



SASKATCHEWAN

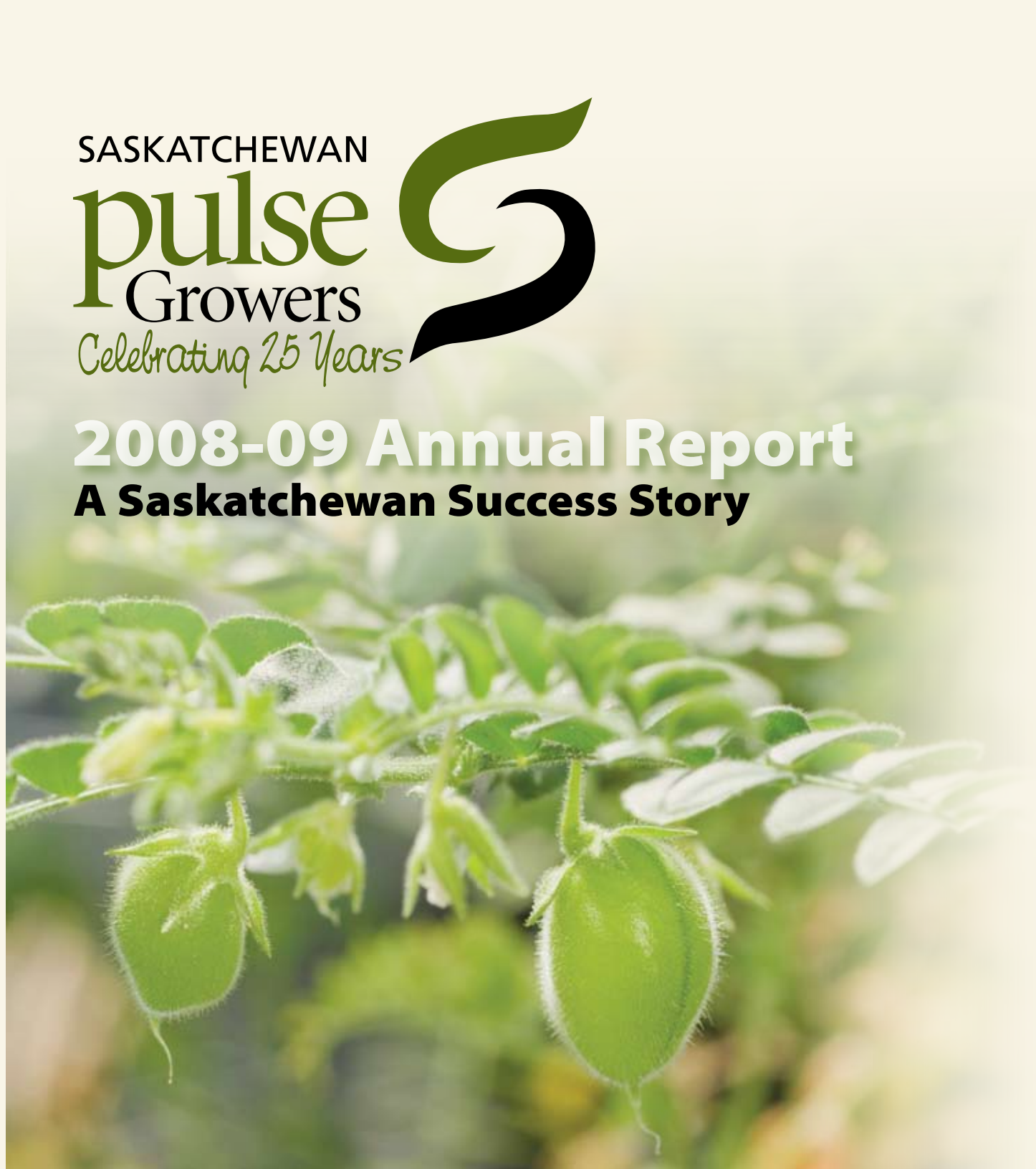
pulse
Growers

Celebrating 25 Years



2008-09 Annual Report

A Saskatchewan Success Story





Our Vision

Saskatchewan will be an industry leader in the production, processing, and marketing of high quality and high value pulse products for a viable and profitable Canadian pulse industry.

Our Mission

To provide leadership for an innovative, profitable and sustainable Saskatchewan pulse industry through research, market development and communication in collaboration with stakeholders.

Our Values

At Saskatchewan Pulse Growers we:

- Strive for excellence
- Conduct ourselves with honesty and respect
- Show respect for the individual
- Act with professionalism

Background

The Saskatchewan Pulse Crop Growers Association was formed in 1976. In a 1983 vote, producers chose to institute a mandatory, non-refundable check-off to fund projects to develop the industry. The Saskatchewan Pulse Crop Development Board was born (later known as Saskatchewan Pulse Growers or SPG).

Funding

A mandatory, non-refundable check-off of 1% of the gross value of sale is deducted at the first point of sale when a producer sells a pulse crop.

Leadership

SPG is led by a Board of seven producer elected pulse growers from all over Saskatchewan.

Programs

SPG invests producer check-off dollars into four program areas to achieve our vision and to increase **demand**, increase **production**, **represent** the pulse industry and **attract** resources.

Communications – Our key communication initiatives include: *PulsePoint* magazine, *Pulse Market Report*, annual report, website, Pulse Days conference, Regional Workshops, sponsorship activities, nutrition promotions, media relations and strategic planning communications.

Market Development – Our efforts focus on developing international and domestic market opportunities for pulses in human and animal diets, in co-operation with Pulse Canada and the Alberta Pulse Growers.

Operations – SPG staff members combine industry knowledge and individual expertise to deliver programs to support the three-year strategic plan developed by the SPG Board.

Policy – SPG provides leadership on issues such as government investment and regulation, producer security and crop insurance.

Research and Development – Our program provides funding and leadership for ongoing research including: disease management, genetic improvement and quality assessment, agronomy, weed control, processing and utilization of pulse crops, and livestock nutrition.

Variety Release Program – SPG supports the development of new pulse varieties through the University of Saskatchewan's Crop Development Centre's pulse breeding program. The SPG Variety Release Program offers Breeder seed without royalties to Select-status seed growers in Saskatchewan and Alberta, while specialty varieties are tendered to specific companies.



World Leader in Pulses

Our Team 2009 Board of Directors



Maurice Berry, Chair
Carievale, SK
306-452-7504
Email: m.c.berry@sasktel.net

Maurice farms in southeast Saskatchewan near Carievale. His operation consists of 5000 acres of peas, canola, barley, wheat, pinto beans, oats, flax, and sunflowers. He operates on a 1/3 pulse, 1/3 oilseed and 1/3 cereal crop rotation exclusively on a direct seeded basis. He has a three-year Diploma of Agriculture from the University of Saskatchewan. He has served as a Director on the Pulse Canada Board and is the current RM Councilor 31, Storthoaks. Maurice has been involved in many community organizations over the years. Maurice joined the SPG Board in 2004.



John Bennett, Director
Biggar, SK
306-948-2852
Email: bennettjs@sasktel.net

John has farmed in the Biggar area for more than 30 years. He has a no-till operation growing pulses, oilseeds and cereals. John is Past President of the Saskatchewan Soil Conservation Association (SSCA) and past Director on the Board of the Saskatchewan Research Council. He was named SSCA Farmer of the Year in 1993 and Canadian No-Till Farmer of the Year in 2000. In 2007, John was awarded an Honorary Life Membership with the Saskatchewan Institute of Agrologists. John sits on the SPG Audit and Finance committee and joined the SPG Board in 2005.



Barbara Podhorodeski, Vice-Chair
Shipman, SK
306-426-2350
Email: bpod@sasktel.net

Barbara and her husband have a mixed-farm operation near the town of Shipman. They farm 3000 acres of cultivated land using a rotation of peas, wheat, canola, canary and forages. She earned her Agriculture degree from the University of Saskatchewan. She represents SPG on the Western Grains Research Foundation Board. She has worked with the Prairie Farm Rehabilitation Administration and the Conservation Learning Centre. She is past Chair of the Saskatchewan Canola Development Commission. Barbara joined the SPG Board in 2004.



Dwayne Moore, Director
Rosetown, SK
306-882-3151
Email: mooreassociates.dwayne@sasktel.net

Dwayne farms with his wife and brother in the Rosetown area growing lentils, peas and durum. He dedicates at least fifty per cent of his seeded acres to pulses. Dwayne graduated with a Commerce degree from the University of Saskatchewan and currently operates an accounting, insurance and real estate business in Rosetown. Dwayne has sat on the Biofuels Committee for the Agriculture Council of Saskatchewan. Dwayne sits on the SPG Audit and Finance committee and joined the SPG Board in 2009.

SPG Staff



David Nobbs, Director
Kindersley, SK
306-463-3277
Email: d.nobbs@sasktel.net

David farms 3400 cultivated acres with his father and his brother on the family farm near Lancer. Crops grown include lentils, kabuli chickpeas, coriander, durum wheat and canary seed. He is currently employed as General Manager and Director of Canpulse Foods in Kindersley – a special crop exporting and processing plant. He is a representative on the Pulse Canada Board and the Canadian Grain Commission Western Standards Committee and Pulse Sub-Committee. David joined the SPG Board in 2006.



Jeff Sopatyk, Director
Saskatoon, SK
306-227-7867
Email: spats@shaw.ca

Jeff and his wife operate Sopatyk Seed Farms in the Saskatoon area. They farm 9,000 acres of Pedigreed seed peas, lentils, chickpeas, canola, barley, wheat, and hemp. Jeff has a diploma from the School of Agriculture at the University of Saskatchewan and attended an additional two years in the College of Agriculture. He has also served as a Director for Farm Pure Seeds. Jeff is a Select status seed grower and has participated in the SPG Variety Release Program. He is a representative on the Pulse Canada Board. Jeff joined the SPG Board in 2008.



Murray Purcell, Director
Saskatoon, SK
306-241-7432
Email: mgpurcell@sasktel.net

Murray's family farm is near Pike Lake. He is a graduate of the University of Saskatchewan with an Education degree. He is past Chair of the Agriculture Council or Saskatchewan (ACS) Board and remains an active Board member. Murray is Vice-President of the Saskatchewan Agriculture Hall of Fame Board and a Director and Executive Member of the Saskatchewan Municipal Hail Insurance Board. Murray is also a member of the Canada Grains Council and sits on the Grains Innovation Roundtable and on the Federal Minor Use of Pesticides committee. Murray is the Chair of the SPG Audit and Finance committee and joined the SPG Board in 2007.

Executive Director

Garth Patterson

Director of Research

Dr. Kofi Agblor

Research Project Manager

Allison Fletcher – *On Leave*

Ron Mantyka

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

Livestock Market Development Consultant

Michelle Fleury





**Representing
18,000
Producers**

Chair's Report



This was a milestone year for the Saskatchewan Pulse Growers (SPG) and the Saskatchewan pulse industry. It was an honour to serve as Chair of the Board for the 25th Anniversary of SPG.

The history of SPG dates back to 1976 when the Saskatchewan Pulse Crop Growers Association (SPCGA) was formed by Directors Earle Peters (President), Don Tait (Vice-President), John Buchan, Ron Gaudet, Barry Braun, Larry Murray, Al Hurd,

Al Slinkard and Neal Holt. In 1984, the Provincial Cabinet approved a plan for the formation of the Saskatchewan Pulse Crop Development Board. The first meeting of the Board was held in January 1985 with founding Directors Ron Blais, Ron McKinnon, Don Tait, Grant Carlson, Keith Jones, Earl Peters and Ken Naber. This led to pea and lentil producers having a voice and the resources to develop the industry. On behalf of SPG I would like to thank these founding members and all directors who have sat on the SPG Board of Directors for their dedication and hard work to make our industry a success.

Saskatchewan's climate, soils, production technology and research capacity have contributed to our competitive advantage in the production of high quality peas and lentils. In the last 25 years Saskatchewan grown pulses have gone from two hundred thousand acres of niche crops to an industry worth a record \$1.6 billion in 2008. Pea, lentil and chickpea production in Saskatchewan has increased 36 times since 1985 and has grown at an average annual rate of five per cent in the last 10 years, making Saskatchewan the world's leading exporter of lentil and pea. Continued growth of pulse production in Saskatchewan is sustainable up to one pulse crop planted in every four years of a crop rotation. This would equate to over \$4 billion of production.

SPG's three-year strategy targets producer check-off dollars to four program areas including research and development, communications, policy and market development with goals of increasing demand and production, representing the pulse industry, and attracting the necessary resources to achieve our vision of a sustainable and profitable pulse industry.

Sustainable growth has been at the top of our priority list. Increasing world demand for our pulses has made us a large competitor for other pulse growing regions. The development of new pulse varieties and market classes by the University of Saskatchewan's Crop Development Centre (CDC) contribute to demand creation. SPG's variety release program, which commercializes widely adapted varieties that are royalty-free and specialized niche varieties through commercial partnerships has resulted in 69 new CDC varieties for producers. This successful program has become a model program for other commodity groups.

To increase demand, we need to improve our competitiveness. A top priority for SPG has been the improvement of the quality and production of our pulse crops. SPG knows from our producer surveys that this is also your top priority as well. We have increased research investments in breeding, weed management, disease control, and environmentally sustainable rotations. Our strategic investment in Pulse Canada also gives us a national and international voice to help reduce trade barriers and minimize trade issues.

We are involved in extensive pea, lentil and chickpea research and development clusters that have been developed over the past 20 years under the leadership of the CDC. As producers, we are fortunate to have a good relationship with the CDC's world renowned breeding program. Our 15-year, \$21 million investment into this program gives SPG the opportunity to work with world-class pulse researchers. We look forward to continuing to work with the CDC to provide producers with the best varieties available, and to increase knowledge in production technology.

We want to ensure that pulses continue to be a profitable choice for producers. SPG believes that Canadian pulses are a Saskatchewan success story and that pulse production and exports will continue to contribute to the growth of the Saskatchewan economy. As a pulse producer, I am proud to be part of this Saskatchewan success story.



Maurice Berry
SPG Board Chair

Executive Director's Report



This year we had two milestones to celebrate: Saskatchewan Pulse Growers (SPG) celebrated their 25th Anniversary as an organization, and Saskatchewan exported a record \$1.6 billion of pulses.

Programming at SPG has come a long way since 1984 and as our organization grows, our accomplishments increase.

Our research team is currently managing over 70 projects in breeding, agronomy and value added processes. Breeding is a top priority with 20 projects valued at \$11,568,997, including the agreement we have with the Crop Development

Centre (CDC). We have 17 agronomy projects valued at \$1,631,602 and 31 value added processes projects valued at \$3,735,752. SPG also continues to fund two graduate scholarships at the University of Saskatchewan valued at \$20,000 each. SPG has continued to leverage check-off dollars by collaborating with the Ministry of Agriculture to utilize the Agriculture Development Fund for pulse projects. Please see pages 9-15 for a more detailed list of SPG funded research projects. This past January, SPG released the updated results from Richard Gray's 2003 study, *Returns on Producer Investments in Pulse Crop Research* and calculated that producers are now receiving a return of \$20 for every \$1 of check-off invested into research.

Our Research and Development (R&D) team is also managing the Pulse Research Network (PURENet) program. PURENet is a Canada-wide network of pulse related research projects supported by Agriculture and Agri-Food Canada. The mission of PURENet is to develop and expand the use of pulses. PURENet participates with six Canadian universities, three federal research organizations, one international university and 55 co-investigators who work on 21 pulse research projects, investing \$5.3 million of federal funding.

We were pleased to provide \$5,000 scholarships to five, first-year undergraduate students entering the University of Saskatchewan in a field that would benefit the pulse industry. The award winners include Braden Olson from Plenty, SK, Paige Hobman from Nokomis, SK, Serra Laxdal from Wynyard, SK, Devin Barros from Codette, SK and Michael Wilmot from Carnduff, SK. All five award recipients were sons or daughters of Saskatchewan pulse producers. We are looking forward to continuing this program next year.

Pulse Days is always a highlight for SPG and this event is one of the Communication team's top priorities. Pulse Days 2009 was a huge success as over 800 producers, researchers and industry representatives turned out to Celebrate

25 Years with the staff and Board. SPG and BASF were pleased to honour Ray McVicar with the Pulse Promoter of the Year award for his long-term dedication and support for the pulse industry in his role at the Saskatchewan Ministry of Agriculture.

SPG recently published *The Business of Saskatchewan Pulses* which highlights our three-year strategy. We have shared this information with government officials, pulse traders, researchers, industry representatives and international visitors. We are sharing our success story of Saskatchewan pulses by showcasing the growth of our industry and describing where SPG wants to go in the future. This brochure is available for download on our website, or call the SPG office to get your copy.

As we look back and celebrate this 25-year milestone we can contribute the success of the pulse industry to a number of influential producers, researchers, government officials, and pulse traders. This success story has not ended and will continue to play an even more important role in the Saskatchewan economy in the next 25 years because Saskatchewan producers grow pea and lentil crops as good or as better than any other region in the world. We have the best pea and lentil varieties available to our producers that are royalty-free because of the work from the pulse scientists and the staff at the University of Saskatchewan. On the horizon is faba beans which offers exciting opportunities because they fix more nitrogen than any other pulse crop and have an upright structure, making them easy to harvest.

Demand is increasing as the world population grows. Although most of our markets are in traditional consuming regions, we continue to support efforts to increase pulse consumption in North America.

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

A stylized, handwritten signature in black ink.

Garth Patterson
Executive Director



Building a Saskatchewan Success Story

Highlights from the Year

September 2008

SPG expands the Pulse Market Report to include information on lentil, pea, and chickpea. All registered Saskatchewan pulse producers now receive the report.

SPG agrees to act as the Recipient-Agent for the Pulse Research Network (PURENet), a Canada-wide network of pulse related research projects approved under Agriculture and Agri-Food Canada's Agricultural Bioproducts Innovation Program (ABIP).

December 2008

Dwayne Moore of Rosetown, SK joins the SPG Board and David Nobbs of Kindersley, SK is re-elected to the Board.

Richard Gray's updated *Return on Investment* study indicates that producers now receive \$20 value for every \$1 of check-off invested in pulse research.

January 2009

Saskatchewan Pulse Growers celebrates its 25th anniversary at Pulse Days.

Ray McVicar is named the Pulse Promoter of the Year.

SPG recognizes University of Saskatchewan (U of S) PhD student Mohammad Tahir, the 2008 recipient of the Don Jaques Memorial Fellowship and U of S PhD student Christine Bennett, the 2008 recipient of the Alfred .E. Slinkard Post-Graduate scholarship at the Pulse Days awards ceremony.

SPG announces the winners of the Pulse Days 2009 Research Poster Session. Jennifer Menat won in the breeding category with her poster, *How Does the Casual Agent of Lentil Anthracnose Sexually Reproduce*. Christine Bennett won in the value added processes category with her poster, *The Effect of Low and High Glycemic Index Pre-Exercise Meals on Soccer Performance in a Tournament Setting*.

Over 60 Select status seed growers attend the Select Grower Meeting during Crop Production Week.

February 2009

Representatives from SPG and the University Saskatchewan travel to Tamil Nadu Agricultural University (TNAU) in

Coimbatore, India to get an update on the *Utilization of Green Lentil in Indian Based Foods* research project being conducted at TNAU. The project is looking at how Saskatchewan grown dehulled green lentils can be used as an alternative to native pulses in traditional Indian foods.

More than 500 people attend the Regional Pulse Development Workshops across Saskatchewan. SPG expands the workshops to include Yorkton this year. Other workshop locations include Swift Current, Moose Jaw and Weyburn.

For the 2008 tax year, 33% of the Saskatchewan pulse check-off qualifies for the investment tax credit through the Scientific Research and Experimental Development (SR&ED) program.

March 2009

SPG participates in a press conference in Saskatoon announcing \$5.3 million for the Pulse Research Network (PURENet) to create new economic opportunities in rural Canada for pulses.

April 2009

SPG meets with Honourable Bob Bjornrud and Deputy Minister Alan Koch of the Saskatchewan Ministry of Agriculture to discuss SPG's new business plan based on our three-year strategy developed by SPG Board and staff.

May 2009

Saskatchewan pulse producers seed 5.3 million acres of pulse crops, including 2.85 million acres of peas, 2.32 acres of lentils, and 145,000 acres of chickpeas.

July 2009

SPG met with the Saskatchewan Agri-Food Council to present information about SPG and the success of our industry.

SPG holds their annual Select Grower Field Day. Over 50 Select status seed growers and processors attend.

August 2009

SPG awards undergraduate scholarships to five first year students entering the University of Saskatchewan in a pulse related field.

Saskatchewan pulse exports reach a record \$1.6 billion, making Canada one of the largest producers and exporters of pulse crops.



2008 Pulse Promoter Award



Ray McVicar and Mark Kurchan of BASF (presenter).

Photo by Geoff Howe

At Pulse days 2009, Saskatchewan Pulse Growers, along with BASF presented Ray McVicar with the Pulse Promoter of the Year award for his support and contributions to the Saskatchewan pulse industry.

Ray McVicar was raised on his family's livestock and grain farm near Colonsay, Saskatchewan. He attended the University of Saskatchewan where he obtained his Bachelor of Science in Agriculture in 1978. Ray and his wife Lorna have two children; Mark and Ben.

After graduation, Ray began his professional career in the Crop Protection Industry. His first six years were spent doing research with Hoechst Canada as they developed new products like Hoe-Grass, Decis, and Liberty. He spent two years with Hoechst as their Sales Representative in the Edmonton region. Ray also worked with Cyanamid Canada for six years in Alberta as their Sales Representative and then as a Sales Manager.

In 1986, Ray and Lorna took a break from their jobs, bought "Round the World" tickets, and traveled for six months through the South Pacific, Asia, the Mediterranean, Europe, and the eastern United States.

In 1992, Ray, Lorna, and their two boys moved back to Saskatchewan and Ray joined Saskatchewan Agriculture as the Provincial Specialist for Special Crops. He spent 15 years working with many producer organizations like the Saskatchewan Pulse Growers (SPG). He was an advisor to the SPG Board of Directors, and a member of the Research and Development, Extension and Communications, Domestic Market Development, and Variety Release Committees. He has served on pulse crop strategic planning committees over the years, as well as the red lentil and the faba bean opportunity teams.

Ray's job took him to many "new crop" meetings across the Province working with farmers, SPG staff and Directors, and researchers like Dr. Al Slinkard. His work with pulses and special crops also took him abroad on missions to Australia, China, India, Bangladesh, Sri Lanka, Turkey and Syria.

Over the years, Ray submitted more than 20 minor use or emergency use registration requests for pulses and other special crops. He now serves as the Provincial Minor Use Coordinator.

Ray has also served other special crop producer organizations including the Saskatchewan Herb and Spice Association, the Saskatchewan Sunflower Committee, the Saskatchewan Mustard Growers Association and the Canaryseed Development Commission. He has been a Cub and Scout Leader, a Community League Softball Coach, and a Director with the Saskatchewan Institute of Agrologists.

Ray continues to work with Saskatchewan Agriculture in his new role as Manager Production Technology in the Crop Development Branch.



SASKATCHEWAN
pulse
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Celebrating 25 Years



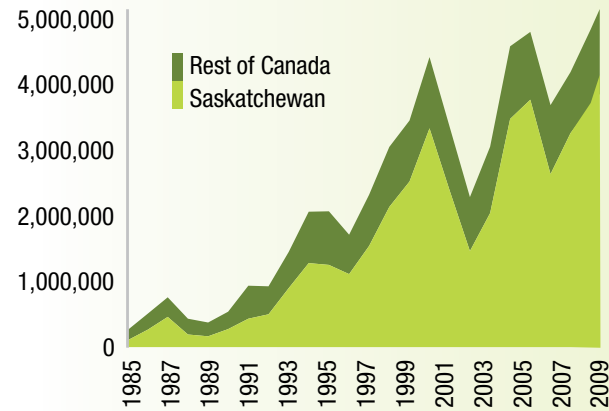
Celebrating 25 Years

Highlights in the Saskatchewan Pulse Industry

- Saskatchewan's pulse industry began in the late 1960s and early 1970s.
- Laird and Eston were the first two lentil varieties developed by Dr. Al Slinkard, which many traders still refer to when marketing green lentils.
- The University of Saskatchewan's Crop Development Centre was established in 1973 and is now recognized worldwide as a leader in pulse research with world renowned pulse crop breeders.
- In 1974, John Buchan was appointed the first special crops specialist with the Sask. Ministry of Agriculture.
- The Saskatchewan Pulse Crop Growers Association was founded in 1976. On July 25, 1984, Provincial Cabinet approved the plan that established the Saskatchewan Pulse Crop Development Board (known today as Saskatchewan Pulse Growers).
- Saskatchewan now produces 99% of Canada's lentil crop, 99% of Canada's chickpea crop and 77% of Canada's pea crop.
- Over \$1.6 billion of pulse exports in 2008.
- In 2009, Saskatchewan seeded 5.3 million acres of pulse crops, compared to 190,000 acres in 1984.
- World's leading exporter of pea and lentil.
- SPG research investments of \$5.2 million in 2009, compared to \$31,280 in 1985.
- Over the past ten years, SPG has significantly increased investments in value added processing projects, \$57,175 with five projects in 1998/99 to \$1,207,346 with 26 projects in 2008/09.
- Release of 69 new pulse varieties that are royalty-free through a long term breeding agreement with the Crop Development Centre (CDC) at the University of Saskatchewan worth \$21 million over 15 years.
- A return to producers estimated at \$20.19 for every \$1 of check-off invested in research.
- Inclusion of producer check-off for agriculture research in the Federal Research Tax Credit Program.
- Recognition by the provincial Ministry of Agriculture as a model producer organization.
- Mandatory licensing and security for pulse crop buyers.
- National Awards recognizing SPG communications program including Pulse Days, *PulsePoint* Magazine and the SPG website.
- Going from just over 50 attendees at the annual pulse meetings (Pulse Days) to over 1000 annual guests.
- Monthly marketing information delivered to producers in the form of a newsletter called the *Pulse Market Report*.

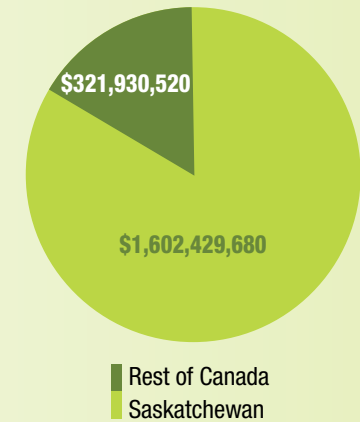


Canadian Pulse Production* (Metric Tonnes)

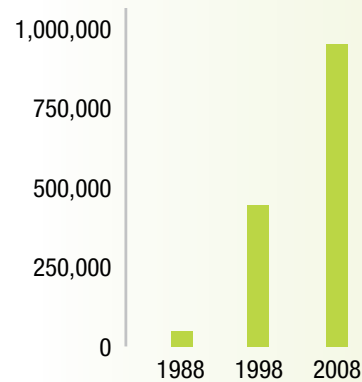


* Includes pea, lentil, chickpea, dry bean and faba bean.

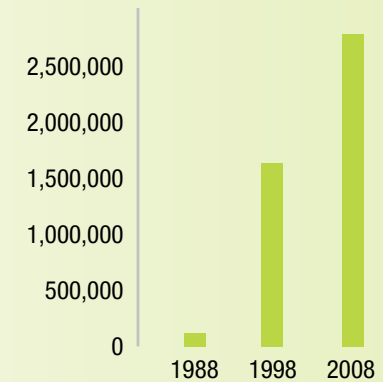
2008 Canadian Pulse Exports Source: Stat Publishing



Saskatchewan Lentil Production (Tonnes)



Saskatchewan Pea Production (Tonnes)



Ongoing SPG Funded Research and Development Projects 2008-09

(Prepared by Management)

AGRONOMY				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
Optimizing Lentil and Pea Agronomy for Organic Production	Walley/Shirtliffe	University of Saskatchewan	Objective: Develop an agronomic package for Saskatchewan organic and low input farmers including recommendations for lentil and pea seeding rates.	\$23,287
Best Management Practices to Improve the Quality Attributes of Red Lentils	Gan	AAFC Swift Current	Objectives: Determine the optimum plant population density for seven current red lentil varieties. Determine the effect of seeding dates on growth and development, flowering and maturity, seed yield, visual quality and milling quality. Examine the effect of herbicide options on flowering, maturity, visual quality and milling quality.	\$0*
Integrated Pest Management of the Pea Leaf Weevil (PLW)	Cárcamo	Agriculture and Agri-Food Canada (AAFC) Lethbridge	Objective: Enable pea growers to implement an integrated pest management plan for pea leaf weevil.	\$14,000
Reducing Production Risks of Chickpeas by Optimizing Fungicide Applications	Banniza	Crop Development Centre	Objectives: Investigate the effect of fungicide application timing and frequency on the control of ascochyta blight in the new chickpea cultivars with partial resistance to <i>A. rabiei</i> . Compare the efficacy of different fungicide rotations on ascochyta blight control.	\$55,545
In Search of Improved Broad-leaved Weed Control in Lentil - Concept Study	Holm	University of Saskatchewan	Objective: Conduct a conceptual study to explore broad-leaved weed control options in lentil.	\$8,429
Interaction of Herbicide Applications and Reaction to Ascochyta Blight in Chickpea	Tar'an	Crop Development Centre	Objective: Examine the effects of herbicide applications on ascochyta blight disease pressures and other phenological traits on various chickpea varieties.	\$40,733
Investigation of the Relationship Between Fungicides, Microbial Community and Performance of Crops After Chickpeas	Gan	AAFC Swift Current	Objective: Determine the effect of repeated applications of azoxystrobin, pyraclostrobin, boscalid and chlorothalonil in various sequences in chickpea on microorganism community, diversity and enzymes in the soil.	\$64,600
Lifecycle and Socio-Economic Analysis of Pulse Crop Production and Pulse Grain Use in Western Canada	Wismer	Saskatchewan Research Council	Objectives: Conduct a life cycle analysis to assess the environmental impact of pulse crop production in crop rotation and subsequent pulse grain use as animal feed and for human consumption in Western Canada. Assess the socio-economic impacts of pulse crop production in Western Canada.	\$24,660
Soil Carbon and Nitrogen Balance Under Lentil	Lemke	University of Saskatchewan	Objectives: Compare soil gross mineralization and gross nitrification rates on a continuous wheat and a wheat-lentil system. Compare soil quality parameters on a continuous wheat and wheat-lentil system. Track and quantify the below-ground carbon and nitrogen contribution of lentil into specific soil organic matter fractions.	\$93,852
Validation of the Mustard Root Bioassay for Detection of New Group 2 Herbicides	Schoenau	University of Saskatchewan	Objectives: Determine if the mustard root bioassay is effective in detecting pyroxsulam and thienencarbazone residues in soil. Determine the phytotoxicity of these two compounds in different soil types relative to flucarbazone.	\$27,370

*No payments made in 2008-09.

AGRONOMY				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
Combinations of Sulfentrazone and Saflufenacil for an Improved Spectrum of Broadleaf Weed Control in Chickpea	Johnson	AAFC Scott	Objective: Investigate combinations of various rates of these herbicides to provide the widest spectrum of broadleaf weed control.	\$13,000
Assessing N-fixation of Faba Bean for the Prairies	Bueckert	University of Saskatchewan	Objectives: Assess the nitrogen budget of faba bean. Measure the biomass and nitrogen content of a range of faba bean genotypes and cultivars. Assess the nitrogen fixation ability of faba bean genotypes by shoot N metabolism.	\$6,340
Infection Studies of <i>Ascochyta rabiei</i> on Wild Chickpea Germplasm	Banniza	Crop Development Centre	Objective: Gain a better understanding of ascochyta blight resistance, specifically the underlying mechanisms at the cellular level found in the resistant cultivar CDC Frontier, and resistant annual and perennial wild chickpea accessions.	\$27,830
Diseases of Field Pea in the Black Soil Zone of Northern Saskatchewan	Banniza	Crop Development Centre	Objectives: Determine yield losses associated with soil-borne pathogens of field pea in north central and northeast Saskatchewan. Identify the pathogens involved and to evaluate the benefit of seed treatments to improve and or stabilize pea seed yield. Identify the pathogens of the ascochyta blight complex in field pea in north central and northeast Saskatchewan. Determine the economic benefit of foliar fungicide application to control ascochyta blight in this region.	\$36,455
Limiting the Prevalence and Distribution of Stem Bud Nematode, <i>Ditylenchus dipsaci</i> in Field Pea	Tenuta	University of Manitoba	Objectives: Determine the race, frequency of occurrence and population levels and geographical extent of <i>D. dipsaci</i> in Saskatchewan and Alberta pea fields. Determine geographical occurrence of the pest in relation to management conditions and environmental factors.	\$30,000
Impact and Control of Root Rot in Faba Bean	McLaren	AAFC Brandon	Objective: Assess the impact of <i>Fusarium</i> root rot on emergence, nodulation, root rot and yield of faba bean.	\$8,000
	Chang	Alberta Agriculture and Rural Development		\$4,000
Prairie Soil Carbon Balance Project -2009	McClinton	Saskatchewan Soil Conservation Association	Objective: Determine carbon sequestration accomplished by Saskatchewan producers from adoption of direct seeding and improved rotations.	\$6,000
Research & Development of Canadian Metarhizium as Biological Agent for Control of Grasshoppers in Pulse Crops	Johnson	University of Lethbridge	Objective: Assess the biocontrol agent, Metarhizium anisopliae S54 isolated from soil collected in southern Alberta.	\$78,000
Agronomy Total				\$562,101

BREEDING				
Project Name	Researcher	Institution	Project Objectives / Results	
Identification and Transfer of Genes Related to Frost Tolerance from <i>Phaseolus angustissimus</i> to <i>P. vulgaris</i>	Bett	Crop Development Centre	Objectives: Develop a protocol to assist in the transfer of genes related to frost tolerance from <i>P. angustissimus</i> to <i>P. vulgaris</i> through interspecific crossing and embryo rescue. Identify genes involved in controlling resistance to frost in <i>P. angustissimus</i> through analysis of genetic sequences expressed specifically when the plant is subjected to subzero temperatures.	\$454

BREEDING				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
On-farm Pulse Crop Germplasm Evaluation	Warkentin	Crop Development Centre	Objectives: Utilize on-farm evaluations to evaluate pulse crop breeding lines. Reduce the per unit cost of breeding line evaluation to allow for more efficient screening.	\$20,031
Identification of SNP Markers Linked to Ascochyta Resistance in Chickpea for Cultivar Improvement in Canada	Buchwaldt	AAFC Saskatoon	Objectives: Identify SNP (single nucleotide polymorphism) markers linked to ascochyta resistance in chickpea which will help plant breeders with cultivar development in Canada. Develop a set of chickpea lines with different ascochyta resistance genes for inclusion in the public accessible Plant Gene Resources of Canada (PGRC).	\$16,836
Improving the Value of Field Peas for Human Consumption	Warkentin	Crop Development Centre	Objectives: Characterize the genetic basis of several key traits affecting the market value of field pea. Identify molecular markers for traits affecting visual quality of pea seeds. Improve the selection capacity for field pea varieties with improved grade potential.	\$20,082
Understanding and Improving Carbohydrate Composition to Add Value to Lentils	Chibbar	University of Saskatchewan	Objectives: Develop carbohydrate profiles for lentil germplasm currently in use at Crop Development Centre (CDC) for lentil improvement program. Study the genotype x environment interaction and analyze the heritability of seed carbohydrate related traits. Scan global lentil germplasm to identify the extent of variation in selected carbohydrates available in nature. Identify and characterize basic biochemical steps for selected carbohydrate biosynthesis.	\$14,099
Improving Ascochyta <i>rabiei</i> Resistance in Chickpea	Warkentin	Crop Development Centre	Objective: Find sources of superior resistance to ascochyta blight in the wild perennial <i>Cicer</i> species and to transfer this resistance into the cultivated chickpea.	\$0*
Pulse Crop Advancement Agreement	Murrell	Crop Development Centre	Objective: Generate superior pulse crop varieties for Saskatchewan producers through the development of new varieties and the improvement of existing varieties.	\$1,301,659
Memorandum of Understanding to Hire a Pulse Crop Geneticist	Murrell	Crop Development Centre	Objective: Increase the breeding capacity at the CDC from two full-time pulse breeders to three.	\$31,250
Memorandum of Understanding for SPG-CDC Pulse Crop Regional Variety Trials	Warkentin	Crop Development Centre	Objective: Provide funding to the CDC for pulse crop regional variety trials in Saskatchewan to provide beneficial variety data to growers, seed producers, breeders and seed companies.	\$100,000
<i>Colletotrichum truncatum</i> From Lentil	Banniza	University of Saskatchewan	Objectives: Investigate the infection biology of the two identified races of anthracnose on susceptible and resistant lentil genotypes. Determine the distribution of races in lentil growing areas.	\$65,956
Unlocking the Bioavailability of Phosphorous and Micronutrients Through Development of Low Phytate-Phosphorous Pea	Warkentin	Crop Development Centre	Objective: Characterize two low phytate mutants in pea at the physiological, genetic and molecular levels and determine their effects on bioavailability of phosphorous and micronutrients in an animal model.	\$51,025
Breeding for Enhanced Nitrogen Fixation in Cereal-Legume Cropping Systems in Saskatchewan	Vandenberg	Crop Development Centre	Objective: Develop a system for screening lentil and pea cultivars on the basis of their yield and quality of subsequent spring wheat and durum cultivars.	\$100,000
Genetic Improvement of Bioavailable Selenium Content in Lentils Seeds	Vandenberg	Crop Development Centre	Objective: Conduct a series of investigations that will form the scientific basis of a marketing and breeding strategy on biofortification of selenium content for Saskatchewan grown lentil crops.	\$59,369
Collecting Pulse Germplasm on the Crimean Peninsula in Ukraine	Diederichsen	AAFC Saskatoon	Objective: Conduct a collecting mission to preserve pulse germplasm which is in threat of extinction and is of use for Canadian pulse crop breeders.	\$0*

*No payments made in 2008-09.

BREEDING				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
Understanding and Improving Lentil and Chickpea Seed Quality - Reduction of Raffinose Family Oligosaccharides (RFO)	Chibbar	University of Saskatchewan	Objective: Improve the seed quality of chickpea and lentil oligosaccharides by isolating and characterizing key genes participating in the RFO biosynthesis and generating targeted DNA - based molecular markers.	\$56,352
Pyramiding Novel Genes for Resistance to Ascochyta Blight from <i>Pisum fulvum</i> into Field Pea Through Molecular Breeding	Warkentin	Crop Development Centre	Objective: Initiate a long-term strategy for the enhancement and maintenance of resistance in pea for ascochyta blight using an integrated genetic improvement approach.	\$62,158
Taming the Technology: Application of Sequence Data in the Lentil Breeding Program	Bett	Crop Development Centre	Objectives: Develop molecular maps of cultivated lentil and a wild species for use in foreground and background selection. Increase the efficiency of germplasm development through interspecific hybridization combined with molecular marker selection for adapted background.	\$93,236
Developing Sulfentrazone Tolerance in Lentil	Holm	University of Saskatchewan	Objective: Identify and/or develop lentil germplasm with sufficient tolerance to sulfentrazone for incorporation into the CDC's lentil breeding program and to generate data to support the registration of sulfentrazone for use on lentil varieties tolerant to the herbicide.	\$90,697
Shortening Generation Time for Faster Commercialization of New Pulse Crop Varieties	Vandenberg	Crop Development Centre	Objectives: Speed up the introduction of new pulse varieties by developing efficient and cost effective in vitro techniques. Apply the developed protocol to hybrids from the interspecific projects to reduce the time required for incorporating new sources of disease resistance into the cultivated species. Obtain seeds from interspecific and/or double-haploid projects where plants cannot be rooted or grafted.	\$133,734
Double-Haploid Lentils: High Speed Global Genetic Delivery System	Vandenberg	Crop Development Centre	Objectives: Develop an efficient culture protocol for the production of double-haploid lentil. Develop an efficient microspore culture protocol. Develop an efficient double-haploid method that is applicable to a wide range of genotypes.	\$143,185
Chickpea Regeneration Analysis of Anthers and Young Ovules	Abrams	National Research Council Canada - Plant Biotechnology Institute	Objectives: Determine the hormone profiles necessary for rescue media for culturing chickpea embryos for interspecific hybrid development. Determine the hormone profiles necessary for chickpea breeding through doubled haploid technology.	\$62,894
Using Pedigree-based Genome Mapping for QTL Identification for Seed Size, Earliness and Ascochyta Blight Resistance in Chickpea	Tar'an	Crop Development Centre	Objectives: Develop pedigree-based whole genome marker analysis using the CDC chickpea breeding program.	\$62,158
Dry Bean Improvement through the Use of Tepary Bean	Bett	Crop Development Centre	Objectives: Characterize a core collection of cultivated and wild tepary beans in the Saskatchewan environment to identify key lines for future development. Assess adaptation and productivity relative to common bean, under sub-optimal conditions. Assess germination and emergence under cold soil conditions and survival at sub-zero temperatures in the field, as well as field based tolerance to common bacterial blight, all relative to common bean.	\$43,712
Pea Genetic Improvement Program	Various	Crop Development Centre	Objective: Ensure the Saskatchewan pea industry remains competitive in world markets by creating an environment that ensures Saskatchewan pulse producers have access to the best pea varieties.	\$500,000
Saskatchewan Pea Grower Survey	Pulse Research Ltd.		Objective: Determine actual commercial acreage of various pea varieties to determine compensation for participants of the Pea Genetic Improvement Program.	\$4,241
Breeding Total				\$3,033,128

VALUE ADDED PROCESSES				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
The Use of Canola, Pea and Flax Fractions in Aquafeeds	Drew	University of Saskatchewan	Objective: Determine apparent digestibility coefficient estimates of dry matter, crude protein, amino acids and energy for test ingredients including canola protein concentrate, pea protein concentrate, soybean meal, corn gluten meal, fish meal and wheat for formulation of diets on a digestible energy and digestible amino acid basis.	\$3,860
Establishing the Digestible Nutrient Content and Rate of Starch Digestion of Peas for Poultry as Affected by Processing and Pea Cultivar	Classen	University of Saskatchewan	Objective: Define the impact of feed processing on the rate and degree of digestability of pea nutrients for chickens.	\$0*
Enhancing the Economic Value and the Use of Field Peas by the Pork and Feed Industries	Patience	Prairie Swine Centre Inc.	Objectives: Collection of 35-40 samples from across the Prairie region to obtain diversity but also samples representative of that currently available in the commercial marketplace. Conduct chemical and physical analysis on these samples.	\$47,250
Development of Low Glycemic Index Breads from Pulses	Jenkins	University of Toronto	Objectives: Develop palatable breads made from pulse flours or containing pulse components with low glycemic indices. Position pulse breads as healthy alternatives to commonly consumed wheat based breads.	\$0*
Low Glycemic Index (GI) Starch from Canadian Grown Pulses	Liu	AAFC Guelph	Objectives: Development of extraction technology for pulse starches and analysis of chemical composition of selected peas, lentils and chickpea. Development of research techniques for glycemic index (GI) of native pulses and determination of the in vitro digestibility. Molecular and structural characterization of low glycemic index pulse starch. Development of enzyme-resistant starch as functional food ingredients from native pulse starch by physical modification. Molecular structure and physicochemical properties of physically modified pulse starches using various analytical techniques.	\$17,595
Enhancing World Markets for Canadian Pulses Through Secondary Processing and Value-Added Research	Malcolmson	Canadian International Grains Institute	Objective: Enhance Canada's image as a supplier of quality pulses and to support the domestic industry in value added initiatives.	\$20,650
Effect of Pulses and Pulse Fraction on Gut Microbial Health	Krause	University of Manitoba	Objective: Evaluate the effects of pulse fraction on the microbial health of the digestive tract and to develop microbial indicators of gut health.	\$5,812
Integrated Approach for Post-Harvest Quality of Red Lentil	Cenkowski/ Tabil	University of Manitoba/ University of Saskatchewan	Objectives: Determine the effect of post-harvest operations including drying, aeration, freezing and thawing cycles on red lentil quality. Determine the effect of storage environment and its duration on milling and cooking quality. Measure quality attributes (seed wrinkling and seed staining) using imaging technology AccurumTM in determining the effect of post harvest treatment.	\$0*
Micronutrient Profiling of Saskatchewan Pulses to Determine Potential Biofortification Strategies	Vandenberg	Crop Development Centre	Objective: Measure the micronutrient profile of nine essential micronutrients in Saskatchewan pulse crop seed and soil samples to assess the potential for marketing strategies for specific micronutrients and genetic improvement strategies for biofortification.	\$27,075
Low Glycemic Index Breads from Beans	Jenkins	University of Toronto	Objective: Produce palatable bean breads for sale in supermarkets, which will have low glycemic indices and be suitable for use by individuals with diabetes or at risk of developing diabetes.	\$82,800
Functional Characteristics of Blends of Native/Physically Modified Pea Starches and Native/ Physically Modified Corn and Potato Starches	Hood - Neifer	University of Saskatchewan	Objective: Evaluate the functional characteristics of blends of native/heat-moisture-treated/pregelatinized pea starch and native/physically-modified corn, waxy corn, high amylose corn and potato starches.	\$2,875
Saponins in Peas and Their Effects on Palatability in Pigs	Gonyoul	Prairie Swine Centre Inc.	Objectives: Determine the level of saponins with bitter taste in the principal pea varieties grown in Saskatchewan. Evaluate the incidence of pea <i>saponins</i> on feed intake and feeding behaviour of pigs.	\$44,100

*No payments made in 2008-09.

VALUE ADDED PROCESSES				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
Characterization of the Flavour Properties of Selected Pea Varieties Grown in Saskatchewan	Boye	AAFC St-Hyacinthe	Objectives: Characterize the flavour profiles of pea varieties grown in Saskatchewan. Determine the impact of primary and secondary processing on flavour development and stability. Determine the impact of storage conditions on the flavour profile of pea seeds and flours.	\$49,910
	Malcolmson	Canadian International Grains Institute	Objectives: Characterize the flavour profiles of selected pea varieties (green, yellow, dun and marrowfat) grown in Saskatchewan. Determine the impact of primary processing (whole and split) and secondary processing techniques (e.g., heating) on flavour development and stability. Study the interactions between the different pulse components (e.g., proteins, lipids and starches). Determine the impact of these interactions on the flavour of the pea flours when treated under different conditions. Determine the impact of storage conditions (time, temperature, humidity) on the flavour profile of the pea seeds and flours.	\$24,150
Can Arsenic Toxicity in Mammals be Reduced by Feeding Saskatchewan Grown Lentils?	Smits	University of Calgary	Objectives: Determine if there is a scientific basis for superior nutritional and therapeutic qualities of Saskatchewan-grown lentil that will enhance future marketing efforts based on biofortification of nutritional components. Conduct in vivo mammalian toxicology studies to evaluate the effectiveness and potential synergistic effects of selenium and folate-rich lentils in mitigating symptoms of chronic arsenic toxicity.	\$84,349
Lentils as an Endurance and Performance Food in Tournament Sports	Chilibeck	University of Saskatchewan	Objective: Test the hypothesis that lentil is a superior source of energy for endurance sporting events compared to other sources of carbohydrate in commonly consumed food items.	\$20,000
Utilization of Green Lentil in Traditional Indian Foods (renamed from Exploitation of Green Lentil as a Substitute)	Pushpa	Tamil Nadu Agricultural University, India	Objectives: Conduct a market survey for native pulse based products. Develop green lentil based food products. Transfer technology of green lentil-based food processing to processors for production of green lentil based food products.	\$124,394
Risk Assessment for Subjects with G6PD-Deficiency of New Fava Bean Cultivars with Low Content of Vicine and Convicine (FEVITA Beans)	Arese	University of Torino Medical School, Italy	Objectives: Set up a protocol suitable to assess toxicity, or lack of toxicity of fava beans cultivars poor in vicine and convicine in highly sensitive and susceptible G6PD-deficient individuals. The protocol will proceed step-by-step from in vitro studies to in vivo nutritional studies, the latter to be performed with normal and G6PD-deficient (Mediterranean variant) volunteers.	\$23,800
Assessment of Angiotensin I Converting Enzyme (ACE) Inhibitory Properties of Pulse Protein Hydrolysates	Boye	AAFC St. Hyacinthe	Objective: Identify pulse proteins with ACE inhibitory properties.	\$0*
Effectiveness of Pulse Based Foods for Improving Components of Metabolic Syndrome	Chilibeck	University of Saskatchewan	Objectives: Determine the effect of a pulse-based diet combined with exercise training on the metabolic syndrome in older adults.	\$112,027
Pulse Consumption in Canada: Analysis of Pulses in the Canadian Community Health Survey	Aukema	University of Manitoba	Objectives: Identify the demographic characteristics of Canadian adult pulse consumers including the amount, types and food forms of pulses consumed. Evaluate the diet quality (nutrient and food group intakes) of Canadian pulse consumers relative to nonconsumers. Determine if other health outcomes (biomarkers, disease diagnosis) or weight status is related to pulse consumption in a nationally representative sample of adult Canadians.	\$18,688
Effect of Pulses on Glycemic Control and Cardiovascular Risk Factors in Type 2 Diabetes: A Dose Response Study	Jenkins	University of Toronto	Objectives: Determine if pulses improve glycemic control in non-insulin dependent diabetes. Assess whether these outcomes relate to improvements in cardiovascular health (i.e. serum lipids and measures of oxidative stress and inflammatory biomarkers).	\$100,119

*No payments made in 2008-09.

VALUE ADDED PROCESSES				
Project Name	Researcher	Institution	Project Objectives / Results	Funding Amount 08-09
Knowledge, Skills, Attitudes and Behaviors of Women, Infants & Children (WIC) Recipients Regarding Pulses	Dahl	University of Florida, U.S.A.	Objectives: Determine the knowledge, skills, attitudes and behaviors of women, infant and child participants regarding the preparation and consumption of dried and canned pulses. Deliver a pilot low literacy canned pulse recipe and education program to the North Central Florida WIC program recipients.	\$8,280
An investigation into Pulse Fibre Fermentation and Nitrogen Excretion in Patients with Chronic Renal Failure	Dahl	University of Florida, U.S.A.	Objective: Study the effects of pulse oligosaccharides, resistant pea starch, pea cotyledon fibre and pea hull fibre on blood urea nitrogen, urinary excretion, fecal excretion of nitrogen, fecal microbiota and inflammation, in patients with chronic kidney disease.	\$80,800
Nutritional Impact of Saskatchewan Grown Lentil Feeding on a Sample of Healthy and Clinical Children Populations in Sri Lanka	Vandenberg	Crop Development Centre	Objective: Generate preliminary data to support our hypothesis that high micronutrient levels in Saskatchewan lentils leads to increase bio availability to humans.	\$99,848
Diet Approaches to Increase Lentil Consumption in Youth (DAILY): Knowledge, Beliefs and Barriers Affecting Pulse Consumption	Zello	University of Saskatchewan	Objective: Analyze consumer knowledge, beliefs and practices surrounding pulse consumption.	\$31,464
Supporting Healthy Development in the Early years: Perceptions of Rural Caregivers Around the Promotion of Physical Activity and Pulse Crop	Humbert	University of Saskatchewan	Objectives: Identify factors that parents and caregivers living in rural Saskatchewan face when attempting to provide physical activity and good nutrition, specifically the consumption of pulses for early year children in their care. Train parents and caregivers how to effectively increase physical activity and healthy eating opportunities for children in their care. The nutrition component will be specifically designed to increase the consumption of pulse crops.	\$10,500
Development of Prototype Expanded Snack Foods and Breakfast Foods from Pea flour, Air-classified Pea Starch and Pea-cereal Blends Using Twin-screw High Temperature Extrusion Technology	Hood-Niefer	Parrheim Foods	Objective: Identify optimal extrusion conditions for the manufacture of prototype expanded snack foods and breakfast foods from blends of pea flour, air-classified pea starch and cereal ingredients.	\$102,000
Processing and Pea-based Dog Foods: Maximizing Starch Resistance to Improve Obesity, Diabetes, Cardiovascular Health and Intestinal Health	Weber	University of Saskatchewan	Objectives: Determine what pea varieties, particle sizes and extrusion conditions can be used to enhance resistant starch content. Examine the intestinal site where glucose is absorbed compared to when it appears in the blood. Examine the impact of resistant starch sources on diabetes and cardiovascular function in normal weight dogs.	\$65,000
Value Added Processes Total				\$1,207,346

ONGOING SPG FUNDED RESEARCH AND DEVELOPMENT PROJECTS 2008-09	
	Total \$4,802,575

Developing Research Excellence





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Senior Counsel

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Lyle Zdunich*

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Corporation

To the Members of Saskatchewan Pulse Crop Development Board

We have audited Saskatchewan Pulse Crop Development Board's control as of August 31, 2009, to express an opinion as to the effectiveness of its control related to the following objectives:

- To safeguard Board resources. That is, to ensure its assets are not lost or used inappropriately; to ensure it does not inappropriately incur obligations; to establish a financial plan to achieve its goals; and to monitor and react to its progress towards the objectives established in its financial plan.
- To prepare reliable financial reports.
- To conduct its activities following laws, regulations and policies related to financial reporting, safeguarding Board resources, revenue raising, spending, borrowing and investing.

We used the control framework developed by The Canadian Institute of Chartered Accountants (CICA) to make our judgments about the effectiveness of Saskatchewan Pulse Crop Development Board's control. We did not audit certain aspects of control concerning the effectiveness, economy and efficiency of certain management decision-making processes.

The CICA defines control as comprising those elements of an organization that, taken together, support people in the achievement of the organization's objectives. Control is effective to the extent that it provides reasonable assurance that the organization will achieve its objectives.

Saskatchewan Pulse Crop Development Board's management is responsible for effective control related to the objectives described above. Our responsibility is to express an opinion on the

effectiveness of control based on our audit.

We conducted our audit in accordance with standards for assurance engagements established by the CICA. Those standards require that we plan and perform an audit to obtain reasonable assurance as to effectiveness of Saskatchewan Pulse Crop Development Board's control related to the objectives stated above. An audit includes obtaining an understanding of the significant risks related to these objectives, the key control elements and control activities to manage these risks and examining, on a test basis, evidence relating to control.

In our opinion, Saskatchewan Pulse Crop Development Board's control was effective, in all significant respects, related to the objectives stated above as of August 31, 2009, based on the CICA criteria of control framework.

Control can provide only reasonable, not absolute, assurance of achieving objectives reliably for two reasons. First, there are inherent limitations in control including judgment in decision-making, human error, collusion to circumvent control activities and management overriding control. Second, cost/benefit decisions are made when designing control in organizations. Because control can be expected to provide only reasonable assurance, not absolute assurance, the objectives referred to above may not be achieved reliably. Also, projections of any evaluation of control to future periods are subject to the risk that control may become ineffective because of changes in internal and external conditions, or the degree of compliance with control activities may deteriorate.

SASKATOON, SASKATCHEWAN
November 17, 2009

"HERGOTT DUVAL STACK LLP"
Chartered Accountants



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To the Members of Saskatchewan Pulse Crop Development Board

We have made an examination to determine whether the Saskatchewan Pulse Crop Development Board complied with the provisions of the following legislative and related authorities pertaining to its financial reporting, safeguarding of assets, spending, revenue-raising, borrowing and investing activities during the year ended August 31, 2009:

The Agri-Food Act, 2004

The Pulse Crop Development Plan Regulations

Our examination was made in accordance with Canadian generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, the Saskatchewan Pulse Crop Development Board has complied, in all significant respects, with the provisions of the aforementioned legislative and related authorities during the year ended August 31, 2009.

SASKATOON, SASKATCHEWAN
November 17, 2009

"HERGOTT DUVAL STACK LLP"
Chartered Accountants

To the Members of Saskatchewan Pulse Crop Development Board

We have audited the statement of financial position of Saskatchewan Pulse Crop Development Board as at August 31, 2009, and the statements of operations, changes in net assets and cash flows for the year then ended. These financial statements are the responsibility of the Board's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Board as at August 31, 2009 and the results of its operations and cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

SASKATOON, SASKATCHEWAN
November 17, 2009

"HERGOTT DUVAL STACK LLP"
Chartered Accountants

* Professional
Corporation

SASKATCHEWAN PULSE CROP DEVELOPMENT BOARD

Statement of Financial Position

August 31, 2009

	<u>2009</u>	<u>2008</u>
Assets		
Current Assets		
Cash	\$ 1,303,286	\$ 439,094
Cash - externally restricted	-	375
Investments	5,098,172	3,536,585
Accounts receivable	1,070,546	1,761,069
Inventory	-	2,978
Prepaid expenses	206,954	192,040
Accrued interest receivable	82,360	51,558
	7,761,318	5,983,699
Capital assets (Note 3)	1,028,440	1,037,036
Investments - restricted	2,800,000	2,300,000
Investments	3,925,211	765,840
	\$ 15,514,969	\$ 10,086,575
Liabilities		
Current Liabilities		
Accounts payable	\$ 1,689,713	\$ 649,727
Net Assets		
Externally restricted	-	(54,125)
Invested in capital assets	1,028,440	1,037,036
Internally restricted	2,800,000	2,300,000
Unrestricted	9,996,816	6,153,937
	13,825,256	9,436,848
	\$ 15,514,969	\$ 10,086,575

Approved by the Board


Chair


Vice-Chair

See accompanying notes to the financial statements.

Statement of Operations

Year ended August 31, 2009

	2009		2008
	Budget	Actual	Actual
	(Note 7)		
Revenue			
Check-off	\$ 9,920,000	\$ 12,072,342	\$ 9,773,330
Research and development	72,000	72,500	52,300
Communications	279,500	325,435	273,685
Variety commercialization	262,750	245,255	189,942
Interest	270,000	272,813	223,745
Directors and office	-	67,891	10,000
	10,804,250	13,056,236	10,523,002
Expenses (Schedule 1)			
Research and development	5,600,000	5,241,575	4,021,320
Communications	753,000	631,508	389,214
Variety commercialization	502,100	512,663	378,458
Pulse Canada (Note 4)	920,000	927,083	772,985
Directors	307,600	259,671	200,520
Office	1,089,100	1,013,072	933,731
Policy development	150,000	93,683	77,285
Domestic market development	37,000	32,773	18,161
	9,358,800	8,712,028	6,791,674
Excess of revenue over expenses	\$ 1,445,450	\$ 4,344,208	\$ 3,731,328

See accompanying notes to the financial statements.

SASKATCHEWAN PULSE CROP DEVELOPMENT BOARD

Statement of Changes in Net Assets

Year ended August 31, 2009

Net Assets	Externally Restricted	Invested in Capital Assets	Internally Restricted	Unrestricted	2009	2008
Balance, beginning of year	\$ (54,125)	\$ 1,037,036	\$ 2,300,000	\$ 6,153,937	\$ 9,436,848	\$ 5,643,320
Transfer to restricted funds	9,925	-	500,000	(509,925)	-	-
Excess of revenue over expenses	-	-	-	4,344,208	4,344,208	3,731,328
Pulse Field Lab Contributions	44,200	-	-	-	44,200	62,200
Purchase of capital assets	-	14,114	-	(14,114)	-	-
Disposition of capital assets	-	(1,177)	-	1,177	-	-
Amortization	-	(21,533)	-	21,533	-	-
Balance, end of year	\$ -	\$ 1,028,440	\$ 2,800,000	\$ 9,996,816	\$ 13,825,256	\$ 9,436,848

See accompanying notes to the financial statements.

Statement of Cash Flows

Year ended August 31, 2009

	<u>2009</u>	<u>2008</u>
Cash flows from operating activities		
Excess of revenue over expenses	\$ 4,344,208	\$ 3,731,328
Items not affecting cash		
Amortization	21,533	29,340
Loss on writedown of capital assets	299	1,785
Net change in non-cash working capital balances relating to operations		
Accounts receivable	690,523	(357,235)
Inventory	2,978	3,611
Prepaid expenses	(14,914)	(22,920)
Accrued interest receivable	(30,802)	(10,219)
Accounts payable	1,039,985	(34,433)
Net Pulse Field Lab payable	-	(45,030)
	<u>6,053,810</u>	<u>3,296,227</u>
Cash flows from investing activities		
Funding of Pulse Field Lab	44,576	200,530
Proceeds from sale of capital assets	878	200
Purchase of capital assets	(14,114)	(23,574)
Investments	(5,220,958)	(4,631,915)
	<u>(5,189,618)</u>	<u>(4,454,759)</u>
Net increase (decrease) in cash during the year	864,192	(1,158,532)
Cash, beginning of year	439,094	1,597,626
Cash, end of year	\$ 1,303,286	\$ 439,094

See accompanying notes to the financial statements.

Notes To The Financial Statements

August 31, 2009

1. Nature of organization

The Saskatchewan Pulse Crop Development Board ("the Board") is a non-profit organization which was established in 1984 under the *Agri-Food Act of Saskatchewan*.

The mission of the Board is to provide leadership for an innovative, profitable and sustainable Saskatchewan pulse industry, through research, market development and communication in collaboration with stakeholders.

2. Significant accounting policies

The financial statements have been prepared to reflect the following significant accounting policies:

Financial instruments

Cash is classified as held-for-trading and is recognized at fair value. Accounts receivable are classified as loans and receivables and are recorded at their amortized cost by applying the effective interest method. The organization's investments are classified as available-for-sale. Unrealized gain and loss on investments, being the difference between the book value and fair value based on quoted value, would be included in investment income in the statement of operations. Accounts payable and long-term debt are classified as other financial liabilities and recognized at their amortized costs by applying the effective interest method.

Cash

Cash consists of cash on hand and balances with banks.

Investments

Investments are recorded at cost which closely approximates fair value based on year end quoted market prices and consists primarily of money market funds and guaranteed investment certificates maturing or redeemable at various dates not exceeding 36 months, at interest rates of 1.5% to 5.05%.

Inventory

Inventory is stated at the lower of cost and net realizable value.

On September 1, 2008, the Board adopted Canadian Institute of Chartered Accountants (CICA) Handbook Section 3031 Inventories, which replaces Section 3030 Inventories and provides additional guidance in the measurement and disclosure of inventories. In determining cost, this new Section requires that variable and fixed production overhead costs incurred in the production of goods must be allocated based on the normal capacity. The adoption of this new Section has not resulted in any changes to the costing of the Board's inventory.

Capital assets

Land is stated at cost. Equipment is amortized using the declining balance method at rates from 20% to 50%. On acquisitions of equipment during the year, amortization is calculated based on a full year of usage. On disposals of equipment during the year, no amortization is recorded.

Notes To The Financial Statements

August 31, 2009

Appropriation of funds

The Board has approved the appropriation of certain funds generated from operations to be set aside to be used in the future as an operating reserve. The amounts of these appropriations and the appropriated balances are accounted for and disclosed separately in the financial statements as internally restricted funds.

Revenue recognition

Check-off is recognized at the time of settlement.

Government assistance and grants are recognized as related costs are incurred.

Research contributions and donations are recognized in these financial statements in the period defined in the terms and conditions of the respective agreements.

The Board follows the deferral method of accounting for contributions. Externally restricted contributions are recognized as revenue in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is assured.

Income taxes

No provision for income taxes has been made in these financial statements as the Board is exempt from income tax under Section 149 (1) of the *Income Tax Act*.

Use of estimates

The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period.

By nature, asset valuations are subjective and do not necessarily result in precise determinations. Should underlying assumptions change, the estimated net recoverable amount could change by a material amount.

Management periodically reviews the carrying value of the capital assets to ensure that the carrying value can be recovered from future cash flows. Management also periodically reviews the useful lives of the capital assets to determine, in their judgment, an adequate charge against income for amortization expense.

Future accounting pronouncements

In September 2008, the CICA amended Section 4400 Financial Statement Presentation for Not-for-Profit Organizations, Section 4430 Capital Assets Held by Not-for-Profit Organizations, Section 4460 Disclosure of Related Party Transactions by Not-for-Profit Organizations, and issued Section 4470 Disclosure of Allocated Expenses by Not-For Profit Organizations. Amendments to Section 4400 eliminate the requirement to treat net assets invested in capital assets as a separate component of net assets. It also clarifies that the revenues and expenses must be recognized and presented on a gross basis when a not-for-profit organization is acting as a principle in transactions. Section 4470 introduces requirements

Notes To The Financial Statements

August 31, 2009

for entities that allocate their fundraising and general support expenses to other functions, to disclose fee policies adopted for the allocation, the nature of the expense being allocated and the basis on which such allocations have been made. The Section mandates disclosure of the amounts allocated from each of its fundraising and general support functions and amounts and functions to which they have been allocated. All of the above standards are effective for fiscal years beginning on or after January 1, 2009. The Board is currently evaluating the impact of the adoption of these new Sections on its financial statements.

3. Capital assets

		2009		2008
	Cost	Accumulated Amortization	Net Book Value	Net Book Value
Equipment	\$ 174,308	\$ 135,703	\$ 38,605	\$ 47,201
Land	989,835	-	989,835	989,835
	\$ 1,164,143	\$ 135,703	\$ 1,028,440	\$ 1,037,036

4. Pulse Canada commitments

Pulse Canada is a national organization comprised of pulse trade and grower organizations from Alberta, Saskatchewan, Manitoba and Ontario. Pulse Canada's key activities include:

- Market Access: To minimize additional supply chain costs created by market access barriers such as import duties, taxes, sanitary and phytosanitary measures, regulatory and other barriers.
- Business Development - Human Food and Nutrition: To develop new market opportunities for pulses in food applications to increase the demand for Canadian grown pulses.
- Business Development - Animal Feed Nutrition: To develop new market opportunities for pulses in high value feed channels such as pet food and aquaculture.
- Transportation: To eliminate barriers associated with accessing equipment and rail service to reduce risk in transporting products.
- Environment: To capitalize on the environmental value of nitrogen fixing crops for sustainable food, feed and bioproducts.

The Board is providing program and project funding to Pulse Canada. Amounts committed in each of the next four years are as follows:

2010	\$ 976,000
2011	893,500
2012	911,000
2013	460,000

Notes To The Financial Statements

August 31, 2009

5. Research and policy development commitments

The Board has approved future funding for several research and policy development projects. Amounts committed to these projects in each of the next five years, assuming the terms of the contracts are fulfilled, are as follows:

2010	\$ 4,396,163
2011	1,743,120
2012	1,128,326
2013	143,540
2014	76,906

A research and development partnership between the Board and the Crop Development Centre at the University of Saskatchewan is governed under a 15-year agreement, which expires September 30, 2020. The agreement requires the establishment of specific research priorities and funding commitments for a five-year period. The next five-year contract covering the period October 1, 2010 to September 30, 2015 is being negotiated, and therefore is not shown as a funding commitment in the above amounts. It is expected that the annual funding level will be no lower than the 2009-10 commitment of \$1,415,188, which is the amount for the final year of the current contract.

6. Lease commitments

A five-year lease agreement, which expires in 2011, exists with the Saskatchewan Opportunities Corporation for the premises at 411 Downey Road, Saskatoon, Saskatchewan; multi-year agreements exist with various suppliers of office equipment. Yearly rental payments due in each of the next three years are as follows:

2010	\$ 74,947
2011	74,947
2012	10,383

7. Budgeted figures

These figures are based on the budget as presented at the Annual General Meeting held on January 13, 2009, and subsequently revised as approved by the Board of Directors on February 6, May 5 and November 12, 2009, and have been reclassified to conform to the financial statement presentation.

8. Capital disclosures

The Board adopted the recommendations of CICA Handbook Section 1535 Capital Disclosures. This Section required the disclosure of information about how the organization defines and manages capital.

The Board's objectives when managing capital are to safeguard the entity's ability to operate and to continue to meet its mission. The organization's capital resources are managed to support achievement of its goals.

The Board plans for the use of its capital by monitoring the long-term plans to meet the needs of users and stakeholders.

SASKATCHEWAN PULSE CROP DEVELOPMENT BOARD

Schedule of Expenses

Year ended August 31, 2009

	2009		2008
	Budget	Actual	Actual
	(Note 7)		
Research and development			
Agronomy	\$ 337,293	\$ 562,101	\$ 506,769
Breeding	2,379,571	3,033,128	2,368,423
Value added processes	486,329	1,207,346	1,080,005
General	57,415	439,000	66,123
Available for new projects	2,339,392	-	-
	5,600,000	5,241,575	4,021,320
Communications			
Communications activities	546,500	441,249	255,030
Crop production week	149,400	144,384	106,003
Extension meetings	47,600	39,273	17,677
Other	9,500	6,602	10,504
	753,000	631,508	389,214
Variety commercialization	502,100	512,663	378,458
Pulse Canada	920,000	927,083	772,985
Directors			
Communications	10,900	9,249	9,364
Election	29,000	24,558	-
Honoraria	131,200	99,650	103,934
Travel	100,000	96,064	62,461
Other	36,500	30,150	24,761
	307,600	259,671	200,520
Office			
Communications	18,400	18,513	17,235
Contract work	67,200	39,893	66,893
Office	120,700	141,202	134,201
Salaries and benefits	787,000	759,415	628,547
Travel	58,400	28,874	50,707
Other	37,400	25,175	36,148
	1,089,100	1,013,072	933,731
Policy development	150,000	93,683	77,285
Domestic market development	37,000	32,773	18,161
	\$ 9,358,800	\$ 8,712,028	\$ 6,791,674

See accompanying notes to the financial statements.

Future is Bright





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A list of payees will be made available upon request.