkie@finora.ca](mailto:wilkie@finora.ca)

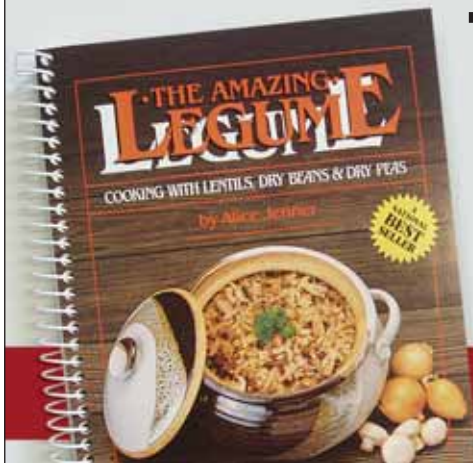
Finora is CGC licensed and bonded.

# Innovative Solutions

Wallace  
Meschishnick  
Clackson  
Zawada

**wmcz**  
Lawyers & Mediators

901, 119 – 4th Avenue South Saskatoon, SK S7K 5X2 (306) 933-0004 [www.wmcz.com](http://www.wmcz.com)



# The Amazing Legume

SASKATCHEWAN  
**pulse**  
Growers  
Celebrating 25 Years

Only  
**\$5.00**  
each  
(plus shipping  
and handling)

To purchase, please contact:

Rachel Kehrig at 306-668-9988 or [rkehrig@saskpulse.com](mailto:rkehrig@saskpulse.com)

**WANT MORE GREAT PULSE RECIPES?** Sign up NOW to receive our monthly pulse recipe.  
Email [rkehrig@saskpulse.com](mailto:rkehrig@saskpulse.com) and ask to be added to our new Monthly Recipe Email List.



# Sweet Success in Chickpeas

## in brief

**Chickpea cherry chocolates** were created using a chickpea and cherry variety that was bred at the University of Saskatchewan's Crop Development Centre.



PHOTO BY CHRISTIAN CORTEZ POSTIGO

Over the ages, chickpeas have been paired with yogurt, lemon, lamb, curries and all-you-can-eat salad bars, but they met their ultimate match in a university test kitchen in Saskatoon, SK. Chickpeas and chocolate.

In fact, you might say they have been caught in a decadent trio – chickpea cherry chocolates.

"They're fabulous. Better than we ever expected," says Jon Treloar, one of the creators of this culinary treat.

Treloar, who is the Marketing and Community Liaison with the College of Agriculture and Bioresources at the University of Saskatchewan (U of S), developed the chocolates as a way to promote the college, while highlighting the unique work of its researchers. Both the chickpeas and the cherries were bred at the U of S.

"The whole is greater than the sum of the parts because it really represents the university and the breeding work that is so significant for the pulse industry in Saskatchewan," explains Treloar.

"The pulse group is a large supporter of our college and our research program so it's nice that we can give back a little bit in this way."

The wafer chocolates, which are wrapped in green foil and filled with crunchy chunks of chickpea and chewy cherries are fashioned in the shape of the U of S crest with the book of knowledge and three sheaves of wheat.



Roasted chickpeas work well as a replacement for nuts in chocolates.

In the past two years, the college and university have given away thousands of these special chocolates at recruiting, alumni and tradeshow events at home and around the world.

"I wanted something unique and memorable. Something more significant than giving away a fridge magnet or a pen," says Treloar. "Food is more of a sensory experience. You can make friends with food."

Work on the chickpea cherry chocolates began in the college's test kitchen using products provided by campus researchers. This included the kabuli type chickpea CDC Frontier and sour cherries from the romance series (with names like Cupid, Romeo, Juliet and Valentine).

The college enlisted the help of food processors in the community. The chickpeas were roasted and crushed by InfraReady Products and the cherries were freeze-dried by Canagra Technologies.

Pulling it all together in a delicious chocolate was the work of Grace Whittington, owner of Riverbend Plantation, a Saskatoon company that specializes in jams, beverages and chocolates made with local fruit.

### Pulse Days 2009

SPG will be handing out chickpea chocolates to Celebrate 25 Years at Pulse Days 2009!

"I was probably a little skeptical at first as to how it would taste," she admits, but says she was quickly won over by the flavour, texture and potential of using chickpeas in place of nuts.

"It works really well (as a nut replacement) because it gives a nice little crunch, the taste is not objection-

able and it fits in well with the chocolate," says Whittington, who sees great promise for chickpeas in the chocolate industry. "I think it's dynamite, actually. They could put them in a nice little box and sell all kinds of them."

That might happen in the future, says Treloar, but for the time being, the college has decided to maintain chocolate exclusivity.

"It's not available to consumers unless you come find us at a tradeshow or an outreach event," he says. "They are popular at the shows. People come by (our booth) and ask, 'Where are the chocolates?'"

They are also proving popular among students. Since introducing the chickpea cherry chocolates at recruitment events, enrollment in the College of Agriculture and Bioresources has increased significantly.

"That feels good," says Treloar. "Can we attribute it to the chocolates? We have a big recruitment program but I think maybe the chocolates are helping."

For more information about the chickpea cherry chocolates, please contact Jon Treloar at [Jon.treloar@usask.ca](mailto:Jon.treloar@usask.ca). 

Amy Jo Ehman is a freelance writer based out of Saskatoon, SK.

# RESOLUTIONS

**Saskatchewan Pulse Growers  
has issued a Call for Resolutions  
for its Annual General Meeting.**

**The meeting will be  
Tuesday, January 13, 2009  
at 7:30 AM, at the Saskatoon Inn  
during Pulse Days 2009.**

**Resolutions must clearly note  
the person who is proposing them.**

**A seconder will be called for at  
the Annual General Meeting.**

**Robert's Rules of Order will apply.**

**Resolutions should be mailed to:**

**Saskatchewan Pulse Growers:**  
104 – 411 Downey Road,  
Saskatoon, Saskatchewan,  
S7N 4L8

or faxed to: (306) 668-5557

or emailed to:

[pulse@saskpulse.com](mailto:pulse@saskpulse.com)



SASKATCHEWAN  
**pulse**  
Growers

*Celebrating 25 Years*

**Resolutions must be received by  
Wednesday, January 7, 2009 at 4:00 PM.**

# From Field to Plate

## in brief

**There are many different destinations for pulses and each is important because they create demand for the pulses we produce.**

While all farmers know the story of pulses from seed to bin, the story of pulses from the bin beyond is less well-known. After pulses leave the farm there are many different destinations and each is important because they create demand for the pulses we produce.

### Domestic Use

Domestic use varies by pulse crop and year. Domestic use includes livestock feed, seed, domestic food use, domestic processing into products, dockage, waste and shrinkage. It has averaged about 26 per cent of total pulse production from 2004 to 2006. Domestic use is the closest to home, however the statistics are not readily available for all domestic uses. Total domestic use is calculated residually as total production less total commodity export and change in stocks. Roughly 45 per cent of chickpeas, 30 per cent of peas, 25 per cent of lentils, and 12 per cent of beans are used domestically though values range from year to year. Retention for seed would account for slightly less than 10 per cent of production. Feed for livestock, primarily hogs make up a greater percentage in peas, while food and domestic processing take up a larger proportion of bean, chickpea and lentils.

Some beans, lentils, and chickpeas are processed into canned products at Primo, Unico, Clic and Heinz facilities, located primarily in Ontario and Quebec. Peas and lentils may be dehulled and split and then packaged dry at facilities located primarily in Saskatchewan. Beans and chickpeas are packaged dry and remain as whole seeds. All pulses

may also be subject to further domestic processing into products such as soups, chili, refried pinto beans, salads, hummus, flours, or snacks at facilities located across the nation.

### Export Destinations

The export of pulse crops is an important part of the agriculture industry in Canada, accounting for over \$1.3 billion in 2007. Export destination varies by crop commodity. Canadian pulses have been exported to over 170 nations (see Table 1). From January to September 2008, almost 90 per cent of the peas exported went to India. China and the United States (U.S.) also imported a small percentage of Canadian peas. The U.S. and the United Kingdom (U.K.) account for roughly 55 per cent of dry bean exports with Angola, Italy, and the Dominican Republic also being important dry bean importers. In 2008, 50 per cent of chickpea exports were destined for the U.S., the U.K., Italy, Pakistan, and Spain, with the remaining 50 per cent shared among 57 smaller importers with a trend toward more diversified exports. Lentil exports in 2008 were even more diversified, with 45 per cent destined for the top five importers of Turkey, the United Arab Emirates, Algeria, Egypt, and Spain and the remaining exports destined for 92 other countries. In 2006, India emerged as a significant lentil destination, but in 2008, India dropped out of the top ten with the looming economic crisis.

### Transportation

Pulses are usually cleaned locally or at port to reduce shipping costs. The method of trans-

### Note

Data information courtesy of Agriculture and Agri-Food Canada (AAFC), Food and Agriculture Organization (FAOStat), Statistics Canada and Pulse Canada.

This article has been printed courtesy of the Alberta Pulse Growers Commission.



**Table 1:** Top 10 Export Destinations of Canadian Pulse Crops in 2008 Based on Value (CAN \$000's)

	Pea		Lentil		Chickpea		Bean	
1	India	\$224,482	Turkey	\$94,626	United States	\$5,652	United States	\$47,735
2	China	\$57,867	United Arab Emirates	\$38,406	United Kingdom	\$3,931	United Kingdom	\$34,616
3	Cuba	\$29,767	Algeria	\$34,054	Italy	\$3,617	Angola	\$14,562
4	Bangladesh	\$20,440	Egypt	\$31,834	Pakistan	\$3,257	Italy	\$11,918
5	United Arab Emirates	\$12,527	Colombia	\$31,006	Spain	\$3,043	Dominican Republic	\$8,869
6	United States	\$11,925	Morocco	\$15,781	Jordan	\$2,335	Japan	\$5,417
7	South Africa	\$10,260	Sri Lanka	\$15,586	India	\$2,303	Portugal	\$3,842
8	Pakistan	\$10,101	Mexico	\$14,571	Colombia	\$2,275	Greece	\$3,606
9	Colombia	\$9,875	Bangladesh	\$14,566	Saudi Arabia	\$1,459	Chile	\$3,594
10	Belgium	\$7,992	Iran	\$14,070	Egypt	\$1,407	Mexico	\$3,431
Total Export		\$498,557		\$500,700		\$38,855		\$174,165

Source: Industry Canada (January-September 2008)


portation depends on the destination and the destined use. Transportation of domestically used pulses occurs via truck, Intermodal container, or bulk by rail for shipments to locations in North America. Shipments via ocean vessels usually use the port located nearest the destination: Vancouver for Asia and Central America, and Montreal, Quebec, Churchill, or Thunder Bay for North Africa and Europe. Some shipments have also been made from Vancouver to Spain, likely due to proximity of the crop.

Nearly 66 per cent of pea exports occur in bulk. This has included shipments of feed peas and some human consumption peas to large markets such as India, where peas are then bagged. A small amount of lentils are also shipped in bulk, however the majority of exports occur via marine containers. Bulk shipments are transported to a main port, such as Vancouver or Montreal in hopper rail cars where the pulses are transloaded onto a bulk cargo vessel. Most cargo vessels used for pulses have a capacity of 20,000 to 40,000 deadweight tonnes divided into four or five holds that can each transport a separate commodity, grade, or destination. Pulses are loaded into bulk carriers at special terminals with soft handling equipment, such as the Pacific Elevator Terminal in Vancouver. Commodities are off-loaded using large cranes mounted on the ships and a loader or bulldozer is used for final clean-up.

Alternatively, many pulses, including some peas, most lentils, and all beans and chickpeas are exported via containers. This

allows for smaller shipments to smaller markets and preservation of market classes and grades. Pulses may be loaded into containers already bagged or loose within the container, which would use a new liner to protect the seed from previous cargo. Bagged pulses may be loaded on pallets to reduce labour costs or without pallets to maximize space utilization. The containers may be loaded local to production in the prairies or trucked to inland ports such as Calgary or Edmonton where they are loaded aboard trains destined for sea ports. Modern large container vessels may be capable of carrying up to 12,000 twenty foot equivalent units (containers).

Pulses are often manually bagged once they arrive at the destination port. Peas and lentils may also be split prior to bagging, depending on the destination and use for the pulse seed. Further distribution is largely dependent on the country and infrastructure.

In the end, most or all of the pulses produced end up on someone's plate. Pulses may eventually take the form of a whole or split pulse. They can be canned, dried, or processed into a flour and incorporated into a baked good. Pulses are also being processed into snack foods and added as ingredients into soups. Regardless of how pulses arrived at our plate, they remain a predominant food commodity. 

Yves Dooper is the Research/Extension Manager with the Alberta Pulse Growers Commission. He can be reached at [ydooper@pulse.ab.ca](mailto:ydooper@pulse.ab.ca).

For more information about SPG activities, please call 306-668-5556  
or email [pulse@saskpulse.com](mailto:pulse@saskpulse.com) or visit our website at [www.saskpulse.com](http://www.saskpulse.com).

## Staff Update from SPG

In early November Raelene Regier joined the SPG team as the Variety Program Administrator. Raelene was born and raised in Saskatoon. She graduated from the University of Saskatchewan in 2007 with a Bachelor of Science degree, majoring in biology. Raelene worked at the Crop Development Centre as a Research Technician with the Cereal and Flax Pathology lab for one and a half years before joining SPG.



Raelene Regier

PHOTO BY GEOFF HOWE

Allison Fletcher has also been promoted to Research Project Manager, taking on a full-time position as the Recipient-Agent for the Pulse Research Network (PURENet). Congratulations Allison and welcome to the team Raelene!

## Getting to Know Your Board

### Maurice Berry – SPG Chair

Maurice farms in southeast Saskatchewan near Carievale in a family partnership called Berry Farms. His operation consists of 4900 acres of peas, canola, barley, wheat, pinto beans, oats, flax, and sunflowers. It operates on a 1/3 pulse, 1/3 oilseed and 1/3 cereal crop rotation on a direct seeded basis. He completed his three-year Diploma of Agriculture from the University of Saskatchewan. He has served as a Director on the Pulse Canada Board and is a former RM Councilor. Maurice joined the SPG Board in 2004.



Maurice Berry

PHOTO BY GEOFF HOWE

## Crop Production Week – Special Session

This year the Special Session will be held at Prairieland Park in Hall B on Wednesday, January 14, 2009. We will hear from David Asbridge of Doane Advisory Services who will discuss Fertilizer Supply, Demand and Prices. The Special Session begins at 7:00 PM. There will be a beef on a bun supper at 5:30 PM for

\$10/ticket. Tickets can be purchased starting January 12, 2009 from Room 234 at the Saskatoon Inn, and starting January 13, 2009 at the Show Office of the Western Canadian Crop Production Show at Prairieland Park. Please note there will be a limited number of tickets available for the supper.

## 2007/2008 SPG Financial Statements Now Available Online

The 2007/08 Financial Statements are now available online. Please visit our website at [www.saskpulse.com](http://www.saskpulse.com) to download a copy.

## Pulse Health and Food Symposium

Explore the link between pulses and good health. Pulse Canada presents the 2nd Pulse Health & Food Symposium at the Park Hyatt Hotel in Toronto on February 4 and 5, 2009. The highlight of the symposium is the release of results from seven human clinical studies examining the link between eating pulses and positive health outcomes related to cardiovascular disease, diabetes, obesity and gut health. Presentations also include discussions on consumer demand and market opportunities and the development of pulse-based food products. For more information, visit [www.pulsecanada.com](http://www.pulsecanada.com). Registration is \$175 before December 31, 2008 or \$225 after January 1, 2009.

*Pulse Canada* 

## Parkland Pulse Expanding Their Operations

Parkland Pulse Grain Co. recently purchased Cargill Ltd.'s concrete inland terminal located in Cutknife, SK. Parkland Pulse has already begun to expand the facility to convert it into the only high throughput pea facility in Western Canada. The facility will be capable of processing and loading 100,000 tonnes of peas per year and is situated on a 25-car Canadian Pacific Railway (CPR) siding. The new Parkland Pulse facility is expected to be operating in 2009. Parkland Pulse Grain Co. operates four additional plants within Saskatchewan.

## in brief

**News from and about Saskatchewan Pulse Growers (SPG).**

SASKATCHEWAN  
**pulse**  
Growers  
*Celebrating 25 Years* 

For more information about SPG activities, please call 306-668-5556  
or email [pulse@saskpulse.com](mailto:pulse@saskpulse.com) or visit our website at [www.saskpulse.com](http://www.saskpulse.com).

## in brief

### News from and about Saskatchewan Pulse Growers (SPG).



#### Pulses Featured in Savour Life Magazine and on the Wheatland Café

Pulse recipes are now being featured each month in Savour Life Magazine, a free online magazine sent to 10,000 food and drink lovers. Editor CJ Katz features locally grown food, as well as a guide to the best eating spots around Saskatchewan. CJ is also cooking up some great pulse recipes on her weekly cooking show, The Wheatland Café. Visit [www.savourlife.ca](http://www.savourlife.ca) to sign up for Savour Life Magazine or tune into the Wheatland Café every Wednesday at 12:15 on CTV to catch some great pulse recipes!

#### Peazie Snack Takes Second Place at Product Development Competition

Peazie, a snack food developed by the University of Manitoba made with yellow pea flour took second place at the American Association of Cereal Chemists International (AACCI) meeting in Honolulu on September 24, 2008. Five of the 13 products were finalists for the product development competition. Heather Maskus, a former student and current Pulse Canada employee, Marcie McFadden, a 4th year undergraduate, Caroline Rosa, a Master's student and Dr. Susan Arntfield, all of the University of Manitoba attended the competition. Congratulations! *\*See page 33 in the October issue of PulsePoint for more information about the Peazie snack food.*

#### 2008 Version of Grasshopper Identification and Control Methods Now Available!

The grasshoppers were out in full force this summer. Be prepared for 2009 by calling the SPG office at 306-668-5556 or email us at [pulse@saskpulse.com](mailto:pulse@saskpulse.com) to receive your free copy of the new *Grasshopper Identification and Control Methods Booklet*.



#### Rail Freight Service Review

Pulse Canada, along with other members of the Coalition of Rail Freight Shippers, participated in a Rail Freight Service Review briefing session that outlined the approach being taken in the first two phases of the Review. Overall, Projects One and Two aim to develop a better understanding of the rail based logistics system. Project One involves a quantitative analysis of system performance, shipping orders and transit times. Project Two includes four major task areas: a description of the rail based logistics system, an analysis of operating practices for railways, shippers, port terminals and shipping lines, an analysis of short line railway interface and an identification of potential system wide solutions to perceived problems. Pulse Canada will work to ensure that the pulse industry's issues are reflected in the Review.



PHOTO COURTESY OF CN RAIL


#### Regional Pulse Development Workshops

SPG and the Saskatchewan Ministry of Agriculture are once again offering Regional Pulse Development Workshops in February 2009. Mark your calendar now!

- Mon. Feb. 2, 2009 – Yorkton
- Tues. Feb. 3, 2009 – Swift Current
- Wed. Feb. 4, 2009 – Moose Jaw
- Thurs. Feb. 5, 2009 – Weyburn

Additional information will be posted on SPG's website ([www.saskpulse.com](http://www.saskpulse.com)) or see Page 16 for the agenda.

#### Pulse Cookbooks On Sale!

SPG is selling *The Amazing Legume* cookbook for only \$5 each (plus shipping and handling). This cookbook features many tasty and nutritious pulse recipes. To purchase a copy, please contact Rachel Kehrig at 306-668-9988 or [rkehrig@saskpulse.com](mailto:rkehrig@saskpulse.com). 





SASKATCHEWAN  
pulse  
Growers

*Celebrating 25 Years*

## Working For You

### Research & Development

SPG attended the Canadian Pulse Research Workshop organized by the Canadian pulse research community, and hosted in Manitoba. The workshop highlighted recently completed and ongoing research being conducted nationally and internationally in the areas of Plant Breeding, Novel Uses, Nutrition, Environment and Biotic Stress. SPG was proud to have provided funding for over 21 of the research projects that were presented. Allison Fletcher, Research Project Manager presented a PURENet update to conference attendees.

SPG approved a proposal entitled "Policy Development to Support the Development of Prairie Soil Carbon Sinks" to be conducted by the Saskatchewan Soil Conservation Association. With an overall objective to influence national and provincial agricultural carbon offset policies to maximize the value of prairie agricultural greenhouse gas emission reductions and removals at the farmgate. A report is expected in spring 2009.

### Market Development

The 29th annual Western Nutrition Conference was held in Edmonton, AB. The event focused on providing technical information

to feed industry nutritionists. The Pulse Growers (Alberta and Saskatchewan) had the opportunity to sponsor Dr. Alphons Jansman, a world-recognized researcher and expert on the topic of peas in livestock nutrition.

SPG cooperated with the Saskatchewan Trade and Export Partnership (STEP) on presentations to pulse buyers from Colombia, an important market for Saskatchewan green pea and green lentil.

### Communications

SPG travelled to the SIAL food show in October to learn about new food trends and innovations in the marketplace. Staff and Board visited booths and learned about areas of opportunity for pulses. Staff and Board were also given the opportunity to meet buyers of Canadian pulses while working at the Pulse Canada booth in the Canadian pavilion.

The SPG Communications team presented to a number of delegates from the National People's Congress of China in November. The delegates were very interested in learning about our producer elected Board of Directors, check-off system and our R&D program.



## 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](mailto:kagblor@saskpulse.com) or Allison Fletcher, Research Project Manager at [afletcher@saskpulse.com](mailto:afletcher@saskpulse.com).

### Basal Branching in Field Pea: A Strategy for Reducing Seeding Rates and Increasing Weed Competition

Dr. Steven Shirliff, Department of Plant Sciences at the University of Saskatchewan (U of S) in Saskatoon, SK completed a project to determine the effect of basal branching of field pea cultivars on the yield-density relationship and competition with weeds. Economic analysis revealed growers should seed field peas at the recommended plant density of 88 plants/square metre. Seeding field pea varieties with greater basal branching reduces the risk associated with poor pea emergence, and basal branching has no effect on the competition of a pea variety with weeds.

### Controlling Indeterminate Lentil Crop Growth Through Nitrogen Supply

Dr. Rosalind Bueckert, Department of Plant Sciences at the U of S in Saskatoon, SK recently completed a project to test if non-inoculated lentil, relying mainly on soil supplied nitrogen can have earlier maturity, higher yield and a higher harvest index compared to inoculated lentil that relies on nitrogen fixation. Results showed nitrogen fixation contribution to a plant occurs in the very last part of reproductive growth, which requires the major period of nitrogen fixation to be shifted earlier

to flowering so the first part of reproductive growth is better set and the pods are filled. Studies on no-till land indicated lentil cultivars differ in nitrogen accumulation and yield. Lentils also had lower nitrogen, lower total biomass and in some instances, lower yields on long-term no-till than on short-term no-till.

### Zero-Tannin Faba Bean for Nursery and Growing-Finishing Pigs: Performance, Carcass Characteristics, Pork Yield and Quality Traits

Dr. Ruurd Zijlstra, Department of Agricultural, Food and Nutrition Sciences at the University of Alberta in Edmonton, AB completed a project to test the response to the dietary inclusion of 0, 10, 20, 30, and 40 per cent zero-tannin faba beans in nursery diets by partially or entirely substituting imported soybean meal and to compare the performance of hogs fed zero-tannin faba bean against those fed imported soybean meal and also field pea. Weaner pigs fed zero-tannin faba bean performed similar to pigs fed the soybean meal control diet. Live performance and carcass variables were similar among hogs offered soybean meal, zero-tannin faba bean, and 50 per cent zero-tannin faba bean and 50 per cent soybean meal or field pea as dietary supplemental protein source.



**Garth Patterson**  
Executive Director



## The Future of Pulses in Saskatchewan

### the team

EXECUTIVE DIRECTOR  
**Garth Patterson**

DIRECTOR OF RESEARCH  
**Dr. Kofi Agblor**

RESEARCH PROJECT MANAGER  
**Allison Fletcher**

VARIETY 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**

CONTACT US  
104 - 411 Downey Road  
Saskatoon, SK S7N 4L8  
Tel (306) 668-5556  
Fax (306) 668-5557  
pulse@saskpulse.com  
www.saskpulse.com

SASKATCHEWAN  
**pulse**  
Growers  
*Celebrating 25 Years*



In the last 25 years, Saskatchewan has gone from two hundred thousand acres of niche crops to an industry worth over \$1 billion in exports. Saskatchewan is now the world's leading exporter of lentil and pea and pulses will play an even bigger role in Saskatchewan in the next 25 years because:

1. Saskatchewan producers grow pea and lentil crops as good or better than any other region in the world;
2. Pea and lentil crops complement our no till production system;
3. We have the best pea and lentil varieties because of the world class research at the University of Saskatchewan Crop Development Centre (CDC);
4. Pulses are "environmentally friendly" because they fix their own nitrogen;
5. Pulses are an excellent fit for a healthy diet;
6. We are pulling ahead of our competitors in Western Europe, India, Turkey and Australia; and
7. Populations are increasing and incomes are rising in traditional pulse consuming regions.

There are challenges if we want to remain competitive. Our land locked location results in high transportation costs to ports. Unreliable transportation service contributes to our reputation as an unreliable supplier. Improved supply chain relationships are needed to maintain leadership in pulse exports.

On a global scale, corn, soybean, rice and wheat productivity is increasing much faster than pulse productivity because of large research investments. We will need even better varieties and more crop protection products to remain competitive.


Lentil production is decreasing in Turkey and India because of poor crop genetics. We have been able to capitalize on this opportunity because of Dr. Bert Vandenberg's

strong lentil breeding program at the CDC. In fact, lentil is the only pulse crop (excluding soybean) whose global production has increased over the past 50 years. Pea productivity has not kept up with productivity increases in other crops in Western Europe, Manitoba and the black and grey wooded soils of eastern Saskatchewan. We need to address the low pea yield issue before it becomes more widespread.

Pulses do not need nitrogen fertilizer because they "fix" a portion of their own nitrogen. This makes them a key component in sustainable crop rotations. We also think that pulses are a good fit in carbon sequestration and carbon trading systems. Will western European and North American consumers increase consumption of our environmentally friendly pulses?

Pulses are good for your health. Most cultures in the world already know this, with the exception Canada and the United States. Although 95 per cent of our markets are traditional consumption regions, there are opportunities to increase pulse consumption in North America.

New pulse crops such as dry bean and chickpea offer an opportunity to further diversify, but they require more research to improve their adaptation and performance to reduce production risk. Faba bean offers exciting opportunities because it fixes more nitrogen than any other pulse crop and has an upright structure making it easy to harvest. We need new markets to support a Saskatchewan faba bean industry.

Our competitive advantage is our low cost production of high quality pulses because of our suitable land, climate, varieties, production system and rate of adoption of new technology. Let's continue to play to our strengths over the next 25 years. 

# A CleanStart® for pulses and canola



*Advanced burndown technology for high value crops.*

Join the growing number of farmers cleaning up with **CleanStart®**

In its first season, CleanStart lived up to its advance billing as a breakthrough pre-seed technology – specifically created for your most valuable (and vulnerable) crops.

**Rated Good to Excellent weed control after 7-days by 90% of farmers!\***

For a copy of the CleanStart Grower's Report visit [www.nufarm.ca](http://www.nufarm.ca) or call 1-800-868-5444.

\* Based on an independent 2007 survey of 250 prairie farmers.  
©CleanStart is a trademark of Nufarm Agriculture Inc.

**CleanStart shines in three key areas:**

**1. Superior control of weeds impacting sensitive crops, including:**

- Kochia
- Volunteer Canola (including herbicide-tolerant)
- Dandelions (spring germinating)
- Winter Annuals

**2. Faster results and earlier control vs. glyphosate burndown.**

**3. The only pre-seed pulse and canola product with no residual.**



**Breaking with tradition.**





**\$15.35/acre  
more profit\***

## More phosphate. More nitrogen.

Next Generation TagTeam® is the only inoculant that delivers increased phosphate efficiency and more fixed nitrogen.

TagTeam's *MultiAction*® combination of N-fixing and P-solubilizing microbes results in a synergy that produces \$15.35 more profit per acre and a minimum 3 to 1 return on investment – higher returns than any single-action nitrogen inoculant.

Choose TagTeam for the best phosphate and nitrogen use efficiency – and get the best yield and best value in pulse inoculants.



WEBSITE: [www.bioag.novozymes.com](http://www.bioag.novozymes.com)

1-888-744-5662



Novozymes is the world leader in bioinnovation. Together with customers across a broad array of industries we create tomorrow's industrial biosolutions, improving our customers' business and the use of our planet's resources. Read more about Novozymes at [www.novozymes.com](http://www.novozymes.com).

# TagTeam®

**Smart Farmers Read the Fine Print**

\* On average, Next Generation TagTeam inoculants for pea and lentil outperformed competitor, single-action (nitrogen fixing only) inoculants by 6% in farmer-conducted split-field trials. That's an average increase of 2.2 bushels per acre, for a net return of \$15.35/acre. Net return is calculated after the cost of the inoculants is removed using current commodity prices of \$18/bu for lentils and \$8/bu for peas. See our website for details. © TagTeam and *MultiAction* are registered trademarks of Novozymes A/S. © 2008 Novozymes. All rights reserved. 8066 10.08