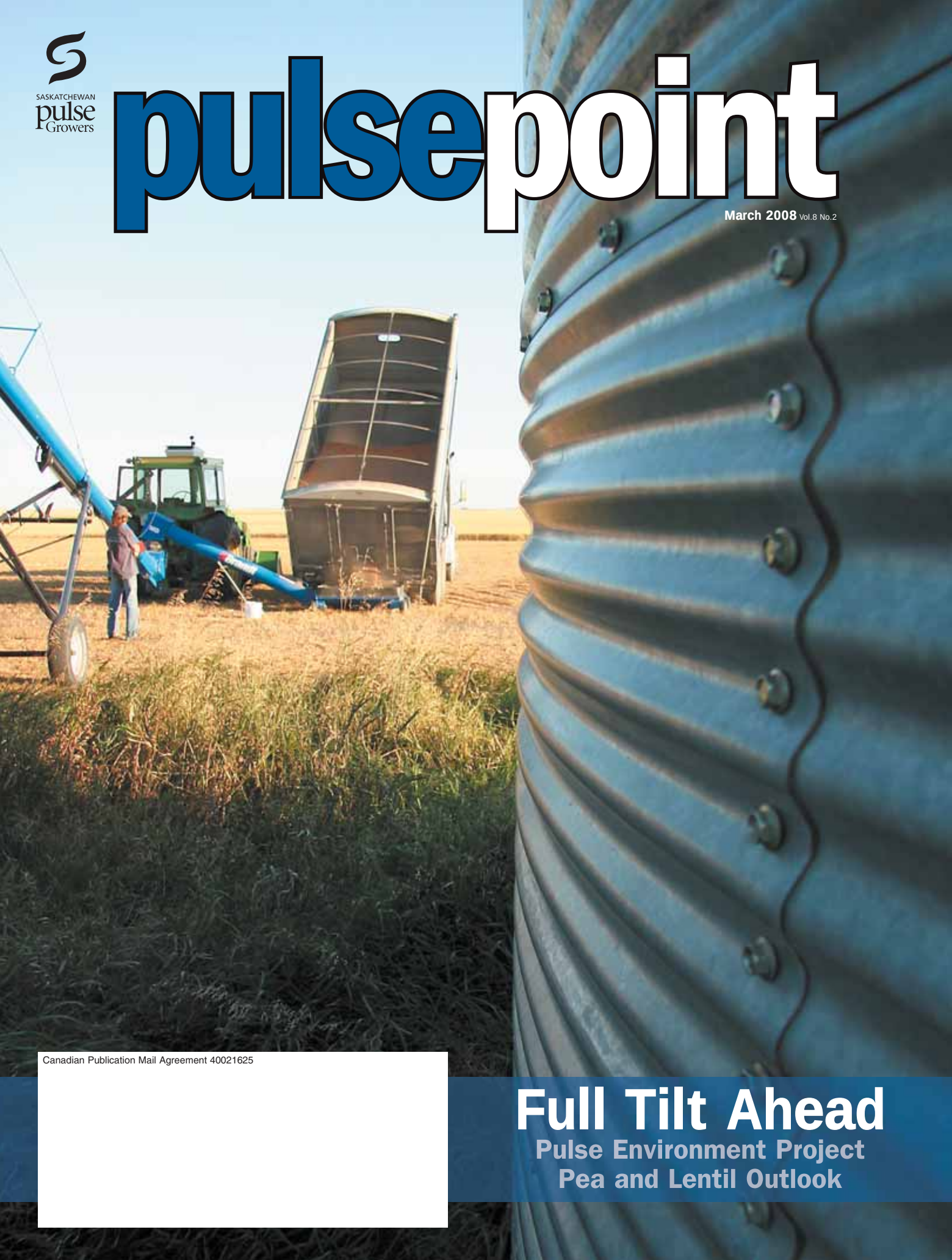


SASKATCHEWAN pulse Growers

pulsepoint

March 2008 Vol.8 No.2

Canadian Publication Mail Agreement 40021625

Full Tilt Ahead

Pulse Environment Project

Pea and Lentil Outlook

BASF
The Chemical Company

Now you can forget about weeds and focus on yield.

Growing lentils can be tough enough. But with the CLEARFIELD® Production System for lentils you can strike weed control off the list. We harnessed the proven ONE-PASS weed control of ODYSSEY®, ODYSSEY DLX and SOLO® to superior lentil varieties. The result is higher yield potential and an easier harvest. So forget about weeds and focus on yield – with CLEARFIELD lentils.

CLEARFIELD®
production system | for lentils

Introducing Canada's first herbicide-tolerant lentil system.

Always read and follow label directions.

Maurice Berry
Board Chair

Gearing Up For A New Season

At the 2008 Annual General Meeting in January, Jim Moen completed his second three-year term as a Director, Vice-Chair and Chair of the Saskatchewan Pulse Growers (SPG). It has been my pleasure to serve with Jim as Vice-Chair for the past year.

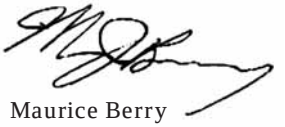
SPG has been very fortunate with the calibre of their Directors over the years. Our past Board members are a tremendous resource for our Board and we consistently rely on their expert advice. The dedication of our past Directors over the last 20 years have led to remarkable accomplishments to the Saskatchewan pulse industry. Our vision for a viable and profitable pulse industry keeps us striving for opportunities for pulse growers that will keep Saskatchewan in the forefront of the pulse industry in the future.

At this year's annual meeting, it was an honour to be elected Chair of the Board. I have been a Director with SPG for four years. I farm at Carievale with my wife Carmen, our three children and my parents Leroy and Jennifer Berry. We farm 4,900 acres of pulses, oilseeds and cereals, exclusively in a direct seeded basis with a four or five year cropping rotation. I have served as a Councillor of the Rural Municipality of Storthoaks, been a Board member of the South East Research Farm, past President and current member of the Redvers and District Marketing Club and other local Boards. I also recently completed a term on the Pulse Canada Board.

As the pulse industry evolves, we find ourselves continuing to look for opportunities. We now have a mature, developed industry and must seek more avenues for industry profitability. Some of these areas include:

- **Green Lentil Market Report** – a monthly newsletter sent to lentil producers by mail and email with timely marketing information that will help with green lentil production and marketing decisions.
- **Pulse Canada** – our investment in Pulse Canada programs ensures that we have a voice federally and internationally. SPG supports Pulse Canada's key program areas in market development and market access issues, access to crop protection products, research into the health benefits of pulses and branding pulses as being nutritious through the Food Nutrition Initiative and the industry transportation strategy.
- **Pulses and the Environment** – SPG believes that pulses can play a positive role in mitigating environmental concerns, particularly those related to greenhouse gas emissions. Pulse Canada is currently working on a new Pulse Environment Project. Read more about it on page 7.
- **Crop Insurance** – the provincial government has publicly committed to improving crop insurance for farmers. SPG is prepared to provide input where possible for improvements.
- **Research** – this continues to be a top investment priority for SPG. We will continue to support research for new pulse varieties, better agronomics, and disease resistance.

Producers are getting higher prices for 2007 pulse crops than in recent years and there is optimism about the upcoming year in terms of price forecasts. It looks as though 2008 may shape up to be a great year for the pulse industry. I wish you a safe and prosperous growing season ahead and I look forward to serving as your Chair.



Maurice Berry

board

SASKATCHEWAN pulse Growers

pulsepoint

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
Website: 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
Website: www.sunrisepublish.com

Publication Dates:
January, March, June, October

Publisher:
Twila Reddekopp

Editors:
Amanda Olekson, Rachel Kehrig

Contributors:
Maurice Berry, Jesse Bruce, Greg Cherewyk, Mark Goodwin, Geoff Howe, Eric Johnson, Rachel Kehrig, Gord Kurbis, Dorothy Murrell, Amanda Olekson, Garth Patterson, Penny Pearse, Carl Potts, Jeff Schoenau, Fred Siemens, Bunyamin Tar'an, Bert Vandenberg, Tom Warkentin, Larry Weber

Art and Production:
Trevor Sellar

Marketing:
Linda Hamm

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:
Uniquity Photography

Please Recycle

table of contents

Full Tilt Ahead

The pulse industry is full tilt ahead for what is shaping up to be a great growing season. As spring approaches, growers will be finalizing their planting decisions, so be sure to read the articles in this issue that focus on seed quality, herbicide carryover and red lentil seeding for great pre-season tips.

Also in this issue, strong prices for peas and lentils are being predicted this season in the Pea and Lentil Market Outlook, which will help with seeding and marketing decisions for the upcoming year.

Finally, we share some updates from Pulse Canada, including a special feature on the new Pulse Environment Project. We have also included updates on market access initiatives and Pulse Canada's transportation strategy and the recent passing of Bill C-8.

We wish you all the best this spring!

features in this issue

departments

by Eric Johnson and Jeff Schoenau

Factors Affecting Herbicide Carryover

in brief

Growers concerned about herbicide carryover should always follow herbicide labels.

Soil residual herbicides offer many advantages to growers, particularly with control of flushing and late emerging weeds. Late flushes of weeds such as kochia can cause severe yield losses and harvesting problems, particularly in less competitive pulse crops.

There are some situations in which herbicides may carry over and damage rotational crops. The highest risk area in Saskatchewan in 2008 is the brown soil zone because the growing season precipitation was well below normal (Figure 1). On the other hand, residual herbicides are often used in the wetter dark brown, black, and grey soil zones and therefore I do not anticipate serious problems with herbicide carryover and damage to rotational crops this upcoming growing season. For those pulse growers in the dry brown soil zones that have used a soil residual herbicide in 2007, there may be a few issues to be aware of.

Factors Affecting Herbicide Persistence

Environment has a major effect on the persistence of herbicides in Western Canada. Soil moisture and temperature are very important factors in determining the rate of pesticide breakdown. There are a number of mechanisms that determine the environmental fate of a herbicide such as volatilization, photolysis (breakdown from sunlight) and leaching. However, the two primary mechanisms of herbicide degradation are microbial and chemical hydrolysis. Both of these processes are dependent on soil water and temperature, but soil moisture is more critical with herbicides that require microbes to degrade. Soil microbes thrive in warm, moist soils, which result in faster degradation.

Effect of Soil Properties on Herbicide Carryover

Soil properties such as organic matter content, soil texture, and soil pH also play an important role in the carryover potential of residual herbicides. Generally, there are fewer problems with herbicide carryover when soil organic matter is high. It is the most important variable in controlling adsorption of the herbicide to soil colloids. Herbicide adsorption to organic matter may reduce its bioavailability and the moisture holding capacity of high organic matter soils makes them conducive for increased microbial activity. The effect of clay content on herbicide residues is similar to organic matter in that it tends to adsorb the herbicide as well as improve water-holding capacity.

Soil pH is another factor affecting the residual characteristics of some herbicides. A low soil pH (less than 7.0) tends to increase the persistence of imidazolinone herbicides such as Odyssey and Assert. Imidazolinone herbicides tend to be more adsorbed under acidic or low soil pH which reduces their availability for microbial degradation. The herbicide Solo has less potential to cause injury to rotational crops than Odyssey since it has a shorter half-life and it is not as easily taken up by plant roots.

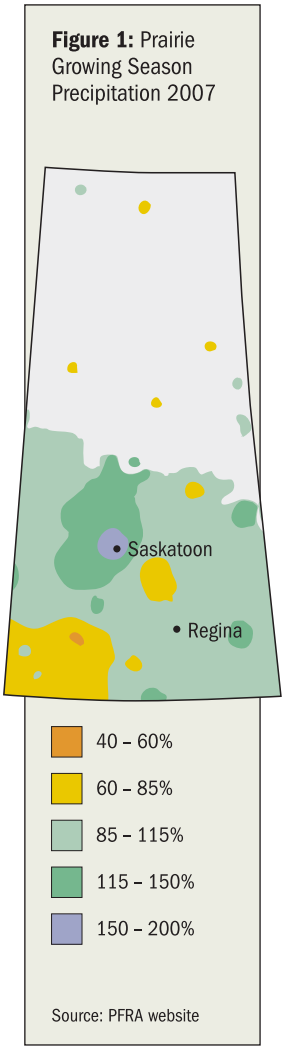


Figure 1: Prairie Growing Season Precipitation 2007

Figure 2: Clopyralid carryover injury on field pea where below normal rainfall was received in year of application.

If growers used Lontrel or Curtail-M in 2007 to control Canada thistle, they should be aware of potential carryover problems when seeding pulse crops in 2008 (Figure 2). Products that contain florasulam (such as Pre-Pass and Frontline) have a very short-term residual and there should be no problem with re-cropping pulses on fields where these herbicides were applied in 2007. Temperature plays an important role in the breakdown of florasulam and therefore pre-seed applications in early spring tend to control weeds for a longer period of time than post-emergence applications in mid-June.

Testing for Herbicide Residues

There are two main approaches for detection of herbicides in a sample of soil: 1) direct assessment by extraction and instrumental analysis and 2) bioassay using a sensitive plant species. Direct assessment involves extraction of the compound from the soil and measurement using an instrument like a chromatograph or mass spectrometer. The advantage of this approach is that it provides a quantitative measure of the total concentration of the compound in the soil. Techniques such as this are typically time consuming and expensive, often costing hundreds of dollars per sample. What's more, an extensive database to relate the total concentration to damage potential in the field does not often exist, or is not readily accessible. As such, direct extractions are not typically used on a routine basis in predicting injury potential.

The second approach to detection of herbicide in a sample of soil is the use of a bioassay. A plant bioassay involves assessment of the inhibition of some component of plant growth such as root length, shoot length or yield that is measured and related to the concentration of the herbicide in the soil. Compared to chemical extraction, bioassay analysis is less expensive, detects the available portion of the herbicide and does not require sophisticated analytical instrumentation.

For detection of Group 2 herbicides with bioassays, inhibition of shoot growth and root length are often used. A simple mustard root length bioassay was developed at the University of Saskatchewan for detection of ALS inhibitor residues in soil. This bioassay is completed in three days.

Field studies have shown agreement between yield reductions observed in treated soils and the root length inhibition bioassay. The mustard root length bioassay has potential as a simple tool for agronomists to assist in making re-cropping recommendations to growers. It must be noted that many environmental and soil factors affect the extent to which injury occurs in the field and cannot always be measured or reliably predicted in a bioassay conducted on a soil sample. Furthermore, any assessment based on soil sampling soil is limited to how well the sample collected represents the field

The best recommendation for a grower concerned about herbicide carryover is to follow the herbicide label. Fortunately, cereal prices are high and they are a good rotational crop choice to seed on pulse fields where Odyssey was applied in 2007. Spring wheat is the most tolerant cereal to Odyssey, followed by durum wheat and barley. Cereals or oilseeds are a good re-cropping choice if Lontrel was applied in 2007.

There are some other residual herbicides that will be available in the near future. Authority (sulfentrazone) is a Group 14 herbicide that is awaiting registration in chickpea, flax, field pea and sunflower. The label will have specific re-cropping recommendations. Simplicity is a Group 2 herbicide for the control of grass and broadleaf weeds in spring wheat, but it is anticipated that pulses will be able to be re-cropped the year following application. We can also expect another short-term soil residual herbicide that will be tank-mixed with glyphosate and applied as a burn-off. This herbicide will be used prior to the emergence of a number of cereal and pulse crops and will provide some residual control of broadleaf weeds.

Eric Johnson is a weed biologist with Agriculture and Agri-Food Canada at the Scott Research Farm. Jeff Schoenau is the Saskatchewan Agriculture Research Chair in Nutrient Management at the University of Saskatchewan.

by Gord Kurbis

The Pulse Environment Project

Changing Attitudes

When North American consumers scan grocery store shelves today, very few products are telling a 'green' story. Few consumer products are being differentiated in the marketplace based on their positive contribution to environmental factors such as air, water, soil, land use, or biodiversity. However, predictions are that over the next few years, companies will look for a competitive advantage by marketing consumer products that tell a 'green' story.

In 2007, we saw a critical shift in consumer preferences toward concern for the environment. At a recent U.S. food company conference, research companies highlighted that U.S. consumer interest in 'green products' increased from 5% in summer 2007 to 15% in January 2008. Among voters, 'environment' ranked as the second highest national concern, after 'improve schools', and ahead of 'national security.'

Recognizing an increasing concern for the environment as a potential opportunity for the pulse industry, Saskatchewan Pulse Growers, Alberta Pulse Growers, BASF, and Philom Bios (now Novozymes BioAg) recently began a three-year project at Pulse Canada called the Pulse Environment Project. The project will investigate the role that pulses can play in meeting consumers' and society's needs for environmental sustainability in Canada's food production system. This will include promoting the low environmental impact of pulses to food and consumer product manufacturers who are interested in ingredients that can be positioned as positive for the environment.

Environmental Benefits of Pulses

Continued research is strengthening the positive link between pulses and the environment. Pulses have numerous environmental benefits, most of which result from nitrogen fixation. Nitrogen fixation reduces the carbon emissions associated with the use of natural gas to manufacture nitrogen fertilizers and ongoing research in Western Canada also suggests lower overall greenhouse gas emissions. Pulses reduce concerns about water quality problems associated with nitrogen fertilizers, contribute to soil conservation, and result in numerous rotational benefits. Pulses are also one of the lowest environmental impact sources of protein, which will become increasingly important if the world population reaches the United Nations forecast of 9 billion people by 2050.

The positive contribution of pulse crops to the environment is not a new concept. What has changed is the emerging consumer interest in environmental sustainability and the opportunity this presents to market pulse products as the vehicle to deliver 'greener' food choices to consumers.

For a world increasingly concerned about sustainability, pulses have the potential to be positioned in this market. In addition, pulses can also play a 'green' role in animal feed in the pet food market, a range of bio-products, and emerging carbon markets.

Environmental Promotion

Some companies have started taking early steps to improve sustainability. Coca-Cola has undertaken efforts worldwide to reduce water use in processing. Safeway has significantly reduced its energy use. Sara Lee Corporation

in brief

Pulse Canada has begun a three-year project to investigate how pulses can meet needs for sustainability in Canada's food production system.

Pulse Canada

healthy people healthy planet
www.healthypeoplehealthyplanet.com

is reducing its packaging and Wal-Mart is using its influence to have its suppliers lighten their environmental impacts. For now, these efforts have tended to differentiate certain retailers as "greener" than competitors. Expect the next step to be a wider range of products within retailers to differentiate themselves as "greener" than competing products on the same shelves.

The EU's Sustainable Agriculture Initiative lays out a framework for downstream customers to evaluate the environmental effects of food products. The UK's Carbon Trust is used to promote consumer products with lower inputs of fossil fuels. The London-based Marine Stewardship Council evaluates fisheries' sustainability internationally and permits qualifying consumer fish products to use its certified label. There are similar efforts in other organizations such as the Washington D.C.-based Grocery Manufacturers of America and broad coalitions of groups such as the Colorado-based Keystone Center.

Cropping systems that include pulses are well positioned to demonstrate environmental value.

Meeting with senior food company executives, Pulse Canada has observed that much of their interest appears to be based on even more environment-driven consumer demand in the future. It seems retailers and the industry are just getting started at painting their product lines 'green'.

Equipping consumers with information on how their choices affect the environment will ultimately lead to demand for even more improvements in environmental performance. As retailers experience demand for 'greener' products, wholesalers, manufacturers and ingredient suppliers will have to quantify their environmental performance if they want to participate in the newest growth market. As momentum builds, supply chains will compete with one another. An ingredient like pulses already has a lighter environmental footprint and can be positioned to meet that growing demand and in turn, bring the benefits back to the pulse industry.

Consumer Messaging

Consumers are sending signals that they are interested in changing the food they buy. Some will want to think in black and white – "just tell me if it is sustainable or not," while others may want to understand food production. It will be a challenge to translate the complex biological systems and science of pulses into an effective and simple environmental message for consumers. Can something be considered 'green' if it:

- Uses less fossil fuel to produce?
- Improves soil tilth, water-holding capacity, microbiological activity and diversity, aeration, and the amount of organic matter present?
- Reduces greenhouse gases?
- Is positive for biodiversity?
- Uses fewer crop inputs?
- Produces more food per acre, reducing pressure to change natural habitats to grow food?
- Uses less water per unit of output?
- Has a measurable improvement on water and air quality?

The key to moving forward will be finding out what messages will resonate most with consumers and influencers of consumers. This means working closely with the people that sell to consumers, including retailers and grocery manufacturers. It also means working with the people that influence consumer attitudes, including non-governmental organizations like the Sierra Club or World Wildlife Fund. As the quest to define and market environmental sustainability takes shape, there is an opportunity and a requirement for agriculture to be at the table helping to lead the discussion on sources of sustainable ingredients.

Cropping systems that include pulses are well positioned to demonstrate environmental value. Canada's cold climate and related low usage of crop protection products add to the story. Our goal will be to position pulses in front of the 'demand pull' for environmentally sustainable food and consumer products, and create new demand for pulses that will bring value back to the Canadian farm gate.

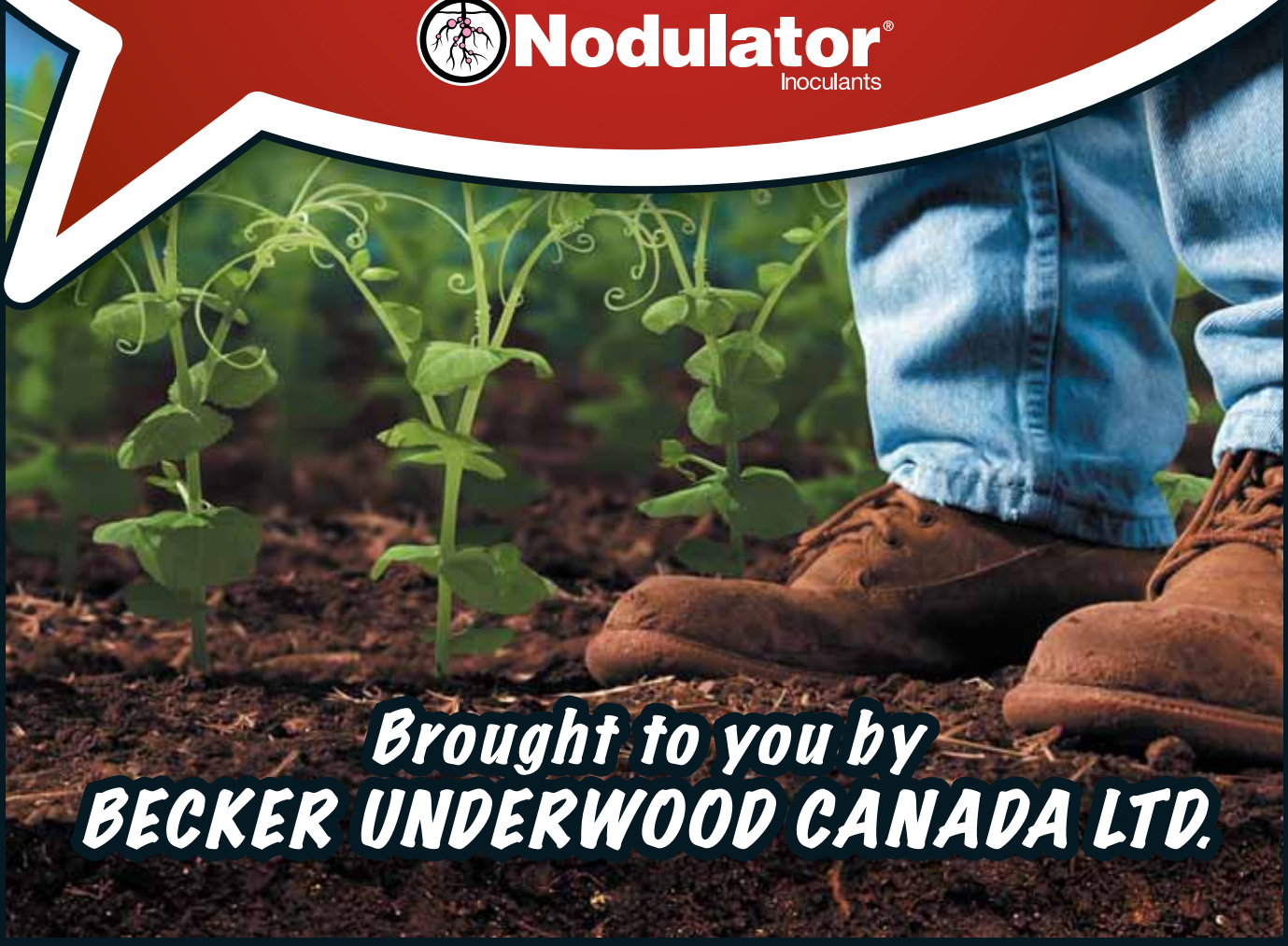
Gord Kurbis is the Director, Environment at Pulse Canada in Winnipeg, MB. He can be reached at 204-925-3788 or via email at gkurbis@pulsecanada.com.

BECKER UNDERWOOD®

NODULATOR FIXES AGAIN!

MAXIMIZE YOUR PEA, LENTIL AND CHICKPEA YIELD POTENTIAL

Nodulator® Inoculants



21337_A

by Rachel Kehrig

The Future of Snack Food

in brief

KLS Foods are marketing Crispeas as a snack that is healthy, but doesn't taste healthy!

Crispeas are a healthy alternative to everyday snack foods.

After scouring the snack counter for a quick bite you find yourself left with two options, your typical chocolate bar with 15g of fat (6g of which is saturated fat), or greasy potato chips that contain 10g of fat per 11 chips – not even an entire bag. Both of these popular snack foods offer great taste, but aside from that, the benefits are slim.

You are not the only one who has felt this way about snack foods. The creators of Crispeas saw this void in the snack food market and sought out to create a crunchy snack that offered not only great taste, but provided a healthy alternative to everyday snack foods consumers have become accustomed to.

Crispeas, a snack food made from premium grade green peas is available in three flavours: Hot BBQ, Ranch and Salted. With just 6.6 grams of fat per package, this snack is also high in protein and fibre; something other snack foods are lacking. Products similar to Crispeas have been met with huge success in Asian countries and KLS Foods in Grassy Lake, Alberta felt that there was a potential market to bring the trend of healthy snack foods to North America.

"You can find a similar snack in ethnic market places but the seasoning is often not what people are looking for," Joerg Klempnauer, co-creator of Crispeas, explains. "We have over the past five years developed a seasoning to appeal to the local market." Klempnauer describes his journey in developing Crispeas as a learning experience.

"This is a new avenue and a learning process for us, being a new market makes it harder to pinpoint the product, which creates marketing problems. It's like with anything else, you have to put your toe in the water to see how difficult it is going to be."

Business for Crispeas has not always been skyrocketing, but it has been growing month by month. "We haven't had any response saying 'we don't like this product'," he adds.

KLS Foods likes to market Crispeas as a snack that is healthy but doesn't taste healthy. Klempnauer thinks the importance of pulse snacks can be placed on the relationship between energy and protein in the snack.

"It is unlike cereals and potato chips because without carbohydrates in the mix the protein and energy relationship is a balanced one."

However, the creators of Crispeas are not the only ones to see value in using pulse crops to promote healthy snack foods. A group of students from the University of Manitoba recently won an international award for student product development at the American Association of Cereal Chemists International Annual Meeting in San Antonio, Texas in October 2007 for their product Globix.

Globix is a healthy snack food alternative designed by integrating whole wheat and navy bean flours which create a product that is high in fibre and protein and has zero fat. The texture of the product has been compared to that of a pretzel, but unlike pretzels, Globix is available in a multitude of flavours including Creamy Dill, Mild Curry, Wasabi and Jalapeno.

The group of 11 students set out to create the pulse product after seeing the importance of healthier snack food options and the market availability for pulse crop flours that can be used to develop products such as snack foods.

With Canadians becoming more conscious of what they are putting into their bodies, it should not be long before retailers take note of the attractive benefits of pulse snacks and their sale potential. This will result in increased consumption of pulses right where pulses are grown, here in Saskatchewan!

For more information about Crispeas, please visit www.crispeas.com.

Rachel Kehrig is the Communications Officer at Saskatchewan Pulse Growers. She can be reached at 306-668-9988 or rkehrig@saskpulse.com.


WHAT ARE YOU DOING?
I WAS INOCULATED...
Arrrgh
THE PEA PLANT REACHES DEEP DOWN TO SHOW OFF HIS INOCULATED ROOTS.
IT DIDN'T HURT A BIT. IT'S CALLED NODULATOR. IT FIXES NITROGEN EFFECTIVELY.
SEE...
THE GROWER APPEARS TO ADMIRE HIS ROBUST FIELD AND SURPRISES THE PLANTS.

Celebrity Chefs

Treats from the Crop Development Centre

in brief

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

The Celebrity Chefs column is designed to excite your taste buds and provide new ideas on how you can include pulses in your family meals. In this issue, our chefs from the Crop Development Centre bring you traditional, hearty winter recipes and a special dessert recipe that will be sure to leave you wanting more!

Dorothy Murrell, Managing Director at the Crop Development Centre provides a hearty vegetable chili recipe that will keep you warm and toasty. Plant Breeder Bunyamin Tar'an treats us with a delicious Lentil Banana Carrot Cake recipe and Tom Warkentin, also a Plant Breeder, spices things up with his Spicy Lentil and Black Bean Lasagna recipe. Try all three and let us know which one your family likes best.

Do you have a favourite pulse recipe to share with our readers? Send it via email to pulse@saskpulse.com or fax it to 306-668-5557, along with your contact information. Happy Cooking!

Hearty Vegetarian Chili

Dorothy Murrell

1 medium sized butternut squash, peeled and cut into ¾″ cubes
2 medium carrots, diced
1 medium onion, finely chopped
1 cup frozen corn
1 can (28oz/796mL) tomatoes, diced, with juice
2 cans (each 19oz/540mL) black beans, rinsed and drained
OR 4 cups (1L) soaked, cooked and drained black beans
1 can (4.5oz/125mL) chopped green chilies, with liquid
1 cup vegetable or chicken stock
3 tbsp. chili powder
½ tsp. salt
¼ cup chopped, fresh cilantro

Sour cream
Chopped, fresh cilantro

In a slow cooker, combine squash, carrots, onion, frozen corn, tomatoes (with juice), black beans, chilies (with liquid), stock, chili powder and salt; stir to mix well.

Cover and cook on low for 6 to 8 hours or on high for 3 to 4 hours, until hot and bubbling. Add cilantro; cover and cook on high for 15 to 20 minutes longer. Spoon into serving bowls and top with a dollop of sour cream and additional chopped, fresh cilantro.

Comments: This is such a great slow cooker recipe!

Loretta's Lentil Banana Carrot Cake

Bunyamin Tar'an

1½ cups lentil puree (add small amounts of water to cooked red or green lentils and blend until the consistency of a puree)
¾ cup canola oil
½ cup mashed banana
1½ cups packed brown sugar
2 tsp. vanilla
1 egg
2 cups whole-wheat flour
2 tsp. baking powder
1 tsp. baking soda
1 tsp. ground allspice
½ tsp. salt
½ cup chopped walnuts (optional)
1 cup finely grated carrots

Preheat oven to 180°C (350°F). In a mixing bowl combine lentil puree, oil, banana, brown sugar, vanilla and egg until well blended.

In a separate bowl, combine flour, baking powder, baking soda, allspice and salt. Mix thoroughly. Beat into lentil mixture a little at a time. Stir in walnuts and carrots.

Turn into a 22 X 34cm (9″ X 13″) non-stick baking dish. Bake 30 minutes, or until toothpick inserted in centre comes out clean. Top with cream cheese icing (if desired). Makes 24 servings.

Comments: We were able to sample this tasty and nutritious cake at the Regional Pulse Development Workshop in Weyburn.

Spicy Lentil and Black Bean Lasagna

Tom Warkentin

Ground beef
Green lentils
Canned black beans
Canned tomato sauce
Garlic
Chili peppers
Ground black pepper and salt
Spinach
Cottage cheese
Egg
Lasagna noodles (oven ready)
Mozzarella cheese

Brown the ground beef. Boil lentils until just softened. Rinse and drain canned black beans. Add canned tomato sauce to beef, lentils and black beans. Add garlic, chili peppers, black pepper, and salt to taste. Simmer. The sauce will be runny, as the pasta will absorb water.

Boil the spinach, and drain. Mix with cottage cheese, an egg and black pepper.

Assemble in a large glass baking dish, starting with a layer of the tomato mixture, followed by lasagna noodles, pulse sauce, lasagna noodles, cottage cheese/spinach mixture and lasagna noodles. Top with a layer of grated mozzarella cheese. Cover with aluminum foil. Bake at 180°C (350°F) for 30 to 35 minutes. Enjoy with a salad and fresh bread!

Comments: This recipe supports prairie agriculture: pulses, cereal, beef, dairy, and vegetables. I didn't include any measurements because it changes each time I make it. I usually like to use a ratio of about ¾ pulses to ¼ beef in the sauce. Feel free to make the sauce spicy for extra taste!

Hmmm...

THAT **NODULATOR** SURE DOES THE JOB. IT FIXES NITROGEN EFFECTIVELY AND OFFERS A GREAT RETURN ON MY INVESTMENT

by Greg Cherewyk

in brief

Pulse Canada continues to work at ensuring pulse shippers get better access to equipment and more reliable service.

Changes on the Horizon for Transportation

Pulse Canada

As this article was being written, Bill C-8 – An Act to Amend the Canada Transportation Act had literally just received Royal Assent. With Bill C-8 becoming law on February 28, 2008 it has put an end to a losing streak, which saw four transportation bills die on the Order Paper since 2003. It also leads to a review of rail freight service as promised by the Minister of Transport, Lawrence Cannon. But, as much as Pulse Canada supports the Bill and the service review, it has not got all of its hopes riding on these two events.

In November of 2007, Pulse Canada and Agriculture and Agri-Food Canada finalized a contract that saw the Advancing Canadian Agriculture and Agri-Food (ACAAF) program fund the development and execution of a transportation strategy for the pulse industry. The primary focus of the work over the next year and a half is to ensure that shippers of pulses gain improved access to equipment and more consistent and reliable service from everyone with a stake in moving their product to port.

There are a total of eleven projects that focus on everything from forming a multi-party committee designed to work out day-to-day problems to assessing the infrastructure requirements of the industry. However, a few key projects promise to be much more eye-opening as they aim to shine a spotlight on the system that moves product from the prairies to the port. In many ways, the work being done in this area amounts to a transportation service review for the pulse industry.

By examining in detail the process from the time sales are made to the point where the product is put on an ocean vessel, the industry will be able to better understand where the process breaks down, where we should focus attention and what will provide the best possible return on investment. The project will focus on the performance of all parties and will not rely on anecdotal evidence. The analysis will utilize indisputable data from interactions between shippers, railways and shipping lines and will focus on producing a common set of objective information that can be used to bring all parties to the table in an effort to find solutions that will benefit all. Too often it is not until the numbers are crunched and the cost of the current way of doing things are put on the table for all to see that you find a willingness to search for and implement solutions.

Make no mistake; this industry believes that the right regulations must be in place to act as a legislative backstop when commercial solutions cannot be found and when commercial negotiations break down. In the current environment, the balance of power does not reside with the shipper and that is precisely why Bill C-8 and the service review are so important. However, efforts must continue to ensure that the pulse industry positions itself as a profitable partner of the service providers who ultimately get the products in the hands of the customer.

Successful strategies are most often underpinned by a diversified range of efforts – recognizing there is rarely a silver bullet solution to a problem. So while we are happy to see the provisions within Bill C-8 become law and look forward to the rail freight service review, Pulse Canada will continue to work hard from many different angles to improve conditions for its members.

Greg Cherewyk is the Director of Transportation with Pulse Canada. He can be reached at 204-925-4457 or by email at gcherewyk@pulsecanada.com.

Bill C-8 requires a review of the rail freight service.

PHOTO COURTESY CN RAIL

Nodulator®

NODULATOR INOCULANT FOR PEAS, LENTILS AND CHICKPEAS. AVAILABLE AS LIQUID, PEAT AND GRANULAR FORMULATIONS. **NODULATOR** DELIVERS PERFORMANCE YOU CAN COUNT ON™.

21337_D

by Larry Weber and Fred Siemens

What's Ahead

Pea and Lentil Outlook

in brief

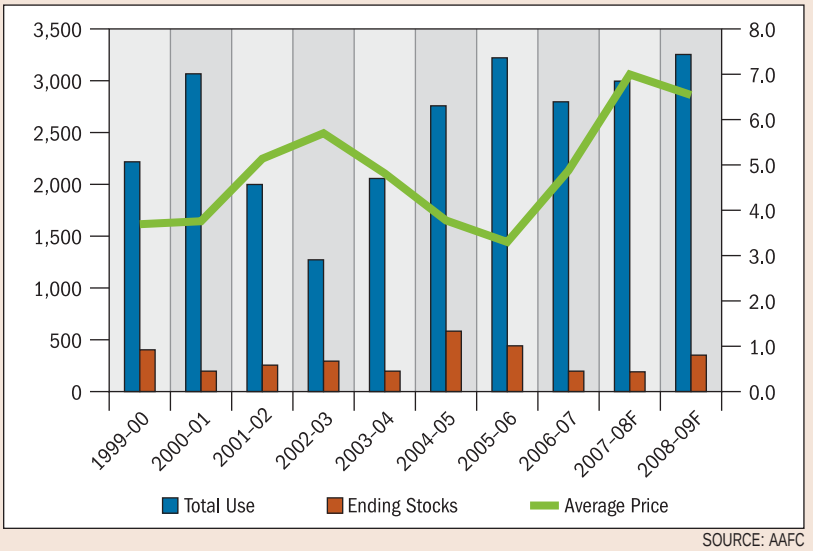
Strong pea and lentil prices predicted for the 2008/09 season.

Pea Outlook

Statistics Canada December 31, 2007 stocks on hand reports had all peas at 1,460,000 MT, which is about a 6.5% drop from last year and the five-year average level. When you consider the historical disappearance between January 1 and the end of the crop year and when you factor in the pending old crop sales thought to be in the works at this time, the projected 200,000 MT ending stocks figure projected by Ag Canada on January 30 might even be a tad on the high side.

As can be observed from the following graph, total use of green and yellow peas combined, which includes exports, domestic processing, feed and seed, is a relative increasing constant, while ending stocks is more of a variable number.

Figure 1: All Peas – Use/Ending Stocks vs. Price



SOURCE: AAFC

The other observation that can be taken from this graph is that price is influenced more by ending stocks than total use. So when you are looking for a price indication, a good number to have a handle on would be the projected ending stocks. Based on the potential for having the lowest stocks on hand since the 2000/01 crop year, Ag Canada is projecting prices for 2007/08 at historically high levels, which seems quite in order when you consider that at the time of writing this article there were bids in the market for $10+ for both yellow and green peas.

All indications support strong pea prices again in 2008/09 relative to historical prices. While new crop peas are currently bid at a $1.00 to $2.00 discount to 2007/08 for both greens and yellows, prices are holding strong considering annual average prices. A measure of the strength of this forecast is to compare the anticipated price increases for peas relative to other commodities that are competing for acreage in Western Canada. As can be noted in the following graphs, the forecast year-over-year increase for pea prices in 2008 is currently leading the pack, which lends support to the fact that prices will be strong again in 2008, although perhaps less than in 2007. This can be taken as a general indication that

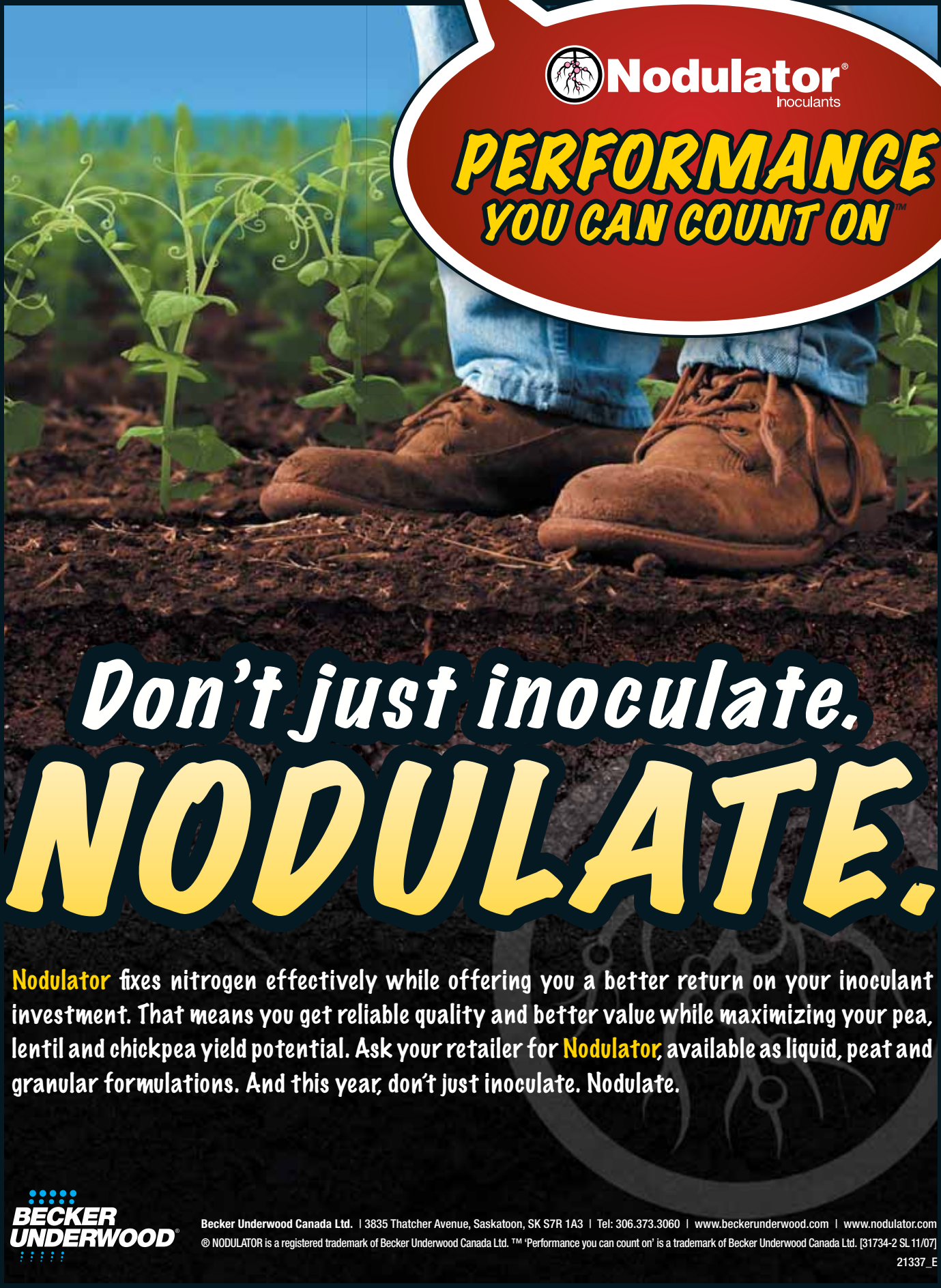

Nodulator®
Inoculants
PERFORMANCE
YOU CAN COUNT ON™
Don't just inoculate.
NODULATE.
Nodulator fixes nitrogen effectively while offering you a better return on your inoculant investment. That means you get reliable quality and better value while maximizing your pea, lentil and chickpea yield potential. Ask your retailer for Nodulator, available as liquid, peat and granular formulations. And this year, don't just inoculate. Nodulate.
BECKER UNDERWOOD®
Becker Underwood Canada Ltd. | 3835 Thatcher Avenue, Saskatoon, SK S7R 1A3 | Tel: 306.373.3060 | www.beckerunderwood.com | www.nodulator.com
® NODULATOR is a registered trademark of Becker Underwood Canada Ltd. ™ 'Performance you can count on' is a trademark of Becker Underwood Canada Ltd. [31734-2 SL 11/07]
21337_E

Figure 2: Percentage Price Increase vs. 2005

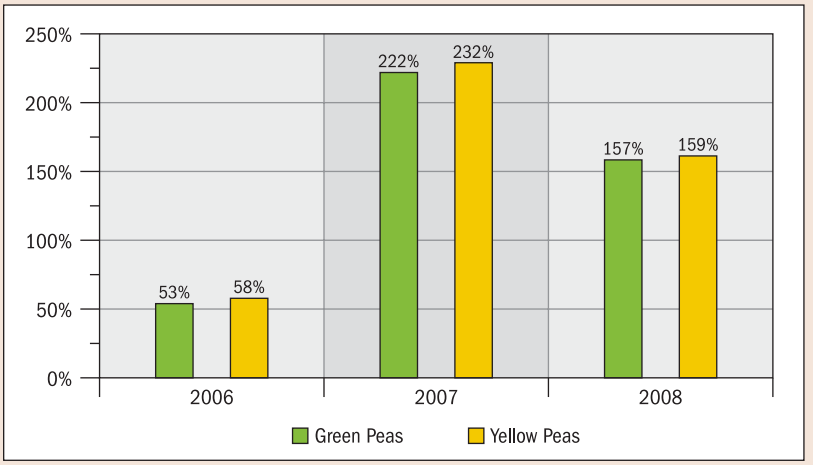
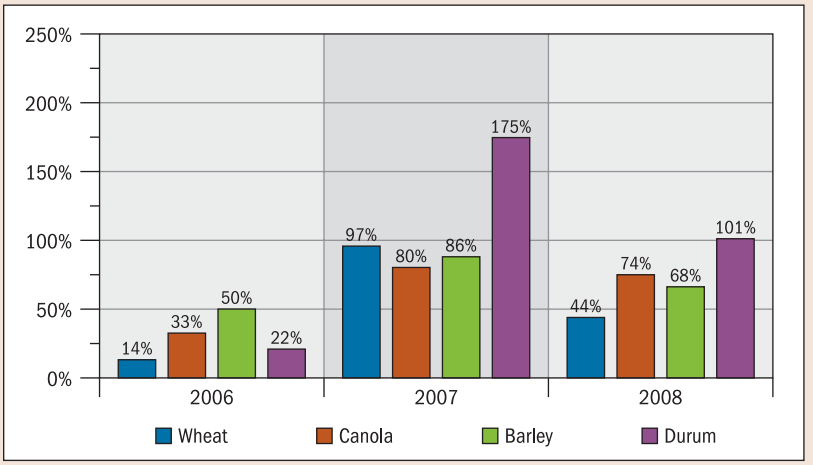


Figure 3: Percentage Price Increase vs. 2005



Price information in the above charts was gathered from a number of trade sources.

the trade is asking for at least status quo (if not an increase) for pea acres this spring.

The results of the Indian rabi (winter) crop that will be hitting the market in February is always a good place to look for what the market will be asking of Canadian farmers for pea acres this spring. In addition to India being a major consumer of their own production, India also consumes nearly one-third of Canada's pea exports. On February 7, the official reports out of India were that India's rabi season total pulse output was likely to fall by 8.82% to 8.57 million tonnes in 2007/08, against 9.40 million tonnes a year earlier. These numbers are starting to find their way back into new crop bids in Canada, which are up close to 10% on a month-over-month basis with greens at $9+ and yellows at $8+.

Another factor that bodes well for additional pea acres this spring is the high cost of nitrogen. Should this in fact add to the seeded acreage of peas, then there will be an additional demand on existing stocks for seed, which will further deplete the historically low stock levels, which will challenge ending stocks in 2008/09 and add additional support for new crop prices.

In the last outlook, Ag Canada also has the 2008 pea yields below average, undoubtedly based on the distinct potential for drier-than-normal conditions in Western Canada traditional pea country. Even with the additional acres forecast by Ag Canada, it will be a challenge to bring ending stocks in July of 2009 up to a level that would give the trade comfort. This will be supportive for new-crop pea prices and should provide the opportunity to sign contracts with a respectable margin.

Undoubtedly, producers will be adjusting and fine-tuning their planting intentions for the next few months, but considering the above factors, peas can easily maintain the same level of acres as last year, and even bump that number higher, as predicted by Ag Canada, without compromising the favourable pricing opportunities currently in the market.

Lentil Outlook

Year-over-year price indications are one of the best clues as to what the demand side of the puzzle looks like. Figure 4 tracks price changes as compared to the base year of 2005 and you can see that prices for all but large green lentils did not change much from 2005 to 2006 – therefore not much increase in demand. However, there was a substantial bump up in 2007 as lentils became somewhat scarce after the second year in a row of reduced acres and less-than-average yields, sending prices across all varieties to record prices. In other words, demand outpaced supplies in 2007, which was supportive of higher prices.

Following the December 31 stocks report by Statistics Canada, Ag Canada dug out its crystal ball and forecast ending lentil stocks for 2007/08 at 60,000 MT, reinforcing the notion that supplies are near record low levels for lentils. Even with the modest increase projected by Ag Canada for seeded acres, lentil stocks will take more than one year to recover to a level that would allow the trade to become passive bidders. This supports the notion that lentil prices will be strong again in 2008/09.

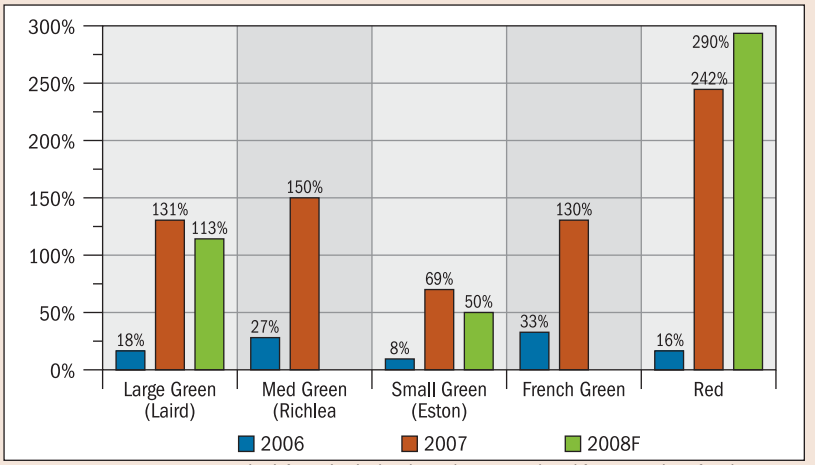
Using 2005 as the base reference year, new crop bids in the market at the beginning of February, while lower than the record prices of last year, are still strong for large greens (Lairds) at 113% higher than 2005 (avg. $0.25/lb), small greens (Estons) at 50% higher (avg. $0.18) and red lentils at an impressive 290% higher than 2005 (avg. $0.22/lb). There were no new crop bids in the market in mid February for Richleas or French greens. Based on the continuing increase in prices, the market is encouraging you to seed more lentils again this year.

Another good place to look for pricing clues is in the total annual usage of lentils as compared to stocks of lentils left over at the end of the crop year. This is referred to as the stocks/use (s/u) ratio. Generally speaking, if you compare the current s/u ratio to the previous year and to the average for the previous 17 years, you will get a sense for price direction. If the s/u ratio is lower than the previous year, it is indicative of relatively stronger prices, and if the s/u% is higher, then prices will tend to be relatively lower than the previous period. For all lentils the s/u ratio for 2008/09 is 7%, as compared to last year's 9% and the previous year's s/u of 14%. In general, this points to better prices for 2008/09 than last year and considerably better than the longer-term average.

Canada is typically the largest exporter of lentils. So by extension, what happens in Canada will have a significant impact on world prices. Other countries of significant influence include India, which is also a major consumer of Canadian lentils, Australia and the United States. With prices in the teens, the U.S. farmer will obviously favour wheat. In India, Australia and Western Canada the moisture bed is not ideally suited to a bumper crop. It will prove a challenge indeed to generate additional lentils acres and increased yields throughout the lentil growing regions of the world, which will weigh heavily on total supplies in 2008/09, which in turn will be supportive of an increase in lentil prices for next year.

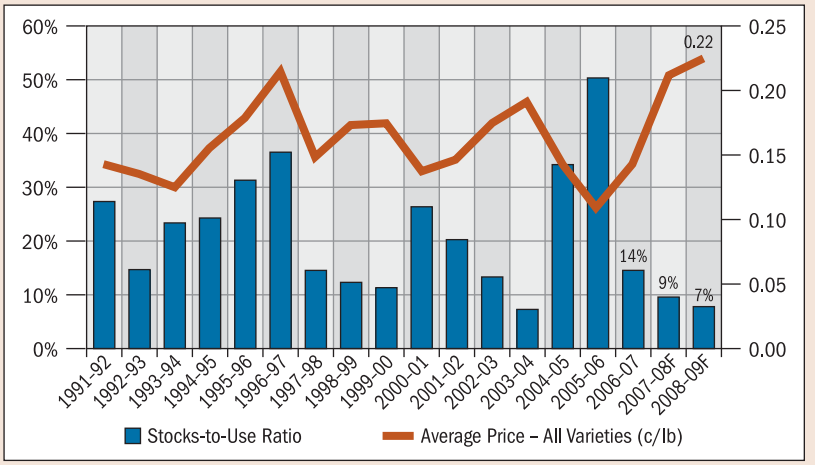
AAFC is forecasting a 10% increase in both lentil and pea seeded acres in 2008/09. Although Ag Canada is forecasting lentil prices in 2008/09 at higher levels than 2007/08 and pea prices at less than last year, it appears that the trade is telling farmers they are indifferent to whether farmers should increase their acres for lentils or peas.

Figure 4: Lentil Price Percentage Increase vs. 2005



Price information in the above chart was gathered from a number of trade sources.

Figure 5: All Lentils – Stocks/Use Percentage



Source: AAFC

The new-crop versus old-crop percentage discounts for bids that are in the market in mid-February, as compared to old crop bids, are strikingly similar for Lairds/Estons to both yellow and green peas. The new-crop discount for red lentils, at about 30% less than old crop, is not as kind as new crop green lentil varieties, which range from 13% to 24% less than old crop bids. Considering the current indifference of the market signals, the additional swing acres are likely to favour peas versus lentils, considering the nitrogen bonus favours peas and peas are an easier crop to take from seedbed to the bin. This is not to lose sight of the fact that new crop bids are indicative that the trade needs more seeded acres of both peas and lentils.

Larry Weber is President of Weber Commodities Ltd. in Saskatoon, SK. Fred Siemens is a partner with Weber Commodities Ltd., based in Winnipeg, MB.

Pulse Days 2008

Building the Bioeconomy

PHOTO BY GEOFF HOWE

PHOTO BY GEOFF HOWE

Speakers shared information about the environmental benefits of pulses, cost of production and market outlooks. Dr. David Layzell presented Towards a Sustainable Bioeconomy: Implications for the Pulse Industry. The Pulse Days speaker PowerPoint presentations are available on the SPG website at www.saskpulse.com.

Thank you to the 960 people who attended Pulse Days 2008. Over half of the delegates attended at Prairieland Park – pictured here.

PHOTO BY GEOFF HOWE

Germain Dauk was honoured for his contributions to the pulse industry as the 2007 recipient of the BASF Pulse Promoter of the Year Award. Germain has been farming for over 23 years. Germain spent time as a Director with SPG from 1998-2004.

Pulse Days Recipe: Banana Lentil Muffins

(Served during breakfast at the Saskatoon Inn and Prairieland Park)

1 egg, slightly beaten
½ cup (125 mL) sugar
1 cup (250 mL) lentil puree*
1 ⅓ cup (325 mL) whole-wheat flour
1 tsp. (5 mL) baking powder
½ cup (125 mL) canola oil
1 cup (250 mL) bananas, mashed
1 tsp. (5 mL) vanilla
1 tsp. (5 mL) baking soda

Preheat oven to 200°C (400°F). Combine egg, oil, sugar, bananas, lentil puree, and vanilla. Mix well. Mix together flour, baking soda, and baking powder. Stir into egg mixture only until combined. Spoon into greased muffin tins until ⅔ full. Bake for 15–20 minutes.

Lentil Puree

1 cup (250 mL) lentils, washed
2 ½ cups (625 mL) water

Place washed, drained lentils in a medium pot and cover with water. Bring to a boil and reduce heat. Cover and simmer until tender for 40-50 minutes. Drain lentils, reserving the stock. Blend stock with the lentils to make a smooth puree (consistency of canned pumpkin). Makes 2 cups.
Hint: lentil puree freezes well!

PHOTO BY GEOFF HOWE

A special thank you to the students from the College of Agriculture and Bioresources that helped out at Pulse Days.

Syngenta created a media buzz when they hired local design students to create dresses made with different pulse crops.

SASKATCHEWAN pulse Growers

Thank you
to all who attended

Pulse Days 2008

Building the Bioeconomy

A Special **Thank You** to our Platinum Sponsors

BASF
The Chemical Company

Philom Bios
the inoculant company

syngenta

As well as our Sponsors and Contributors

Nufarm	DuPont
Agriculture Council of Sask.	Becker Underwood
Dow Agro Sciences	TD Canada Trust
Saskcan Pulse Trading	Western Producer
CJWW 600	1050 CJNB/102.3 CJNS
CKBI 900	News Talk 650
CJVM 1330/CFYM 1210	Bayer CropScience
CFT Corporation	Canadian Grain Commission
Pea Bud Snacks	Farm Credit Canada

Copies of the presentations and the proceedings booklet are now on our website at www.saskpulse.com.

See you next year at **Pulse Days 2009**
in Saskatoon, SK January 12 & 13, 2009

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!*

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.**

For a copy of the CleanStart Grower's Report visit 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.

Nufarm

Breaking with tradition.

by Carl Potts

Making Progress on Market Access

in brief

Pulse Canada is making progress in resolving market access and trade barrier concerns with global trading partners.

Pulse Canada

Access to key export markets has been identified as one of the top priorities for Pulse Canada's stakeholders. Below is an update on three of the most significant market access issues Pulse Canada is currently addressing.

India

In late 2003, India changed its import requirements for pulses to require that all shipments be:

1. Certified to be free from certain pests, including stem and bulb nematode, and;
2. Fumigated prior to leaving Canada.

India recognized that Canada cannot fumigate year-round and has allowed Canada, on an interim basis, to meet this mandatory fumigation requirement by fumigating all shipments upon arrival to India.

This interim policy has recently been extended to September 30, 2008. While this extension was critical for Canadian pea exports to continue to flow to India past March 31, 2008, the interim policy is now set to expire in the middle of the peak shipping period to India. Canada and India must redouble efforts to secure a permanent solution in advance of the September 30, 2008 deadline to prevent disruptions to trade and drive risk premiums out of the system.

The requirement that shipments be certified free of stem and bulb nematode has continued to add risk and cost into the system. Only 0.17% of pea samples tested over the last four years have tested positive for this pest. However, the cost to the Canadian industry of dealing with shipments testing positive is very high – in excess of $100,000 per vessel. The industry has estimated that $30 million in risk premiums are being added to the cost of doing business with India because of this import requirement. India imported over 1 million tonnes of Canadian yellow peas in 2007, representing approximately 50% of Canadian pea exports.

India completed a pest risk assessment (PRA) for Canadian yellow peas in December and asked the Canadian government for comments. While the PRA should have been completed prior to introducing new import measures in late 2003, the PRA is a very important step towards achieving a permanent solution. It will provide the basis on which government officials can work towards a permanent solution that is workable for the industry, while still achieving India's plant protection objectives.

Recently, Pulse Canada Chair and SPG Director Lloyd Affleck and SPG Chair Maurice Berry were in India and met with senior Indian agriculture officials to discuss the urgent need to permanently resolve this issue. We are hopeful that this issue can be resolved permanently before the new crop shipping season.

China

In early 2006, some shipments of Canadian peas to China were detained due to the reported selenium content being in excess of China's limit of 0.3 ppm. This resulted in great uncertainty for Canadian exporters and halted the flow of Canadian peas into China.

In October 2006, Canadian officials were told that peas being imported for starch use in the eastern province of Shandong and peas imported for feed throughout China would not be rejected due to high selenium content.

China's current standard for selenium in peas and other products has been under

review, and a conclusion is expected in early 2008. Pulse Canada has been working cooperatively with Canadian government officials to provide information requested by China, including information showing the very low levels of selenium in pea starch and vermicelli (the primary end product for Canadian peas in China). Pulse Canada provided information that showed that the selenium content in peas stays with the protein fraction and not the starch used to make vermicelli.

Pulse Canada is hopeful that China will either remove the standard altogether or raise its maximum limit for selenium so that exports of Canadian peas are no longer affected, and to ensure the unimpeded flow of Canadian pulses to China.

Bilateral Free Trade Agreements

In June 2007, Canada launched free trade agreement (FTA) negotiations with three out of four priority countries identified by the Canadian pulse industry (Peru, Colombia and Dominican Republic). United States agreements and negotiations with these countries threaten Canadian market access for pulses due to the tariff advantage U.S. exporters receive.

Canada ended negotiations with Peru in January, which if implemented quickly, will minimize the time that Canadian peas face a 20 per cent tariff disadvantage relative to the U.S. Peru is a significant market for Canadian pea and lentil. Pulse Canada is supporting the government to complete negotiations as quickly as possible with Colombia and the Dominican Republic. Pulse Canada is also working to raise the profile of its fourth priority country, Morocco, as a high priority for FTA negotiations.

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

by Amanda Olekson

Creating New Markets for Pulses

in brief

Dr. Wendy Dahl is looking at ways we can add more fibre to our diets using pulses.

To increase pulse consumption in North America, researchers have been working on adding pulses to common foods such as pasta, tortillas, and sports bars. Dr. Wendy Dahl has also been looking at ways to incorporate whole pulses into common foods to increase the number of available products that provide the recommended daily intake for adults of 21-38 grams of fibre. Dahl believes that most people get 50% or less of the daily recommendation, especially young children.

Her pulse research projects, funded by the Saskatchewan Pulse Growers look at ways in which whole pulses can be used as a food supplement that is high in fibre for people who have swallowing disorders. It also looks at how finely ground yellow pea hull can be used to increase fibre content in a number of snack foods, pastas, breakfast cereals and muffins.

In 2000, SPG funded their first human study; a research project focused on pea fibre under the direction of Dahl, an Adjunct Professor with the University of Saskatchewan's (U of S) College of Pharmacy and Nutrition. After further research into fibre rich pulses, Dahl started to conduct research in long-term care facilities, focusing on people with swallowing disorders. Dahl realized that pulses would be ideal for pureed texture foods. She explains that pureed pulses have low adhesiveness, so they are not sticky when trying to swallow, and since there is little or no taste, they can be altered to taste like anything. Pulse-based purees are also lower in sugar, fat and sodium and are higher in protein, fibre and micronutrients in comparison to the products currently being used in long-term care facilities.

Some of the pea hull fibre fortified snacks developed by Dahl and her research team.

"I realized there was really a void in the market for pureed foods that were high in fibre and nutrients. The ones that were out there lacked variety and did not meet nutritional requirements," says Dahl. Obtaining these recommended nutrients is important for people with swallowing disorders because they are limited in what they can eat.

Dahl, her team of nutrition students and a product development specialist have produced five soups and six dessert puddings that are nutrient-dense, pulse-pureed formulations. The soups include cream of tomato, cheddar cheese and tomato beef and dessert puddings such as vanilla, raspberry, chocolate and pumpkin pie.

"Each of these formulations were tested at a local care home in Saskatoon, by the general public and registered dieticians and were found to be highly acceptable by everyone," adds Dahl. The soups and puddings were also developed to offer long-term care facilities an easy method of preparation – whether being prepared fresh, frozen or as a powder for longer storage capability.

Pureed foods are not only developed for people with swallowing disorders, but they are also consumed by the general population in the form of dips and desserts. Dahl believes that pulse based pureed foods such as desserts and dips are ideal for people with dairy-free and vegan diets. Dahl also plans to develop formulations for vegan entrees.

Another project under the direction of Dahl, looking to increase the number of fibre rich products available, is studying the nutritional benefits of finely ground pea hull fibre and the possibility of incorporating it into cereal-based products such as muffins, pancakes and hot cereals to increase fibre content. Dahl explains that increasing intakes of dietary fibre may help reduce the risk of Type 2 diabetes and colon cancer. Pea hull fibre can be added to foods consumed by children, adults and the elderly, specifically those living in long-term care facilities.

Dahl claims that most children are not getting the recommended amount of fibre in their daily diets and that is alarming. Adding pea hull fibre to their favourite foods is an easy way to ensure they are getting the fibre they need and at the same time, reducing constipation and unhealthy guts.

"Pea hull fibre can be mixed into any cereal-based foods, including treats such as chocolate, cakes and cookies. It is a simple fibre enhancement and there is no reason to have a fibre deficient diet when the pea hull can be added that easily, without changing the taste," says Dahl. Because children influence our food markets and children's food dominate store shelves, pea hull fibre should be an important ingredient in their food.

Dahl is hoping that her research projects will increase pulse consumption by showing people how easy it is to add fibre to your diet.

"We as dietitians need to teach people how to incorporate more pulses into their diets. It is important for people to know that they can add pureed pulses to their soups or a can of pureed chickpeas to their pre-made brownie mix. People like convenience, and pulses can be added to convenience foods to ensure that we are getting our proper fibre intake," she says.

So what is next for pulse-based pureed foods and pea hull fibre? Dahl has partnered with the U of S College of Commerce to commercialize a number of the pulse-pureed formulations and develop a business plan. Dahl also hopes that when the pea hull project is completed in April, they will be able to commercialize a number of pea hull fibre fortified products. Investments in this type of value-added research are an important step in creating new markets for pulses.

Amanda Olekson is the Communications Manager at Saskatchewan Pulse Growers. She can be reached at 306-668-0032 or aolekson@saskpulse.com.

by Mark Goodwin

Regulatory Reforms in Progress

in brief

NAFTA labelling on chemicals will be a long-term benefit to Canadian farmers.

The federal government has started to roll out some promising regulatory procedures that should do three things for farmers;

1. Get *new* crop protection chemistries into Canadian farmers' hands at the same time as producers in other agricultural nations (especially in the United States).
2. Get *old* crop protection chemistries into Canadian farmers' hands in a more cost effective way – through the re-engineering of the generic registration processes here in Canada.
3. Allow farmers to '*cross-border shop*' in the United States for a dozen or more products through a revamped import program.

Canada has been viewed as a small market by world scale chemical/pharmaceutical companies. As such, we often receive chemicals in the Canadian market years after they have hit the European Union or the U. S. ag sector. As we move into an era where we are trying to export our pulses against a currency 'gradient' (the high Canadian dollar versus the U. S. dollar), it is important that we gain every advantage that we can with regards to having innovative new technology and competitive pricing for crop protection chemistry.

NAFTA Labels – 20 to 26 new products in the pipeline

Most of us recognize that U. S. and Canadian farmers generally speak the same language and both of our societies share the same stringent regulatory approaches to bringing new chemicals to the food production system. It makes sense for the Pest Management Regulatory Agency (PMRA) in Canada and the Environmental Protection Agency (EPA) in the U. S. to work together and register chemistries on a NAFTA basis.

Thankfully, some people in the industry and the government have started to make big progress on this. There are more than 20 new chemicals in the line-up that are headed towards having one label – a NAFTA Label. Some of these products include a new chemistry for Ascochyta (an alternative to the strobi's), and a Sclerotinia product.

This means lower costs to register the chemicals, faster registrations over the long term and the end of price segregation based on regulatory barriers. We should be able to freely move these products back and forth across the border.

A new generics program – less red tape and more low cost, off-patent products

The past generic legislation made the process of bringing a new generic to the market so difficult that Canadians have been at a disadvantage because of the products our American counterparts have had available to them. One of the problems revolved around a lengthy and expensive process for negotiating data compensation for the original manufacturer.

The new generic legislation, Protection of Proprietary Interest in Pesticide Data (PPIP) is now effectively being followed in policy and is designed to rapidly allow new companies with new generics to come to Canada and compete effectively on a cost basis. It calls for 'time clocks' of 90 days for negotiating stages between the original manufacturers and generic companies so that rapid market entry is ensured. There are already several glyphosate generics from Asia and Europe crowding into Ottawa's queue.

An importation program – GROU

The 'Grower Requested Own Use Import Program' (or GROU) has had its hiccups. Five products were admitted into GROU, but late in the 2007 growing season. They included two glyphosate, Basagran, Reflex and Banvel. Since that time, growers have contacted farm organizations requesting other products be added to the list. The horticultural industry requested 'Gavel' be approved and that product will be allowed for 2008. On the field crop side, other GROU nominees include Horizon, Refine Extra, and Bravo. As well, old stand by's such as 2,4 D, Atrazine (an Ontario nomination), Dithane, Dual and Malathion are in the list. As of mid March, a total of ten products have been approved for the GROU program (see below).

GROU Approved Products (As of March 18, 2008)

- Sevin® Brand XLR PLUS
- BRAVO ZN
- GF-120 NF NATURALYTE FRUIT FLY BAIT
- AATREX® LIQUID 480
- GAVEL 75DF FUNGICIDE
- TOUCHDOWN iQ LIQUID HERBICIDE
- REFLEX LIQUID HERBICIDE
- ROUNDUP WEATHERMAX WITH TRANSORB 2 TECHNOLOGY LIQUID HERBICIDE
- BANVEL II HERBICIDE
- BASAGRAN LIQUID HERBICIDE

Several more products are currently under review.

We also asked if the manufacturer of Clear Out would let producers import this product or a 'twin' to it ('Glystar'). At time of writing, no response had been received.

GROU will release anywhere from six to ten products per year as grower organizations add their requests to the list. However, the real long-term benefit to Canadian farmers is not going to be GROU, but the NAFTA labelling initiative. Once crop protection chemicals become registered on a harmonized basis, it is hopeful that we will not have to work our way through ad hoc programs because the labels will be seamless on both sides of the border.

For more information about the GROU Program, please visit the PMRA website at:
http://www.pmra-arla.gc.ca/english/appregis/grou/grou_imp-e.html.

Mark Goodwin is a pest management consultant with Pulse Canada in Winnipeg, MB. He can be reached at mgconsulting@shaw.ca.

by Penny Pearse

Good Quality Seed for Spring Planting

in brief

There will be good quality, disease-free pulse seed available for spring seeding.

Pulse growers need to keep in mind a number of factors heading into the 2008 growing season. One of these considerations should be the health and quality of the seed being planted. A little bit of due diligence at the start of the season can protect against problems of stand establishment and disease during the growing season.

Some growers will choose to plant certified ("blue tag") seed that meets requirements for germination and purity, but certified seed does not necessarily mean the seed will be disease-free. Ask for a copy of the seed test health report if you are purchasing seed, or have a seed health test conducted on your own seed before planting.

To understand the quality of seed for 2008, it is necessary to review the 2007 growing conditions. Most pulse crops produced in the south and western regions experienced good spring conditions, followed by hot and dry conditions in July and August. These weather conditions resulted in early maturing crops with little disease.

Crops grown in the eastern and northern regions experienced wet feet in the spring, hot conditions in mid-summer, and may also have been exposed to wet conditions during harvest. This combination of events led to more seed issues caused by disease or adverse conditions. Because of this, there was great variability in seed quality across the province. You know your crops and location better than anyone else and can predict which seed issues are most likely to be a problem. It may mean buying new seed, cleaning your seed and/or using a seed treatment.

PHOTO BY SASKATCHEWAN AGRICULTURE

Ascochyta fungus growing from infected seed planted during a seed test.

Overall, the average yields for pea, lentil and chickpea in 2007 were similar to the 10-year levels and the majority of seed graded in the top two grades. Some lentil seed has shown discolouration due to the very high temperatures at maturity. Also, the heat during maturity resulted in some problems in peas, more specifically with green seed being present in yellow varieties and some bleached seed in green varieties. Also keep in mind that the very hot conditions at harvest meant that seed moisture rapidly dropped below recommended levels and seed was subject to mechanical damage, which can further reduce germination levels.

PHOTO BY SASKATCHEWAN AGRICULTURE

If planted in the field, infected seed can result in root infections.

The good news is that there were few seed-borne disease issues in pulse seed produced in 2007. Reports from commercial seed testing laboratories across the province indicate that seed-borne disease levels are low. Lab results are compiled annually and submitted to the Canadian Plant Disease Survey (available online at: http://www.cps-scp.ca/cpds.htm).

The preliminary results from commercial labs indicate that pea seed from the 2007 season had a provincial average of 1.5% seed-borne ascochyta infection and 39% of samples were disease-free. Chickpea seed had a provincial average of 0.8% seed-borne ascochyta infection and 48% of samples were disease-free. Lentil seed had an average of 0.2% seed-borne ascochyta infection and 89% of samples were disease-free. There were only negligible levels of seed-borne anthracnose found in lentil samples. These values are very similar to 2006 and 2003, which were also dry years with few pulse disease issues.

Remember that these provincial averages can disguise a wide range of seed-borne infection. The growing conditions and exposure to disease is unique for each field and that is why it is important to have your own seed tested if you are unsure about seed quality.

According to commercial labs, germination and vigour tests for pulse crops were also considered very good overall. However, if you suspect that heat affected seed maturity, it is important to take a closer look at germination and perhaps have a vigour test conducted. Having these tests conducted in the spring, prior to planting, will reveal if there was a further drop in seed quality in the bin during the winter.

Treating seed with a fungicide seed treatment will help protect against seed rot and seedling blight caused by seed-borne and soil-borne diseases. However seed treatments will only protect the natural viability of the seed – it will not 'cure' a seed lot that has poor vigour or very high levels of seed-borne disease. Also keep in mind that good coverage of the fungicide over the entire seed coat is necessary to ensure that the treatment will be most effective.

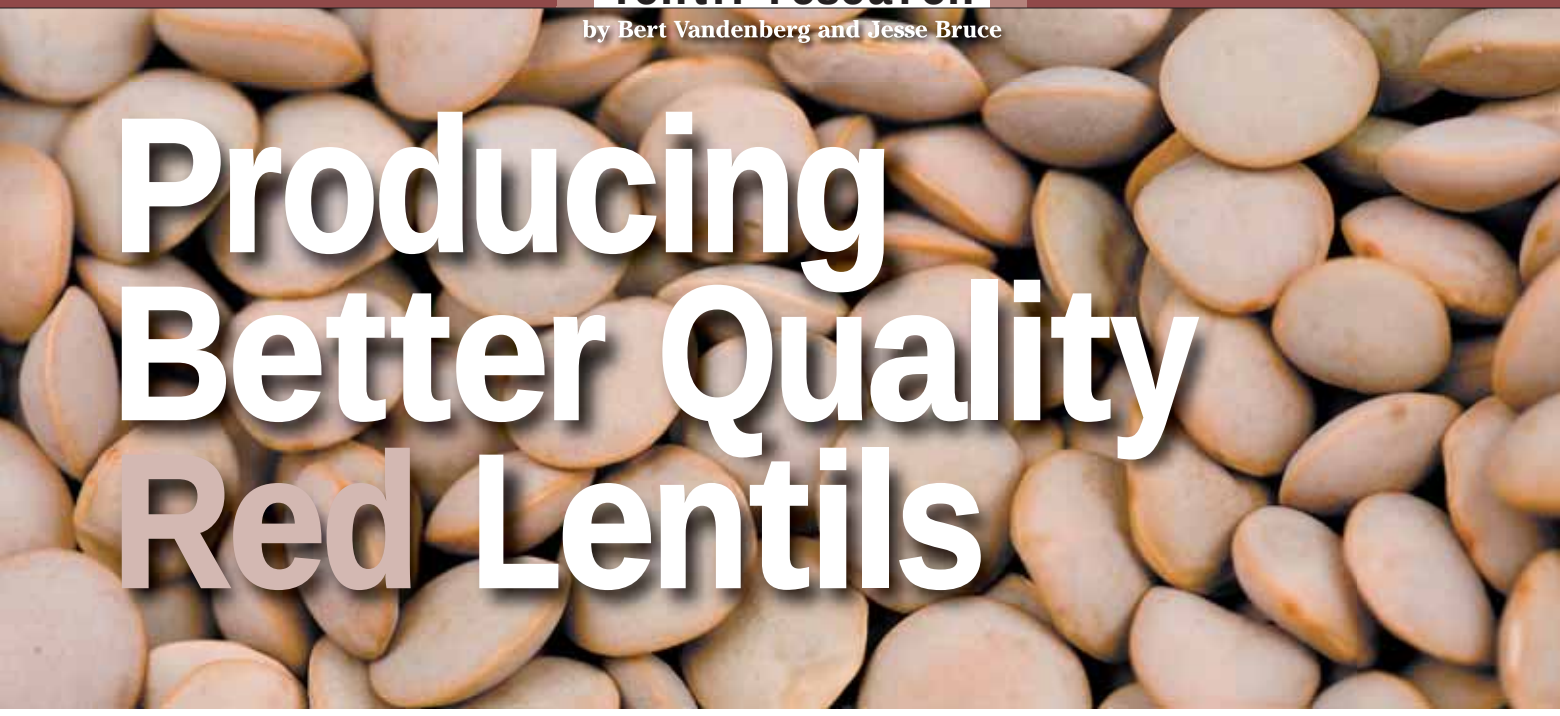
For 2008, there should be sufficient levels of good quality, disease-free pulse seed available for planting this spring. Remain diligent in sourcing seed and use the best quality seed available.

For more information about seed testing and for a list of commercial seed testing labs in the province, go to: www.seedanalysts.com.

For recommendations on safe levels of seed-borne diseases for planting, go to: www.agriculture.gov.sk.ca and search for "Guidelines for Seed-borne Diseases of Pulse Crops" or contact the Ag Knowledge Centre at: 1-866-457-2377 or aginfo@agr.gov.sk.ca.

Penny Pearse is the Provincial Plant Disease Specialist with the Saskatchewan Ministry of Agriculture in Regina, SK.

by Bert Vandenberg and Jesse Bruce



Producing Better Quality Red Lentils

Saskatchewan is the world's number one exporter of red lentils. About 10 years ago, we started growing the variety Crimson, and though memory fades, it may still make some people see red. Since those days, more research and development has gone into the red lentil crop for a very good reason – they are not green lentils!

In many ways, red lentil should be considered a completely different crop compared to green lentil. First of all, about 80% of the world's lentils are red cotyledon – mostly used in soups and stews. Secondly, about 95% of the world's red lentils are eaten after the seed coat is removed, resulting in either splits or whole dehulled lentils (called footballs) that cook very quickly, about the same time that it takes to prepare milled rice. Thirdly, the world's supply and demand (and therefore, price) is determined by four production regions, each harvested about three months apart. Our crops are harvested in August-September, followed by the Australian crop which is harvested November-January (mostly Victoria & South Australia), then by the South Asia crop (India, Bangladesh, Nepal) in February-March, followed by the Turkish/Syrian crop in May-June.

Five years ago, when we first had significant quantities of red lentils to ship to millers overseas, we ran into trouble. Our red lentils had a higher moisture content compared to other suppliers, and as a result the seed coats were more difficult to remove. This is really a made-in-Canada problem. In all three of the other major export regions, lentil crops are sown in the fall/winter and then harvested at the leading edge of a very hot and dry summer. We usually harvest our crops when temperatures are falling, when morning dews are starting to appear, and when late summer/early fall rains present a significant threat to a timely and quality harvest.

Another factor is that our lentil production techniques were based on producing green lentils, where the objective was to keep the moisture at 14% so that the seed coat stayed on. At lower moisture, grain handling caused the seed coats to chip on the edges and some of the seed coats were removed, resulting in a discounted price based on quality. For red lentil, we want the seed coat to be removed easily. Keeping the seed moisture at 14% resulted in frustrated millers. Their frustration ultimately led to a discounted price based on milling quality. Significant commercial problems usually lead to questions that can be answered by research. In this case, we asked "what is the effect of our made-in-Canada lentil agronomy on the milling quality of our red lentils?"

One of the tools in Saskatchewan lentil production is pre-harvest treatment, either swathing or desiccating, used to speed up harvest operations by reducing seed moisture content more quickly and in some cases to deal with weed problems at harvest. We started a research project about three years ago to investigate the effect of pre-harvest treatments on the milling quality of our current and future red lentil varieties. We grew eight red lentil varieties at two locations in the summers of 2005 and 2006 at Rouleau, SK. and at Floral, SK. The varieties, in order of increasing

in brief

Producing lentils with the best quality for milling will provide the best return on investment.

seed size, were CDC Robin, CDC Imperial CL, CDC Rosetown, CDC Blaze, CDC Impact CL, CDC Rouleau, CDC Redberry and the newest one, CDC Red Rider.

Replicated plots of each variety received pre-harvest treatments as follows: swathing at early, recommended (bottom third of the plants at the pod rattle stage) or late stages of maturity; desiccation with Reglone at early, recommended, and late stages. Seed samples of two complete sets of replicated treatments were cleaned and sized over roundhole and slotted screens and the two most common fractions on each type of screen were retained. These samples were stored so that seeds eventually had 12.5% moisture, which is considered the ideal moisture content for milling red lentils according to research conducted by Dr. Ning Wang at the Grain Research Laboratory in Winnipeg. The samples were passed through both a Satake laboratory dehuller and a Turkish table top dehuller. The milled lentil samples were assessed for three specific measures of milling quality:

(1) Milling Efficiency = % Split and unsplit cotyledons of total sample (seed coat, flour, some embryos, chips removed)
(2) Dehulling Efficiency = % of cotyledons with complete (> 98%) seed coat removed by dehuller
(3) Football Recovery = % of #1 with unsplit cotyledons that are dehulled (more valuable fraction)

Three of the four sites (Rouleau 2005 and 2006, Floral 2006) had ideal harvest conditions – warm, sunny weather all through harvest, and the milling results were similar at all three. The 2005 site at Floral had unfavourable weather prior to harvest – high humidity and intermittent rainfall all through harvest and early September.

It is important to keep in mind the following rules of thumb for milling efficiency:
- Commercial mills are not economical if milling efficiency is lower than 80%.
- The theoretical maximum milling efficiency is about 92% (complete dehulling, no splitting – all the seed coat is removed).
- Millers would be very happy if they could maintain 85% milling efficiency.

Here is a summary of the results for pre-harvest effects of the timing of swathing and desiccation.

Milling Efficiency – in the three environments with good harvest conditions, there was no effect of swathing or desiccation timing on milling efficiency, which was always in the 85-90% range. Variety effects were statistically significant but very small – almost all varieties were in the 85-90% range for milling efficiency, with a tendency for small-seeded types like CDC Robin and CDC Imperial CL to have slightly lower milling efficiency. The situation was completely different under cool wet harvest conditions. Early desiccation significantly reduced milling efficiency to below 70%. In contrast, early swathing resulted in milling efficiency above 85%. All other pre-harvest treatments had milling efficiency just

below 80%. Significant variety effects were also evident. CDC Robin and CDC Imperial CL were around 74% milling efficiency, while all the other varieties were in the 78-82% range.

Dehulling Efficiency – results for dehulling efficiency were very similar to those for milling efficiency. Under good harvest conditions, 97.3-99.9% of the seed coats were removed with no effect of pre-harvest treatment and a very slight difference among varieties. When harvest was cool and wet the range of dehulling efficiency dropped to 91.5 from 98.7%. Early desiccation was worse than all other pre-harvest treatments, with only 90.5% seed coat removal, and early swathing was the best at 98.8%. Once again, the varieties with the smallest seeds, CDC Robin (92.1%) and CDC Imperial CL (91.5%) had significantly lower dehulling efficiency compared to all other varieties in the cool, wet harvest year.

Football Recovery Percent – samples of dehulled split red lentils (footballs) appear more uniform than mixtures with splits, plus the embryo is retained so the milling recovery is a little higher. In general, this means samples with high recovery of footballs are worth more. Under ideal harvest conditions, all pre-harvest treatments milled with the Satake dehuller resulted in about 80% of the sample in the form of footballs. Varieties significantly differed from each other. Small-seeded varieties produced samples with 88% football recovery or more, while CDC Red Rider produced samples with football recovery around 60%. CDC Rosetown consistently produced the highest percent of footballs. The differences between varieties were largely due to differences in seed diameter and seed thickness, as the mill was run at one setting only. When harvest was cool and wet, the percent football recovery dropped from an overall 80% to about 50%. The wetting and drying cycles of intermittent rains caused severe reduction in football recovery. The most effective treatment was early swathing and differences from variety to variety were similar when harvest conditions were good, with small-seeded types producing higher football recovery.

Which mill did a better job? The Satake mill produced milling results closer to their theoretical potential for all commercial milling parameters, but the results were always highly correlated with those from the Turkish mill. We did not adjust the mill from variety to variety, so this tended to cause large-seeded types to break up more. In a commercial scenario, adjustments would be made for seed size.

Saskatchewan is the leading producer and exporter of lentils, peas and chickpeas.

The Bottom Line:

1. Desiccating too early with Reglone can cause severe loss of milling quality as measured by all three parameters – especially in years with cool wet weather. Be careful on the timing. Under cool, wet conditions, early swathing resulted in better than average quality.
2. Small-seeded varieties are more prone to all three types of milling quality losses due to poor weather during harvest. They also have the highest recovery of footballs and a slightly lower milling efficiency in good harvest conditions and therefore the premium for them is justifiable.
3. Harvesting red lentils on time during good harvest weather is always beneficial from a quality standpoint, so use all the techniques available to get your crop off on time with the highest potential quality, including early seeding, good weed control and using recommended timing windows for swathing or desiccation.
4. Growers and millers will become more knowledgeable about some of the unique red lentil milling quality concerns in Saskatchewan. It seems logical that some day we can expect milling quality assessments to become the basis for negotiating final values for red lentils.

Growers should consider how to produce red lentils with the best quality for milling. This will provide the best returns, and help our industry develop a reliable reputation for quality around the world.

Bert Vandenberg is a Plant Breeder at the University of Saskatchewan's Crop Development Centre. Jesse Bruce is an M.Sc. student in the Plant Sciences Dept. at the University of Saskatchewan.

A D V E R T O R I A L

BASF
The Chemical Company

Designed for Growth™

The CLEARFIELD® Production System is poised for growth, with exciting changes and new options across each crop system. CLEARFIELD lentils, one of the newest CLEARFIELD Production System innovations, are changing the way growers produce lentils. They're part of the first herbicide-tolerant lentil system in Canada and harness proven CLEARFIELD weed control technology to improve the crop's ability to reach its full yield potential.

Scott Chapman

Scott Chapman is the CLEARFIELD Brand Manager for BASF Canada, based in Winnipeg, Manitoba.

For more information call **AgSolutions®** by BASF at 1-877-371-BASF (2273) or visit our website at www.agsolutions.ca

Always read and follow label directions.

CLEARFIELD® production system | for lentils

CLEARFIELD Lentils Eliminate Weeds and Put the Focus on Yield

One-pass weed control

Growers who tried CLEARFIELD lentils for the first time in 2007 are indicating that it's changing how they produce the crop by offering unsurpassed weed control together with outstanding crop safety, leading to improved yield potential and harvestability.

CLEARFIELD lentils are tolerant to CLEARFIELD herbicides ODYSSEY®, ODYSSEY DLX and SOLO®. ODYSSEY and ODYSSEY DLX provide one-pass, broad-spectrum flushing weed control of tough broadleaf and grassy weeds. In addition, ODYSSEY DLX combines a second mode of action to provide superior grassy weed control. SOLO, which is newly registered for use on CLEARFIELD lentils for 2008, offers exceptional follow-crop flexibility and gives growers another option for in-season broad-spectrum weed control of grasses and targeted broadleaf weeds.

With CLEARFIELD lentils, growers now have three herbicide options delivering superior weed control with the convenience and financial benefits of one-pass, without causing crop injury or a delay in flowering. In addition, the flushing weed control of CLEARFIELD herbicides controls weeds at the time of application and certain weeds that emerge throughout the season. Eliminating weed competition season-long means lentil crops will face less competition for light, water and nutrients, creating the conditions for higher yield potential and an easier harvest.

Helping lentils reach new heights

Based on BASF field trials and grower experience, CLEARFIELD lentils will continue to make their mark in 2008. For example, CLEARFIELD lentil varieties CDC Impact and CDC Imperial were top performers at this year's Canadian Western Agribition Pedigreed Seed Competition, earning Walter Fast of Fast Seed Farm top honours in the lentil, chickpea and beans category and overall Grand Aggregate Pulse Champion. Fast, who operates a commercial grain and pedigreed seed farm, noted that in addition to great-looking seed samples, the CLEARFIELD lentils produced exceptionally clean fields and strong yields – his 2007 yields were 33 and 34 bushels per acre, respectively, for his CDC Impact and CDC Imperial crops.

For 2008, three CLEARFIELD lentil varieties will be commercially available – CDC Impact (small red), CDC Imperial (extra-small red) and CDC Improve (large green). Each variety has been developed using Crop Development Centre lentil varieties with leading agronomic traits and yield characteristics, and bred to include tolerance to CLEARFIELD herbicides.

Growers can access CLEARFIELD lentil seed in three easy steps. First, purchase seed from a CLEARFIELD lentil seed grower. Second, once contacted by a retailer, sign a CLEARFIELD Commitment, which is a grower's annual license to grow CLEARFIELD lentils and also provides access to related rewards. Third, enjoy the benefits and unbeatable ONE-PASS weed control expected from the CLEARFIELD Production System for Lentils.

More opportunity to profit

We're working hard to ensure growers get the greatest return on their CLEARFIELD crops. GrowForward™ Rewards now provide up to 14% off CLEARFIELD herbicides, 22% off HEADLINE® and LANCE® fungicides and 3% off Next Generation Tag Team® inoculant. And, with the recently introduced CLEARFIELD Advantage™,* CLEARFIELD lentil growers benefit from the Seed Protection Advantage – $1 per acre off GEMINI® and CHARTER® seed treatments on all cereal acres, and the ONE-PASS Advantage – a premium re-spray in the event of grassy weed control escapes with ODYSSEY DLX.

With the winning combination of strong agronomics and proven one-pass weed control, CLEARFIELD herbicide-tolerant lentils truly are changing the way lentils are produced.

This is the fourth in a series of columns from BASF that examines how the CLEARFIELD Production System will lead to greater opportunities for growers to profit with CLEARFIELD.

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

2007 Investment Tax Credit

Producers who contribute pulse check-off to SPG are eligible to earn an investment tax credit through the Scientific Research and Experimental Development (SR&ED) program. The tax credit is based on check-off funds spent on research and development that meet specific criteria set out by the Canada Revenue Agency.

For the 2007 tax year, 40% of the Saskatchewan pulse check-off qualifies for the SR&ED tax credit.

Producers can calculate their total check-off contribution by referring to their pulse sales receipts, which show the check-off allocation. To claim the credit, producers must file a T2038 (IND) for farm proprietorships or a T2SCH31 for farm corporations.

All check-off investment tax credit applied against taxes payable, or refunded, must be reported by the producer as income in the subsequent year.

For more information on the process of claiming the tax credit, please consult your accountant or visit the Canada Revenue Agency website at:
www.cra-arc.gc.ca/taxcredit/sred/publications/check-e.html

Positions Filled on SPG Board

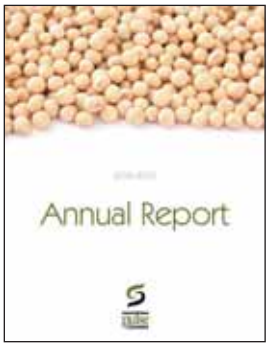
Jeff Sopatyk

This January, SPG welcomed Jeff Sopatyk to the Board of Directors. Jeff and his wife Patti operate Sopatyk Seed Farms in the Saskatoon area. They farm 6,000 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.

Jeff is actively involved as shareholder and Director of Saskcan Horizon Seed Processors in Aberdeen. He has also served as a director for Farm Pure Seeds. Jeff is a Select seed grower and has participated in the SPG Variety Release Program.

John Bennett was re-elected by acclamation to the SPG Board for another term. John has farmed in the Biggar area for more than 30 years. He has a no-till operation growing pulses, oilseeds and cereals.

Annual Report Now Available



The 2006-2007 SPG Annual Report is now available in electronic and print format. To download a copy, please visit our website at www.saskpulse.com.

To receive a copy by mail, please contact the SPG office by telephone, 306-668-0350 or send an email to pulse@saskpulse.com.

SPG Scholarship Winners

The winner of the 2007 Don Jaques Memorial Post-Graduate Fellowship is Lasantha Ubayasena, a PhD student at the University of Saskatchewan (U of S). The fellowship was established to recognize and support outstanding academic achievement and research in pulse crops. The award is named to commemorate the many years of service by Don Jaques, who administered SPG from the organization's inception in 1984 until his tragic death in 1997.

Lasantha Ubayasena

Aziz Rehman

PHOTOS BY GEOFF HOWE

The winner of the A.E. Slinkard Post-Graduate Scholarship is Aziz Rehman, also a PhD student at the U of S. The scholarship is an acknowledgment of the outstanding contributions

in brief

News from and about Saskatchewan Pulse Growers (SPG).

SASKATCHEWAN pulse Growers

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

made to pulse research and extension by Dr. Al Slinkard, Professor Emeritus at the U of S.

Both winners were recognized during the Awards Program at Pulse Days 2008.

Student Winners at Research Poster Session

Congratulations to the winners of the 2008 Pulse Days Research Poster Session. The student posters were judged by category and the winners were each awarded $500.
Agronomy: Leah Fedoruk
Breeding: Mohammad Tahir
Value Added Processing: Heather Maskus

Leah Fedoruk presented her poster *"Optimizing Weed Control Method and Timing for Lentil"* in the Agronomy category.

Mohammad Tahir presented his poster *"Analysis of Varietal and Environmental Effects on Soluble Carbohydrates in Lentil Seeds (Lens culinaris Medikus subsp. Culinaris)"* in the Breeding category.

Heather Maskus presented her poster *"Utilization of Dry Field Pea Flour in Tortillas for Food Use Purposes"* in the Value Added Processing category.

SPG would like to thank all of those who participated in the Research Poster Session.

Pulses Take Top Prize at Seed Shows

Fast Seed Farm of Kindersley won the Premier Exhibitor title and Top Exhibit in the lentils-chickpeas-beans class at the Canadian Western Agribition with their sample of CDC Impact, which was also named the Grand Aggregate Pulse Crop entry. Ostafie's Seed Farm of Canora was awarded the Grand Champion Pulse for their sample of Camry green field peas at the 2008 Seager Wheeler Seed Show in January. The Ostafie's were also awarded the Premier Exhibitor Award.

Pulse Research Project Receives NSERC Funding

A research project approved for funding by SPG has also been approved by NSERC for collaboration and will be receiving matching funds from NSERC. The pulse breeding project, under the direction of Dr. Tom Warkentin at the Crop Development Centre is studying the bioavailability of phosphorus and micronutrients through the development of a low phytate-phosphorus pea

Changes in the Pulse Industry

Lakeside Global Grains Inc. has plans to buy the land, building and equipment that Can-India Pulses International currently operates at Zealandia, SK. Can-India will retain its new splitting plant on the eastern portion of the site. Lakeside Global Grains operates its own processing facility at Dafoe.

Roy Legumex Inc. of Manitoba recently announced the acquisition of Regina Seed Processors at Richardson, SK. This past summer, Roy Legumex also took over Sabourin Seeds in Manitoba. Roy Legumex Inc. processes and exports pulses from Saskatchewan and Manitoba, but this will be the first time the company will own a facility in Saskatchewan. They have been operating for more than 60 years.

Philom Bios Inc. is officially operating as Novozymes BioAg. Philom Bios was acquired by the Virginia based company in December. Philom Bios is a world leading inoculant company headquartered in Saskatoon. President of Philom Bios, Calvin Sonntag believes the sale is a positive development for the company's future growth. The inoculant company will become the cornerstone of Novozymes BioAgriculture business.

novozymes
Philom Bios is now Novozymes BioAg

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.

in brief

News from and about Saskatchewan Pulse Growers (SPG).

SASKATCHEWAN pulse Growers

Garth Patterson
Executive Director

R & D Continues as Top Funding Priority

the team

EXECUTIVE DIRECTOR
Garth Patterson

DIRECTOR OF RESEARCH
Dr. Kofi Agblor

COMMERCIAL MANAGER
Allison Fletcher

COMMUNICATIONS MANAGER
Amanda Olekson

COMMUNICATIONS OFFICER
Rachel Kehrig

CONTROLLER
Helen Baumgartner

ACCOUNTING CLERK
Melanie Goring (on leave)

RECORDS ADMINISTRATOR
Shelly Weber

DATA ENTRY CLERK
Amy Cosgrove

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

When producers set up the Saskatchewan Pulse Growers Board in 1984, funding pulse research was a top priority. This continues to be the case today, with between one-half and two-thirds of the annual pulse check-off invested in research. Pulse producers receive $15.60 in benefits for every $1 of pulse check-off paid. These benefits accrue through better varieties and new agronomic information.

Saskatchewan is now one of the few regions in the world where pulse production is increasing. Pulse production is declining in India and Turkey, two traditional production regions. A major contributing factor has been low investment in pulse research relative to other crops, resulting in lower returns for producers compared to other higher yielding and higher value crops.

When the SPG Board increased the pulse check-off rate in 2003, we committed to increasing our research investments. Currently, we are funding 20 genetic improvement projects, 16 agronomy projects, 27 value added processing projects, and two scholarships, for a total planned expenditure of $3.6 million in our current budget year. At the time of writing, additional research projects are being evaluated.

A complete list of current research projects is available on our website at www.saskpulse.com and a list of previous research projects can be found in our past Annual Reports. The pulse check-off has given pulse producers the ability to target research that is important to them.

Our most strategic research investment is our 15-year, $21 million pulse breeding agreement with the Crop Development Centre (CDC) at the University of Saskatchewan (U of S).

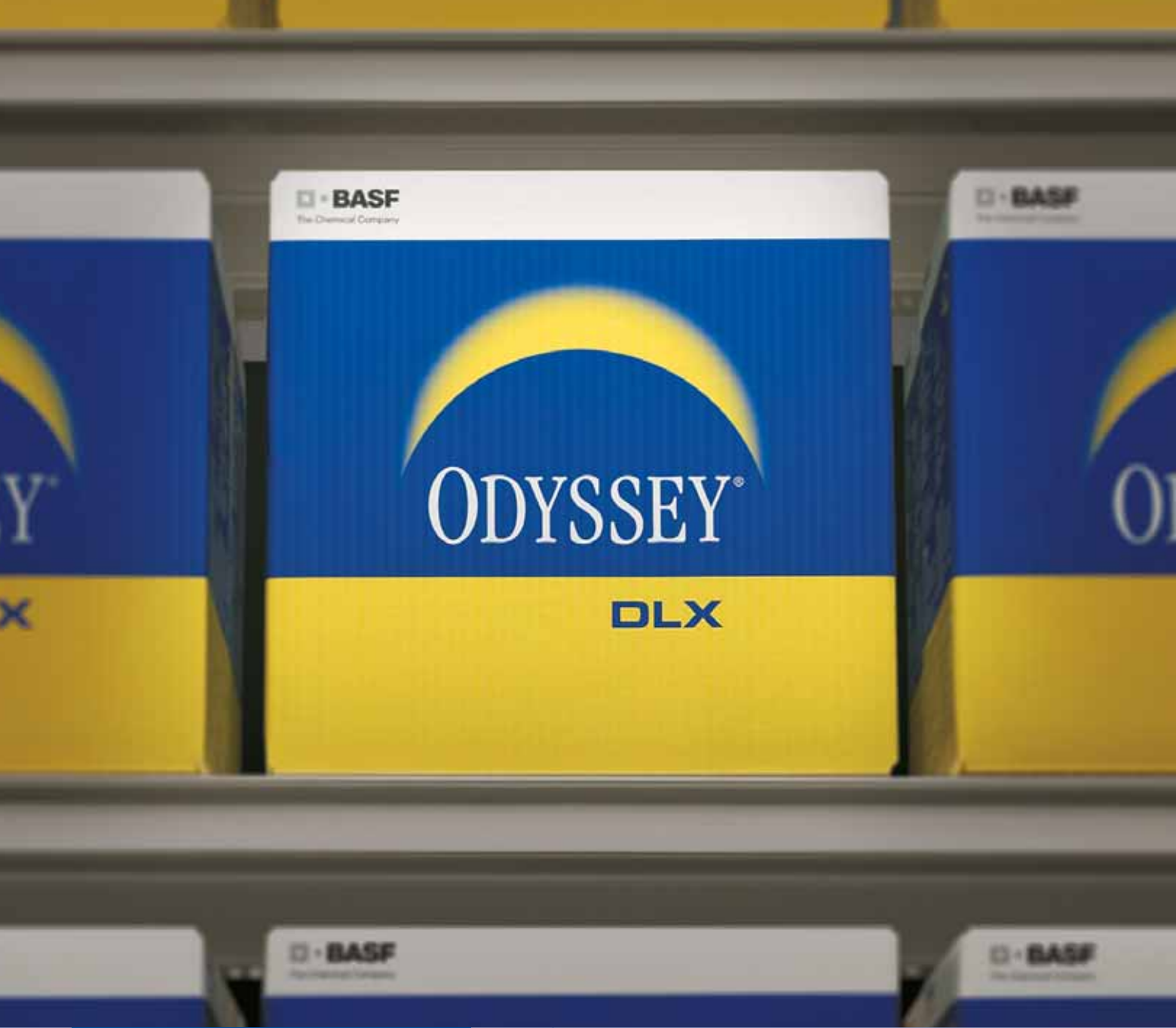
Through our unique commercialization agreement with the CDC, SPG has exclusive global distribution rights for pulse varieties developed by the CDC (Clearfield lentils are a distinct situation with some restrictions). SPG has used this opportunity to develop a Variety Release Program (VRP) to provide producers with unrestricted royalty-free access to new pulse varieties. Over the past twelve years this program has successfully commercialized 64 new pulse varieties. Other agriculture organizations are now studying our model, with interest in how producers have remained in control of the commercialization of new varieties.

SPG has also developed a niche release, royalty-based commercialization program providing pulse companies with the opportunity to obtain exclusive commercial licenses to new specialty pulse types that require a closed-loop, identity preservation system to develop end-use markets.

A new area of research funding for SPG has been in new uses for Saskatchewan grown pulses, such as the project by Dr. Phil Chilibeck at the U of S who is studying how lentils can improve the performance of soccer players. Undoubtedly, SPG is funding many research projects to find new uses for pulses.

We will continue to search out new opportunities to invest in research that will strengthen the competitive advantage of Saskatchewan pulse producers and increase demand for our production. India is the largest producer and consumer of pulses in the world, however they are increasingly becoming more reliant on pulse imports from Canada. What type of research is required to fully benefit from this trend?

Pulse research is a long-term commitment. Producers are now benefiting from research investments from pulse check-off deductions over the past two decades. Our investments today will provide benefits for the decades to come.



BASF
The Chemical Company

Got a grassy headache?

Let ODYSSEY® DLX put your mind at ease. Based on the ONE-PASS convenience of ODYSSEY, powered by a second mode of action, ODYSSEY DLX delivers premium grass control and a wider window of application.

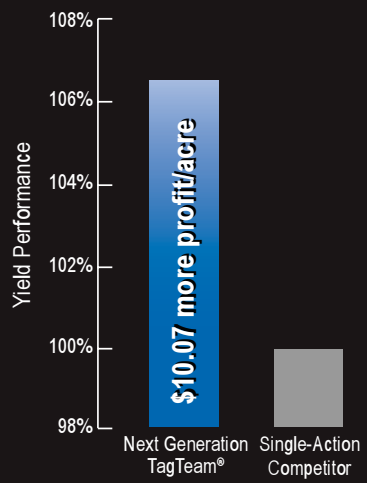
Apply once to relieve pressure.

Ask your retailer or visit **www.agsolutions.ca** to learn how you can save on ODYSSEY DLX with growforward™ Rewards.

Always read and follow label directions.

Best Value – Guaranteed*

TagTeam®
MultiAction® Legume Fertility



The highest net returns per acre.

Inoculate your pea and lentil crops with Next Generation TagTeam and get the best value in pulse crop inoculants – guaranteed. Next Generation TagTeam contains leading edge phosphate solubilizing, nitrogen fixing and formulation technology that helps you manage your crop's fertility needs and increase yields. The result is more dollars in your pocket at the end of the year than any single-action (nitrogen fixing only) inoculant. Now that's real value – and we guarantee it*.

Find out more about the TagTeam pea/lentil Value Guarantee at www.philombios.com.

www.philombios.com
1-888-744-5662

Philom Bios
the inoculant company

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 6.5% in split-field farmer done trials. That's an average increase of 2.2 bushels per acre, for a net return of $10.07/acre. Net return is calculated after the cost of the inoculants are removed using current commodity prices of $12/bu for lentils and $6/bu for peas. See www.philombios.com for details. ®TagTeam is a registered trademark of Philom Bios Inc. 4318 09.07