

pulse *beat*

Fall • No. 61, 2010

**Pulse Canada
Major Progress on Market
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**Canadian Soybean Council
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Pulse Variety Evaluation – Insert

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pulse beat

Manitoba Pulse Growers Association

Fall • No. 61, 2010

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Please direct your comments or concerns to Monika Robertson at 204.745.6488 or email monika@manitobapulse.ca

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PRESIDENT'S REPORT



Andrew Saramaga
President

This past year marked the 25th Anniversary of the Manitoba Pulse Growers Association. The association originally formed to represent the many pea growers throughout the province in policy, research, and market development. As the expansion of pulse production occurred in Manitoba, the association grew to include edible beans and more recently soybeans and fababeans.

With the growth of the different pulse crops, we have continued to re-invest check-off dollars into the priorities of breeding, research, market development and leveraged those investments with matching funding from different funding programs. In 2010, MPGA committed \$440,000 to 34 different pulse research projects. Each year we aim to contribute 40–45% of our revenue back into research. Some projects we funded this year include varietal work in dry beans, breeding for enhanced soy food quality and identifying pathogens associated with root rot in peas.

MPGA, along with six other organizations recently formed the Canadian Field Crops Research Alliance (CFCRA). This alliance was able to leverage funding from the Government of Canada through the Developing Innovative Agri-Products (DIAP) initiative from Agriculture and Agri-Food Canada's Growing Forward framework. The funding will be used to support 18 public breeding and genetic programs aimed at new product development and agronomic issues for growers in Manitoba, Ontario, Quebec, and the Maritimes.

MPGA continues to work with national organizations such as Pulse Canada and Canadian Soybean Council to help promote and represent growers on a national level. These national organizations have helped MPGA and other provincial organizations collaborate on policy, research and market development of our pulse crops in the areas of environment, health, nutrition, transportation and market access.

In celebration of 25 years, MPGA held a charity golf tournament in support of the Canadian Diabetes Association. Members, current and past directors and industry representatives joined us for a day of golf, laughs and dinner at Bridges Golf Course this past July. Through sponsorships and tournament fees, MPGA was able to donate \$2,000 to the Canadian Diabetes Association. This organization was chosen as a recipient because of the connection to pulses. Through research,

it has been proven that adding pulses to an individual's diet can reduce the risk of developing diabetes.

As we look at the past 25 years and see the great work that has been done by past directors and staff in advancing pulse production in Manitoba, I look forward to what the next 25 years will bring. Some exciting events for me this past year include: moving into our new MPGA office across the hall, seeing soybean acres increase significantly, having fababeans poised to add more acres as development of low tannin varieties for livestock feed continue, and seeing pea and lentil production continue to grow in Manitoba. As 2010 draws to an end, MPGA staff and directors will participate in a strategic planning session. We will review where we have been and plan for the future.

In closing, I would also like to introduce our newest staff member Monika Robertson, who joined the organization as a Communication and Policy Director. Her knowledge and experience in communications will definitely be an asset to the organization.

Wishing everyone a wonderful holiday season and I look forward to seeing you at the 5th annual Manitoba Special Crops Symposium in February.

— *Regards, Andrew* 🌱

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where Manitoba's pulse industry meets

Thanks to all the participants in the "Reel in the Profits" Contest.



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Congratulations!



Joel Robidoux
St. Malo, MB

"Reel in the Profits"
2010 Grand Prize Winner

Winning entry courtesy of
Guy, Glen, and Patrick from
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Roxanne Lewko
Executive Director

Manitoba Pulse Growers Association (MPGA) continues to grow and evolve in this ever-changing world. We have hired a Policy and Communications Director to not only help with the increasing workload, but also to help us stay afloat of the social media craze. You can now find MPGA on Facebook (please be our friend!) and keep up to date with exciting and current happenings. MPGA is also creating an e-mail blast database so we can get timely information to you, our members, when it matters most; for example, to remind you of when and where our summer tours are or who is speaking at the Special Crops Symposium. Please send us your e-mail address so you never miss out on any pulse news!

MPGA's 25th Anniversary Golf Tournament and Supper was a huge success! Pulse growers and industry reps came out to celebrate with us. The weather was beautiful, the food delicious and the company enjoyable. MPGA was pleased to make a \$2,000 donation to the Canadian Diabetes Association.

MPGA's Pulse Tour and Soybean Tour were also successes! We took a risk this year and held them on a later date than usual, at the request from growers and industry to see the crops at pod set. Feedback on this change was positive, so we will continue to do this going forward. The pulse plots looked fantastic and everyone left the tour anxiously waiting for the fall results. The soybean station set-up and quality of topics also received positive feedback. MPGA would like to see more farmers attend and we will address this concern

next year. Lots of industry reps enjoyed the day, as well as Agriculture Minister Stan Struthers. MPGA was very pleased he attended and delivered a few words to the crowd.

Soybeans were the success story of 2010. The office was flooded with calls from various media asking about the soybean crop and "why is it looking so much better than most other crops?" The wet growing season even has Saskatchewan thinking about incorporating soybeans into their rotation. Is the wet climate here to stay? If so, soybeans have found a comfortable home in Manitoba! But how much water is too much for them to tolerate? What are the trade-offs for having "wet feet" most of the year? To hear about this and many other pertinent topics, please mark the 5th annual Special Crops Symposium on your calendar – February 9th and 10th at the Winnipeg Convention Centre. The list of speakers and their presentations are better than ever before. Check out the website for more up-to-date information – www.manitobaspecialcrops.ca

Let us not forget about the pioneers of the pulse crops: peas and edible beans. Both peas and edible beans maintain their acres each year. Next year, MPGA is going to look at the potential of growing winter peas in Manitoba. Could they be a fit for your rotation? MPGA is funding a research project with the Food Development Centre titled "Developing Snack Foods Using Manitoba-Grown Dry Beans." Perhaps this is an opportunity for local production, processing and marketing.

MPGA was approached with the opportunity to partner in a Special Crops Production Day in Brandon. The 1st annual will be held on March 3rd at the Royal Oak Inn. The idea came about as a means to better accommodate the growers on the western side of the province, where pulse acres continue to increase year after year. MPGA intends to focus the day on pea and soybean production; peas, because they are grown in the area and not featured at the Special Crops Symposium and soybeans, because they are relatively

new to the western half of the province. If you are thinking about or have just started growing soybeans and would like some production and marketing tips, please mark March 3rd on your calendar!

Pulse crop research opportunities are forever increasing and diverse. MPGA has sent out a Call for Research Proposals and the respective crop committees will be evaluating all received proposals to determine which ones will make the best use of our levy dollars. The results of these research projects are intended to benefit the pulse producers in Manitoba, so if you have an idea or suggestion of research work we should be funding and/or conducting, please let us know!

MPGA trusts you will find the Variety Trial insert included with this issue valuable. Funding all of the variety trials is one of our top priorities and a lot of hard work goes into compiling and analyzing the data. MPGA would like to thank all researchers, assistants,

continued on page 5

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Notice of Annual General Meeting

Notice issued December 1, 2010

Notice is hereby given that a meeting of the members of Manitoba Pulse Growers Association (MPGA) Inc. will be held at the Winnipeg Convention Centre, 375 York Avenue, Winnipeg, Manitoba during the Manitoba Special Crops Symposium on February 9, 2011.

The agenda for the meeting is as follows:

1. To approve the minutes of the 2010 members meeting
2. To receive the financial statements of MPGA for the current fiscal year
3. To appoint the auditor of MPGA
4. To receive the board and managers report
5. To elect three directors to the MPGA board of directors

Nominations to serve on the board of directors can be made by submitting the candidate's name to the nominating committee or the MPGA office prior to the commencement of the meeting, or by nominating a candidate during the call for nominations at the annual general members meeting.

See below for Call for Nominations.

2011

manitoba
Special Crops Symposium
where growing minds meet

Presented by MPGA, MCGA, NSAC and MAFRI

February 9th and 10th

at the

Winnipeg Convention Centre
375 York Avenue

- Concurrent sessions both days featuring agronomic, marketing, and pest management topics for edible bean, soybean, sunflowers, and corn
- **Marketing Address** – February 9th, 10 am – Chuck Penner, LeftField Commodity Research
- **Keynote Speakers**
February 9th, 3 pm – Ron Buist has the secret recipe behind Canada's most popular coffee and donut chain. Among his many inventive marketing tactics, he is credited as the creator of Tim Hortons' "Roll Up the Rim to Win" contest, and producer of the company's "True Stories" television commercials.
February 10th, 2 pm – Dr. Tim Ball is a renowned environmental consultant and former climatology professor at the University of Winnipeg. Ball is now an Environmental consultant, Public Speaker and columnist.
- MPGA Annual General Meeting on February 9th
- Wine and Cheese Reception on February 9th
- Daily Tradeshow from 8:30 am–3:30 pm each day

For an updated speakers list and detailed agenda please visit
www.manitobaspecialcrops.ca



Manitoba 

Call for Director Nominations

Each year three director positions come up for election.

If you are interested in becoming a director on the MPGA Board, now is your opportunity. This year the terms of directors Myron Pederson, Kelvin Rothenburger and Murray Chorney are expiring.

If you are a producer of pulse crops and are in good standing with MPGA (you have not requested a levy refund but have sold a pulse crop in the past two years), and would like more information in becoming a director, contact the

Nominating Committee:

Todd Stewart at
204-856-3856

Shawn McCutcheon at
204-745-9454

Kyle Friesen at
204-324-4417

Elections will be held at the MPGA Annual General Meeting February 9, 2011 at the Winnipeg Convention Centre.

Kyle Friesen
Chairperson

As I am writing this, edible bean harvest is quickly wrapping up across southern Manitoba, and what a harvest it has been. A promising start in early-September was abruptly halted with rains that always came the day before conditions would have been suitable to resume harvest. Despite the adverse conditions during harvest, the beans did finally get harvested, and to some surprise, they came off in reasonable condition despite the excess moisture.

2010 edible bean acres were up slightly from the previous year, sitting at about 143,000 compared to 140,000 in 2009. The increase was due to significantly more acres of navys being seeded, which more than made up for a decrease in both pinto and kidney bean acres. This trend is similar to the 2010 US edible bean acres, which was up 13% from 2009. This increase in acreage may be part of the reason for the depressed prices we are currently facing.


Now that the beans are in the bin, it is time to focus on the markets. It

seems the frustrations of harvest may carry over into the marketing year. With current cash market prices being the lowest we have seen in a number of years, I think there will be a lot of beans being stored on-farm in hopes of having more marketing options available. It is also disappointing to see the futures markets being so bullish and the bean market showing no signs of following suit. If prices do not improve significantly in the next couple of months as producers begin to make cropping decisions for the 2011 crop year, we may see a significant decline in edible bean acres across the growing region because other crops are showing as good or better return with significantly less risk. That being said, we will have to see how the seeded acres battle plays out in the markets as spring draws near to determine the final balance.

One issue the Manitoba Pulse Growers Association has been working on for the past number of months is getting the Pulse Specialist position filled, which was left vacant when Bruce Brolley was promoted. We are pleased to report this position has been prioritized by the provincial government and we

expect to have a new Pulse Specialist in place for the beginning of the 2011 crop year.

Now that the busy production season has concluded, we look toward winter and planning for next year. MPGA hosted a Pulse Industry meeting mid-November where various members of the pulse industry, including chemical reps, buyers, agronomists, researchers and MPGA directors, met to review the past production year and to collaborate and discuss potential issues for the upcoming year, such as research topics or pesticide registrations. Also, along with Manitoba Corn Growers Association, National Sunflower Association of Canada and MAFRI, we will be putting on the 5th annual Manitoba Special Crops Symposium in February, which is a great place to get out and meet fellow growers, interact with industry representatives, and learn from the various speakers who will be presenting.

I hope you all have a wonderful holiday season, and I look forward to meeting more of you throughout the winter at the various trade shows and events. — *Regards, Kyle* 

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and contributors involved in conducting and assembling all of the information for the variety trials.


MPGA was pleased to hear about the new *Buy Local* campaign, sponsored in part by the provincial government. Consumers should be more aware of where their food comes from and should support the local economy. It is difficult for pulse producers in Manitoba to benefit from this as most (almost all) pulses are exported globally. This got us thinking about the opportunity (and need?) to get local processing in place so pulses are in the “100-mile diet.” Granted, this is a long-term goal, but we hope to shed more light on this opportunity.

MPGA has a relatively new staff and a fairly young board; we feel it best to harness this energy. A Strategic

Planning Session is set for December 7th and 8th where we hope to modify past goals and create new ones for the pulse industry in Manitoba. You can bet the future of soybeans will be a hot topic: just how high will the acres go? As well, creating local infrastructure: how can we get local processing and marketing in place? These two areas are where MPGA can grow and embrace possibilities.

MPGA's relentless efforts to get the provincial Pulse Specialist position filled have finally paid off! We received confirmation from Agriculture Minister Stan Struthers that the position was prioritized in September, so the hiring process began shortly after. No official start date has been promised, but we can safely say there will be a provincial Pulse Specialist in place for the 2011

growing season. We are very much looking forward to this!

The upcoming winter months will be filled with tradeshow and conventions, reviewing pulse research proposals, and the seemingly normal hustle and bustle society has grown accustomed to. It can be assumed everyone is always busy and calendars are always full. Here at MPGA, we are no exception. Know that we are working for you! — *Cheers!* 

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Help May Be Just A Call Away

Albert Turski
Chairperson

2010 is a year to remember. It was boom or bust, all depending on your location. I have heard varying reports of yields in cereals and canola from zero to fantastic. Soybeans on the other hand fared a bit better, from mid-teens in severely inundated areas to highs in the 50-bushel range in areas less affected by the weather. Flooding wasn't the only yield robber as swaths of hail hit most regions as well.

The heat of summer brought the crop along quicker than 2009, although harvest was delayed by a few weeks. The beans seemed to endure this wet period with little damage and fields dried sufficiently to make for a great harvest.

I believe a lot of producers are seeing the benefits of soybeans in their rotation. This is being proven by the record acres sown of approximately 520,000 this year. Next year the number will probably increase as producers get

more comfortable with growing the crop.

This year, Manitoba Pulse Growers had done some field scale trials in the Carman area hoping to see if row spacing helped in disease management. The end result was not ideal as the area received a hailstorm and deluges of rain in July and August. This winter we would like to hear about other trials producers would be interested in seeing done in 2011. It takes time to organize these trials so it would be nice to hear from more producers at the Manitoba Special Crops Symposium in February. MPGA staff and board of directors will be in attendance and available to you.


This season was a good test to see which varieties handled disease best. On our farm there was a 5–6 bushel yield difference between varieties that have some disease resistance and those that don't. Checking your variety's characteristic traits are proving to be much more important than in past years. We must ensure seed companies

continue to test new varieties for disease resistant traits to better the soybean industry.

MPGA is looking into purchasing a Near Infrared Reflectance (NIR) Analysis machine. This technology can provide both qualitative and quantitative results that would be useful in the soybean industry, as well as many others. NIR machines measure soybean oil, protein and moisture, but it can do so much more. A sample can be analyzed in as little as a minute, and this type of information is very valuable to soybean breeders, growers and buyers.

MPGA is also partnering with Manitoba Agri-Health Research Network (MAHRN) and the University of Manitoba to develop a Manitoba-made soy cheese product. We're looking at a few different types of cheeses that would target specialty, niche markets and consumers with allergies to milk. In the long term, we would like to see more local processing and marketing of pulse products in Manitoba.

Overall, it was a trying year but Mother Nature gave us a great October to even out her other ruthless months. Harvest came off without a hitch and fall work was completed in most areas. At least fields won't be full of ruts in the spring.

I hope to see you at the symposium this winter and remember to book your seed early. — *Regards, Albert* 

MANITOBA

Special Crops Production Day

This event will bring together producers and industry representatives in one venue to discuss marketing, agronomy and pest management issues relating to sunflowers, peas and soybeans in Manitoba.

- **KEYNOTE:** Pamela Wilson ~ GIS instructor at ACC will be talking about GPS accuracies for row crops and valuable field data that can be collected on your farm
- Agronomic, research and marketing updates
- Sunflower Planter School

MARCH 3, 2011

Royal Oak Inn, Brandon MB

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MPGA has joined the social networking scene! Become our 'friend' on Facebook and keep up to date with MPGA happenings or have a look at what we did this summer.

Pictures and information are online now! Visit www.manitobapulse.ca to find the link to Facebook.

Fred Greig
Chairperson

One of the signs that the growing season is over is the publishing of the fall issue of *Pulse Beat*. For the three of you who actually read my report (thanks Mom), please heed my usual warning; “The trouble with free advice is that you often get what you pay for.”

2010 will go down as another challenging year for many producers but rewarding for some. The positive to the weather related production problems is the rebound of commodity prices and reduction in some production costs. At the time of preparing my report, yellow peas appear to be trading in the \$5.00 to \$5.50 range and green peas at a \$1.00 premium to the yellows. Some of our major customers have not been in the market yet and peas still remain one of the cheapest sources of protein. This should be a plus for prices and allow


producers to lock in favourable new crop prices.

Producers in my area are still concerned about excess moisture and with normal weather patterns over late fall and winter may experience seeding difficulty come spring. Peas and lentils did not handle the excess moisture well in 2010. This may limit production in 2011 but may prove positive for prices of both old and new crops.

For a number of valid reasons the Manitoba Special Crops Symposium, which includes the MPGA annual meeting, has been located on the east side of the province. In an effort to increase our exposure to western producers, MPGA will be hosting a Manitoba Special Crops Production Day along with the National Sunflower Association of Canada on March 3rd in Brandon. I hope to see you there!

MPGA has a busy fall and winter coming with our usual budget and research concerns along with a

strategic planning session scheduled in early December. MPGA always values producer feedback at anytime. If any of you feel a change in direction is warranted, now is the time for your input. Having represented and served producers for a few years now, I can tell you it has been a rewarding experience to say the least. All directors and employees keep producers’ interests and concerns in the forefront of the industry. Adding to our staff has and will continue to better serve producers and bodes well for the future of the pulse industry in Manitoba.

As another year comes to an end, I would like to wish you and yours the best in the new year and to thank Roxanne, Sandy and Monika for a great year at MPGA! — *Regards, Fred Greig* 

Manitoba Special Crops Symposium
www.manitobaspecialcrops.ca

Great Tastes of Manitoba



This year MPGA participated in the 2010–2011 season of *Great Tastes of Manitoba* (GTOM). This long-running Manitoba cooking show was nominated for the 2010 Governor General’s Award in Celebration of the Nation’s Table. Manitoba Pulse Growers Association’s episode, *Pulses: Perfect for the Party*, aired on Saturday, October 23, 2010 at 6:30 pm and will re-air Saturday March 26, 2011 at 6:30 pm.

To receive your copy of the recipes featured on *Great Tastes of Manitoba* please call the MPGA office at 204.745.6488 or visit us online at www.manitobapulse.ca

MPGA BOARD MEETINGS *Summary of Minutes*

Board Meeting – July 30, 2010

Communication to Producers – Discussed that MPGA needs to create better ways of communicating with producers regarding events we are hosting and promoting. We will start collecting producer emails to create a newsletter to send out between issues of *Pulse Beat*. MPGA will also create a Facebook page to communicate with the ever-growing web based social media networks. This will allow us to be timelier with notices to producers.

Producer Payment Security Report – The report from KAP was reviewed. KAP supports the fund-based option as it is cheaper. MPGA was in agreement that fund-based is the principle way to go. We are in support until more information is gathered on how this will be administered.

MASC Pea Guarantee – MPGA received a response to our letter of concern regarding the crop insurance levels

for peas. The last couple of years have been good for human consumption, but the market has changed over the years. There was discussion on whether or not more feed peas were purchased and graded to come up with those numbers. The decision was left to the pea committee for their opinion on MASC's response and any further action required.

Special Crops in Brandon – There was consensus MPGA will co-host a one-day symposium in Brandon in 2011 with NSAC. We will be focusing on peas and soybeans. There is the potential to have a machinery demonstration as well. More details to follow.

Pulse Canada Report to Producers – Pulse Canada has offered to supply a report outlining the service and value they provide for pulse growers in Manitoba. MPGA will post a version on our website for all to view when it is available. 🌱

25th Anniversary Golf Tournament



MPGA hosted a golf tournament in support of the Canadian Diabetes Association to celebrate our 25th Anniversary. THANK YOU to the 50 producers, board members and industry leaders who joined us at Bridges Golf Course on July 23rd. We could not have asked for a better day full of sunshine and a great round of golf. A fabulous dinner was served afterward with more friends of MPGA. Thank you to Gwen Smith, Coordinator, Individual Giving, Manitoba Region from the Canadian Diabetes Association for joining us! MPGA was pleased to donate \$2,000 to continue with the fight against diabetes in Manitoba.



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Email: mbcorn@mts.net Website: www.manitobacorn.ca



The 2010–2011 Cash Advance Program for Special Crops is now available. It entitles each producer to \$100,000.00 Interest Free and an additional \$300,000.00 with an Interest charge of Prime – ¼%. No producer is allowed to go over the \$400,000.00 total at any time – this includes money received from any other administrators such as CWB or CCGA.

The federal government has approved the following post-production advance rates for this year:

White Beans	\$ 0.135 /pound
Great Northern Beans	\$ 0.14 /pound
Kidney Beans	\$ 0.15 /pound
Cranberry Beans	\$ 0.16 /pound
Pinto Beans	\$ 0.12 /pound
Other Coloured Beans	\$ 0.13 /pound
Peas	\$ 2.50 /bushel
Soybeans	\$ 4.00 /bushel
Fababeans	\$ 0.05 /pound
Desi Chickpeas	\$ 0.125 /pound
Kabuli Chickpeas	\$ 0.13 /pound
Lentils	\$ 0.13 /pound
Confectionery Sunflowers	\$ 0.135 /pound
Oilseed Sunflowers	\$ 0.08 /pound
Corn (grain only)	\$ 2.10 /bushel
Alfalfa Seed	\$ 0.63 /pound
Annual Rye Grass Seed	\$ 0.12 /pound
Perennial Rye Grass Seed	\$ 0.25 /pound
Hay for Domestic Sales	\$45.00 /tonne
Kentucky Blue Grass Seed	\$ 0.25 /pound

- **Applicants must be members in good standing with the Manitoba Pulse Growers Association, Inc.** or the corresponding Associations for the crop on which you are taking the advance.
- The Applicant must have a contract for crop insurance on the crop for which an advance is requested and agree that an Assignment to MCGA will be granted on all crops that an Advance is granted on.
- Applicants may not have outstanding balances under any other AMPA or APP program, other than what is indicated on the application form and may not be in default under any APCA, PGAPA, or AMPA/APP programs.
- **Each producer, partnership or corporate farm may receive up to \$100,000.00 interest-free, and up to \$400,000.00 in total. These totals must include any loans received as a partner or shareholder in any other entity, and these totals must include all Cash Advance Programs (i.e. CWB, Canola, Livestock, etc.). Loans over \$100,000.00 will have an interest rate of Prime – ¼% applied to them.**

- In fall if you are intending to use some of your crop for seeding yourself, **EXCLUDE** that amount from your application.
- **If you sell your crop under a Price Pooling contract you may not get an advance on that portion of your crop.**
- The Pulse Cash Advance program is administered by the Manitoba Corn Growers Association – 38–4th Ave., N.E., Carman, Manitoba.
- Administration fees are **\$225.00 for all advances.**
- The federal government guarantees only a portion of each loan, so to protect your Association a **2% deposit will be deducted.** Any extra charges (o/s interest, etc.) that may occur will be deducted from that deposit before the balance is refunded.
- Credit checks may be made prior to issuing advances and Bin checks may be done on your stored grain. If your grain is in storage, you will need to provide storage tickets **BUT** if your crop is in **price pooling** it is **ineligible.**
- A Priority Agreement signed by your financial institution is required. If more than one financial institution is used, a separate Priority Agreement must be signed by each one. If any suppliers hold a lien on the crop, each supplier must sign a separate Priority Agreement.

Repayments – Please Read Carefully

- Repayments must be made **directly** to the MCGA and **must be made as the crop is sold and on first crop sold;** or on any crop that has been adjusted through Crop Insurance and for which you have received a payment; or on any of the crop which has been disposed of in any other way. The repayments must be made within 30 days of the crop being sold. Repayments, with cheques made out to: **Manitoba Corn Growers Association, Inc.,** must be sent to the address above, along with copies of the sales receipts.
- The Cash Advance must be paid off by the year-end: **September 15, 2011.** The advance can't be rolled into the next year's program.
- **IMPORTANT:** If the crop is not sold at year-end or if the advance is paid off without accompanying sales receipts, interest of Prime – ¼% must be paid on the outstanding balance, or on the amount not accompanied by receipts, *right back to the day that you were issued your Advance.* The government then treats it as an operating loan and not an advance loan on your crop.
- Application forms or more information can be obtained on our website or by contacting the MCGA office.

FINAL DEADLINE FOR APPLICATIONS IS MARCH 15, 2011

MPGA 2010 COMMITTEES

The first named is chairman

Executive – A. Saramaga, M. Pedersen, F. Greig,
T. Stewart, R. Lewko

Finance – A. Saramaga, T. Stewart, S. Robinson,
R. Lewko

Newsletter, Member Relations – M. Robertson,
R. Lewko, B. Brolley

Manitoba Special Crops Symp/AGM – K. Rothenburger,
B. Brolley, R. Lewko, M. Robertson, T. Stewart (alt)

Peas, Fababeans, Lentils & Chickpeas – F. Greig,
B. Brolley, F. Labelle, B. Conner, K. Rothenburger,
C. Rempel

Edible Beans – K. Friesen, T. Stewart, M. Pedersen,
B. Brolley, B. Conner, S. McCutcheon,
K. Rothenburger, F. Labelle, A. Hou, C. Rempel

Soybeans – A. Turski, M. Pedersen, A. Saramaga,
B. Brolley, S. McCutcheon, K. Rothenburger,
M. Chorney, F. Greig, D. McAndrew

Crop Insurance – S. McCutcheon, T. Stewart, A. Turski,
K. Friesen, F. Greig, A. Saramaga, B. Brolley (advisor)

Pulse Canada – T. Stewart, M. Pedersen (alt),
R. Lewko (advisor)

MPGA Market Development – M. Chorney, F. Greig,
T. Stewart

CGC Special Crops Sub-Committee – K. Rothenburger,
R. Lewko (advisor)

CGC Western Standards Pulse Sub-Committee –
K. Rothenburger (expires September 2011)

Keystone Agricultural Producers – M. Chorney,
M. Robertson, R. Lewko (alt)

MCVET/PGDC – K. Rothenburger, F. Greig (advisor),
B. Brolley

OOPSC Rep – M. Pedersen, A. Saramaga, B. Brolley (alt)

CSC – A. Saramaga, A. Turski (alt), R. Lewko

CSC Export Development Committee – M. Froebe

Western Canadian Pulse Growers Association Reps:

WGRF Rep – F. Greig (expires 2014)

CGC Western Grain Standards Committee –
Jason Saunders (APG) expires August 2010



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updates for MB Special Crops Symposium, locations of MPGA's summer
tours and much more!

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\$150 Canadian Tire gift card.

November 3rd–5th marked the 8th annual Canadian Pulse Research Workshop (CPRW). The workshop was held in Calgary this year and hosted by the Alberta Pulse Growers Commission. The CPRW provides a venue for pulse researchers, graduate students, and provincial and federal pulse organizations to gather and share research project results and to collaborate and discuss research opportunities going forward. This workshop is put on every second year and is rotated between the pulse growing provinces – Alberta, Saskatchewan, Manitoba and Ontario.

It was a jam-packed three-day event full of oral research presentations, poster displays and interactive poster sessions. The oral events were broken out into several different sessions: Pulse Agronomy, Diseases and Insects; Pulses and Environment; Novel Uses of Pulse Crops; Plant Breeding Initiatives; and Pulse Nutrition and Health. Each session began with a keynote speaker who addressed the overall session and provided a very informative introduction to that

topic. Presenters ranged from AAFC research scientists and plant breeders, to university professors and agronomists, to graduate students working on their masters. Presentations were incredibly thorough and informative; there was a lot of information to soak in! Several questions from the crowd followed each presentation, and a panel discussion at the end of each session allowed for general group discussion with all of the presenters.

The Pulse Agronomy, Diseases and Insects session included presentations on pulse pathology research, new Integrated Pest Management (IPM) strategies, disease management tools, genetic diversity and sensitivities to fungicides. The Pulses and Environment session encompassed sustainable crop production, carbon footprints, nitrogen fixation and Best Management Practice (BMP) adoption. The Novel Uses of Pulse Crops session featured innovative approaches to enhance the use of pulse crops in food, health and industrial applications, such as pulse flours in pita breads or salad dressings, and pulse starch, fibre and/or flours in

batters and coatings. The Plant Breeding Initiatives session included presentations on trait analysis, genetic improvements, disease resistance, variety development, and improved productivity. The Pulse Nutrition and Health session featured presentations on health benefits associated with consumption of pulses, such as reducing cardiovascular disease risk factors and certain types of cancers. This session also encompassed the effect of pulses on satiation, glycemia, and food and energy intake.

There were 59 poster displays, of which 29 were interactive. Interactive posters allowed the researcher a few minutes to review them with the group and answer any questions. Student interactive posters and presentations were judged by industry reps, and awards were handed out during the Indian Buffet Banquet. Posters from Manitoba researchers included management of fusarium root rot of field peas with new disease control strategies; yellow pea, lentil, navy bean and pinto bean addition to wheat flour cookies and their effect on physical and nutritional properties; physicochemical and functional properties of fibre fractions from pulses; cooking and canning quality of selected dry bean genotypes grown in Manitoba; worldwide dry bean germplasm collections useful for cultivar development for production in Canada; and capturing market opportunities for Canadian pulses (the Pulse flour milling and utilization project).

The CPRW demonstrated how widespread and all-encompassing pulse research really is. There are so many opportunities – from genetic enhancement, to disease resistance, to food uses and ingredient functionality. It was unique to have members from the entire research value chain present and sharing ideas.

Manitoba had representation from the AAFC research stations in Morden and Brandon, the Food Development Centre in Portage, the University of Manitoba, the Canadian International Grains Institute (CIGI) and MPGA. Manitoba hosted the CPRW in 2008, and Ontario will be hosting in it 2012. 🌾

MPGA 2009/2010 Scholarship Recipients

MPGA would like to congratulate its scholarship winners – U of M students, Graham Tapley (4th Year Agronomy student) and Jonah Genik (Diploma student)

GRAHAM TAPLEY

Graham is currently in his fourth and final year of his agriculture degree, majoring in agronomy. His plans following graduation are still up in the air; however, he does have dreams of farming with his grandparents and uncle, south of Brunkild, MB. This past summer, Graham was able to farm a small piece of land himself, on which he chose to grow soybeans. The farm presently does not grow any pulses other than soybeans, however, Graham sees the value of having them in a crop rotation, and would like to explore the idea of adding other pulse crops to the farms existing rotation.

JONAH GENIK

Jonah grew up on a grain and beef operation in Gilbert Plains MB, and went to the University of Manitoba after graduating high school. After one year in the Faculty of Engineering, Jonah decided to switch to agriculture: more specifically, a Diploma in Agriculture. While obtaining his diploma, Jonah worked for DowAgroSciences out of Carman. After graduating last spring from the Diploma program, Jonah decided to continue his agronomy education by enrolling in the Degree program.

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from January 26 to 28, 2011.
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204-697-1140 or view the agenda at
www.kap.mb.ca.

Keystone Agricultural Producers delegates from across the province met in Portage la Prairie on October 14, 2010 to learn more about emerging issues in agriculture, and to set direction for the organization. The following resolutions were passed, and are now KAP policy:

BUSINESS RISK MANAGEMENT

MASC and Hail Damaged Acres
THAT KAP lobby the Manitoba Agricultural Services Corporation to cover insured acres whether or not there is a subsequent loss due to flooding or other factors.

RURAL DEVELOPMENT AND LAND USE

Provincial and Municipal Drain Maintenance

THAT KAP lobby the Association of Manitoba Municipalities and the Manitoba Government to improve maintenance of provincial and municipal drains, including increased mowing.

Bipole III Safety Concerns

THAT KAP lobby Manitoba Hydro and the Government of Manitoba to engineer the Bipole III transmission line with maximum sag heights that are high enough to guarantee that agricultural equipment can be operated safely underneath them; further,

THAT KAP lobby Manitoba Hydro and the Government of Manitoba to develop and demonstrate their plan to monitor and correct problems associated with sag in the Bipole III transmission line and any other lines that cross agricultural land.

LIVESTOCK

Cattle Industry Support

THAT KAP lobby the Government of Canada and the Government of Manitoba to assist Canadian cattle producers suffering from the effects of excess moisture through a tax deferral for those forced to reduce or sell their herds, an extension on payment deadlines for cash advances, and a per head payment to help cover repeated annual losses.

Cattle Feed Freight Assistance Program

THAT KAP lobby the Government of Canada and the Government of Manitoba to help cattle producers deal with feed shortages caused by the excess moisture of 2010 with a feed sourcing assistance program.

Future of the Beef Cattle Industry

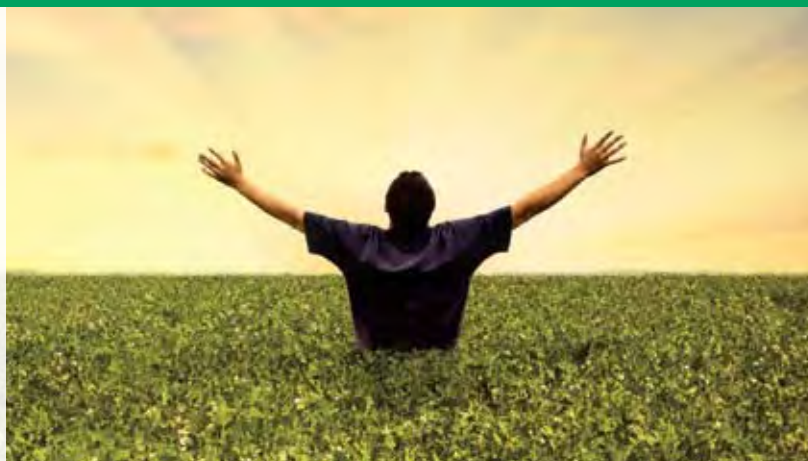
THAT KAP lobby the Government of Canada and the Government of Manitoba to develop a vision and strategy for the future of the beef cattle industry that is consistently financially viable for primary producers. 🌾

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Carl Potts

Director of Market Development
Pulse Canada

India's import requirements for Canadian pulses have impacted Canada's access to its largest pulse market since they took effect in 2004. Collaborative work between the trade, growers and government has recently made progress on finding a solution that will provide unimpeded market access for much-needed Canadian pulses in India. However, more work is needed to be done to finalize and implement a permanent solution.

India is not only Canada's largest market for pulses; it is the world's largest producer, consumer and importer of pulses. The largest share of India's 3.0–4.0 MT pulse import demand is supplied by Canada, who exported over 1 MT of peas and 240,000 tonnes of lentils in 2009. As staple food products for a huge portion of the population, import demand for pulses in India is expected to increase as the population continues to grow. The Canadian industry is very well positioned to capitalize on demand growth in India, but unimpeded market access is critical for continued growth of Canadian pulse trade with India.

Since a change in India's import requirement took effect in 2004, CFIA was required to test and certify Canadian pulse exports to India as free of named pests (including stem and bulb nematode) and to indicate that the shipment had been fumigated with methyl bromide. Testing and certification for stem and bulb nematode has continued to add significant risk and cost for Canadian pea exporters.

In January 2009, Canadian Minister of Agriculture and Agri-Food Gerry Ritz travelled to India and raised this issue with the Indian Agriculture Minister and they agreed to work together to resolve the issue. As a direct result of the Minister's trade mission, Indian officials visited Canada in July 2010. Indian plant protection officials came to Canada to discuss India's import requirements for pulses and

more specifically, the requirement that CFIA must certify shipments as free from stem and bulb nematode, which is present in small numbers in Canada.

In addition to technical meetings in July with CFIA, the delegation undertook field visits, toured the Crop Development Centre at the University of Saskatchewan, an inland terminal

elevator facility and a port terminal in Vancouver. These visits were critical to allow Indian officials to understand pulse breeding research, the size and scale of pea production, handling and transportation in Canada and understand why complete elimination

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of the pest through segregation or by establishing pest-free areas, two previous Indian proposals, are not feasible.

In addition, Pulse Canada was able to arrange a small meeting between Pulse Canada, grower organizations, a number of major Canadian pea exporters to India as well as Indian pea importers.

THE RESULT

As a result of the visit, Indian officials and CFIA have drafted a possible technical arrangement that, if finalized and implemented, could remove the need for CFIA to test each shipment for stem and bulb nematode in order to issue the phytosanitary certificate. Indian officials have recognized that fumigation upon arrival in India is the most effective and efficient way to mitigate the risk of the pest in pea shipments.

If this arrangement can be finalized and implemented, it will:

- Eliminate the largest risk for pea exporters – the risk of the shipment testing positive for stem and bulb nematode, reducing supply chain costs for both growers and Indian consumers.
- Will provide more certainty about India's import requirements over the medium to long term. Previous six month extensions to interim policies often left the trade uncertain about the exact import requirements until the extension was granted.
- Benefit India, by reducing costs of supply and providing for continued access to pulses its largest supplier.

This outcome is a result of significant efforts by Canadian Agriculture Minister Gerry Ritz, many within CFIA, Agriculture and Agri-Food Canada, Department of Foreign Affairs and

International Trade as well as the Canadian High Commission in New Delhi and within industry.

CURRENT SITUATION

The technical arrangement has been reviewed by Canada and is now being reviewed by India. Pulse Canada participated in a mission to India in September where Minister Ritz raised this issue with the Indian Minister of Agriculture. Although we expect India to take several months to review and implement this arrangement, Pulse Canada will continue to work closely with the Canadian government as well as exporters and Indian importers to ensure Canadian pulse producers and exporters can continue to access this critical market. 🌱



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SAVE THE DATE



Canadian Soybean Council
Conseil Canadien du Soya presents

IP Soybean Production – Is it a fit on your farm?

WHEN	Tuesday, February 8, 2011
TIME	8:30 a.m. to 4:00 p.m. – lunch and refreshments provided
LOCATION	Winnipeg – exact location to be determined
COST	\$27.30 (includes GST)

Join us for a one-day educational session to learn more about IP soybean production and the opportunities available for growing IP soybeans. Gain a deeper understanding of contracts and management requirements and learn whether IP production is a fit on your farm.

You'll hear from the experts in industry and government about:

- Global Markets for Canadian IP Soybeans • Contracts and Logistics of Growing IP Soybeans • Selecting the Right Soybean Varieties • Production Challenges and Management • What Happens When You Don't Make Premium?

The workshop is being coordinated by the Canadian International Grains Institute (CIGI) on behalf of CSC.



Canadian International Grains Institute
Institut international du Canada pour le grain

For more information call the MPGA office at **204-745-6488** or Michelle McMullen, Manager, CSC, at **519-767-2472**.

Space will be limited, so watch for upcoming announcements on how to register.

Incoming Japan Program

Michelle McMullen

Manager, Canadian Soybean Council

JAPANESE OFFICIALS VISITED CANADA TO LEARN MORE ABOUT CANADIAN SOYBEAN INDUSTRY

Senior representatives from Japan's soybean industry spent five days in Canada to learn more about the quality



of Canadian food grade soybeans and our industry's commitment to delivering a safe, high-quality product to meet the needs of Japanese consumers.

The 4th Canadian Soybean Council (CSC) Japan-Canada Soybean Program ran from August 23 to 27, 2010. The program was sponsored by CSC and coordinated by the Canadian International Grains Institute (CIGI). Representatives from the Japanese Ministry of Agriculture, Forestry and Fisheries and Japan's nine soyfood industry associations were invited to attend a comprehensive program that showcased the capabilities of Canada's

soybean industry and how we work together to provide a high-quality product.

The program was designed to build upon the success of the CSC Outgoing Program to Japan in February 2010 and strengthen CSC's relationship with our largest importer of food grade soybeans.

Canada exported over 350,000 metric tonnes to Japan in 2009. In total, eight participants attended the program representing the following key segments of the Japanese soybean processing industry including: soy sauce, tofu, frozen tofu, natto, vegetable protein and soybean flour industries.



SHOWCASING CANADA'S CAPABILITIES

The program began in Manitoba with presentations from the Canadian Grain Commission (CGC) on the Canadian Identity Preserved Recognition System (CIPRS) and soybean inspection and grading. The delegation also had the opportunity to explore Richardson Kelburn Research Farm near Winnipeg.

Roxanne Roels explained MPGA's involvement in research and its focus on the development of new varieties suited for the Manitoba climate.

While in Quebec and Ontario, the group visited a farm, soybean handling and processing facilities, the Montreal Port Authority, and breeding and research facilities. The group also met with representatives from government, grower, and industry organizations.

JAPAN-CANADA SOYBEAN INDUSTRY EXCHANGE MEETING

The second Japan-Canada Soybean Industry Exchange Meeting was held during the program. This formal information sharing meeting was coordinated by Agriculture and Agri-Food Canada and Japan Ministry of Agriculture, Forestry and Fisheries and followed a similar format as the inaugural meeting that was held in Japan in February 2010.

Brief presentations were prepared by each of the associations represented on the program. This provided Canadian soybean industry representatives in attendance, a comprehensive overview on the size and make-up of the associations; background; consumption; and uses of food grade soybeans in Japan.

The remainder of the meeting involved both industries raising important issues through a formal question and answer period. Questions were exchanged by each side a few weeks before the program to allow for

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Tips for Packing Healthy Lunches

Tracey Drabek-Zirk

Rural Leadership Specialist
Manitoba Agriculture, Food and
Rural Initiatives, Beausejour

Between grade one and the end of high school, a student may eat more than 2,400 lunches at school! Are you at a lull with lunch box ideas?

Manitoba's agriculture producers provide us with an abundance of healthy choices. As producers of pulses, you have many EXCELLENT opportunities to promote your products!

Guidelines that can be used when packing healthy lunches include:

✓ **Make healthy eating fun, tasty, and appealing.** Taste is the number one factor influencing food choices... so whatever you pack in the lunch bag needs to be something your child will eat and enjoy.

Don't know where to start? Pick one food from each of the categories of the "Cool" Lunch Guide. Work with your child/children to create fun and interesting lunches to go.

Start with the grain:

Bagel • Pita bread • Hamburger/hot dog bun • Sub bun • Whole wheat bread • Flatbread/tortilla • Pasta/noodles • Rice • English muffin

Add something on top, in between, or on the side:

• Cheese (shredded, cubed, sliced)
• Cottage cheese • Hard-boiled egg
• Leftover chicken, turkey, roast beef or pork • Canned fish (tuna, salmon...)
• Canned beans • Prepared Pulses
• non-peanut spread such as "NoNuts"

Include Crunch!

• Carrots • Celery • Lettuce • Peppers
• Cucumber • Broccoli • Cauliflower
• Apple • Pear • Strawberries • Oranges
• Bananas • Grapes • Cantaloupe
• Sunflower or sesame seeds

Thirst Quenchers are also key. Add one of the following:

• Milk, white or chocolate milk • 100% fruit juice • Vegetable juice or cocktail
• Yogurt and fruit shakes • Water
and finally...

One "kid pleasing" addition:

• Yogurt – for eating or dipping
• Vegetables or fruit • Cereal bar
• Pudding • Canned fruit • Squares (date, rice cereal...) • Raisins • Mini-cupcakes • Cookies (oatmeal, raisin...)
Think of the options using pulses!

Sample menus using pulses may include:

- bean burritos, celery sticks, yogurt and juice
- baked beans with hot dog rolls, tomato, fruit salad, milk
- a form of hummus, using Manitoba grown peas, pita bread, carrot sticks, vegetable drink, oatmeal cookie

Use your creativity to think of others. Maybe this year, you will combine your efforts with others who wish to promote the agriculture industry and offer an educational session on using pulses. Is there a community event that could serve a complete meal of foods using pulses? (appetizers, soups, casserole and desserts). There is potential. Let us not miss the sales opportunity locally!

Remember Manitoba's agricultural producers work hard to supply us with an abundance of nutritious foods, we do the rest. Do remember to have at least one weekly food dish using pulses. 🌱

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continued from page 17

thorough responses to be prepared. The answers were pre-scripted and shared by appropriate industry experts.

It is CSC's goal to hold the Japan-Canada Soybean Industry Exchange Meeting every two years, which will result in the strengthening of our trade relationship and the competitiveness of Canada's soybean industry.

RESEARCH DAY

The final day of the program was the first opportunity to exchange information related to soybean research initiatives in Japan and Canada. The meeting provided an introduction to the research program at the Eastern Cereal and Oilseed Research Centre (ECORC),

with a focus on food grade variety development and soybean quality and an opportunity for Canadian researchers in attendance to learn about the specific processing characteristics needed for each end use. The meeting was very positive and resulted in meaningful discussions on policy, research priorities and opportunities for collaboration.

Overall, CSC is very pleased with the success of the 4th CSC Japan-Canada Soybean Program. The success of this program could not be possible without the support of our provincial member organizations and the entire Canadian soybean industry. 🌱

Research Reports to be Featured in Next Issue

MPGA funded several research projects in 2010, but unfortunately due to late harvest, not all of the reports could be included in this issue. The following research reports will be included in the March issue of Pulse Beat.

- Development of Snack Foods Using Manitoba Grown Dry Beans
- Field Scale Trials – Changing One Variable (Row Spacing or Knife vs. Shovel)
- Evaluation of the Potential of Mung Bean Production in Southern Manitoba
- Impact of Ingredients (including Zero-Tannin Fababean) in Swine Diets on Digestibility, Performance, Water Intake and Manure Output
- Development of Novel High Fibre and Easily Digestible Frozen Bean Products
- Development of Genetically Improved Yellow and Green Field Pea Varieties and Germplasm Lines for Canadian Pea Growers
- Evaluation of Pea Starch in the Development of Functional Coatings Using Pea Fraction for French Fry, Mozzarella Stick and Onion Ring Applications
- Weed Management in Organic Soybean Production
- Development of Novel Soy-Based Thermoplastic Composites



THANK YOU!

Manitoba Pulse Growers Association would like to thank all the growers, processors, and other industry reps who attended our Pulse Tour at the AAFC Morden Research Farm and our Soybean Tour at Richardson International Kelburn Farm.

From your feedback, we provided a new format, which worked out successfully. Touring during pod set was much more valuable and provided better comparisons of varieties and maturities. Stan Struthers, Minister of Agriculture, Food and Rural Initiatives addressed the crowd and spent the day taking in our session held at Kelburn Farm.





Working for You!

Production/Agronomic

- Hosted Summer Tours August 4th and 5th. The Pulse Tour was held at AAFC's Morden Research Station and the Soybean Tour was held at Richardson International's Kelburn Farm.
- Attended DuPont's summer industry tour, which featured new fungicides and insecticides for pulses that will be available in 2011 and 2012.
- Attended an edible bean tour in London, Ontario.
- Planning for the 5th annual Special Crops Symposium, which will take place on February 9th and 10th at the Winnipeg Convention Centre.
- Hosted an Industry Meeting on November 10th to discuss pulse research and other concerns.

Research

- Collaborated with six other associations to form the Canadian Field Crops Research Alliance (CFCRA). This group has successfully partnered with the Government of Canada to commit to \$5.7 million in funding, which will support 18 public breeding and genetic programs aimed at new product development and agronomic issues for growers in Manitoba, Ontario, Quebec, and the Maritimes.
- Progressed with the Pulse Science Cluster. It has been finalized and payments have been made.
- Provided reports to ARDI to obtain additional dollars for MPGA-funded research projects.
- Participated in a soy cheese tasting at the University of Manitoba
- Exploring the possibility of purchasing a NIR machine which measures soybean oil, protein and moisture.
- Attended the PureNET AGM on November 1st–2nd.
- Sponsored and participated in the Canadian Pulse Research Workshop (CPRW) held in Calgary November 3rd–5th.

Market Development

- Attended a meeting with Pulse Canada, MAFRI, Manitoba Trade and Investment, and MAHRN regarding the Pulses and Health Conference, which is poised to raise the profile of pulses within the European food sector as ingredients that can be used to boost the nutrition, health and environmental attributes of food products. M. Pedersen attended the conference in Amsterdam, Netherlands on November 9th and 10th.
- Participated in the grand prize Tasting Evening for Great Tastes of Manitoba winner.
- Taped Great Tastes of Manitoba, *Pulses: Perfect for the Party*, on August 19th. The show aired October 23rd at 6:30 pm on CTV, and will re-air on March 26th.
- Participated in Canadian Soybean Council's (CSC) 4th annual Incoming Japan-Canada soybean program put on in conjunction with Canadian International Grains Institute

(CIGI). Representatives from the Japanese soy sauce, tofu, frozen tofu, natto, vegetable protein and soybean flour industries attended the program.

- Participated in Pulse Industry Roundtable (PIRT) meetings and Marketing Working Group (MWG) conference calls. The PIRT MWG aims to develop strategies to increase pulse consumption in Canada.
- Met with three Japanese delegates interested in Manitoba-grown IP soybeans for tofu production.
- Sponsored and served a pulse soup at a teachers' SAG event in conjunction with Agriculture in the Classroom (AITC).
- Assisted with CSC's two-day Chinese Delegation program.

Policy

- Developed a policy priority template with CSC to assist in developing meaningful policies and position statements to address issues and situations at provincial and national levels.
- Attended KAP's General Council meeting, Commodity Group meetings, and Grains Oilseed Pulse committee meetings.
- Became a member on MAFRI's On-Farm Food Safety Grains and Pulses Steering committee.
- Began developing a Policy Manual for MPGA staff and board.

Communications

- Hired Policy and Communications Director, Monika Robertson. Monika's duties include managing our communication resources (*Pulse Beat*, website) and other media relations, managing our policy initiatives (namely developing a Policy and Procedures manual for MPGA), and assisting the office with various day-to-day activities.
- Attended CSC's summer meeting on June 28th and 29th.
- Attended Canadian Special Crops Association Convention in Saskatoon on July 12th–14th.
- Attended fall launch of FCC's Field Manager Commercial software to understand if any value can be brought to our members by benchmarking producer data.
- Organized a 25th Anniversary golf tournament and supper. Producers and pulse industry reps enjoyed 18-holes of golf and a buffet supper. A \$2,000 donation was made to the Canadian Diabetes Association.
- Participated in AITC's Amazing Ag Adventure at Kelburn Farm and Glenlea Research Station. Over 320 grade 4 and 5 students learned about pulse production and the environmental and health benefits of pulses.
- Presented to an African Agriculture Department at CIGI on how non-profit associations are formed and operated.
- Created a Facebook page to join the social media network.
- Sent letters to Agriculture Minister Stan Struthers emphasizing the importance and need of the provincial Pulse Specialist position.

For updated information check the website (www.manitobapulse.ca) or call the office at (204) 745-6488.

Anfu Hou¹, Robert Conner¹ and Parthiba Balasubramanian²

¹Morden Research Station

²Lethbridge Research Centre

The 2010 dry bean breeding research activities at AAFC-Morden were conducted according to the project objectives as outlined in the newly initiated Pulse Science Cluster program. With funding from MPGA, our research focused on activities that will eventually benefit the local bean growers and industry. Despite the excessive wet conditions during the 2010 growing season, seeding and harvest were completed on time. The trial data are being analyzed and the final reports will be submitted and published in journals and on websites that include *Seed Manitoba* and *Pulse Beat*.

TWO NEW CULTIVARS REGISTERED

In collaboration with the AAFC research centres at Lethbridge and Harrow, we registered two new cultivars in 2010: the CBB-resistant navy bean

'Portage' (breeding line 056C-96204/H96204) and black bean 'Carman Black' (breeding line BK05-009). Both cultivars are well adapted to the Red River Valley of Manitoba, and have been tested in MPGA's Variety Screening Trials in 2009 and 2010. Portage and Carman Black will be marketed by Canterra Seeds Ltd.

MPGA VARIETY SCREENING TRIALS

The 2010 variety trials focused on a few market classes that included navy, black, pinto, kidney and cranberry bean. A total of 55 entries were tested under long growing season conditions at four locations (Morden, Carman, Winkler and Portage la Prairie). The 55 entries included 17 navy, 12 pinto, 8 black, 11 kidney, 5 cranberry, and 1 yellow bean cultivars. In addition, 18 entries were tested in MPGA's Short Season Narrow Row Regional Trials at Thornhill. Data from these trials will be published in *Seed Manitoba* and *Pulse Beat*, and will also be placed on MPGA's website, www.manitobapulse.ca.

MANITOBA COOPERATIVE REGISTRATION TRIALS

Forty-five entries along with eight check cultivars were tested in the Long Season Wide Row (LSWR) trials, and two entries along with two check cultivars were evaluated in the Long Season Narrow Row (LSNR) trials. The trials were conducted at four locations (Morden, Carman, Winkler, and Portage la Prairie). These entries were provided by nine breeders/ companies/ institutions. The breeding lines and check cultivars in the LSWR and LSNR trials were evaluated for seedling resistance to anthracnose races 73 and 105 in growth chambers. These lines were also screened for resistance to white mould in an irrigated disease nursery at Winkler. The comprehensive evaluation of all these entries will be reported to support cultivar registration in Canada at the annual meeting of the Prairie Recommending Committee for Pulse and Special Crops (PRCPSC) of the

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Prairie Grain Development Committee (PGDC) in February 2011.

DEVELOPMENT OF PERUANO YELLOW BEAN AND SLOW-DARKENING PINTO BEAN

Yellow and slow-darkening pinto are two new bean types for the export market. With previous funding support from MPGA, advanced populations were generated. In 2010, single rows of the advanced yellow bean and slow-darkening pinto lines were evaluated and selections will be entered in to the preliminary yield trials in 2011 at Morden and Carman. Additional crosses involving yellow bean and slow-darkening pinto as parents were made, and early generations were advanced.

WHITE MOULD RESISTANCE SCREENING

The breeding lines and check cultivars in the Manitoba LSWR and LSNR Cooperative Registration Trials were evaluated for white mould resistance in the irrigated field disease nursery at Winkler. The nursery was inoculated with sclerotia of *Sclerotinia sclerotiorum*

at the time of seeding. The white mould severity and incidence were determined. White mould incidence and severity were quite uniform throughout the each trial. The results will be reported at the annual meeting of the PRCPSC of PGDC in February 2010.

COMMON BACTERIAL BLIGHT RESISTANCE BREEDING

CBB remains one of the most severe dry bean diseases in Manitoba. Joint efforts among the AAFC researchers led to the releases of two navy bean lines in 2009 with improved resistance to CBB (H96204/Portage, and H96048). Transfer of CBB resistance into Manitoba-adapted dry bean lines has been a continuous effort in the last several years. Advance populations were evaluated in the 2010 CBB nurseries at Morden and Harrow. Assisted with molecular marker technology, individual lines of navy, pinto and black beans were identified with improved resistance to CBB and were used in crossing advanced for future cultivar development.

EVALUATION OF DRY BEAN GERMLASM FOR ADAPTATION TO MANITOBA

One hundred and fifty black bean accessions that were introduced from the USDA bean germplasm collection and evaluated at Morden in 2009 were evaluated for the second year in 2010. Field notes were taken on plant maturity, resistance to CBB and white mould, growth habit, seed germination ability, seed quality, and yield potential. Artificial inoculation for resistance to anthracnose races 73 and 105 was repeated in growth chambers and will be reported at the 2010 Canadian Pulse Research Workshop in Calgary, AB. Performance of the collections in 2009 and 2010 will be compared and analyzed, and selections will be made. Elite lines will be tested in 2011 in replicated trails and used in crossing for cultivar development. 🌱

Acknowledgement

The technical assistance for this research was provided by G. Dyck, D. Young, W.C. Penner, and D.B. Stoesz. We greatly appreciate the financial support provided by MPGA, the Agri-Food Research Initiative (ARDI), and the Pulse Science Cluster.



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Barney Geddes and Ivan J. Oresnik

*Department of Microbiology
University of Manitoba*

Legumes, including soybeans, are unique crop plants because they can derive nitrogen from a symbiotic association that occurs with various species of bacteria from the Rhizobiaceae family. Soybean, for example, interacts with the bacteria *Bradyrhizobium japonicum*. *B. japonicum* infects the roots of the soybean plant. The end result of this association is a plant-derived structure termed the root nodule. The root nodule is made up of an outer cortical layer and an inner cortex. The inner cortex is comprised of two plant cell types: infected cells that contain the bacteria, and uninfected cells. The bacteria within the infected cells express all the enzymes necessary for the reduction of nitrogen gas to ammonia, which is transported to the plant and is rapidly assimilated by the plant as an amino acid. A soybean plant that is effectively nodulated can have its entire nitrogen needs supplied through this symbiosis.

A problem that is often encountered is having sufficient numbers of the correct Rhizobia species present as the seed is germinating so that effective nodules can develop in a timely manner. This is usually circumvented by the application of Rhizobial inocula that are supplied by seed companies in various forms and applied either directly to the seed, or to the field at the time of planting. The inoculation of legume fields with a compatible Rhizobium strain has been shown to increase yield in a cost-effective manner. Yet it has been reported that the introduced bacteria are often out competed by indigenous bacteria that are less effective at fixing nitrogen.

Bacteria are ubiquitous in the environment. *B. japonicum* has been shown to be capable of complete autotrophic growth (capable of growing in the absence of a readily available carbon and nitrogen source). Therefore it is not unusual to find that these bacteria can overwinter and should be capable of establishing a population in a field that has been previously inoculated. If a

population has been established, its ability to be an effective inoculum is dependent on the size of the population.

The immediate objective of this project is to complete the development of a PCR based assay to quantify *B. japonicum* in field soils. Our work to date on this project has demonstrated that it is possible to quantify *B. japonicum* from field soils. The test can detect and enumerate *B. japonicum* in the soils that have previously been used to grow soybeans. One of our surprising findings has been that we have been able to detect *B. japonicum* in fields that had never been cropped with soybean or inoculated with *B. japonicum*. Based on our current understanding, we believe that what we are detecting is probably due to bacteria that are very closely related to *B. japonicum*, or alternately, there may be a native *B. japonicum* population found in the field soils tested.

Our goal is to complete our optimization experiments and to produce an assay that will be robust and deliver useful information on the

population of *B. japonicum* capable of forming root nodules in the field soil. In addition we plan to use this assay to ask some very basic questions regarding the establishment of *B. japonicum* populations. These questions include: How does the population of *B. japonicum* fluctuate over a growing season? Are populations localized to developing roots or are they evenly distributed throughout a field? How well does a population overwinter? What is the threshold number of *B. japonicum* needed before the use of an inoculant is not necessary? 🌱

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The Agriculture and Agri-Food Canada (AAFC) soybean breeding program at Ottawa develops short-season soybean cultivars for areas in Canada requiring early maturing soybeans with a focus on specialty soybeans for food, feed and tolerance to stresses found in short-season areas. Funding provided by MPGA allows enhanced testing of germplasm and experimental lines in Manitoba. In 2010 we grew eight trials at Morden and two trials at Portage. The early maturing material in the Ottawa AAFC program is well adapted to Manitoba and so our research focuses on early maturity in special quality white hilum (SQWH) as well as on specialty high protein and natto soybean cultivar development; and moving genetic resistance to soybean aphid and other pests including rust

and other diseases into our short season material.

The 2010 growing season in Manitoba approached a more normal level than in the past couple of years. There were periods of excess moisture and most locations were never in a moisture deficit position, but with the consistent warmth and available moisture the soybean plants progressed normally throughout the growing season. A couple of very warm weeks in late September and early October were a bonus and helped bring the plants to maturity prior to any damaging frost.

In the screening trials, there is a concentration on early high-yielding lines. Several lines developed from aphid resistance crosses are being tested. Cadmium accumulation can be a problem in some soil types and natural variation is present for low cadmium accumulation and a number of lines from low cadmium accumulating parents are being tested. In an effort to broaden diversity and look for new sources of yield genes, lines derived from crosses between Chinese and Canadian parents are being tested.

There are also a range of tofu and natto lines being tested. We also tested a series of lines developed from cold tolerant and cold sensitive parents. This project looks for cold damage during flowering time where severely cold damaged plants will have barren nodes as a result of cool night temperatures when flowers opened at those nodes. This material is also being tested by the Crop Development Centre in Saskatchewan. A survey of these trials found only isolated plants showing severe cold damage but no plots with widespread damage. We will need to see yield results before making conclusions about the role of cold damage in 2010.

In the most advanced trials, grown at both Morden and Portage, we have promising yellow hilum lines targeted to the non-GMO market similar to OAC Prudence. One line was developed from crosses of parents with tolerance to iron deficiency chlorosis. A triple lipoxygenase null line that can be used to produce tofu with a reduced "beany" flavour is being tested. Early maturing natto lines are also being tested in a separate trial. 

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**Robert Conner¹, Debra McLaren²,
Anfu Hou¹, and Parthiba
Balasubramanian³**

Agriculture and Agri-Food Canada

¹Morden Research Station

²Brandon Research Centre

³Lethbridge Research Centre

The 2010 MPGA-funded, dry bean pathology research activities were carried out as described in the new Pulse Science Cluster program. All of the research studies were successfully completed despite the extremely wet conditions that occurred during the 2010 growing season across western Canada. The research data is being analyzed, but some preliminary results are available.

WHITE MOULD RESISTANCE

White mould is a devastating fungal disease of dry beans that can severely reduce crop yield. Most dry bean cultivars are highly susceptible to white mould, but a few cultivars and germplasm lines have been reported to resist the spread of this disease and as a consequence suffer less severe yield losses. This study was established in 2009 to allow a direct comparison of white mould development in dry bean entries that had previously been reported to be at least partially resistant to white mould. From 2009 to 2012, the same twenty-five dry bean entries will be evaluated for white mould resistance at irrigated field sites located near Winkler and Brandon, Manitoba as well as Lethbridge, Alberta. Repeated testing at multiple locations is needed to clearly identify cultivars or germplasm lines that exhibit white mould resistance.

At the time of seeding in 2010, each field site was inoculated with sclerotia of *Sclerotinia sclerotiorum*. The white mould severity and incidence were determined at the end of the growing season. Results from the field sites at Brandon and Lethbridge are being analyzed. The results from the Winkler site indicate that white mould incidence and severity were quite uniform throughout the experiment. There was close agreement between the 2009 and 2010 results of this study and a

number of germplasm lines were shown to consistently have low white mould ratings in each year. The results from this study will enable bean breeders to identify the best sources of white mould resistance for use in their breeding programs to develop new cultivars with enhanced disease resistance.

ROOT ROT RESISTANCE

Recent disease surveys of commercial fields of dry beans have shown that root rot symptoms were quite severe at a number of sites. The fungal pathogens that cause root rot in dry beans can reduce yields by decreasing seedling emergence, impairing nutrient and water uptake, and the stunting or causing early death of infected plants. The root rot pathogens can survive in the soil for long periods of time, so it is extremely important to prevent the build up of their inoculum. Currently, there is little information on the level of root rot resistance that is available in the commercial dry bean cultivars grown in Canada.

A four-year field study was initiated in 2009 to evaluate 37 dry bean cultivars from each dry bean class that are being used as parental material in the dry bean breeding programs at Morden and Lethbridge. In 2009 and 2010, these 37 cultivars were evaluated for their reactions to the root rot pathogens *Fusarium solani* and *Rhizoctonia solani*. The cultivars were split into three different experiments and were tested separately against each pathogen. In 2010, an extra experiment was added, which included 17 new dry bean cultivars that were under evaluation for use in the dry bean breeding program at Morden. Each study included seven partially resistant germplasm lines or susceptible cultivars, which were used as standards for comparison. The plots in each experiment were inoculated at seeding with inoculum of either *F. solani* or *R. solani*. Near the end of the growing season, plants from each plot were dug up and the roots were

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rated for root rot severity. Most of the dry bean cultivars were highly susceptible to root rot, but a few cultivars from different classes consistently had low root rot ratings in each year of the study.

Another experiment was set up to examine the effect of different root rot pathogens either alone or in combination on the yields of three partially resistant cultivars and one susceptible cultivar. The experiment included four different root rot pathogens that had been collected from surveys of commercial dry bean fields in Manitoba. Inoculation and disease assessment were carried out as previously described. The results from this experiment are being compiled and will be analyzed soon.

EVALUATION OF DRY BEAN COOP ENTRIES FOR THEIR SEEDLING REACTIONS TO ANTHRACNOSE

Anthrachnose is one of the most serious seed-borne diseases of dry beans in Canada. Infection of leaves,

stems and pods of dry beans by the anthracnose fungus can greatly reduce yield and downgrade seed quality. The development of resistant cultivars to the prevalent races of the anthracnose pathogen is generally considered to be the most effective way to prevent losses caused by this disease.

In 2010, 100 first- and second-year candidate cultivars from the four dry bean cooperative trials, namely the Long Season Wide Row trial, the Long Season Narrow Row trial, the Short Season Narrow Row trial and the Short Season Irrigated Wide Row trial, were assessed for seedling resistance to anthracnose races 73 and 105 under controlled environmental conditions. All the entries were separately tested against each race in repeated experiments. The same four resistant or susceptible check cultivars were included in each experiment. The results from these experiments will be reported at the annual meeting of the Prairie Recommending Committee for Pulse and Special Crops of the Prairie

Grain Development Committee and will be used to determine the suitability of second-year candidate cultivars for registration in Canada. 🌱

Acknowledgements

We greatly appreciate the funding provided by MPGA for these studies and for the leadership provided by MPGA in establishing the Pulse Science Cluster. We also thank the Agri-Food Research Initiative (ARDI) for providing financial support for the anthracnose study by matching the funds received from MPGA. We are very grateful for the technical assistance provided by W.C. Penner, D.B. Stoesz, T. Henderson, D. Hausermann, T. Kerley, J. Braun and C. Daniels on these studies.

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Robert Conner¹, Kan-Fa Chang² and Sheau-Fang Hwang³

Agriculture and Agri-Food Canada

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The 2010 MPGA-funded field pea and fababean pathology research activities were carried out as described in the new Pulse Science Cluster program. All of the research studies were successfully completed in spite of the extremely wet conditions that occurred during the 2010 growing season across western Canada. The research data are being analyzed, but some preliminary results are available.

MYCOSPHAERELLA BLIGHT RESISTANCE STUDY

Mycosphaerella blight, which is also known as Ascochyta blight, is generally considered to be the most devastating disease of field peas in western Canada. Most field pea cultivars are susceptible to Mycosphaerella blight, but partial

resistance in leaves, stems or pods has been reported in a few old cultivars and germplasm lines. There has also been some speculation that certain cultivars are tolerant, meaning they develop severe symptoms with only minimal effects on yield. This study was initiated in 2009 to examine Mycosphaerella blight resistance in newly registered field pea cultivars. From 2009 to 2012, the same 27 field pea cultivars will be evaluated for Mycosphaerella blight resistance at a field site located near Morden. Repeated testing over a number of years is required to clearly identify cultivars with partial resistance or tolerance to Mycosphaerella blight.

The experimental plots were arranged in a replicated pattern with disease-free treatments and infected treatments for each cultivar. Susceptible and moderately susceptible cultivars were included in the study as check cultivars. Each of the three field experiments included nine newly registered field pea cultivars

and the three check cultivars. A few weeks after emergence, the inoculated plots were inoculated with infected straw. The disease-free plots were not inoculated but were sprayed with the foliar fungicide Headline EC at the late flowering stage and the pod fill stage. Mycosphaerella blight severity was rated at six weekly intervals starting in late July and continuing until end of the growing season. Just before the onset of maturity, the plots were rated for Mycosphaerella blight severity on the leaves, stems and pods. The plots were harvested with a small plot combine, so that yield comparisons can be made between disease-free and infected plots of the same cultivars to identify tolerant field pea cultivars. The results from this study will provide producers with new information on field pea cultivar responses to Mycosphaerella blight and will assist field pea breeders in identifying the best sources of resistance for their breeding programs.

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ROOT ROT CONTROL IN FABABEANS

Fababean is well known as a source of high energy and protein for livestock and humans. Fababean is an excellent forage crop and can enrich the soil by fixing atmospheric nitrogen in its root nodules. The fababean acreage in western Canada has been quite small, but the development of zero tannin fababean cultivars has renewed interest in this crop. An expansion of the acreage of fababeans will result in greater crop diversity in rotation systems, which could enable improved control of diseases and harmful insects in other crops. However, an increase in fababean acreage could result in the more widespread occurrence of root diseases, which could reduce stand establishment and nitrogen fixation as well as forage and seed yield. A disease survey of commercial fields of fababeans in 2009 showed that *Fusarium avenaceum* and *Rhizoctonia solani* are common pathogens of fababean crops grown in Manitoba and Alberta. Field studies were initiated to identify fungicidal

seed treatments that improve seedling emergence, reduce root rot severity in fababean and to examine the effect of inoculum concentrations of pathogenic fungi on root rot severity in different cultivars and on the efficacy of different seed-treatment fungicides.

In 2010, replicated experiments were established at field sites near Morden, Manitoba and Lacombe, Alberta to evaluate the efficacy of four different seed-treatment fungicides at different levels of inoculum concentration of the root rot pathogens *F. avenaceum* and *R. solani*. The seed-treatment fungicides were tested separately against each pathogen. In 2010, an extra experiment was included at Morden to evaluate the efficacy of the four seed-treatment fungicides in controlling *Aphanomyces* root rot. Untreated checks were included in each experiment. At the Lacombe site, the effect of differences in inoculum concentration of *F. avenaceum* and *R. solani* on seedling emergence, root rot and yield was compared on the fababean cultivars Snowbird and Earlibird. In

each experiment, seedling emergence, nodulation, root rot severity and yield were measured. In the *Aphanomyces* root rot experiment, the incidence of wilted plant was recorded in the latter half of July. The results from these experiments are being compiled and will be analyzed soon. Findings from this study could lead to registration of seed-treatment fungicides for control of root diseases in fababeans. The availability of seed-treatment fungicides will form an important component of an integrated disease management program for reducing losses from root diseases, which otherwise might limit any future expansion in fababean acreage. 🌱

Acknowledgements

We thank MPGA for providing funding for these studies and for its leadership in helping to establish the Pulse Science Cluster. We also thank the Agri-Food Research Initiative (ARDI) for providing financial support for the fababean root rot study by matching the funds received from MPGA. The technical assistance provided by W.C. Penner, D.B. Stoesz, R. Bowness, T. Dubitz and G.D. Turnbull is greatly appreciated.



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PATHOGENICITY OF *PYTHIUM* SPECIES IN CAUSING SEED ROT AND DAMPING- OFF OF SOYBEAN

Pythium seed rot and seedling blight caused by *Pythium* species are serious problems of soybean seedling establishment in Ontario and Manitoba where the majority of Canadian soybeans are grown. Typical symptoms of infection by *Pythium* species include soft and decayed seed before germination, pre- or post-emergence damping-off in the seeding stage, and hypocotyl discoloration and root rot in advanced growth stages. The disease severity increases with cool and moist conditions, minimum tillage, and earlier planting. There is little information in aggressiveness among isolates within a *Pythium* species and difference in pathogenicity among *Pythium* species to soybean. The objectives of this research were to compare the pathogenicity of 24 isolates from eight *Pythium* species in causing seed rot and damping-off of soybean and to determine the influence of temperature on seed rot caused by the eight *Pythium* species.

There were significant differences among the eight *Pythium* species in both seed rot and damping-off. *P. aphanidermatum* and *P. ultimum* were the most pathogenic species, causing seed rot by 84.6% and

94.9%, and damping-off by 28.8% and 21.7%, respectively; *P. irregulare* and *P. sylvaticum* were intermediate, having seed rot of 35.7% and 37.2%, and damping-off of 5.2% and 3.6%, respectively; *P. arrenomanes*, *P. coloratum*, *P. dissotocum*, and *P. macrosporum* were least pathogenic, causing seed rot ranging from 7.8 to 16.6% and damping-off of 0.4 to 3.1%.

Temperature had significant influences on seed rot by the *Pythium* species. At all four temperatures (4°C, 12°C, 20°C, and 28°C) used, *P. ultimum* was highly pathogenic while *P. arrenomanes*, *P. coloratum*, and *P. dissotocum* were least pathogenic. The temperature by *Pythium* species interactions were more obvious for *P. aphanidermatum* which showed an increased seed rot values with the increase of temperature and for *P. irregulare*, *P. macrosporum*, and *P. sylvaticum* which showed a decreased seed rot values with the increase of temperature. These results suggest that *P. aphanidermatum* is not likely responsible for soybean root rot and damping-off in short-season soybean growing regions of eastern Ontario and Manitoba where the soil temperature is often below 20°C during the crop emergence and the early seedling development stage. While *P. macrosporum*, *P. irregulare* and *P. sylvaticum* are likely responsible for the seed decay, seedling blight and root rot of short-season soybeans. The high level of pathogenicity of *P. macrosporum* to soybean at the low temperatures has not been previously reported.

Further studies with a large number of *P. macrosporum* isolates from soybean and various host plants are needed to better understand the *P. macrosporum* isolates – soybean cultivar interaction as affected by temperature.

Significant differences among isolates within a *Pythium* species were found in seed rot only for *P. aphanidermatum*, *P. arrenomanes*, *P. irregulare*, and *P. macrosporum*. The presence of different levels of aggressiveness among isolates within the pathogenic *Pythium* species has practical implications that must be considered when screening and breeding soybean for *Pythium* root rot resistance. It is important that aggressive isolates be used because isolates of low aggressiveness may not discriminate among lines of different levels of resistance. A mixture of several different isolates may be used in screening for resistance. 🌱

Acknowledgements

This research was funded by the Ontario Soybean Growers and the Manitoba Pulse Growers Association. We thank A. Nagasawa and Y. Chen for technical assistance.

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RESISTANCE TO *PHYTOPHTHORA SOJAE* IN SOYBEAN

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SOURCES OF PHYTOPHTHORA ROOT ROT IN CANADIAN SHORT-SEASON SOYBEAN CULTIVARS

Phytophthora root rot, caused by *Phytophthora sojae*, is a destructive disease of soybean worldwide (Fig. 1). Phytophthora root rot can attack soybean plants at any stage of plant development and commonly reduces yield by 10–40% in Canada.

Although one of the major priorities of soybean breeding in Canada has been the improvement of disease resistance, particularly Phytophthora resistance, the genetic basis of resistance to Phytophthora root rot in most Canadian soybean cultivars has

Fig. 1. Symptoms of soybean Phytophthora root rot caused by *Phytophthora sojae*.



not been determined. The objective of this study was to evaluate 87 short-season soybean cultivars released in Canada for their reactions to three *P. sojae* races (races 1, 3, 5) commonly observed in Ontario. Resistant cultivars identified from this study could be used for future cultivar development for Canada.

The percentage of mortality for the 87 soybean cultivars to each of the three *P. sojae* races was determined in two experiments and 29 cultivars were resistant (<25% mortality) to at least one of the three races (Table 1). Of the resistant cultivars, AC Brant, AC Orford, Beechwood, Maple Arrow, Maple Donovan, and OAC Gretna were resistant to all three races. It is worth mentioning that the intermediate plant response was observed for 15 cultivars in 19 cultivar and race combinations. AC Hercule was the only cultivar showing the intermediate reaction to all three *P. sojae* races, suggesting that this cultivar may have strong partial resistance to *P. sojae*. Partial resistance is characterized as incomplete resistance and it is believed to be controlled polygenically and may be more durable for Phytophthora resistance in soybean. These cultivars have not been reported previously to possess resistance to Phytophthora root rot and may be used in resistance breeding for development of new soybean cultivars in Canada.

Although the Canadian soybean breeding programs have been relatively

Table 1. List of 29 short-season soybean cultivars that showed resistance (<25% of seedling died) to at least one of the three *Phytophthora sojae* races tested

Cultivar	Resistance to a		
	Race 1	Race 3	Race 5
AC Pinson	+	–	–
Accord	+	–	–
OAC 01-26	–	+	–
OAC Ayton	–	+	–
OAC Wallace	–	+	–
90A01	–	–	+
AC Proteina	–	–	+
AC Proteus	–	–	+
Canatto	–	–	+
Kamichis	–	–	+
Maple Arrow Brown	–	–	+
Merit	–	–	+
Nattosan	–	–	+
OT 05-15	–	–	+
PS44	–	–	+
RD714	–	–	+
AC Bravor	+	–	+
Alta	+	–	+
Electron	+	–	+
Evans	+	–	+
Maple Belle	+	–	+
Maple Presto Brown	+	–	+
Madallion	–	+	+
AC Brant	+	+	+
AC Orford	+	+	+
Beechwood	+	+	+
Maple Arrow	+	+	+
Maple Donovan	+	+	+
OAC Gretna	+	+	+

*Resistance (+), susceptible (–)

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**Debra McLaren¹ and
Robert Conner²**

Agriculture and Agri-Food Canada

¹Brandon Research Centre

²Morden Research Station

The 2010 field pea and dry bean pathology research activities funded by MPGA were conducted as outlined in the new Pulse Science Cluster program. All field activities of these studies were successfully completed despite the excessive precipitation that created wet conditions during the 2010 field season. The laboratory work on pathogen identification is ongoing, but some preliminary results are available.

IDENTIFICATION OF THE PATHOGENS ASSOCIATED WITH ROOT ROT OF FIELD PEA IN MANITOBA

In Manitoba, root rot is a major disease of field pea and is capable of causing significant yield reductions due to compromised root systems and reduced plant stands. Control of



Stunted pea plants with root rot (L) vs healthy pea plants (R)

root rot is difficult and cultivars with complete resistance have yet to become available. Previous studies indicated that the most prevalent causal agents for root rot in field pea in Manitoba were *Rhizoctonia solani* and *Fusarium solani*. However, recent findings also indicate the presence of *F. avenaceum* in root rot affected field peas in Manitoba and North Dakota. These reports suggest that the pathogen population may be

changing over time, and emphasize the need to obtain up-to-date information on the pathogen species involved. Confirmation of the prevalence of root rot pathogens of pea is critical in order to screen for host resistance and design effective control measures.

The second year of a 4-year study approved by MPGA was initiated in

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successful in breeding cultivars with race-specific resistance to *P. sojae*, as demonstrated by identification of 29 cultivars resistant to one to three common races in Canada in the present study, little effort has been reported on the integration of race-specific resistance and partial resistance. The use of genotypes with race-specific resistance and partial resistance to *P. sojae* in a breeding program will enable the pyramiding of genes in subsequent generations to give high levels of durable resistance. Further studies are needed on methods of quantifying levels of partial resistance to *Phytophthora* root rot and the host-pathogen relationships by exposing these genotypes with partial resistance to many different *P. sojae* races. 🌱

Acknowledgements

This research was funded by the Ontario Soybean Growers and the Manitoba Pulse Growers Association. We thank Y. Chen for technical assistance.

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2010 to survey crops of field pea for root diseases at 41 different locations in southwest and south-central Manitoba where field pea is commonly grown. The survey for root diseases was conducted from late June to mid-July, when most plants were at the late vegetative (pre-flowering) stage. Ten plants were sampled at each of three random sites for each crop surveyed. The thirty pea plants were rated for severity of root rot using a disease severity scale of 0 (no disease) to 9 (death of plant). In order to confirm identification of root rot pathogens, fifteen symptomatic roots were collected per field for isolation of fungi in the laboratory. Both *Fusarium* and *Rhizoctonia* spp. were isolated and species identification is ongoing. *Fusarium* spp. were more frequently isolated from diseased roots than were *Rhizoctonia* spp. Rapid methods for detection of prevalent *Fusarium* species are being developed. Pathogenicity tests of the predominant isolates of *Fusarium* will be conducted using a susceptible pea cultivar during the winter/spring of 2010–2011.

The predominant pathogens associated with root rot of field peas in Manitoba will be identified through this 4-year study. This information can then be used by plant pathologists and pea breeders to develop cultivars with improved resistance to root rot. Better root rot resistance in field pea cultivars will increase the profitability of pea production in Manitoba through reduced yield losses.

IDENTIFICATION OF THE PATHOGENS ASSOCIATED WITH ROOT ROT OF DRY BEAN IN MANITOBA

Root rot is a major disease of common bean in Manitoba and can cause significant yield reductions due to poor plant stands and weakened root systems. In some cases, the whole primary root system can be destroyed. When bean production fields are used in short rotations, the root rot problem can be exacerbated. Resistant cultivars are not yet available and control of root rot is difficult. *Fusarium solani* and *Rhizoctonia solani* were the most prevalent causal agents of dry bean root rot identified in previous Manitoba disease surveys. However, other *Fusarium* species such as *F. acuminatum*, *F. redolens* and *F. graminearum* have the potential to infect common bean cultivars as demonstrated in recent studies. These findings suggest that changes in the pathogen population may be occurring over time and stress the need to acquire new information on root rot pathogens in Manitoba bean crops in order to design effective control measures and to screen for host resistance.

In 2010, year 2 of a 4-year study funded by MPGA was initiated to survey crops of field bean at 40 different locations in southern Manitoba where most field beans are grown. The survey for root diseases was conducted in mid-July when most plants were at the late vegetative to early flowering stages.

At three random sites from each of 40 commercial bean fields, 10 plants were collected and rated for severity of root rot. Root diseases were rated on a scale of 0 (no disease) to 9 (death of plant). Isolations were made from the roots of fifteen diseased plants from each field and the fungal colonies were examined for pathogen identification in the laboratory. *Fusarium* spp. were more frequently isolated from diseased roots than were *Rhizoctonia* spp. Identification of *Fusarium* spp. and *Rhizoctonia* spp. isolated from the root rot lesions is ongoing, as is the development of rapid methods for detection of prevalent *Fusarium* species. Pathogenicity tests of the predominant isolates of *Fusarium* will be conducted using a susceptible bean cultivar during the winter/spring of 2010–2011.

This 4-year study will identify the predominant pathogens associated with root rot of field bean in Manitoba. Bean breeders and pathologists will use this information to develop cultivars with improved resistance to root rot. Dry bean cultivars with better root rot resistance will result in reduced yield losses and ultimately improve the profitability of bean production in Manitoba. 🌱

Acknowledgements

The funding provided by MPGA for these studies is greatly appreciated. Technical support provided by D. Hausermann, T. Kerley, T. Henderson, W. Penner, and D. Stoesz is gratefully acknowledged.



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Brent VanKoughnet, M.Sc. P.Ag.
Agri Skills Inc.

Brent VanKoughnet of Agri Skills Inc. was contracted by MPGA to explore the effect of multiple seeding rates of soybeans with three different seeding implements in a full field scale environment.

In Carman, Manitoba on May 24th, certified Portage soybeans with a 2x rate of liquid inoculant were sown into wet soil conditions with the following seeding implements:

- a Bourgault single-manifold air drill on 8-inch spacing with narrow openers and a coil packer
- a John Deere multi-manifold air drill on 10-inch spacing with narrow openers and on-row packing
- a John Deere max-emerge vacuum planter on 15-inch spacing.

Each seeding implement sowed 61–63 ft. strips at a high, medium and low seeding rate in strips that were approximately 1,500 ft. long, equivalent to two acres. Each treatment was

replicated four times. A 50-foot strip (2 x 25 ft.) was harvested out of the centre of each of the treatments.

The table below summarizes the initial target seed rate, the target plant stand, the actual plant stand and the average yield of the four replicates for each treatment.

Treatment (average)	Seeds Planted	Target Stand	Actual Stand	% of Target	Yield* (bu/ac)
8-inch high	235,955	210,000	162,192	77.23%	32.4
8-inch medium	201,124	179,000	141,264	78.92%	30.8
8-inch low	165,169	147,000	121,208	82.45%	30.1
10-inch high	235,955	210,000	155,216	73.91%	29.6
10-inch medium	201,124	179,000	132,544	74.05%	29.3
10-inch low	165,169	147,000	116,267	79.09%	26.9
15-inch high	202,247	180,000	164,808	91.56%	33.9
15-inch medium	171,910	153,000	140,029	91.52%	33.4
15-inch low	141,573	126,000	119,827	95.10%	31.5

*Note – yields across the entire field were reduced from their mid-season potential due to significant hail damage. It is believed that with four replicates the hail damage, although significant, affected each treatment equally.

KEY OBSERVATIONS

Excess moisture immediately following seeding put significant stress on all treatments, particularly the John Deere air drill with on-row packing. Plant emergence was delayed by 3–5

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days in some patches in the field, and survival rates were dramatically reduced compared to the vacuum planter strips. The Bourgault air drill strips were also affected, but not to the same degree as the air John Deere air drill strips. It is believed that the on-row packing and the ridges between the rows that washed level from the rain were the primary reasons for the reduced and delayed stand.

Continued excess moisture made weed control more difficult than normal, and limited weed control to one pass with glyphosate. The areas of the field with a poorer plant stand ultimately faced greater weed pressure.

The photos featured below visually demonstrate the plant stand of each seeding rate for each implement.

CONCLUSIONS

The 15-inch planter strips proved to have the highest yields at all seeding rates given this year's unusual conditions. The differences in yield were not as significant as expected given the dramatic visual differences at earlier stages.

Clearly the survival rate with the 15-inch planter strips was significantly better than with the strips seeded with either air drill. As a result it is not surprising that yields continued to increase with increases in seeding rates for each of the air drills. The increase in yield between the medium and high seeding rate for the 15-inch planter strips was minimal, and supports the premise that the medium seed rate may be sufficient to meet maximum economic yield potential.

Under ideal conditions it was expected that this project might also

help us understand the impact of seed distribution within the row, or the impact of clumping of seeds on yield when comparing the different systems. Given the unusual growing season and significant early moisture stresses, factors like packing techniques and perhaps subtle seeding depth differences were far more likely to effect final yields than seed distribution within the rows.

In spite of the poor growing conditions (excess rainfall, increased weed pressure and hail), this site provided important data to accompany other projects this year and in future years to confirm ideal seeding rates with different seeding equipment.

Based on feedback from producers at MPGA's summer tour, consideration should be given to include treatments with a 30-inch planter as one of the comparisons in future seeding rate projects. 🌱

8-inch



10-inch



15-inch



N.J. Holliday

*Department of Entomology
University of Manitoba*

The Manitoba Pulse Growers Association has funded a study on the effects of plant bugs on yield quantity and quality of dry edible beans. The study has three components: field surveys of commercial crops to determine what plant bugs occur on beans and when, laboratory studies of how plant bugs of different ages affect beans at different growth stages, and field studies of how plant bug infestations affect yield quality and quantity.

We have completed three summers of field surveys and have sampled a total of 17 navy bean, 10 pinto bean and 9 soybean fields. Each field was sampled weekly from crop emergence to harvest, with 20 sweep net samples taken at each of the five locations. We hand-harvested at each of the five sample locations to assess effects on yield. In the three years and three crops the species

composition of plant bugs has been similar: 83–92% have been tarnished plant bug, *Lygus lineolaris*, 3–4 % have been the alfalfa plant bug, *Adelphocoris lineolatus*, and the remainder have been members of other *Lygus* species. So, we have focussed most of our studies on effects of tarnished plant bugs. Total numbers of plant bugs in fields were relatively low in 2008 (423 adults) and 2009 (362 adults), but considerably higher in 2010 (1,022 adults). Seasonal patterns were similar in each year: tarnished plant bug adults enter bean crops in late July (R1–2 stage in dry edible beans), and females lay eggs in the stems of the plants. From these hatch nymphs, which are able to complete their development on both dry edible beans and soybeans, nymphs are most numerous at the R4–5 stage but persist into the R6–7 stage. They moult to adults, but adult numbers are greatly augmented late in the season by immigration from early-maturing crops. We were unable to detect effects of plant bugs on yield quality

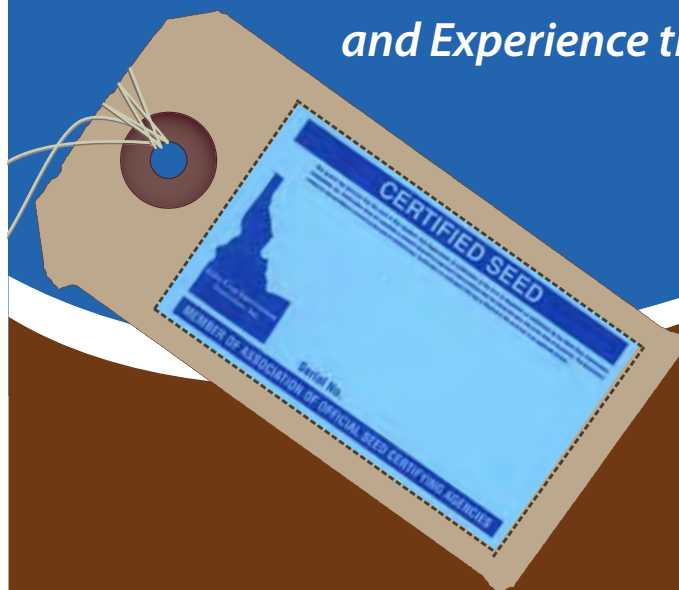
or quantity in 2008 and 2009, but there may be effects from the higher numbers of insects in 2010. Our harvest is currently being weighed and graded.

In the laboratory, we have studied the effect of feeding by tarnished plant bug nymphs and newly-emerged adults on navy beans at growth stages R1–2, R4–5 and R6–7. For each stage, we caged insects on individual inflorescences and recorded the type of injury and the effect on seed weight. At R1–2, one insect per inflorescence was sufficient to reduce total seed weight from the inflorescence significantly. The major effect of feeding was the abortion of pods. Nymphs were more injurious than adults. At R4–5, three insects per inflorescence were sufficient to cause seed weight loss, and many harvested seeds were shrivelled. Again, nymphs were more harmful than adults. At this stage, most feeding occurs on the placental edge of the pod or in the funiculus area. Through

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these tissues run the vessels conducting photosynthates to the filling seeds, so the injury prevents seed filling, resulting in the shrivelled appearance at harvest. At R6–7, even five insects per inflorescence did not significantly reduce total seed weight. However, direct feeding on the seed occurred and reduced seed quality through surface pitting. We photographed plant bug injury at each growth stage, so producers could use these photographs to recognize the early signs of plant bug attack.

In 2009 and 2010, we conducted field plot studies of yield loss caused by tarnished plant bugs. In both years, the numbers of bugs were too low to allow manipulation of populations using insecticides, so instead, we placed 1 square metre (m²) cages over growing crops, introduced bugs at a specific time, and left the insects in the cages until the time of harvest. So far, we have conducted three such experiments, but data on effects on

quality of yield have not yet been fully collated or converted into economic impact. In 2009, in a navy bean trial where 30 or 60 adult tarnished plant bugs were introduced at the R2–3 stage, the loss in seed yield was about 0.25 g/m² per bug, which translates into a seed loss of about 1/2 lb of seed per acre for each bug/m². However, it is not yet clear whether this relationship between seed weight loss and bug density will hold at the much lower densities of bugs normally encountered in Manitoba bean fields. In 2010, our plots were attacked by deer, and so only one complete trial on navy beans at the R6–7 stage could be completed. The yield from this study is currently being processed. Next year, we will focus on field plot studies to quantify the economic effect of tarnished plant bug feeding on yield as completely as possible. 🌱

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RR2Y Soybeans Have Arrived

Brent Reid, Farm Production Advisor—Pulses and **Bruce Brolley**, Manager, Industry Focus Section Manitoba Agriculture, Food and Rural Initiatives

The soybean harvest is finished and just like the Winnipeg Blue Bombers, farmers thoughts have turned to next year. In 2010, Roundup Ready 2 Yield (RR2Y) soybeans were grown commercially for the first time in Manitoba and were also tested in the provincial soybean trials. Many growers and others in the industry are anxious to see how the RR2Y varieties compared to the RR1 varieties.

There has been a lot of talk about the RR2Y giving an average yield advantage

of 7%. Was that yield advantage seen in the field this year? What about days to maturity? Are these new varieties suited to short- or mid-season zones as well as the long-season zones? Lodging can make harvest difficult and increase white mould incidence so do they have good legs? What is the seed size? How do they handle IDC?

LIES, MORE LIES AND MARKETING NUMBERS

The other important point is that the information for the RR2s is based on only one year (seven site years) of testing in the Manitoba variety trials. It is always best to look at data over two or more years, but due to the interest in RR2s, we have broken the rule and

will discuss one year data, although aggregated over five locations. Everyone knows that if a first year variety has a high yield in the *Seed Guide*, there is only way the yield goes in future years – down.

Varieties are tested in either the southern or the northern sites. The southern sites include Morden, Rosebank and four core sites – Portage, St. Adolphe, Morris and Carman. While the northern sites include Arborg, Stonewall and the four core sites – Portage, St. Adolphe, Morris and Carman. Due to high sclerotinia (white mould) pressure, the Carman site was not harvested for yield. Due to their

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Table 1

Company Heat Unit	Variety	Type	Relative Days to Maturity 2010	Yield % NSC Portage RR	Site Years Data	Relative Seeds/lb	Lodging (1–5)
2450	NSC Carey RR	RR1	0	95	5	3114	1.4
2525	S00-H7	RR1	0	96	5	3000	3.0
2500	NSC Portage RR	RR1	0	100	5	3895	2.8
	LS 006R21*	RR2	0	105	5	2441	3.1
2450	29004RR	RR1	2	95	5	4000	3.8
2550	NSC Coulee RR	RR1	2	101	5	3078	3.3
	NSC Osbourne RR2Y*	RR2	2	114	5		3.4
2500	29006RR	RR1	4	101	5	3200	3.5
2525	30005RR	RR1	4	102	5	3000	2.9
2550	29008RR	RR1	4	105	5	3000	3.5
2475	24-60-RY	RR2	4	102	5	3210	3.3
2575	25-61RY	RR2	4	107	5	2730	3.1
	LS 008R21*	RR2	4	116	5	2481	3.7

*Varieties supported, but unregistered at time of printing



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newness, the RR2 varieties were tested at all sites. The northern sites were, on average, three days later than the same varieties in southern and central sites. In order to get the best comparison, we looked at 26 varieties that were tested in the long-season zone, which included test sites at the four core sites in addition to Rosebank and Morden. Within this group of 26 varieties, 9 were RR2 and 17 were RR1.

Everyone is interested in yields; just listen to the conversations at your local coffee shop. Fooling around with the numbers, we ranked the 26 varieties from highest to lowest. To our surprise, 8 of the top 10 varieties or 9 of the top 11 varieties were RR2. The RR2 varieties had yields from 2–17% more than the check variety (NSC Portage RR), which is pretty impressive. You can see they got the yield advantage they were hoping for.

DAYS TO MATURITY – PICK ME FIRST

The very first thing you should look at when choosing a variety is Days to Maturity. If you select a variety that

has as much chance of maturing as the Bombers winning the 2010 Grey Cup, you won't be very happy come harvest time. The registered varieties available next spring are longer season ones – requiring 4–5 more days to mature than the check variety NSC Portage RR. In terms of actual calendar days this past year, Portage took 127 days from seeding to maturity. If they were seeded on May 19th they would have hit 95% Brown Pod (full maturity) on September 26th. If you had to wait another 4–5 days for the RR2Ys to mature you are looking at October 1st! What are the chances of a killing frost in your area before then? Remember, these are only the first generation of RR2Y varieties – future genetics will have earlier maturity, better agronomics (lodging resistance, IDC) than the current varieties. Three experimental entries are in the process of being registered and are worth keeping an eye on: LS 006R21, LS 008R21 and NSC Osbourne RR2Y.

AGRONOMY

Standability is important because a lodged crop will be very hard to harvest. There will be pods lying on the ground, which will be cut off resulting in yield loss. A crop that lies down is also more prone to developing white mould, which can result in more yield loss. In 2010, there seemed to be quite a bit more lodging than in other years. Using a scale where 1 is standing straight up and 5 is horizontal on the ground, the RR2s were for the most part a 2 or 3 when we averaged the trials at Portage, Morris and Carman. These numbers were consistent with many RR1s but the overall observation is that they might be a bit more susceptible to lodging. The first batch of RR2Y is due to go into the IDC tests next season so we will have that information next year. Seed size, protein and oil data will be available in the new year on the Manitoba Pulse Growers Association's website or the *Seed Manitoba* website – Seedmb.ca.

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Contract Agents and Buyers of Edible Beans

Timmerman Enterprises, Treherne (204) 723-2164

Bob Lytle, High Bluff (204) 857-9950

Les Rempel, MacGregor (204) 685-2804

Pritchard Bros, Treherne (204) 749-2284

Keystone Grain, Winkler (204) 325-9555



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Doctor Elroy Cober was raised on a mixed broiler chicken, beef and grain farm in southern Ontario. Knowing he would always work in the agricultural field, Elroy obtained his undergraduate degree in Crop Science at the University of Guelph before continuing on to obtain a masters degree in wheat genetics.

With his masters complete, Elroy decided he needed a break from school. He and his wife headed to Zambia with the Mennonite Central Committee in 1987. Collaborating with the breeding program and extension staff in Zambia was Elroy's first experience with soybeans. Elroy and his wife spent three years in Zambia working on developing the soybean industry with small village farmers. Zambia had a shortage of vegetable oil and wanted to encourage villagers to grow this new crop, soybean, which could be used for oil crushing. Dr. Cober trained extension staff on soybean production and also worked in the soybean breeding program, specifically to develop soybeans for



Dr. Elroy Cober

village farmers. These “promiscuously nodulating” soybeans would form nitrogen fixing nodules with cowpea rhizobia that already lived in the soil, since providing regular inoculum was not a possibility with the lack of refrigeration. His wife Rhoda did some work to encourage people to eat some of their own soybean since eggs, milk and meat were very expensive at that time.

Upon returning to Canada in 1990, Elroy obtained his PhD in soybean breeding. He completed his soybean-breeding post-doctorate in Ottawa with Agriculture and Agri-Food Canada, and has been working with Ag Canada since 1994.

“Working with soybeans has been very interesting,” notes Cober, “We have been trying to understand why soybean plants flower and mature when they do. By genetic control, we can change the day length requirements and push the plants to flower and mature earlier and earlier.” In his work, Cober has been able to identify new genes that control the flowering and maturity time of soybean plants. Understanding the genetic control of flowering time allows him to be able to pick parents who will have more early-maturing offspring, in order to easier breed for earlier-maturing plants. This is an important research objective for pushing the expansion of soybean production in Canada. Cober has also done research on how day length and temperature influences the maturity of soybean. Although not commercial, they have bred a soybean genetic stock that will mature in 90 days.

Since mid-1990, Manitoba Pulse Growers Association (MPGA) has been supporting research at the Agriculture and Agri-Food Canada's facility in Morden. This funding has enabled Morden to increase the amount of soybean research and enable more varietal testing in Manitoba. “Since funding from MPGA came into place, we have been able to send varieties from Ontario to Manitoba during the middle or early phase of testing versus at the end of testing,” indicates Cober. “This funding allows for a more broadly adapted breeding program as we are able to test all the way from Manitoba through to the Maritimes.” Having more testing in Morden also allows for testing of more local varieties. “Had it not been for check-off dollars being allocated, there would have been limited varieties available to Manitoba producers,” added Cober. “More funding allows for more varieties to be tested in other climates.”

Having a portion of levy dollars go to the Manitoba Crop Variety Evaluation Trials (MCVET) is beneficial to Dr. Cober's research. The MCVET trials provide Manitoba farmers with a third-party information source for new cultivars as they enter the marketplace. These trials have enabled more testing throughout Manitoba. “We have been able to add our lines to MCVET and are able to get a good read of potential in Manitoba,” adds Cober.

Through MPGA relationships, they along with six other organizations, recently formed the Canadian Field Crops Research Alliance (CFCRA). This alliance was able to leverage funding from the Government of Canada through the Developing Innovative Agri-Products (DIAP) initiative from the Agriculture and Agri-Food Canada's Growing Forward framework. The funding will be used to support 18 public breeding and genetic programs aimed at new product development and agronomic issues for growers in Manitoba, Ontario, Quebec, and the Maritimes. Dr. Cober indicates this partnership is beneficial, as a more formal coordinated relationship will be a good outcome of the DIAP.

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Seed size isn't as critical with RR2Y as RR1 as they are now sold on a unit basis.

OPTIONS FOR 2011 AND BEYOND

If you can get your hands on some RR2Y varieties to try on your own farm, it will give you a good idea how they will perform under your management and conditions. There are also a few great new RR1 varieties that have come on the scene recently. One to keep your eye on is the new Pioneer variety 900Y71. The beauty of this variety is that it is a short-season variety (-4 days to maturity) and yielded 102% of the check this year.

STILL EXTREMELY GOOD RR1 VARIETIES IN THE MARKETPLACE

Staying with varieties that have proven themselves over the years and trying some new genetics on a smaller scale is the prudent thing to do. There are predictions of a record number of acres of soybeans being planted in 2011 so it would be a good idea to secure your seed as soon as you can. 🌱

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FOB Price Report*

Including prices since October 25th as of November 8th, 2010

Multigrain International – information for the trade, by the trade.

Prices in \$CAD		2010 Dealer Price (CAD/cwt)			2010 Grower Price (CAD/cwt)		
BEANS — PINTOS	REGION	Low	High	Average	Low	High	Average
#1 – Premium Color	ID/MT/NM/OR/WA	31.26	34.29	32.60	22.18	25.21	23.87
#1 – Premium Color	AB/CO/KS/NE/UT/WY	30.25	30.25	30.25	24.20	24.20	24.20
#1 – Premium Color	MB/MN/ND/SD/SK	22.18	22.18	22.18	17.14	17.14	17.14
#1 – Good Color	MB/MN/ND/SD/SK	22.18	23.19	22.69	17.14	17.14	17.14
#1 – Fair/Average Quality (FAQ)	ID/MT/NM/OR/WA	30.25	30.25	30.25	23.19	23.19	23.19
#1 – Fair/Average Quality (FAQ)	MB/MN/ND/SD/SK	22.18	22.18	22.18	17.14	17.14	17.14
#2	MB/MN/ND/SD/SK	21.18	21.18	21.18	16.13	16.13	16.13
Splits	ID/MT/NM/OR/WA	18.15	18.15	18.15			

		2009 Dealer Price (CAD/cwt)			2009 Grower Price (CAD/cwt)		
BEANS — PINTOS	REGION	Low	High	Average	Low	High	Average
#1 – Premium Color	ID/MT/NM/OR/WA	30.25	30.25	30.25	22.18	24.20	23.19
#1 – Premium Color	AB/CO/KS/NE/UT/WY	29.24	29.24	29.24	18.15	18.15	18.15
#1 – Premium Color	MB/MN/ND/SD/SK	21.18	21.18	21.18	17.14	17.14	17.14
#1 – Good Color	ID/MT/NM/OR/WA	38.32	38.32	38.32	24.20	24.20	24.20
#1 – Good Color	AB/CO/KS/NE/UT/WY	29.24	29.24	29.24	18.15	18.15	18.15
#1 – Good Color	MB/MN/ND/SD/SK	21.18	21.18	21.18	17.14	17.14	17.14
#1 – Fair/Average Quality (FAQ)	AB/CO/KS/NE/UT/WY				18.15	18.15	18.15
#1 – Fair/Average Quality (FAQ)	MB/MN/ND/SD/SK	21.18	21.18	21.18	17.14	17.14	17.14
#2	ID/MT/NM/OR/WA	26.22	26.22	26.22			
#2	MB/MN/ND/SD/SK	21.18	21.18	21.18	16.13	16.13	16.13
Splits	ID/MT/NM/OR/WA	20.17	20.17	20.17			

*Canadian and US Pinto Bean FOB price report separated by quality, region, dealer and grower pricing.

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According to Cober, soybeans have a great fit in Manitoba, Canada and the World. He believes we will continue to have an increase in production for two reasons:

1. An increase in production is required to meet the needs of China and India. As the middle-class economy increases in those countries, there is the need for more plant protein for livestock production.
2. The health movement has caused an increase in the direct consumption

of soy plant products in the western world. Soybeans have been shown to be part of a healthy diet, consumers are eating them up: literally.

In Manitoba, soybeans are well established, hitting the 500,000 acre mark in 2010. There have been a number of years with good production and growers produce them well. Elroy notes, “If hog production increases, maybe more homegrown demand for soybeans would encourage an increase of production.” It is all about prices in

competing crops; soybean vs. canola, soybeans vs. barley. The price and yield of competing crops will always determine the attractiveness of a soybean crop.

Canada’s soybean production has increased over the years as we have adapted soybeans to shorter seasons in order to expand our production areas. As our climate continues to become slightly warmer, soybeans will continue to grow. Soybeans have a great future here. 🌱

Brian Clancey*Senior Market Analyst and Publisher*

North American dry edible bean production is up significantly over last year because of a massive increase in seeded area in the United States because last year's market gave farmers better average returns per acre than other crops, which were competing for the use of their land.

This saw total seeded area in the United States jump almost 24% to 1.9 million acres, while edible bean seedings in Canada rose just 10% to 326,000 acres. The difference in the responses can be directly accounted for by the degree to which soybeans compete for land use.

Soybean production in Manitoba has been trending upward in recent years because of the availability of varieties that do well in the province's soil zones and given the average number of days the crop has to mature.

Farmers in Manitoba planted 470,000 acres of soybeans this year, up from 412,000 last year. In its October crop report, Statistics Canada forecast production would rise from 321,100 metric tons (MT) to 400,100. In Ontario, soybean seedings inched up from 2.4 to 2.44 million acres, while production was forecast to jump from almost 2.62 to 2.83 million MT because of higher average yields.

By contrast, dry edible bean seedings in Manitoba slipped from 135,000 to 125,000 acres and production is expected to sink from 106,500 to 86,900 MT. With that change, Manitoba also lost its status as the most important dry edible bean producing province in Canada. Ontario's dry edible bean area jumped from 95,000 to 140,000 acres, with production expected to jump from 80,400 to 127,000 MT.

Most of the increase in Canadian dry edible bean plantings was accounted for by white or navy beans. Some market participants have become worried about the sustainability of white bean production in North America because of more intense competition from major grains and soybeans for land use.

During the past five years, the biofuel industry has become a major consumer of corn and vegetable oil. Mandates for inclusion of ethanol and biodiesel are such that it seems likely that this land competition will remain a factor in markets through at least 2016. The implication is that prices for dry edible beans and other pulses will be more strongly influenced by outside commodities for another five or six years than seemed to be the case prior to 2006.

Even though markets for corn, soybeans and wheat are strong this fall, North American dry edible bean markets are showing a weaker undertone because of increased supplies.

Combined production in Canada and the United States is expected to approach 1.72 million MT, up from just 1.364 million MT last year. This is the largest available supply of edible beans since 2002 and around 162,000 MT above the recent five-year rolling

average supply in Canada and the United States. The jump followed three consecutive marketing years of above average prices to growers. It took until last season, however, for returns from edible beans to outdo other crops by a wide enough margin to pull land into the commodity.

So far this season, weighted average grower bids in the United States have averaged 19% less than the 2009–10 season average. Black beans are suffering one of the worst season over season declines, with grower bids averaging 24.64 cents per pound so far this marketing year, down almost 33% from last season. Average pinto bean bids so far this season are down 26% at 19.73 cents in North Dakota and Minnesota; while average navy bean bids are down 16% at 26.45 cents in Michigan; and great northern bids off 12% at 26.64 cents per pound in the U.S. midwest.

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The USDA reports that in September, the average price paid for soybeans in the United States was up around 2% from last year \$9.94 per bushel. Corn was up over a third at \$4.34 per bushel.

There are reports that some dry edible bean growers in Canada already plan to replace edible beans with soybeans next spring. In the middle of October, farmers could easily hedge next year's soybeans at over \$11 per bushel on the Chicago Board of Trade. By contrast, there are no price indications for next year's edible beans and limited public information about current crop prices.

When one market has limited price transparency and others are completely in the open, the invisible market typically faces greater problems attracting and maintaining grower interest.

Argentina's largest edible bean producers solved the problem by becoming more vertically integrated. They own processing facilities and have extended themselves into export markets. As big a factor as China can be on world markets for black and pinto-type beans, some companies who actively work with farmers there complain about the loss of land to corn and soybeans, because those crops are easier and less risky to grow and market.

In Canada and the United States, farmers started slipping away from edible beans before corn and soybean markets exploded on account of biofuel mandates in the United States. This is clear looking at the rolling average acreage for dry edible bean seedings for Canada and the United States. Production averaged 1.85 million MT from almost 2.2 million acres at the start of the current decade. By 2005, production averaged 1.62 million MT from 2.03 million acres, while today production averages 1.63 million MT from 1.98 million acres.

Two things have changed in the past 20 years. Firstly, there are now fewer companies involved, resulting in less competition for non-contract production. Secondly, more of the business seems to be covered by long-


term contracts between growers and companies and between originating companies and packagers and canners. These contracts may include clauses that forbid the parties from discussing pricing details.

The grower share of the dry edible bean market is not what it used to be. In the first half of the 1990s, growers in the United States received an average 83.3% of the market value of all classes of dry edible beans. That dropped to 79.4% the last half of the 1990s and to just 77.7% of the market value of beans the first half of the current decade. Competition from corn, wheat and soybeans for land use since 2005 has seen growers' returns improve to an average 80.2% of the market value of beans.

As much as the industry worries about the sustainability of dry edible bean production in North America, the move out of beans is more an

erosion than a flood. The children of retiring farmers are not always as keen as their parents about growing a crop with more market risks and weak price discovery mechanisms. In some cases farms are being bought by people who not interested in growing edible beans, possibly withdrawing that land from the production on a permanent basis.

On the plus side, there seems to be good potential to expand edible bean production in Saskatchewan, as long as the varieties suited to the province are available. More farmers in North Dakota seem to be using pulses as part of their rotations, helped by the rapid expansion of the lentil and field pea industry in the state.

However, the challenge still remains in somehow building a more open marketplace, which price discovery is more in the open, as is the case with peas and lentils. 

NORTH AMERICAN BEAN SUMMARY

AREA (acres)	2005	2006	2007	2008	2009	2010
Canada	504,300	451,451	391,100	329,400	294,900	326,100
United States	1,636,122	1,628,464	1,531,636	1,499,726	1,537,500	1,900,000
Total	2,140,422	2,079,915	1,922,736	1,829,126	1,832,400	2,226,100
PRODUCTION (MT)						
Canada						
Coloured	210,600	222,800	178,400	162,300	156,700	134,800
White	119,100	151,100	105,200	108,900	67,200	103,000
Cdn Total	329,700	373,900	283,600	271,200	223,900	237,800
United States						
Pinto	571,578	431,960	534,247	465,254	495,056	660,506
Black	81,557	121,246	127,143	132,586	136,533	200,494
Navy	181,212	197,451	173,818	206,024	151,139	227,229
Great Northern	71,895	53,978	53,797	72,485	45,314	71,200
Other	314,548	297,104	275,681	290,043	322,319	319,855
U.S. Total	1,220,790	1,101,740	1,164,686	1,166,392	1,150,361	1,479,285
Total Production	1,550,490	1,475,640	1,448,286	1,437,592	1,374,261	1,717,085
Opening Stocks	127,000	197,000	164,000	119,000	124,000	70,000
Total Supply	1,677,490	1,672,640	1,612,286	1,556,592	1,498,261	1,787,085
Rolling Average	1,619,815	1,649,359	1,589,804	1,562,755	1,603,454	1,625,373
AVERAGE PRICES (US\$/cwt)						
Dealer	23.93	29.71	40.18	40.34	37.91	30.80
Grower	18.97	23.76	31.92	32.65	30.99	25.25

BASED on data from USDA, Statistics Canada and STAT Publishing's statpub.com

MANITOBA PULSE BUYER LIST – NOVEMBER 2010

B–Beans, F–Fababeans, L–Lentils, P–Peas, S–Soybeans

Company	Commodity	Phone	City/Town	CGC Registered
Agassiz Feeds	P	204-638-5840	Dauphin, MB	N
Agassiz Global Trading	B, S	204-745-6655	Homewood, MB	N
AgriTel Grain Ltd.	P, S	204-268-1415	Beausejour, MB	N
Alliance Pulse Processors Inc.	B, P, L, S	306-525-4490	Regina, SK	Y
• SaskCan Pulse Trading – Parent Division	B, P, L, S	204-737-2625	St. Joseph, MB	Y
B.B.F. Enterprises Ltd.	S	204-737-2245	Lettellier, MB	N
B.P. & Sons Grain and Storage Inc.	S	204-822-4815	Morden, MB	N
Belle Pulses Ltd.	P	306-423-5202	Bellevue, SK	Y
Best Cooking Pulses Inc.	P, L	204-857-4451	Portage-la-Prairie, MB	Y
Brett-Young Seeds	P, S	204-261-7932	Winnipeg, MB	N
Cargill Ltd.	P	204-947-6219	Winnipeg, MB	Y
Delmar Commodities	S, P	204-331-3696	Winkler, MB	Y
• Jordan Mills	S	204-331-3696	Winkler, MB	Y
Global Grain Canada	B	204-829-3641	Plum Coulee, MB	Y
Hensall District Co-op	B	204-295-3938	Winnipeg, MB	Y
Horizon Agro	S	204-746-2026	Morris, MB	Y
Hytek Ltd.	P	204-424-2300	La Broquerie, MB	N
JK Milling Canada Ltd.	P	306-586-6111	Regina, SK	Y
Kalshea Commodities Inc.	P	204-737-2400	Altona, MB	Y
Kelley Bean Co. Inc.	B	308-635-6438	Scottsbluff, NE	N
Linear Grain	B, S, P	204-745-6747	Carman, MB	Y
Nutri-Pea Ltd.	P	204-239-5995	Portage la Prairie, MB	N
Nu-Vision Commodities	B	204-758-3401	St. Jean Baptiste, MB	N
Parrish & Heimbecker Ltd.	P	204-987-4320	Winnipeg, MB	Y
Paterson Grain	P, S	204-956-2090	Winnipeg, MB	Y
Quarry Grain Commodities	S	204-467-8877	Stonewall, MB	N
R-Way Ag Ltd.	P, S	204-379-2582	St. Claude, MB	N
Richardson International	P	204-934-5627	Winnipeg, MB	Y
• Richardson Pioneer Ltd.	P, S	204-934-527	Winnipeg, MB	Y
• Tri Lake Agri	P	204-523-5380	Killarney, MB	Y
Roy Legumex	B, F, L, P, S	204-758-3597	St. Jean Baptiste, MB	Y
• Fisher Seeds Ltd.	F	204-622-8800	Dauphin, MB	Y
• Duncan Seeds	B	204-822-6629	Morden, MB	Y
S.S. Johnson Seeds	P, B	204-376-5228	Arborg, MB	Y
Seed-Ex Inc.	S	204-737-2000	Lettellier, MB	Y
Southland Pulse	P	306-634-8008	Estevan, SK	Y
Sunrich LLC	S	507-46-5642	Hope, MN	N
Thompsons Limited	B, P, L	519-676-5411	Blenheim, ON	Y
• Keystone Grain	B, S	204-325-9555	Winkler, MB	Y
• Circle T Agri Services	B	204-723-2164	Treherne, MB	Y
• Y2K Farms	B	204-252-2132	Edwin, MB	Y
Vanderveen Commodity Services	S	204-745-6444	Carman, MB	Y
Viterra	P, S	204-954-1528	Winnipeg, MB	Y
Viterra Special Crops	B, F, L, P	204-745-6711	Carman, MB	Y
• Receiving Station	B	204-856-6373	Portage la Prairie, MB	Y
• Plum Coulee	B	204-829-2364	Plum Coulee, MB	Y
• Prairie Mountain Agri Ltd.	P	204-937-6370	Roblin, MB	Y
Walhalla Bean Co. (Canada Ltd.)	B	701-549-3721	Walhalla, ND	Y
• Winkler Receiving	B	204-325-0767	Winkler, MB	Y
Walker Seeds Ltd.	P	306-873-3777	Tisdale, SK	Y

To be included on our Manitoba Buyers List, companies should contact the MPGA office at 204-745-6488 to register.

Note: These companies are authorized to deduct and remit levy to MPGA. This list is provided by MPGA as a convenience to our members. MPGA accepts no responsibility or liability for the accuracy of the completeness of the information provided. It is your personal responsibility to satisfy yourself that any company you deal with is financially sound. Questions regarding licensing and security should be directed to the Canadian Grain Commission at 1-800-853-6705 or 1-204-983-2770.

RECIPE CORNER

The Pea-rogee

Dough

1 large egg*
60 g (¼ cup) melted butter
3 Tbsp sour cream
150 ml (⅔ cup) water
240 g (2 cups) all-purpose flour
220 g (1 ¾ cups) BCP Organic Chickpea (or any chickpea) flour
**Use Omega Pro eggs for the DHA health benefit and lutein for the nice yellow colour*

Cheese and Potato Filling

400 g (1 ¾ cups) mashed baked potato
300 g (1 ½ cups) drained canned chickpeas
2 Tbsp sour cream
125 g (½ cup) extra old cheddar cheese
1 Omega Pro egg yolk (keep egg white to seal edges)
20 g (1 ½ Tbsp) butter
125 g (½ cup) onions chopped
Garlic purée or chopped garlic (to taste)
Turmeric (to taste)
Salt and pepper (to taste)

Directions

Dough

Blend egg, sour cream, and melted butter (ensure butter is not too hot, egg protein should not cook) until smooth. Mix all-purpose and chickpea flour then add to egg mixture alternating with water. Knead dough until smooth. Rest dough in fridge for minimum 2 hours before rolling.

Making the Pea-rogee

Portion off as much dough as you can roll at one time (keep the rest covered), and roll 3 mm (1/8 inch) thick on a floured surface. Cut with a round cup or cutter into 3–4 inch diameter circles. Use egg white to moisten outside edge of dough rounds. Place filling (1 Tbsp) into centre and fold rounds in half, and pinch all around edges to seal well.

You want your Pea-rogee to be plump, but keep the filling in the centre and away from the edges or it won't seal properly. The potato filling can be pushed down with your finger a bit if needed. Place Pea-rogees on floured baking



Recipe courtesy of Dylan MacKay, Richardson Centre for Functional Foods and Nutraceuticals.

Dylan was winner of the national Mission ImPULSEible competition held at the CSCA convention in July.

Editor's Note – This being a science project, metric measurements were provided and then converted to Imperial measure equivalent as accurately as possible.

Filling

Mix ingredients in a food processor or with an emersion blender until a relatively homogenous and smooth consistency is reached. Add turmeric, salt and pepper to taste. Place filling in fridge until it has cooled to a firmer consistency (2–3 hours).

sheet, and cover with a tea towel if not boiling right away (the dough will dry if left out for too long). You can freeze them raw in single layers on floured baking sheets to bag later (they freeze fairly quickly).

From this point the frozen Pea-rogees can be cooked any way you'd normally prepare a perogy. I recommend boiling for 3–4 minutes (fresh) or 5–6 minutes (frozen) followed by pan frying in browned butter. Or grilling the boiled Pea-rogees directly on the BBQ with no additional fat.

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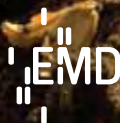
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