ALBERTA Barley COMMISSION

Barley Country

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Inside Barley Country

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direction

Board sets out plans and goals for 2009/2010

Barley is already one of Alberta's largest and most important crops. Even so, the Alberta Barley Commission is thinking bigger.

Working on behalf of the province's 17,000 barley growers, the Commission has developed decisive plans for its 2009/2010 fiscal year to ensure long-term sustainability and opportunities for Alberta's barley industry.

The plan has four objectives to:

- Develop and deliver a communications and extension plan to give producers new tools and information that help them earn more from barley.
- Continue to develop and carry out activities that increase existing and emerging opportunities and options for barley producers
- Support and contribute to the renewal and growth of Alberta's main barley customers, the livestock industry
- Identify, rank and act on research priorities.

The Commission's Board of Directors developed the plans and objectives during an intensive two-day strategic planning retreat in Canmore in early April.

At the same time, directors confirmed the Commission's long-term strategic priorities (see sidebar on page 2) and allocated new research funding for 2009/2010. The Commission estimates new research funds of between $500,000 to $625,000 will be generated by an increase in check-off dollars. Effective Aug. 1, 2009, barley producers will pay $1.00 for every tonne of barley (or about two cents a bushel) they sell, up from $0.50/tonne (about one cent a bushel).

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message

Growing a new generation of farmers

In recent years, economic downturn aside, the number of workers in almost every industry in Alberta has grown. The exception is in farming.

Fewer and fewer people want to be farmers and live on farms. Canada's 2006 census found that Alberta's farm population had dropped 6.5 per cent in the previous five years to 155,095. The decline began long before 2001. In 1931, 375,097 Albertans, more than 51 per cent of the population, lived on farms. By 2006, just 4.7 per cent of Albertans lived on farms.

At the same time, farmers are getting older, especially when compared to the rest of Alberta's workforce. A recent survey by the Alberta Agricultural Products Marketing Council found about six of 10 farmers or 60 per cent are between the ages of 45 and 64; three in 10 or 30 per cent are over the age of 65. By comparison, Statistics Canada reported in 2007 that workers 45 to 64 years old represented 34.7 per cent of Alberta's overall workforce. The same year, workers over the age of 65 in Alberta's overall labour pool made up less than 15 per cent of the province's workforce.

Obviously, farming continues—and often thrives—in the face of this trend. Science and technology has made it easier for fewer farmers to have bigger and more productive farms.

But technology can only do so much. And it can never completely replace the need for new generations of farmers.

It takes about 10 years to develop a new variety of grain. It could take just as long (or longer) to develop a new breed of farmer. At the Alberta Barley Commission, we've already started. During the past two years, we've worked very hard to attract young farmers to our organization. Farmers like Matt Sawyer, Trevor Petersen, Mike Ammeter, Greg Stamp, Lee Markert, Andrew Otto and Brad Berger are among barley's next generation of farmers. And they are more than young, they are well-educated, knowledgeable and innovative. And they have remarkable leadership potential.

We'll continue to recruit, promote and support young farmers. Like barley itself, young barley farmers need many inputs and favorable conditions if they are going to remain and thrive in this industry.

That means everything from encouraging young people to be a part of primary agriculture right through to working with government and financial institutions to help capitalize young farmers. We also need to continue doing more of what we do: representing and advancing the interests of our producers.

As an industry, agriculture needs to be stronger and more effective. And we need to tell more people about the benefits and opportunities farming offers.

Despite its shrinking numbers, farming is a growing industry. We continually find better ways to do things. Where we don't excel is in celebrating our accomplishments. Once we do that, I think it will be much easier to attract a new generation of farmers to our fields.

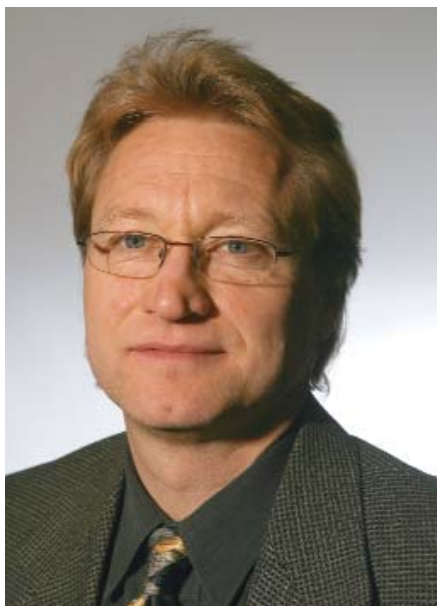

photo credit: Dave Olecko

Terry Young

Terry Young is the 2009 chairman of the Alberta Barley Commission and a Lacombe barley producer.

research

Portion of check-off dollars eligible for tax credit

If you're an Alberta Barley Commission member, you're eligible to claim a provincial investment tax credit (ITC) on the 37 per cent of your check-off dollars that the Commission uses for research and development.

You may also be eligible for an ITC credit on the check-off dollars you pay to other producer groups; the allowable percentage varies by group.

If you're an individual farmer, you can claim an ITC of 20 per cent of the portion of your check-off dollars used for research and development. For example, if your Commission check-off dollars were $1,000, you can claim an additional ITC rebate of $74 ($1,000 x 20 per cent x 37 per cent = $74).

If your farm operation is incorporated, you can claim an ITC of 35 per cent. For example, if your Commission check-off dollars were $1,000, you can claim an additional ITC rebate of $129.50 ($1,000 x 20 per cent x 35 per cent = $70).

To qualify for an ITC, you'll need a receipt showing you've paid check-off dollars to the Commission or other producer groups. ITCs can be:

- Used to offset federal tax owing in the current year, or
- Used as a refund, if you do not owe in the current year. Individuals can receive a refund of up to 40 per cent; corporations can receive a 100 per cent refund, or
- Carried forward up to 20 years to offset federal tax, or
- Carried back up to three years to reduce federal tax paid in those years. You have up to 12 months after the filing due date to apply for the credit.

The Canada Revenue Agency asks you apply for the ITC only after learning the eligible percentage of the member groups to which you belong. Visit www.albertabarley.com or Canada Revenue Agency at www.cra-arc.gc.ca/sred for more details.

Board sets out plans and goals for 2009/2010

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The Board agreed allocate its new research funds as follows: 28.2 per cent to bioproducts; 22.5 per cent to agronomy and production; 18.75 per cent to feed; 16.25 to malting barley; and 14.4 per cent to food and nutrition. The Board also agreed to continue its ongoing support of regional varietal trails.

"Developing our strategic priorities is the most important meeting of the year and helps us go forward with renewed vigour," Commission chairman Terry Young says.

"This session brings forward a lot of very good discussion and . . . is a very good example of give and take," Commission vice-chairman and Region 5 director Albert Wagner says.

Commission CEO Mike Leslie, office and projects manager Nikki Jeffrey and other staff and contractors will now use the Board's 2009/2010 strategic priorities to develop scenarios for the organization's next budget and operations plan. They will also determine measures of success for each priority so the Commission can gauge its effectiveness and progress, and be accountable to Alberta's barley producers.

The Commission's long-term strategic priorities

- Ensure the long-term sustainability of Alberta's barley industry and the Alberta Barley Commission
- Leverage partnerships with like-minded stakeholders to optimize opportunities and impact
- Develop mechanisms for producers to capture more value from barley.

More on managing your input costs

In a 2008 survey of Alberta agricultural producers, commissioned by the Alberta Agricultural Products Marketing Council, 81 per cent of farmers say their biggest concern is rising input costs (see story on page 4).

With this in mind, along with responses to our January 2009 article Managing Your Input Costs, Barley Country will feature a regular column on how to manage fluctuating costs in a volatile market.

In this issue, we asked Karla Bergstrom, a grains and oilseeds economist with Alberta Agriculture and Rural Development, to share her views and advice.

Start with a look at the "bottom" half of your costing profile. This is not seed, chemicals, fertilizer and fuel, but things like trucking and custom work, repairs and maintenance, utilities and miscellaneous, as well as paid and unpaid labour. Look at your land rental agreements and ask yourself if you can use an innovative agreement that benefits both parties or are you satisfied with the status quo?

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Preparing a good business plan and other information for your banker is an exercise that will make you money not cost you money.

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Ask yourself where you can tighten these expenses, your crop expenses and overhead costs. In short, you have to look at everything and target a few areas that can improve your bottom line.

I recommend doing an investment statement for your operation. This identifies where you have money invested in things like equipment, supplies and buildings and if that investment is working hard enough for you.

When you're trying to protect your revenue, look at more than just crop insurance. For example, Agriculture Financial Services Corporation (AFSC) offers a Spring Price Endorsement (SPE) plan, which protects against price declines from spring to fall. If prices decline by 10 per cent or more from spring to fall, SPE will pay you the difference between the spring price and the fall price on all production up to your yield coverage. The maximum price drop covered under SPE is 50 per cent; SPE can be purchased along with crop insurance.

When SPE is purchased, producers also receive Revenue Insurance Coverage (RIC), which safeguards against abnormally low prices. AFSC has established a floor price for all crops included under RIC, and producers are paid when prices fall below the floor price.

Current commodity prices are putting the squeeze on many producers and if you're one of them, you need a strategy to deal with that. When you do identify a strategy for your operation, you have to know what it's going to cost you. Right now, anything that costs $1 to $2 an acre could be substantial because margins are so tight.

Some costs have risen quickly. Glyphosate is going to cost you 20 per cent more than it did last year. As we get deeper into spring and demand grows, it's definitely not going to get any cheaper.

You need to get smarter about doing things. If you have a big operation you probably already think like business managers in other sectors. If your operation is struggling, then

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ALBERTA Barley COMMISSION

Alberta ***is*** Barley Country.

This province grows more barley than any other province, and Alberta's output typically accounts for half of Canada's annual crop. Barley production for feed, malt and food is an important economic activity in Alberta.

See past issues *Barley Country* at www.albertabarley.com

Barley Country is published quarterly by the Alberta Barley Commission to inform producers of new technology and developments affecting barley production and to promote new markets for Alberta barley growers.

Barley Country is circulated to more than **30,000** producers, agrologists, researchers and grain industry representatives. One year subscription rates for non-members are $15 within Canada and $20 outside Canada.

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Editor: Terry Bullick, Bullick Communications Co. tbullick@telusplanet.net

Design/Layout: Sherry Mumford, Connections Desktop Publishing

Advertising sales: Cj Perrin

Contributors: Robyn St-Hilaire, Chris Zwick, Richard Phillips, Michael Interisano, Kelly Turkington and Bill Chapman

Alberta Barley Commission
#200, 3601A – 21 Street NE
Calgary, AB T2E 6T5
1-800-265-9111

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survey

Ag Council survey highlights farmers and their concerns

Just who are today's farmers—and what do they want from their industry associations? That's the central question behind a 2008 producer survey commissioned by Alberta Agricultural Products Marketing Council.

More than 600 Alberta producers responded to the survey. Their answers are helping the province's 20 ag marketing boards and commissions, among them the Alberta Barley Commission, better understand how to meet their members' evolving needs and expectations.

The survey's main findings were:

- Alberta farmers are aging: 90 per cent are over the age of 45
- Alberta has four distinct types of farmers with different levels of production, earnings and views
- 78 per cent of farmers focus on the long-term sustainability of their land
- 81 per cent of farmers say their biggest concern is rising input costs
- Only 10 per cent of Alberta's agricultural producers are active in an ag board or commission
- Farmers have mixed views about whether check-off dollars or service charges help their profitability
- 20 per cent of responding farmers did not know the roles of boards or commissions.

Furthermore, about 20 per cent of Alberta's barley farmers grow about 80 per cent of the province's annual barley crop of between five and six million tonnes.

"The survey raised some tough questions for us," Terry Young, chairman of the Alberta Barley Commission, says. "Do we represent the interests of 80 per cent of all barley producers or do we represent the interests of farmers producing 80 per cent of Alberta's barley?"

That question is one most of Alberta's ag boards and commissions will need to face, Marinus Van Dijk says. A senior vice president with

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Farmer profile

- 44 per cent of farms have sales of less than $50,000/year
- Less than one in five (20 per cent) have annual farm sales of more than $250,000
- Half of farmers name field crops as their main farm enterprise; 35 per cent say livestock is their main farm enterprise
- Seven of 10 respondents earned at least some income off-farm; a third count on off-farm earnings for at least half their income
- 48 per cent of farmers say their farm operation is steady; one-third say they are starting to reduce their operation
- About six in 10 farmers are 45 to 64 years old; three in 10 are 65 years and older
- 70 per cent of farmers consider their agricultural operation to be both a business and a lifestyle
- 86 per cent describe their agricultural operation as a family farm.

Farmer/producer segments

The survey divided producers into four segments, each with distinct views and needs.

Casual/small operator

- Small/lifestyle, hobby farmers
- Low farm income, derive most of income from off-farm
- Farming is more a way of life than a business. Least likely to re-invest in farm operation
- Not likely to adapt to changing markets/new technologies
- More likely to feel that farming is no longer viable
- Least likely to be involved in Alberta boards & commissions
- Few see benefits from boards & commissions programs/services
- Most likely to not have paid levies/check-offs/service charges to boards & commissions in 2007
- Least likely to feel levies/check-offs/service charges have helped their profitability

Borderline commercial

- Below average in farm sales
- Highest proportion of older producers
- Struggling financially—highest percentage who feel farming is no longer viable
- Don't view themselves as innovators/leaders
- Most likely to rate farm inputs cost as the main threat to their farm
- Most likely to consider access to capital a threat to their operation
- Not likely to be involved in Alberta boards & commissions
- Not likely to feel that levies/check-offs/service charges have helped their profitability
- Most likely to not know the role of Alberta boards & commissions

Traditional

- Slightly above average in farm size and sales, viable operations
- Most of family income comes from farm
- Most are maintaining their operation, yet more are expanding than winding down
- Most likely to describe their operation as both business and lifestyle
- Higher percentage of family farms
- Most likely to re-invest in their operation, versus off-farm
- Most likely to support local business
- More likely to feel that levies/check-offs/service charges contribute to their profitability
- Most likely to feel that the role of Alberta boards & commissions is market development

Progressive commercial

- Clearly "commercial, business oriented"—most likely to describe their operation as a business
- Largest group with farm sales of more than $250,000
- Successful / viable and most likely to be expanding
- Slightly younger
- Most likely to pursue new technology, new farming methods
- Perceived as leaders, other farmers ask for their advice
- Most involved in Alberta boards & commissions.
- Most active in other agricultural organizations
- Most likely to feel levies/check-offs/service charges help their profitability
- Most likely to see benefits of services or programs offered by boards & commissions

Ag Council survey highlights farmers and their concerns

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Ipsos Forward Research, which conducted the survey, Van Dijk says boards and commissions will have to decide how to meet the differing interests of small (hobby), borderline commercial, traditional and progressive commercial farmers.

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Don Macyk, chairman of the Marketing Council, says some survey results are surprising, especially how few farmers are looking at expansion and diversification in the future and the relatively low number (20 per cent) of farmers pursuing new development and technology. Other surprises include the relatively low number of farmers (36 per cent) who see investing in their business as positive and the disproportionate focus on increased costs versus new revenues.

Macyk adds some results are expected, such as the high level of commitment to good stewardship, quality, providing for customer satisfaction, and the relatively low focus on market, policy, research and investment issues/threats.

"While our survey results are based on an Alberta sample, they do stack up similar to surveys in the American Midwest and Australia," Macyk says. "The forces of change that are at work here are quite similar to those in competitive jurisdictions."

Van Dijk says the survey also points to a greater need for communications from boards and commissions to their members to encourage more participation.

"It's a big job, but it's not good to have low levels of participation. Farmers have to be more active and have to participate because they need a voice in their industry," Van Dijk says.

Complete survey findings are posted on the Alberta Barley Commission's website, www.albertabarley.com.

Don't miss the 2009 Lacombe Field Day on July 30. See details on page 13.

Key survey findings

Attitudes

- 78 per cent of farmers tend to focus on the long-term welfare and condition of their land
- 58 per cent take pride in giving customers what they want
- 54 per cent struggle to maintain the financial viability of their farm.

These views vary by region, producer type, farm sales and farm enterprise.

Producers with gross sales under $50,000 a year struggle the most with farm finances and rely more on off-farm income.

Issues/Threats

Alberta producers reported these three issues and threats as the most important:

- Cost of farm inputs, 81 per cent
- Restricted market access, 26 per cent
- High Canadian dollar, 23 per cent.

Farmers with annual gross sales of more than $50,000 a year are also concerned about high elevator and transportation costs and international farm subsidies. Farmers identified government regulations to be a concern in the future.

Board and commission involvement

- About one-tenth of Alberta producers say they are currently actively involved with an Alberta board or commission
- 69 per cent have never been actively involved
- 20 per cent used to be involved.

About 20 per cent of progressive commercial farmers are involved in boards and commissions. Producers say the main reason for not being involved is a lack of time or resources or that they will have minimal influence.

Japan eyes more Alberta barley for shochu, beer and tea

Japan's interest in Alberta barley continues to grow.

During a recent trip to Japan, Mike Leslie of the Alberta Barley Commission and Bill Chapman of Alberta Agriculture and Rural Development shored up more support for exporting specialized barley for shochu, beer and tea.

Alberta Ag's Bill Chapman (above) says Sanwa wants to move ahead with new shochu barley varieties.

The Advancing Canadian Agriculture and Agri-Food program, delivered in Alberta by the Ag and Food Council of Alberta, supported funding for the trip.

During the 17-day overseas mission (which also included a visit to Australia; see story on page 14), Leslie, the Commission's CEO, and Chapman, who is with Alberta Agriculture's Crop Business Development Branch in the Rural Extension and Industry Development Division, met with three organizations. They included: Sanwa Shurui, a shochu producer and a partner in Alberta's shochu barley project; the Japanese Barley Tea Association; and Sapporo, a brewer involved in an Alberta supply chain project.

At the meeting with Sanwa, Leslie and Chapman presented company officials with 10 samples of "superior" barley grown on tests plots in the 2008/09 crop year. The one-kilogram samples were from 10 varieties that performed similar to or better than AC Metcalfe, which, to date, has been the project's variety of choice. A total of 26 varieties of barley were grown in research and regional trials in 2008 for the shochu project.

The samples were analysed for size, shape/uniformity, plumpness and pearling yield. In particular, shochu producers look at the single kernel character score (SKCS) of barley because they require a medium hardness that doesn't break down during pearling before the kernel is turned into alcohol. All samples were well received and one in particular stood out.

"As a result Sanwa is sending two scientists to Alberta this April to further evaluate the samples and to conduct tests for alcohol yields," Chapman says.

The scientists will conduct those tests with University of Alberta scientist Dr. David Bressler in his labs at the Faculty of Agricultural, Life and Environmental Sciences. Together they will also try to develop a "fast" alcohol test that reduces test times from a matter of weeks to a matter of days or hours.

"It's a good indicator that they want to move forward with some new varieties and that the samples we presented have very good quality profiles," Chapman says. "Sanwa's goal is to make Alberta its second preferred source of barley, behind Australia." Currently, nearly 100 per cent of the shochu barley Sanwa imports is from Australia.

"We know we can produce a high-quality pearling barley," Leslie says. "The next step is to determine if our barley can produce the yields of alcohol Sanwa needs."

If Alberta barley passes the test, shochu exports could increase to 20,000 tonnes in 2010. In 2008, Alberta shipped 10,000 tonnes of shochu barley to Japan. In 2006 and 2007, the province shipped 5,000 tonnes of sample lots of AC Metcalfe barley for evaluation. A premium crop, shochu barley sells for about same price as malting barley and offers farmers a marketing opportunity without increasing costs or risk.

Sanwa's goal is to make Alberta its second preferred source of barley, behind Australia.

On the second leg of the Japanese tour, Leslie and Chapman met with the Japanese Barley Tea Association to discuss supplying about 24,000 tonnes of Alberta barley annually for mugicha, or barley tea.

Leslie notes production would be under contract. The barley grown would be premium grade, but its standards would not be quite as high as malting barley as protein requirements are more flexible. For now, Leslie says the six-row variety being considered is a "trade secret."

Chapman says what makes the variety so attractive is that it is already widely grown in Alberta and wouldn't require testing or ramping up for commercial production. But it could still take several years to develop a market contracting program and test new varieties for continued improvements.

The pair's next stop was with Sapporo, which uses a collaborative contract farming system (or value chain) to produce its Black Label Draft and Yebisu brands of beer.

"We wanted to discuss and confirm the importance of the value chain to Central Alberta farmers and Rahr Malting," Chapman says.

Chapman and Leslie ended their tour in Japan with visits to Kenji Makise, who works in the Alberta government's Tokyo office, and with Derek Sliworsky and Scott Morita of the Canadian Wheat Board's Japan office.

More on managing your input costs

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you need to adopt some of that thinking.

One of the places to start is with your lenders. Bankers and lenders still see agriculture as a strong industry with strong ratios compared to other commodities like oil and metals. When you're working with your banker, you have to be open and willing to put in time "pushing the pencil." Preparing a good business plan and other information for your banker is an exercise that will make you money not cost you money.

You might be set in your ways and maybe you've farmed for years a certain way, but it's never too late start managing in new ways—and making a difference to your operation.

I have heard from so many people who say they know their costs, but their numbers are all in their head. Do you think corporate executives and managers keep their numbers in their heads? No! If I have learned anything from my mentor, it is that you cannot manage what you do not measure. Year to year profitability is an unknown and you can't manage something that just exists in your mind.

To manage your input costs and your entire operation you have to treat it like a business, whether your farm is family-run or a corporation. You may have to step away from focusing on production and technology and ask, "Why am I producing this crop and what am I getting out of it?"

If you're a guy who just likes to drive a tractor, maybe it's time to hire a business consultant. And if you're a guy who is good at the business side of farming, maybe it's time to hire someone to drive the tractor. Using your strengths and managing your weaknesses just makes good business sense.

Karla Bergstrom can be reached by phone at (780) 422-3122 or by email at karla.bergstrom@gov.ab.ca.

Researcher makes a trip to Australia

In September and October 2008, Lacombe Research Centre scientist and plant pathologist Kelly Turkington spent almost 60 days on a two-way information exchange with barley farmers and agricultural scientists from various disciplines in Australia. The Department of Agriculture and Food, Western Australia (DAFWA) sponsored the first month of his trip through its visiting specialist program. The second month of his trip was supported with funds from Agriculture and Agri-Food Canada and covered visits with colleagues at research centres in South Australia, Victoria, New South Wales and Queensland.

Barley Country posed three questions to him about his trip.

Q: What did you bring back?

A: A lot of new knowledge on plant epidemiology and on screening for resistance, but, given that we have similar goals, I also recognized we are doing a lot of the same things in areas such as variety development, reducing input costs and so on.

Another area I talked to research colleagues and farmers about was risk assessment for cereal leaf disease and determining when or if to spray, as well as learning about their risk assessment initiatives for blackleg in canola and blackspot (mycosphaerella) in field peas. They were interested in the cereal rust risk assessments we are doing in Western Canada in relation to wind trajectories from the U.S.

It is different in Western Australia as the main source of rust in cereal crops comes from oversummering cereal volunteers. Summer is their dry season and the period when they typically do not grow crops. During the summer, the more rain you have, the more volunteer cereal growth you have and that's an indication of risk, as rust will develop on the volunteers and carryover until the winter growing season.

In Western Australia, I was also quite interested in work that is being done to assess the impact of barley variety rotation and fungicide application and their interaction on the potential for net blotch development from barley stubble for subsequent barley crops. Colleagues in Western Australia were also doing interesting work with seed treatments and in-furrow application of fungicide coated fertilizer and the impact on early season leaf disease development in barley, especially powdery mildew.

Our plan is to collaborate on trials looking at risk assessment and integrated disease management.

Q: What are some of the things Australia barley farmers have in common with Alberta barley farmers?

A: One of the main diseases in Australia is spot-form net blotch and we're seeing more of that here in Alberta. They also have a real problem with powdery mildew, especially in Western Australia, but thankfully it isn't a problem in Western Canada.

Visiting Kith Jayasena (holding paper) of the Department of Agriculture and Food, Western Australia at a powdery mildew fungicide trial for barley in W.A.'s South Stirling area.

Discussing crop and disease management issues during field tour at Bulyee, Western Australia organized by Blakely Paynter (in red sweater) of the Department of Agriculture and Food, Western Australia and Gorren Knell of ConsultAg.

photo credit: Kelly Turkington

Discussing stripe rust with Steven Simpfendorfer (far left) of the Department of Primary Industries in Tamworth, New South Wales and local farmers and industry staff in a wheat field with 40-centimetre (15-inch) row spacing seeded using GPS.

Australian farmers are also dealing with rising input costs and volatile commodity prices. As with Western Canadian farmers, Australian farmers are also interested in ways to reduce input costs without affecting yield and quality. When I was there farmers were quite worried if they would be able to finish the season with adequate moisture, which can also be a worry here in Canada. Finally, the Australians are also moving more to conservation tillage, which is a similar trend in Western Canada.

Q: What are some of the differences between growing barley in Australia and Canada?

A: In Australia, because it's so hot and dry during their summer, barley is grown during the winter months, from April to December and it takes that entire time to grow just one crop. I visited farmers that were working with huge economies of scale so although yields may have been lower per acre they made up for it by farming large areas of production. For example, in places where it's dry, they're looking at barley production of less than one to two tonnes a hectare [less than 20 to 40 bushels an acre].

I was also blown away by the challenges farmers and researchers face in relation to lack of moisture and soil quality, especially in Western Australia. The soil in many fields is either very sandy or appears to be mainly gravel and I kept wondering how they were able to grow a decent crop.

They also get a lot of leaf spotting in barley due to boron toxicity, or physiological leaf spotting, caused primarily by stress factors like sun damage and a lack of water. We see boron here, but it's likely more of a soil deficiency problem in some crops.

In Australia there seems to be increasing interest in relation to using tram lines (areas left unseeded where equipment travels to reduce soil compaction and crop trampling). While at the Ravensthorpe Agricultural Initiative Network (RAIN) field day in Mount Maddan, Western Australia, one farmer also talked about placing all of his chaff on the tram lines as an integrated strategy to deal with weeds and herbicide resistance.

In eastern Australia, one of the main cereal disease issues they're dealing with is crown rot caused by fusarium. We only occasionally see crown rot in dryland wheat here in Alberta, but it is likely something we need to be on the lookout for.

More and more Australian farmers are running equipment on global positioning systems (GPS) and basically seeding in between rows of residue from the previous crop, especially with wider row spacings. The thought is that it leads to better seed to soil contact, better moisture and nutrient preservation and use efficacy, as well as reducing the impact of crown rot in cereals.

One interesting thing is that the integrated approach we have to agronomic research in Lacombe (where scientists from different disciplines work collaboratively and share information) was something I didn't really see too much of there. In Canada, we're looking quite broadly at integrated crop production from a wide variety of disciplines, but I think the Australians are moving in this direction.

Although the Australians have different accents and different trees on their farms, they have a lot of shared concerns with Alberta barley growers. Being in Australia was, a lot of times, just like being anywhere in Western Canada. Topics of conversation revolved around the weather, family, commodity prices, marketing issues, input costs, urban versus rural (regional in Australia) concerns, how your favourite sports team was doing, and, of course, the importance of a nice cold beer.

Turkington sincerely thanks the Department of Agriculture and Food, Western Australia, specifically Kith Jayasena, Bill MacLeod and Blakely Paynter, who helped to secure funding and put together "a tremendous itinerary." He also "graciously acknowledges the hospitality and kindness of all the Australian farmers and researchers" he met during his trip.

Alberta-developed barley meets customer needs

By design, every variety of barley fills a niche, meets a need.

Over the course of the past three decades, the varieties of barley developed in Alberta for Alberta farmers have done the same.

"We put considerable emphasis on and funds into developing barley varieties that thrive in certain conditions and respond to a unique market demand," Mike Leslie, the CEO of the Alberta Barley Commission, says. "Vivar, Ponoka and Falcon and other varieties are bred to give our producers a competitive advantage and meet their customers' needs."

One of the successes of the breeding program the Commission supports at the Alberta Field Crop Development Centre in Lacombe is Vivar. Since being registered in 2000, it has become the most popular Alberta-developed variety in the province. The six-row feed barley is used to produce more than 33 per cent of all six-row feed barley in the province.

Ken and Ev Anderson of Anderson Seed Growers grow Vivar and Ponoka at their Barrhead seed farm.

"We grow Vivar and Ponoka because our customers are looking at yield," Anderson says. "Vivar is the most popular variety I'm selling this year—I'm really guarding it . . . it can be used as both a feed grain and silage, depending on the quality."

Best adapted for Alberta's high-yielding areas, Vivar's silage yield is higher than AC Lacombe's. Because Vivar is a semi-dwarf variety, it has less straw and stands up better. Cattle feeders sometimes mix Vivar with oats to get the nutritional profile they're looking for.

Ponoka also yields higher silage than AC Lacombe and CDC Dolly, seven and 11 per cent respectively. This two-row variety was registered in 2003 and is marketed by SeCan Association. It makes up 6.2 per cent of Alberta's two-row feed barley production.

While these varieties meet some cattle feeders' specific needs, Anderson says they are always "looking for something better."

"Alberta's feedlot guys really want to use barley and not corn and we need to give them something better to keep them from turning to corn . . . times are changing and if our customers need something new we have to give it to them," Anderson says.

Not every barley variety goes on to achieve widespread popularity, but there's always the potential. Indeed, the newly registered Bentley malting barley shows early (and strong) signs of promise and its commercial availability in 2011 is eagerly awaited. Meanwhile, what Alberta-developed barley varieties lack in widespread use, they can make up for in staunch support.

The only six-row hulless feed barley grown in Alberta, Falcon accounts for less than one per cent of the province's annual barley crop of five to six million tonnes.

"Falcon was originally developed for monogastrics, the surprise was dairy people tripped over it," Graham Ogilvie of Blue Tag Seeds in Lacombe says. "It stands well and is very productive and guess what dairy farmers get out of Falcon silage? Very high energy to the point they sometimes add hay or something with some fibre."

Ogilvie is one of just three seed growers raising Falcon; all are located in the Red Deer/Lacombe area.

He adds: "Nobody knows why it does what it does, but it puts milk production through the roof."

Ogilvie and Marvin Nakonechny of Progressive Seeds Ltd. of Red Deer also tested Falcon for a quick-cooking barley they are developing for commercial markets. They later switched to Phoenix because it has less staining and a brighter, clearer colour.

For a complete listing of where to find Alberta-developed barley varieties, see the Winter 2009 Alberta Seed Guide at www.seed.ab.ca.

Alberta's barley varieties

The following varieties were developed with Alberta Barley Commission support at the Alberta Field Crop Development Centre.

Kasota (1994), is an early maturing, high yielding semi-dwarf feed barley. Its average yields are on par with the top mid-season to late maturing feed barleys, while it matures two and one half to about six days earlier. It has very good straw strength, and is resistant to scald and the seedling infecting smuts. Its test weight is high for a six-row.

Tercel (1997), is a hulless Abee with adaptation to those areas where Abee produces well. It out-yields Condor and has better 1000 kernel weight. It is, however, three days later than Condor with less lodging resistance, lower test weight and no better disease resistance.

Mahigan (1998), has two to five per cent higher yields and a higher test weight than Kasota. It has semi-smooth awns. It is equal to Kasota in scald resistance. Moderately resistant to moderately susceptible to net blotch. It is slightly taller than Kasota. The kernel is small and long in relation to its width.

Jaeger (1998), is a six-row, rough-awned hulless feed barley with higher yielding and better lodging resistance than Falcon. Good neck-break resistance. Resistant to scald and septoria. It is later maturing than Falcon. Susceptible to surface-borne smuts, loose smut, stem rust and net blotch.

Peregrine (1999), Is a six-row hulless, semi-dwarf, feed barley with excellent straw strength and good head retention at maturity compared to Falcon. Good test weight and plumpness. It is one day earlier maturing and is higher yielding than Falcon under severe lodging conditions.

Niska (1999), is a six-row semi-dwarf feed barley. This smooth-awned variety has higher yield, better test weight, and larger kernels than Kasota, CDC Earl, and Tukwa. Resistant to scald and surface-borne smuts with moderate resistance to net blotch. It is one day later in maturity than CDC Earl.

Trochu (2000), is a six-row, smooth-awned feed barley. Trochu was higher yielding than all check varieties in the Western Cooperative Registration Trials. It was registered in 2000 and showed good average percent plump seed, and high-test weight and kernel weight.

Vivar (2000), is a semi-dwarf six-row feed barley with a yellow aleurone. It has both larger seed size and higher test weight than the semi-dwarf checks, giving it a higher per cent plump. Lodging is equal to the semi-dwarf checks, however, it is holding up more yield. Its maturity is medium, between CDC Earl and Tukwa, and equal to the standard height check AC Lacombe.

Tyto (2002), is a six-row hulless barley, taller, higher yielding and slightly later than Falcon with seven per cent higher silage yield. In Alberta, Tyto has higher grain yield than Falcon. It has good seed weight, test weight, and high silage production.

Niobe (2002), is 2-row feed barley with good yield, early maturity, and a good disease and lodging resistance package. In the Western Cooperative 2-Row Barley Trials, Niobe showed grain yield comparable to CDC Dolly and consistently showed higher grain yield than Harrington in all soil zones.

Manny (2003), is a six-row, rough-awned, hulled feed barley. It is a strong-strawed variety with good lodging resistance for a normal height variety, and has high silage yields in central Alberta. Well suited to the high-yielding scald prone areas of Alberta.

Ponoka (2003), is a two-row, rough-awned, hulled feed barley registered by the Field Crop Development Centre (FCDC) at Lacombe in 2003. Ponoka has high grain and biomass yield potential and excellent disease resistance on the western Prairies.

Sundre (2005), is a six-row, smooth-awned, hulled feed barley developed by the Field Crop Development Centre in Lacombe and registered in 2005. It has high grain and silage yields in central Alberta, with good kernel weight and seed plumpness.

Bentley (2008), is a two-row, rough-awned, malting barley, well-adapted to the Brown, Black and Grey Soil Zones of Western Canada. Bentley has high grain and forage yields, which combined with its malting quality, should make it an excellent multipurpose barley for the non-scald areas of Western Canada.

Chigwell (2008), is a six-row, smooth-awned, hulled feed barley, developed by the Field Crop Development Centre, Lacombe. It is well-adapted to the Black, Brown, Black and Grey Wooded and Irrigated Soil Zones of Western Canada. Chigwell combines both desirable traits of relatively high grain and forage yields similar or near to Vivar.

TR05671 (2008), is a two-row, rough-awned, malting barley, well adapted to the Brown, Black and Grey Soil Zones of Western Canada. It has good grain and forage yields should make it an excellent malting barley for the scald areas of Western Canada.

Busby (TR06673) (Coming in 2009), is a two-row, rough-awned, feed barley, well-adapted to the Brown, Black and Grey Soil Zones of Western Canada. It has excellent disease resistance that should make it a superior feed barley for the scald areas of Western Canada.

technology

NIRS comes closer to wider industry use

Slowly the barriers blocking the acceptance of near infrared reflectance spectroscopy (NIRS) are crumbling.

NIRS is a precise and rapid method of analysis used to determine the chemical make up and components of organic materials. It uses light energy to produce a spectral response for a sample that is then calibrated to known quality traits measured in the wet chemistry lab.

In malting barley, NIRS can determine: grain protein, fine extract, diastatic power, alpha-amylase, total malt protein, soluble malt protein, wort beta glucan, malt friability, homogeneity and viscosity. In feed barley, NIRS can—among many traits and characteristics—determine: crude protein, protein digestibility, energy digestibility, gross energy and lysine. It can also measure starch, beta-glucan, pentosan, ash, lipid, total fibre and soluble fibre.

"The cost of using NIRS has been a barrier in the past," Dr. Jim Helm of the FCDC says. "In the past, NIRS machinery was priced at $100,000. Now its about $65,000 and even as low as $30,000 and the price is still coming down."

For more than 10 years, the Alberta Barley Commission was the sole supporter of Helm's NIRS research (making it a co-owner of the research and technology). In the past three years, as the benefits of NIRS have become better known, other ag-sector including the Alberta Crop Industry Development Fund (ACIDF), have started supporting the Alberta research project.

"NIRS has been used in grain grading and export industry for several years and now with the cost coming down even some individual farms can see its value and return on investment," Mary Lou Swift, a feed quality research scientist with Alberta Agriculture and Rural Development, says. "NIRS lets barley growers and users see if barley [and other grains] meets the nutritional profiles they want."

NIRS would give, for example, a hog producer the ability to buy grain that is near the top of the energy range, giving him the best nutritional profile he can afford.

"In livestock production, you have to budget for daily weight gain and it's hard to do that if you don't know the exact nutritional profile of the feed you're using," Swift says. "Feed can't just look good—it has to support performance and animal health."

Barley producers also stand to gain from "good" feed. "If you're getting $143 a tonne for generic barley, you could get more if its nutritional value has the quality profile a hog producer or cattle feeder is looking for," Swift says.

In the United States, NIRS is often used to test forage quality. In Alberta, Helm and his researchers have been using NIRS to test barley kernel hardness in Shochu barley trials. It's also being using to detect deoxynivalenol (DON) from Fusarium and analyse the nutrients in pig manure.

Helm hopes another barrier to NIRS testing will fall away in the next year when thousands of calibrations are then completed and NIRS measurements are used more uniformly and widely. For the past 20 years, the FCDC has used NIRS to screen more than 35,000 feed grain samples a year.

Dave Dyble, a B.C.-based nutritionist with Unifeed, says his company already uses NIRS to evaluate protein and moisture in barley.

"It's rapid analytical technology so you can get analysis much quicker than with wet chemical testing," Dyble says. "It gets us away from using rough predictive equations to using much better measurements—it's a step forward."

production

A case for pedigreed seed

This year, more than ever, farmers are looking for value. When it comes to seed, it's hard to beat the value of pedigreed (or certified) seed.

Sure, pedigreed seed comes with a price tag of about $2 to $4 more per bushel than common seed (or bin run or brown bag seed). But it also delivers several benefits: pedigreed seed helps decrease disease, weeds, fusarium migration and sales risk and helps increase quality, yield and market opportunities. Plus, pedigreed seed is true to variety, can be traced to its origins and is the only way to access new genetics and varieties. Many producers find certified seed has better plant vigour and a better plant stand early in the season.

"When producers use pedigreed seed, they know what they're getting," Kevin Lefsrud of Lefsrud Seed and Processers Ltd. says. The Viking company has operated for more than 40 years; Lefsrud's father, Ed, is president of the Canadian Seed Growers Association (CSGA) and past president of the CSGA's Alberta Branch.

Lefsrud Seed's foundation seed is routinely DNA tested, fusarium inspected, properly cleaned and accredited. Lefsrud says the work is intensive and can be expensive, but it's worthwhile.

"The further away from the parent chain, the more yield a variety loses. And, if you don't have pedigreed seed, you can't insure or market a crop under the varietal name," Lefsrud says, explaining that pedigreed seed needs to be purchased annually to maintain the rights to use the varietal name.

Despite the premium cost, Lefsrud says more producers buy pedigreed seed than not. He understands farmers' different personal preferences and management practices.

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Even if pedigreed seed delivers a meagre two per cent yield increase, a farmer could see a net increase of about $17/acre on malting barley

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"We are seed growers, but we're farmers first," Lefsrud explains. "We understand a producer can't afford all pedigreed seed every year."

"End users find there's greater consistency in malting barley grown from certified seed, and we find that farmers who use certified seed year after year get selected for malting more often," Lyle DePauw, Viterra's Seed Division Cereals and Special Crops product manager, says.

Pedigreed seed is a low-cost investment in a great harvest, Richard Stamp says. Stamp founded Stamp's Select Seeds in Enchant 30 years ago (and now runs the company with his son Greg, an Alberta Barley Commission director) and is also currently president of the CSGA's Alberta Branch.

Stamp says even if pedigreed seed delivers a meagre two per cent yield increase, a farmer could see a net increase of about $17/acre on malting barley. His calculation considers costs for cleaning, dockage, storage and handling bin run seed. Of course the risk is that if malting barley doesn't meet market standards, Stamp says a producer could lose more than $100/acre.

"Using pedigreed seed enables producers to know that what's in their bins matches their market," Stamp says. His company's website (www.stampseeds.com) heralds 10 reasons why you should use certified seed.

Stamp says barley producers who use pedigreed seed for malt and feed benefit from lower disease pressures, stronger plant survival and a higher kernel weight.

Despite the proven value of pedigreed seed, some small seed growers are finding the return on investment doesn't match the paperwork entailed and are giving up the seed-growing business.

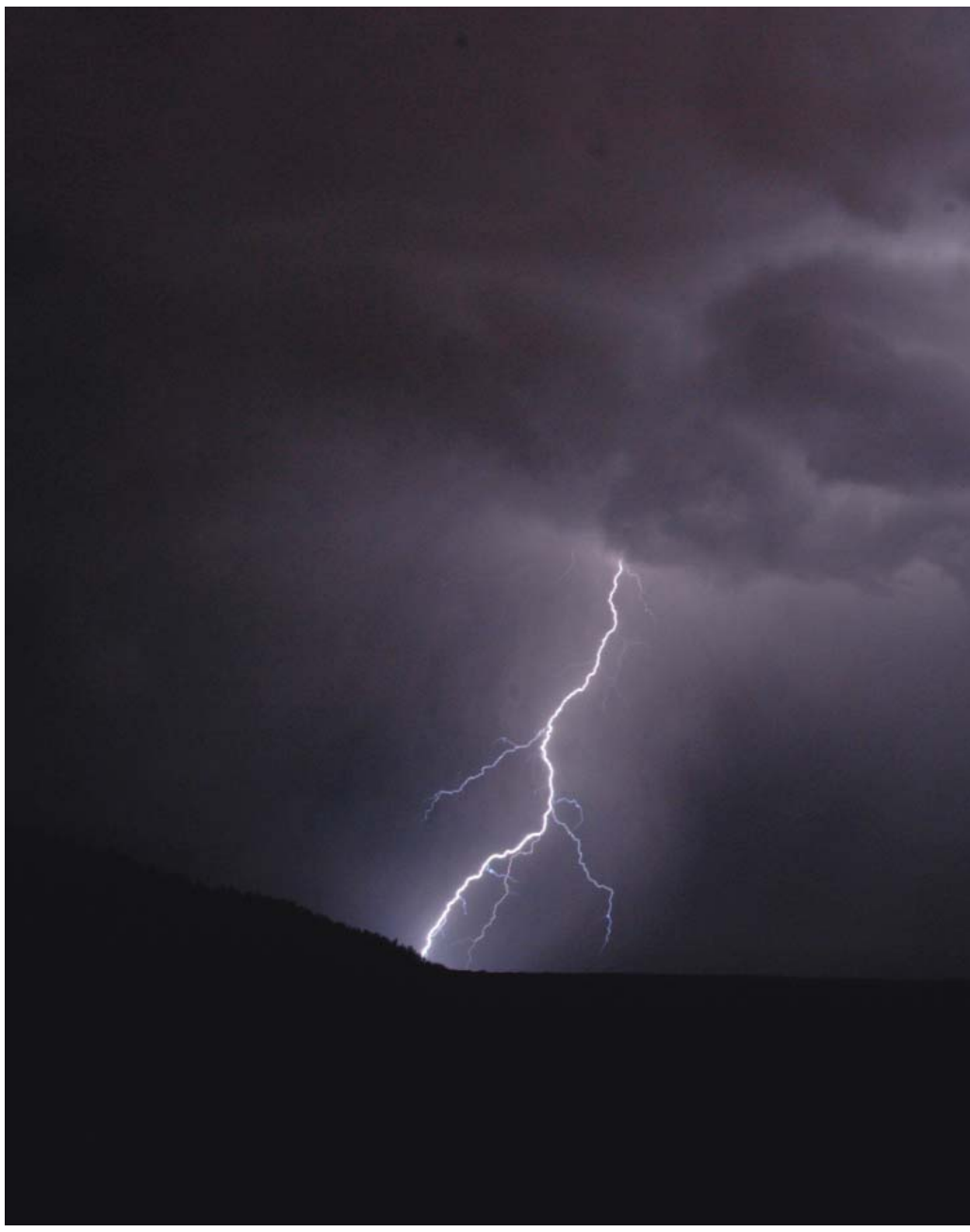
"If you're going to be a small player in the seed growing business, it's the paperwork that's going to kill you. Every seed needs to be traceable. If I didn't understand the benefits, I wouldn't do it," Lefsrud says.

Stamp says he prefers a robust roster of seed growers supporting the value of pedigreed seed.

"It's about providing good products for customers to increase everyone's success," Stamp concludes.

Variety of services helps farmer

photo credit: T. Bullick



On farmyards across the province, you'll find "the rock" weather report.

If the rock is wet, the explanation goes, it's raining. If the rock is moving, it's windy. If the rock is white, it's snowing and if the rock is gone, it's a tornado.

Although the rock weather report is seldom wrong, it's decidedly primitive when compared to the sophisticated weather information available to Alberta barley farmers.

"Our subscribers can get highly detailed forecasts and conditions like the dewpoint hour by hour for 15 days out," Dale Mohler, a senior meteorologist with Accuweather, says. "They can get just about any climate parameter they might be interested in."

For example, Accuweather's Accurain service combines radar data with real-time rain gauge reports to give minute-by-minute measurements of actual rainfall. Alberta Agriculture and Rural Development's online weather data includes more than 2,000 maps detailing individual weather conditions. With the Canadian Wheat Board's WeatherBug® network initiative, you can put a weather station in your own field and connect through the Internet to 500 other farm-based stations across the Prairies. Environment Canada's Weatheradio network broadcasts continuous weather information in five- to 10-minute cycles that's updated eight to 24 times a day.

The weather generated by nature may be "free," but it can cost you if you seed when the soil's too cool, spray when the wind picks up or don't know when conditions are prime for pests. Not understanding the weather can even affect shipping grain to market: CN uses weather forecasts to calculate how much grain it needs to move each year and where it will need to dispatch rail cars.

Mohler says what you get out of a weather service depends on what you put into it. In other words, if you pay for the service, you'll likely get better value than if you rely on free information only.

Because people do pay for weather information, the weather is a billion dollar-plus industry in North America—and why businesses and governments are constantly evolving and expanding the weather information they offer. Here's a sample of what farmers will find:

Alberta Agriculture and Rural Development

The province's ag website, Ropin' the Web (www.agric.gov.ab.ca), is chock-a-block with real-time and historical weather data. To find current conditions (including temperature, barometric pressure, visibility, humidity, wind chill, dewpoint, wind speed and air quality) and a seven-day forecast for several locations in the province, scroll down to the bottom of the main page and click on Alberta Weather and Climate Information.

For detailed real-time and historical data from more than 250 stations in the province and hundreds of maps, see the site's AgroClimatic Information Service (ACIS) link. Users can view, compare and download near real time data on up to five stations at once and view hourly observations back as far as two weeks. Daily observations as far back as one year are available. Subscribers can sign up to have free RSS (really simple syndication) updates sent to them automatically. ACIS is also home to more than 3,000 free maps describing precipitation, humidity, soil moisture, temperature (mean, minimum and maximum), solar radiation, wind speed and insects. Some maps date back as far as 1961 and more than are added each week.

Given the complexity of the ACIS site, it's finicky to use, but that's changing. Earlier this year ACIS consulted with several advisory committees on using the service and later this spring the service will switch to Google Maps.

Ralph Wright, who oversees ACIS, says the site isn't necessarily designed for quick answers but the vast data bank "is there if people choose to use it."

Wright encourages users to provide feedback to help improve the service.

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The weather is a billion dollar-plus industry in North America—and why businesses and governments are constantly evolving and expanding the weather information they offer

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Canadian Wheat Board

Since August 2007, the Canadian Wheat Board (CWB) and WeatherBug® have been building a network of weather stations across Western Canada with agriculture industry partners. To date, about 500 stations have been installed, mostly on farms, grain elevators and agribusiness outlets. Another 500 are planned within the next few years.

"The goal is to provide better agronomic models for farmers," Guy

rs in weathering the crop ahead

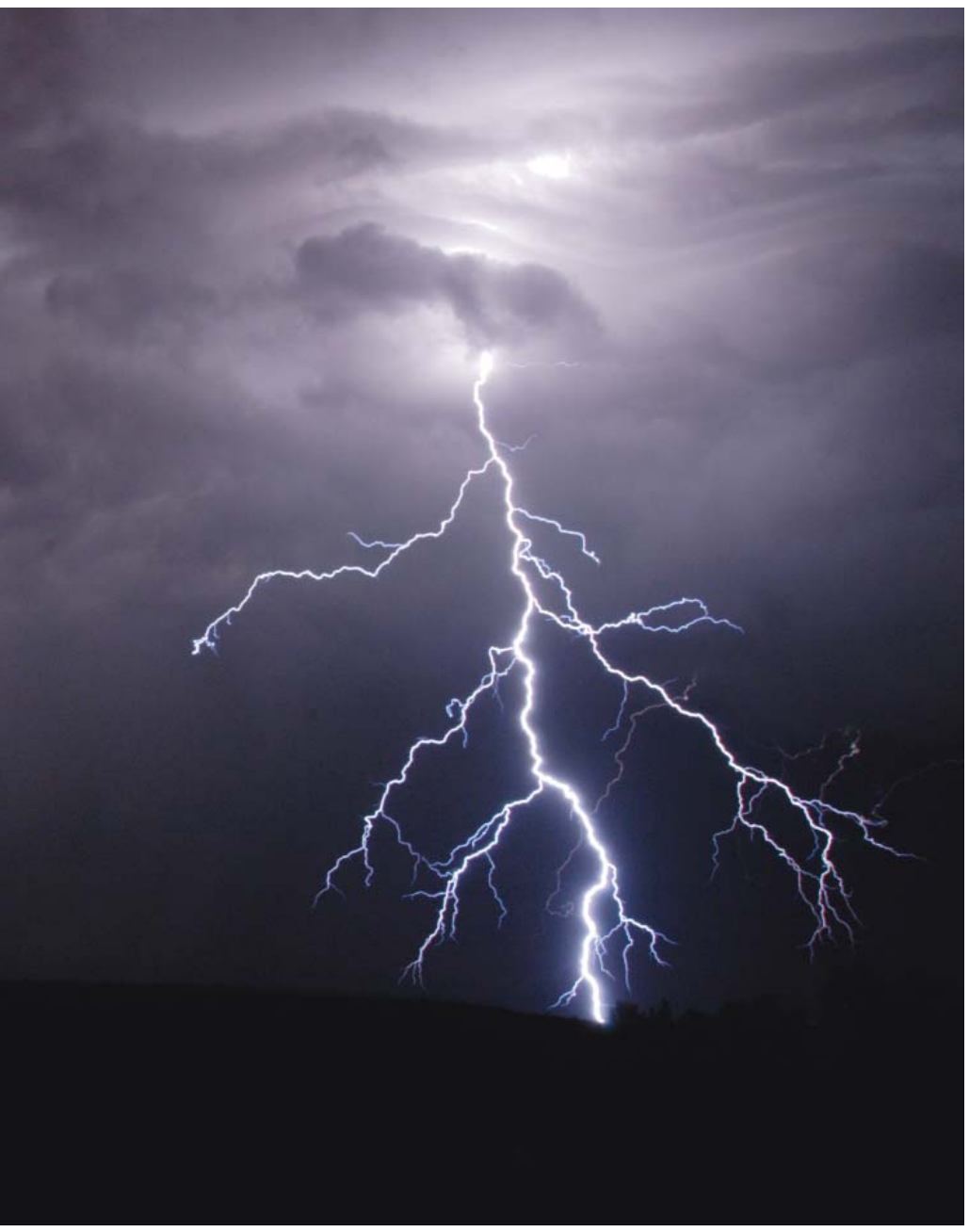

photo credit: Stuart Gradon

photo credit: T. Bullick

Ash, the manager of the CWB's Weather Station Project, says. "Collecting weather data is one thing. But crunch it into various modelling tools for pest emergence and chemical application and that's where the value for farmers really explodes."

Farmers can install a personal wireless, solar-powered weather station on their land for $1,750. The station includes an internet provider (IP) data logger, professional installation, five years of maintenance and access to an online weather centre that lets users graph or chart weather trends. The weather package also allows farmers to view data from their own fields—or any station across the Prairies—on their home computers or handheld devices. More elaborate weather stations track a wider range of conditions, including leaf moisture and soil temperature. Stations can also be outfitted with video cameras.

Anyone can visit weather.weatherbug.com/Canada-weather.html for free live conditions and forecasts; this information will soon be available through the CWB's Website as well. Those who don't own a WeatherBug® station can subscribe (for an annual fee of $200) to the online weather centre and its array of information and tools.

The CWB's website also offers crop and weather highlights, compiled by its own weather analysts, for Western Canada, the United States, Argentina, Brazil, Australia, Western & Eastern Europe, Russia, the Ukraine, Kazakstan, China, India/Pakistan, North & South Africa, Syria, Iran and Turkey. The site includes links to the U.S. National Weather Service site.

Environment Canada

Environment Canada is the country's biggest weather service. It delivers information by radio broadcasts, recorded information phone lines and the Internet.

By far, the most comprehensive source is the website (www.weatheroffice.gc.ca), which includes: weather watches and warnings, current and forecast weather, radar and satellite images, current and forecast weather maps, monthly and seasonal forecasts, and climatological information. Some information dates back more than a century.

Environment Canada's Weatheradio network broadcasts weather information in five- to 10-minute cycles 24 hours a day. Most Weatheradio Canada transmitters broadcast on the VHF public service band using one of seven frequencies (162.400, 162.425, 162.450, 162.475, 162.500, 162.525 or 162.550 MHz) depending on location.

A free RSS feed is also offered; see the link at the bottom of the "five-day weather" pages. Environment Canada also records the latest weather forecast as well as its severe weather watches and warnings on its automatic telephone answering devices or ATADS. For the nearest telephone number, check the Blue Pages under Environment Canada in the federal government telephone listings.

Environment Canada doesn't offer any specific service for crop producers, but Agriculture and Agri-Food Canada offers a drought watch at: www.agr.gc.ca/pfra/drought/mapscc_e.htm.

Environment Canada also offers additional information for any weather services on a fee-for-service basis. Fees are charged by the minute and available by calling 1 (900) 565-5555.

Accuweather

"We know a lot of farmers live and die by the weather," says Accuweather's Dale Mohler, who specializes in agricultural meteorology. The U.S.-based service is one of the world's largest, with 7,000 sites around the globe and a million webpage visits every month.

Although basic Accuweather information is widespread and free (it appears on more than a quarter-million third-party websites), senior product manager Paul Raymond says if you "need to know when to plant or spray, you need fee-for-service weather data."

Accuweather has a variety of subscription packages for three months, six months or a year for about US$100/month. Detailed long-range forecasts cost about US$200 to US$500 a month. The value of paying, Raymond says, is that Accuweather offers experts like Moheer who understand what's important to growers.

Accuweather has tens of millions of dollars invested in state-of-the-art equipment, but sometimes it takes the human eye to really see how the weather is shaping up.

"Sometimes we stumble across something (the computers miss)," Mohler says. For example, this past fall he and a team of meteorologists spotted a pattern no other service had: it indicated temperatures had an 80 per cent chance of dropping below freezing in Florida's orange-growing regions. And that's what happened two nights in a row, but the event never made headlines because growers were able to prevent notable crop damage thanks to Accuweather's warnings.

Still, Mohler admits the weather can't always be predicted; hail and tornadoes are almost impossible.

"Sometimes the only thing you can do is pray," Mohler says.

Or get a rock forecast.

For a list of additional private sector meteorological services, visit the Canadian Meteorological and Oceanographic Society at www.cmos.ca/Privatesector/indexe.html.

Bill to change Grain Commission stalls on second reading

Welcomed by some and rejected by others, Bill-13 aims to modernize the Canadian Grain Act.

Introduced by the Conservative government, Bill-13 had its first reading in Parliament on March 3, 2009. Its proposed changes include:

- Redefining the Canadian Grain Commission's mandate
- Increasing penalties and introducing fines for violations to the Act
- Ending the payment security (bonding) provided by the CGC
- Eliminating the Grain Appeal Tribunal
- Letting the grain industry determine inbound inspection and weighing services
- Combining standard samples and export standard samples into a single standard sample.

Although he doesn't wholeheartedly support everything in it, Alberta Barley Commission director Albert Wagner says the time is right for Bill C-13.

Wagner, who represents barley growers in Region 5 and is the Commission's vice-chairman, says the current grain handling system holds farmers accountable for all the costs and risk associated with handling, transporting and grade changes—even when grain and circumstances are out of their control.

"If Bill C-13 makes grain companies more accountable for the grain they handle and move, then it's a step in the right direction."

Others think the bill is a step in the wrong direction.

"Bill C-13 looks to make improvements to the Canada Grain Act but unfortunately, the bill contains many flaws," Liberal agriculture critic Wayne Easter said on April 2. "Agriculture Minister Gerry Ritz himself has said publicly that he too understands the bill is flawed. Before we go any further, we believe more work needs to be done.'

The Canadian Centre of Policy Alternative (CCPA) says the bill would eliminate independent government inspection of grain (currently carried out by the Canadian Grain Commission) delivered to major elevators around the country and would leave grain companies free to arrange their own inspections.

Threatened Harvest, a CCPA study released at the end of March, warns Bill C-13 ignores the lessons learned about the dangers of cutting back public inspection.

"Keeping pesticide-treated grain, glass, rodent excreta and other dangerous contaminants out of Canada's food grain system is too important a responsibility to hand to grain companies," CCPA senior researcher and report co-author Scott Sinclair says. "The job requires trained inspectors who are independent of the grain companies they oversee and who are accountable to the public."

Numerous private inspectors in Canada already provide independent grain sampling for grain companies and producers. But CCPA report co-author and B.C. farmer Jim Grieshaber-Otto says eliminating mandatory inward inspection would threaten the producer car system and would increase costs to producers.

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A review of the Canadian Grain Commission's mandate will confirm whether the organization is indeed working in the best interests of producers

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"Producers are now paying CGC inspection rates, which are frozen at 1991 levels," he says. "Private inspection companies would charge more, and under C-13, producers would pay the whole shot."

Norm Woodbeck, the acting chief grain inspector for the Canadian Grain Commission (CGC), says, "The whole question will be what happens to inspection and sampling in Canada—it could definitely be a big change."

One of the Bill's most contested proposals is ending the payment security (bonding) provided by the CGC. The government says numerous other payment security mechanisms could be developed, such as those outlined in a review of the Canadian Grain Act by Compas Inc. As well, in 2008, the Western Barley Growers Association proposed replacing bonding with an ag clearinghouse.

Wagner says bonding "has not really worked for most farmers and, for the most part, has given farmers a false sense of security. There have been lots of examples of grain companies buying beyond their bond values and putting farmers at risk."

Grieshaber-Otto counters: "Bonding creates a stable environment and that's important . . . people are concerned that this is being taken away in an economically unstable time."

He adds: "I don't know of anyone who says producers should face more risk and that we should harmonize Canada's grain system downward to the inferior American system. But that's what Bill C-13 would do."

Wagner says the bill would give farmers some distinct improvements.

"Bill C-13 could make grain companies more responsible for the grain they take in. Once grain is out of a farmer's truck and the farmer and a grain company agree on the grade, then it would be up to the grain company to keep those standards for the end-user."

Strongly opposing political views surrounding Bill-13 could spell its end. On April 2, the government ended debate on the bill before it could be hoisted (or delayed) by the opposition parties. It's unclear when or if the bill will pass second reading.

The bill's prospects disappoint Doug Robertson, president of the Grain Growers of Canada.

"The Grain Growers, like the opposition parties, have serious concerns about parts of the proposed legislation to amend the Grain Commission. More specifically, the ending of all producer security (bonding)," Robertson says. "However, we disagree with using this approach to deal with the problem."

For more information, see Current Issues at www.grainscanada.ca or the CCPA's report *Threatened Harvest* at www.policyalternatives.ca.

It's important to sample

Whether or not amendments to Canada's Grain Act change grain inward inspection procedures, barley producers are encouraged to take "good" samples of their crops.

As consumers look for traceability and producers look for ways to reduce their risk, sampling is more important than ever, says Bill Chapman, who is with Alberta Agriculture and Rural Development's Crop Business Development Branch, Rural Extension and Industry Development Division.

"The more sample volume you have, the easier it is to meet new and existing requirements and needs when marketing your crop," Chapman says.

Norm Woodbeck, the acting chief grain inspector for the Canadian Grain Commission, says file samples give "peace of mind" in case of disputes over grain grade or quality.

"We encourage all producers to make composite samples and have the quality assessed to get an idea of what they have in their bins and that way when they market they know they're getting a good deal," Woodbeck says. "It's a good management practice."

He adds: "The last thing you want is a shipment that gets to a customer and there's a problem with the quality."

Tips for sampling:

- Take more rather than fewer samples; many grain producers take two to three samples of 15 to 20 litres (four to five gallons) each
- Collect samples by diverting grain right off the auger or taking a few scoops out of each truckload.
- For large volumes of grain (175 to 217 tonnes or 8,000 to 10,000 bushels), blend three to five sample pails to give a true grade
- Store samples in airtight containers (such as 20-litre or five-gallon pails) with sealable lids
- Let samples air dry, sweat and/or cool before sealing with lids
- Avoid exposing samples to extreme heat to prevent spoilage
- Label samples using a system that allows you to track as many variables as possible, in particular: bin number, moisture, harvest year (and conditions), variety, seed source, etc.
- Keep samples for at least six months after selling a crop
- Consider having samples analysed by the CGC or a private inspector to independently identify grades and quality, particularly for food or malt sales.

First-of-a-kind study links agronomy to malt quality

A project supported by the Alberta Barley Commission has found agronomic practices can have a major influence on malting barley yield and quality.

The ultimate goal of the study is to increase malting barley production quality in Alberta and Western Canada. About 50 per cent of the barley grown in Alberta is malting barley but maltsters accept just 20 per cent of that barley.

The first of its kind in North America, the three-year study revolved around seeding rates, seeding dates, nitrogen rates, stubble type and fungicide applications ofwith two malting barley varieties, AC Metcalfe and CDC Copeland. The varieties react differently during malt processing but both are within an acceptable range for maltsters. Study results found malt extract did not differ between the varieties.

Research scientist John O'Donovan of the Lacombe Research Centre worked with 13 other researchers and barley experts including Kelly Turkington, Neil Harker, Guy Lafond, Stewart Brandt, Cindy Grant, Neil Harker and George Clayton of Agriculture and Agri-Food; Ross McKenzie, Pat Juskiw and Bill Chapman of Alberta Agriculture and Rural Development; Mike Edney of the Canadian Grain Commission; and Kim Stonehouse of the East Central Research Foundation in Saskatchewan.

"What we did find aAt most sites was that CDC Copeland outy yieldsed AC Metcalfe, as it has in Western Canada Co-op Trials," O'Donovan says. "There's was also a tendency for better homogeneity and higher friability with CDC Copeland, otherwise the two varieties responded to most agronomic practices similarly."

The study conducted tThree field trials were conducted from 2005 to 2008 in Alberta, Saskatchewan and Manitoba at eight locations: Lethbridge, Alta. (Brown Soil Zone), Scott, Sask. (Dark Brown), Lacombe, Alta. and Brandon, Man. (Black), Indian Head, Sask. Thin Black) and Beaverlodge, Alta., Fort Vermilion, Alta. and Canora, Sask. (Grey Wooded).

Scientists considered a number of variables:

- Early and late seeding dates
- Five different seeding rates: 100, 200, 300, 400 and 500 seeds per square metre
- Nitrogen rates of 0, 30, 60 90 and 120 kilograms per hectare
- Previous stubble (or barley, canola or pea) with 50 per cent or 100 per cent of the recommended soil test nitrogen
- Fungicide application (with or without).

A Prairie-wide study has found agronomic practices can have a major influence on malting barley yield and quality.

The research team found that:

- At most sites, with the exception of the Peace Country, seeding earlier (late April to early May) is better.
- Seeding late (mid-May to early June) most often had aresulted in reduced malting quality, specifically because protein and beta glucans increased.
- Seeding rates haved variable effects on yields: in some cases, increasing the seeding rate did increase yields, but increasing beyond a certain threshold sometimes resulted in a decrease in yield, for example seeding rates of 400 seeds/m2 and 500 seeds/m^2 resulted in decreased yield.
- In most cases, Ooptimal yield and quality resulted from a seeding rate of 300 seeds/m^2, resulting in about 200 to 250 plants/m^2 (Alberta Agriculture recommends 210 plants/m^2).
- Increasing the seeding rate reduced plumpness at some sites, but did not appear to effect the amount of malt extract produced, "In fact," Donovan says, "in a few cases malting extract increased with increased seeding rates, suggesting that there may be a bit too much emphasis placed on plumpness."
- Increased seeding rates resulted in more uniform seed alsowith reduced protein and beta glucans and increased friability and uniformitybetter modification, all of which arehad positive influences on malt quality.
- A major positive was days to maturity decreased as the seeding rate increased.

Along with theThe project is funded by the Alberta Barley Commission, the Canadian Wheat Board, Rahr Malting Canada Ltd. and the Matching Investment Initiative of Agriculture & Agri-Food Canada provided for funding this project.

support

Check-off increase approaches

Effective Aug.1, 2009, Alberta barley producers will pay a check-off rate of $1.00 a tonne (slightly more than two cents a bushel) for every tonne of barley they sell. The current rate is $0.50/tonne (or about $0.01 a bushel).

Between now and Aug. 1, the Alberta Barley Commission will send barley buyers at least two letters informing them of the change. By law, barley purchasers must deduct barley check-off dollars from producer payments and submit them to the Commission.

Numerous other Canadian ag producers also pay check-off dollars. The Alberta Beef Producers (ABP) collects $3 for every head of cattle sold by a resident of the province. The Alberta Lamb Producers (ALP) receives $1.50 for every lamb/sheep produced in the province (the fee is collected when producers purchase animal ID tags). ALP also collects a penny for every pound of wool sold in Alberta.

The new check-off rate is not an increased cost, but is an increased investment. And one the Commission's Board and delegates supported unanimously at their annual general meeting in December 2008.

The additional check-off dollars will give the Commission the ability to invest directly in projects to develop barley varieties and agronomic practices that reduce the amount, or improve the efficiency of the fertilizers, pesticides and herbicides farmers apply to their crops. Additional breeding research can decrease pesticide use through the development of disease resistant barley cultivars, resulting in higher yields and lower costs.

Commission chairman Terry Young looks at the increase as "a small price to pay for eventually decreasing the input costs of barley production across the province."

Mike Leslie, the Commission's CEO, says the increase in the check-off will flow directly back to producers and their customers. "We will increase our investment in new and existing research and marketing projects that help barley farmers do everything from improving their yields to gaining access to new customers and opportunities that pay higher prices."

He adds: "When farmers can produce more barley from the same acreage they can provide it at a mutually profitable return to their customers. For example, with beef prices low, cattle ranchers and feeders are extremely keen on finding new varieties of nutritious affordable feed. Through barley breeding programs we can deliver these to them. The answer to mutual profit is in increasing the pounds of beef a bushel of barley can produce, not in lowering the price of the bushel of barley."

Of course, it takes time and additional dollars to generate new varieties. Leslie estimates the Commission's additional check-off dollars will result in up to $625,000 for additional research projects such as agronomics. Much of that could be leveraged for even greater benefits; in 2007/2008, every $1 the Commission invested in research projects attracted an additional $7.35 in partner funding (for a leverage ratio of 7.35/1).

But, Leslie adds, research dollars are decreasing rapidly and those available are increasingly hard to secure. Less than five years ago, the leverage ratio for the Commission's research funds was about 13/1; the Commission currently expects its leverage ratio will drop to less than 5/1 in 2008/2009.

The increase in check-off funds will also give the Commission the ability to act faster on its priorities.

"Agriculture is moving so fast that we cannot always wait for other funders to commit to our projects," Young says. "Nor can we wait three to five years to deal with current priorities. We need funds to deal with today's problems today."

journey

Down under barley 'intelligence'

Up to eight meetings a day were on the itinerary of Bill Chapman's and Mike Leslie's recent trip to Australia. The two travelled down under on behalf of Alberta Agriculture and Rural Development and the Alberta Barley Commission respectively.

The trip was part of a 17-day tour that included 10 days in Japan. Advancing Canadian Agriculture and Agri-Food funds, which are administered in the province by the Agriculture and Food Council of Alberta, supported the expedition.

"We gained a lot of competitive intelligence for several of our projects," say Chapman, who is with the the Rural Extension and Industry Development Division.

While Western Canadian and Australian barley producers often vie for market share, Chapman says he, Leslie and their many Australian hosts took a "friendly competitive approach recognizing neither country can monopolize the market because the Japanese want to reduce their risk by importing barley from both."

Chapman and Leslie began their tour at the University of Adelaide, where they found "an interesting approach on genetic markers and tracking and mapping." They also spoke to Dr. Hugh Warwick about the work he conducts in the university's Plant Pathology department.

"They have a large pathology program integrated with a breeding program," Chapman says. "It's similar to what we do in Canada prior to the registration of varieties."

Chapman and Leslie also examined some of Australia's agronomic differences—and challenges. One of the most notable is its soil, which can range from good to worse with acidic alkaline and has a hardpan coarse texture akin to sandy gravel, especially during drought.

Later in the trip, Chapman and Leslie were introduced to a soil-rebuilding program near Inverleigh, Victoria that uses land levelling and deep ripping to break the hard pan. Farmers are also using drainage strips to reduce water lodging in the soil profile. The goal is to make sure rainfall nourishes plants and doesn't runoff or bake out of the top layer of soil in heat.

"They've been able to increase the biomass production by two to three times," Chapman says.

Faced with ongoing drought, no crop insurance, increased input costs and unstable commodity prices, farmers are mitigating risk through an innovative but practical practice: many are initially applying fertilizer at low rates to start the crop and minimal herbicides if weed growth appears. As the crop progresses, they assess conditions and apply more inputs as needed.

"It's not as efficient as applying in one pass, but can save a lot of money especially if it looks like there is not going to be enough water to use the fertilizer or to grow the crop and not the weeds," Chapman says.

Storing and transporting Australian grain is noticeably different than in Canada. Farmers have limited on-farm storage, but massive storage "tankers" are located across the country. All grain is shipped by what Chapman calls super super B trucks. Rail transportation is limited because track gauges vary from state to state, forcing shipments to be transferred from one railway car to another at each state line. Plus in extreme summer heat, railway lines are shut down when they become unsafe because of metal expansion.

photo credit: Bill Chapman

The FACE Climate Changes Trials at Horsham, Australia monitor drought, heat and higher CO_2 levels.

"At 60 tonnes each, trucks have the right of way, whether they need it or not," Chapman says. "You also have to watch for wombats and kangaroos—and, in our case, driving on the 'wrong' side of the road."

Chapman was particularly interested in learning about Australia's research funding model.

Through a mandatory levy of one per cent of gross farm sales to the Grains Research Development Corporation (GRDC), Australian grain growers pour more than $120 million every year into research, more than any other country. Producers see their support of research as a way to compete with other grain-producing nations. Some research projects are on a collaborative, industry cost-shared basis. One such project in Horsham emphasizes quality, local production of malting and shochu barley.

The Australians also have various end-point royalties, some of which work and some don't, Chapman says. "Fees are paid on varieties developed with certain traits . . . but farmers don't always declare the varieties."

Australia's seed industry also faces a number of challenges, mainly around purity and mixing. Chapman says Canada's grain seed system is much more established and consistent.

"Both countries are world leaders in barley production and have a great deal they can learn and share with one another," Leslie says.

BOPI research fuels renewable energy hopes and production

In recent years, the federal government has invested more than $2 million in renewable energy projects in Alberta through its Biofuels Opportunities for Producers Initiative (BOPI). BOPI made $20 million available to Canadian farmers and rural communities to participate in, and benefit from, increased Canadian biofuel production.

In Alberta, the Agriculture and Food Council of Alberta delivered program funding through Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-Food Program.

For proprietary reasons, the final reports of funding recipients do not have to be made public, although leaders of the following projects openly shared their findings and results.

Barley Bioproducts Opportunities Project

The Alberta Barley Commission and the Western Barley Growers Association received $262,500 to evaluate barley's potential in Canada's rapidly evolving biofuels industry.

Their Barley Bioproducts Opportunities Project (BBOP) focused on the technical and business feasibility of barley-based bioproduction. The project demonstrated barley bioproduction could be sustainable and profitable using an integrated approach based largely on producing ethanol and distillers grains. To date, a number of firms have expressed an interest in the research reports and in looking at how barley might play a role in biofuel production. Osage Bioenergy, a Virginia-based company, will use barley to produce biofuels and related products, and have been very interested in the strategy and research results identified by the BBOP project.

"I'm optimistic about barley and bioproducts in general," says BBOP's project manager Carman Read. "But there will be challenges because you're buying a commodity to produce a commodity."

Despite current economic conditions and thin biofuel margins, Read says investors who act now could save on capital and start-up costs, and be well positioned when energy prices recover.

"I'm of the view that energy will be more expensive and construction will be more expensive—so if you're going to do it, now's the time," Read says.

Those who do, he adds, can be confident of renewable energy's future. "U.S. President Barak Obama is solidly behind green energy and that will drive change around the world. And in Canada we're still seeing strong policy support for renewable energy from the government."

Mike Leslie, the Commission's CEO, notes: "The U.S. government has added stimulus funding to non-corn ethanol production, and barley is seen as one of the key inputs to this new demand. Canada is not that far from most of those new factories."

Kyoto Fuels

Kyoto Fuels Corporation of Lethbridge received $277,500 in BOPI funds to create a comprehensive business plan, identify the best crushing technology, evaluate seed alternatives, undertake investor consultations and develop an environmental sustainability plan.

The company focused on biodiesel production from two sources, animal tallow and camelina. Camelina is a versatile non-food oilseed similar to canola that can be grown from British Columbia to the Maritimes. Common across Europe and Scandinavia during the Middle Ages, camelina was once known as a common weed called false flax.

Kyoto's Kelsey Prenevost says, "If we were to see enough camelina produced, we'd be interested in putting up a crushing plant." He estimates about 10,000 hectares (25,000 acres) of camelina are currently produced in Alberta. To make a $15-million, non-food grade crushing plant feasible, production has to increase tenfold to 100,000 hectares (250,000 acres).

"Farmers are interested in growing camelina because it's a low-cost, low-input crop and it can be planted early with little risk," says Prenevost. Camelina also needs only about half the fertilizer of canola and is drought resistant.

Prenevost says before his company can move forward it has to deal with "a lot of chicken and egg issues . . . do you have the plant first or do you have the crop first?"

BTE Biotrends

BTE Biotrends Energy Inc. received $294,5000 from BOPI and the Manitoba Rural Adaptation Council to assess, develop and demonstrate mobile diesel refining opportunities for Western Canadian farms.

Following extensive investigation, including visits to equipment operators in the United States and Europe, BTE found mobile production was not feasible in Alberta. Nonetheless, it entered into licensed agreements for technology and company president Keith Jones then worked with several partners to launch a production company called FAME Biorefinery (short for fatty acid methyl ester) in June 2008. Early in 2009, the company produced its first 10,000 litres of biodiesel from non-food grade canola at a small plant near Airdrie.

Jones says the plant uses canola that's been heated in the bin or otherwise doesn't make food-grade standards.

FAME sees an opportunity to set up 10 to 12 similar small-scale models around the province that would eventually produce about five to eight million litres each a year from a variety of feedstocks. Plus, FAME's existing plant could crush camelina without retrofitting.

While BTE's study on mobile biofuel plants found the concept unfeasible, Jones says it did lead directly to FAME's formation. "We never could have gone forward without BOPI," he says.

Keith Jones (above) of FAME Biorefinery has plans to operate 10 to 12 small-scale biorefineries around Alberta to produce canola-based biodiesel.

Ceapro Inc.

Ceapro Inc. of Edmonton received $300,000 in June 2007 from BOPI to complete a business case and feasibility study for the construction and operation of a modular ethanol plant.

In 2007, Ceapro had set up a separate arm for biofuel production, recognizing that its core processing and extraction technology were directly applicable to biofuel production. But after studying the industry's economics and opportunities the company decided, "We won't be participating in it anymore," Branko Jankovic, Ceapro's chief financial officer, says. "The market had significantly changed . . . we had escalating crop prices and at the time it didn't make sense."

Since determining a modular ethanol plant was not feasible, Jankovic says Ceapro has focused on its core business, extracting natural ingredients from oats and barley for use in human and animal health products.

Ag Canada predicts smaller barley crop for 2009-2010

Agriculture and Agri-Food Canada (Ag Canada) forecasts Canadian barley exports will fall sharply for 2008/09. Despite poor export prospects for the grain, the federal department expects the area seeded for barley in 2009/2010 to remain relatively unchanged. Even so, production could dip by as much as 10 per cent because of lower yields: 3.11 tonnes/hectare compared to 3.36 tonnes/hectare in 2008/09.

For 2008/09, barley exports could drop 36 per cent to 2.5 million tonnes compared to 3.9 million tonnes in 2007/08, mainly due to lower feed barley exports. Carry-out stocks are forecast to rise by 34 per cent but remain below the five-year average. In turn, feed barley prices are forecast to be about 20 per cent less (about $160 to $190 a tonne) than in 2007/08 ($214 a tonne).

For 2009/10, the total domestic supply of barley is forecast to fall to 8.4 million tonnes, down from 8.8 million tonnes in 2008/09, but up from 7.1 million tonnes in 2007/08. Domestic feed barley use is also expected to fall to 7.9 million tonnes (down from 8.3 million tonnes in 2008/09 but up from 6.6 million tonnes in 2007/08) as livestock inventories decline. Total barley exports for 2009/10 are forecast slightly lower at 2.4 million tonnes, compared to 3.9 million tonnes in 2007/08. Price projections for the 2009/10 year are expected to range from $150 to $190 a tonne.

For 2009/10, Ag Canada expects the area seeded to wheat, durum and oats to decline, while the areas for rye and summerfallow are expected to remain the same. All wheat areas are expected to decrease by five per cent to 9.4 million hectares, down from 10.2 million hectares in 2008/09. Oats areas will decrease slightly to 1.7 million hectares, down from 1.8 million hectares the previous year.

For all crops, average yields are expected to decrease from 2008-09 and return to the trend level. Total Canadian production of grains and oilseeds in 2009/10 is forecast to drop by 10 per cent, to 65.2 million tonnes.

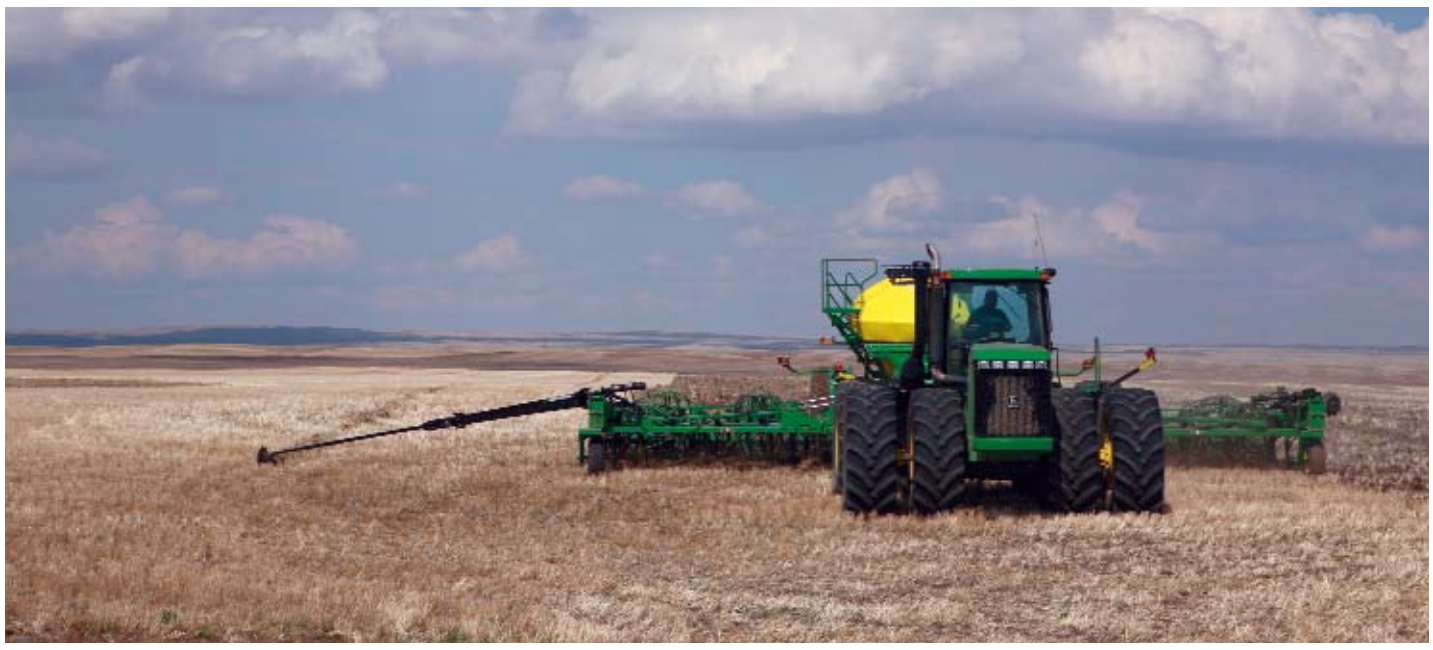
For 2008/09, corn imports are forecast to decrease sharply due to reduced feeding of corn in Western Canada. Corn exports from Eastern Canada are forecast to fall by 65 per cent due to lower production. Carry-out stocks are expected to fall by 18 per cent. For 2009/10, the planted area for corn is forecast to rise by four per cent but production is expected to decrease slightly. Imports are forecast to decrease by six per cent due to lower feed use in Canada.

Corn supplies are forecast to fall by three per cent while exports and carry-out stocks will be unchanged. The average price per tonne for 2009/10 is projected to be $140 to $170.

For canola, 2008/09 exports and domestic crush are forecast to rise to record highs of 6.7 million tonnes and 4.4 million tonnes, respectively, due to record supply. Carry-out stocks are forecast to increase to a record 2.6 million tonnes. The average price for the year is expected to drop by almost 20 per cent, to $425 to $475 a tonne, down from $553 in 2007/08.

In 2009/10, the seeded area for canola is projected to increase to a record 6.98 million hectares, up from 6.54 million hectares in 2008/09 and 6.4 million hectares in 2007/08. Production is expected to decline slightly.

Total canola supply is forecast to increase marginally because of the record large carry-in stocks. Exports and domestic crush are forecast to continue to increase, supported by lower prices and biofuel demand. Carry-out stocks are forecast to decline but remain historically large, with prices expected to decline because of weaker world vegetable oil prices.



Ag Canada estimates barley production could fall by as much as 10 per cent this year due to lower yields.

At a glance: barley supply and disposition

	2007-2008	2008-2009 forecast	2009-2010 forecast
Seeded area (hectares)	4.40 million	3.79 million	3.79 million
Harvested area (hectares)	4.00 million	3.50 million	3.43 million
Yield (tonnes/hectare)	2.75	3.36	3.11
Production (tonnes)	10.98 million	11.78 million	10.65 million
Imports (tonnes)	58,000	40,000	35,000
Total supply (tonnes)	12.53 million	13.39 million	12.79 million
Exports (tonnes)	3.91 million	2.50 million	2.4 million
Food & industrial use (tonnes)	156,000	190,000	190,000
Feed, waste & dockage (tonnes)	6.57 million	8.30 million	7.87 million
Total domestic use (tonnes)	7.06 million	8.79 million	8.39 million
Carry-out stocks (tonnes)	1.57 million	2.10 million	2.00 million
Average price	$214/tonne ($4.65/bushel)	$160–$190/tonne ($3.48–$4.12/bushel)	$150–$190/tonne ($3.26–$4.12/bushel)

All data as of March 30, 2009
Source: The Bulletin, Statistics Canada/Market Analysis Division of Agriculture and Agri-Food Canada

profile

‘Flying Farmer’ finds grass is greener on both sides

by Robyn St. Hilaire

Greg and Bev Wieben (above) farm and fly south of Fairview. "We're lucky to be where we are and do what we do," Greg says.

To farm or to fly? Greg Wieben’s family has wrestled with that question for three generations.

Suffice to say that by virtue of his moniker, the “Flying Farmer,” Wieben has successfully funnelled both occupations into his life.

Wieben’s grandfather, Orville, was born and raised on a Saskatchewan farm. Captivated by flying, he moved to Ontario to become a bush and commercial pilot. Wieben’s father, Don, was raised to be a bush pilot in Ontario, but decided farming interested him more. He moved his wife and four children to the Peace Country in 1970 with all of $500.

“Dad worked on a farm for two years and was able to buy some feeders and cows. A couple years later a neighbouring farm became available and then we were in knee-deep. People said Dad was nuts but the next year canola went to $14 a bushel,” Wieben explains.

During the winters, Wieben’s father restored aircraft. Today, a hangar on the family farm houses two planes, including one from 1940.

“Dad’s mostly retired and has moved off the farm. He helps out in busy times, seeding and harvesting, and he still rebuilds wrecked airplanes,” says Wieben.

Wieben’s taken after his dad. When he isn’t flying with his wife, Bev, to a neighbour’s for coffee (he and five airborne neighbours have grass landing strips), or teaching his children, Jacki, 13, and Danny, 11, to fly, he’s at home base: a 1,000-hectare (2,500-acre) property, 14 kilometres south of Fairview.

“We have 2,000 acres where we primarily grow barley and canola along with wheat, peas, faba beans and corn,” says Wieben.

Wieben seeds up to 160 hectares (400 acres) a year of AC Metcalfe malt barley and sells to the highest bidder, even when that means personally trucking the grain to Calgary. He also grows 160 hectares (400 acres) a year of Ranger feed barley.

“I’m the ‘grains manager’, and Bev’s the ‘cattle manager,’” says Wieben. Bev’s role comes naturally—the couple met at Fairview College (now the Northern Alberta Institute of Technology or NAIT) where Wieben studied agriculture and Bev became an animal health technologist.

Wieben’s commercial cattle roam 200 hectares (500 acres) of pasture and hay land. He’s had up to 400 fed-to-finish feeders and up to 300 cattle for his calf/cow operation and feedlot.

“We’ve cut the numbers due to the BSE crisis, last year’s drought, and cattle prices being halved within the last five years,” says Wieben.

Wieben was one of 35 producers who joined one of the first beef production value-added chains in Canada, Peace Country Premium Beef. The value chain allowed Wieben to own carcasses right up until they were sold to retailers. Strict protocols had to be followed, including using no antibiotics, hormones or ionophores. Carcasses had to be traceable to birth and the farm records open to auditing. While the venture was profitable, several outside factors caused it to fold.

In addition to farming and flying, Wieben is involved in two community endeavours, including Scouts and the Fairview Ski Hill. For the second fall in a row, he created an 3.2-hectare (eight-acre) public corn maze in 2008 and donated the proceeds to the Scouts and the ski hill. A special Halloween Haunted Maze capped off the season, attracting 400 people and raising more than $2,500.

“We’re lucky to be where we are and do what we do. We never get bored,” says Wieben.

Robyn St. Hilaire is a Calgary writer and a regular contributor to *Barley Country*.

mapping

Heading off pests

Alberta Agriculture and Rural Development has posted forecast maps for six insect pests on its Ropin’ the Web website. (Go to www.agriculture.alberta.ca and click on Maps).

“The purpose of these maps is to get information out early so that producers and agrologists can assess what the risk from insects could be in the coming crop season and plan their crops and control programs accordingly,” Scott Meers, insect management specialist in Brooks with Alberta Agriculture and Rural Development, says. “The maps are based on actual in-field surveys of the individual insect species.

“Each map is preceded by a commentary that explains how the survey was done, the relevance to producers in specific areas and what to look for,” says Meers. He adds the maps will stand for all of the 2009 crop year, except for the Bertha armyworm map will be updated weekly starting in June.

The six maps forecast:

Bertha armyworm—(in-season survey) over the last number of years, Bertha armyworm numbers have declined. Still, the survey will continue in 2009 to provide current risk numbers to producers.

Cabbage seedpod weevil—in Southern Alberta, the cabbage seedpod weevil is a perennial pest with the highest numbers usually seen in the earlier flowering fields. Cabbage seedpod weevils don’t do well in dry summers; a wet August in 2008 could result in higher numbers this year.

Grasshopper—grasshopper numbers appear to be falling but 2008’s warm, open fall could mean more eggs were laid. Parts of the province could see swarms of these pests, especially if conditions are hot and dry.

Pea leaf weevil—2008 was the first time pea leaf weevil numbers took a downward turn. But a wet August in 2008 could mean a higher risk of pea leaf weevil for 2009.

Alberta wheat midge—wheat midge numbers are decreasing but for 2009 producers are advised to watch individual fields (especially irrigated wheat fields) closely for isolated hot spots of this pest.

Wheat stem sawfly—after a five-year decline, wheat stem sawfly numbers jumped in 2008 in the province’s Brown soil zones. The sawfly can also be found in pockets throughout Alberta. Producers are advised to be aware of conditions in their area and plan accordingly for the inset.

For more information, contact Scott Meers at (403) 362-1366.

When to apply chemical inputs

The decision to apply fertilizers, herbicides, pesticides and fungicides isn't easy and it can be costly. For advice on getting the most value out of using these inputs, Barley Country turned to Allen Terry, a field development biologist with Syngenta, professional agronomist Dennis Laughton of Dennis Laughton Consulting, and researchers with Agriculture and Agri-Food Canada.

Start with the right seed

Find seed varieties that work in your growing area, Terry says. "A lot of people use bin-run seed, but I recommend certified seed because you get better germination."

He also recommends a seed treatment, especially in stressful conditions or if growing barley on barley, to combat seed rot, root rot, covered smut and seedling blight.

"No one can predict what conditions will be like this spring, but a seed treatment will get you off to a good start," Terry says. "I'm in Red Deer and here a seed treatment shows its value every year."

Seeding rates can also affect the need for chemical inputs.

The Lakeland Area Research Association says a competitive, healthy crop depends on adequate seeding rates. Generally, higher seeding rates result in higher crop yields, better weed competition, earlier crop maturity, fewer tillers and shorter plant heights.

Know barley's pests and diseases

From net blotch, spot blotch and scald to fusarium head blight, powdery mildew and grasshoppers, it's important to know the damage pests and diseases can inflict on your crop and under which conditions they thrive, Laughton says.

When it comes to net blotch and scald, Laughton says producers have to know how these diseases affect different varieties. Some varieties have more resistance, some less. Climatic zones also come into play since scald flourishes in cool, moist conditions whereas net blotch prefers warm, humid conditions. They should also take "mechanical considerations" into account—sometimes equipment wheels can come into contact with pests and diseases and transfer them to new locations or other plants in the same field.

"People typically get 'caught' by pests and diseases, quite frankly, when they're not paying enough attention," he says.

Do your math

Commodity prices and yields play a big part in determining your breakeven point. Calculate various scenarios predicting input costs, yield and selling price.

That said, if the calculations are unnerving resist the urge to save costs for the sake of saving costs and going completely without chemical inputs.

"When economics come into play, people are tempted to cut corners and that's just where you can get really caught—sometimes you're lucky and can get away with it and sometimes you can't."

He adds: "You need a good crop no matter what because you have all that investment sitting in your field and yard."

Monitor early and often

Check your fields every two to four days, especially for insects and even before plants emerge. Like other crops, barley is most susceptible to pests and diseases at the seedling stage. Healthy young plants have the best chance of becoming healthy mature plants.

Drive-by scouting is not enough. Getting out of your truck (or off your quad) and walking into your fields is recommended.

Depending on the size and location of your fields, consider hiring an agronomist or field inspector to do this (and much more) for you. Such crop experts have an in-depth knowledge in spotting and solving agronomic problems and know the newest and/or most suitable products and applications to use in specific areas and conditions.

To add to you own pool of knowledge, see Alberta Agriculture and Rural Development's Ropin' the Web website (www.agric.gov.ab.ca) for comprehensive weather data and provincial insect maps (also see News and events in this issue of Barley Country) and Alberta Seed's 2009 Pest Watch on www.seed.ab.ca.

Know right from wrong

Spraying too early can damage your crop. Spraying too late can be ineffective. And spraying in the wrong conditions can be a waste of time and money.

An agronomist, field inspector or input supplier can recommend the right time and conditions for spraying.

"The more wisdom you can get, the better," Terry says.

Test your rates

New research from Ag Canada barley researchers in Western Canada shows that some inputs can be reduced without affecting yield.

In a four-year study at six locations, Dr. Stewart Brandt in Saskatoon and seven other barley researchers removed inputs from "full packages" (test plots with a full complement of inputs) and added inputs to "empty packages" (test plots with no inputs). Their goal: to determine which inputs are the most important on canola/barley/canola/barley (and vice versa) rotations.

The project looked at several but not all input combinations, including subtracting 50 per cent of seed, fertilizer and herbicide on full packages and adding 100 per cent of seed and 50 per cent of fertilizer and herbicide to empty packages.

The project found, generally, that fertilizer and herbicides could be reduced in barley crops without significantly reducing yield. Reducing seeding rates, however, did affect yield.

"It seems more practical to reduce inputs in barley than in canola—barley is much less sensitive to inputs," Brandt says. "We've likely overestimated nitrogen requirements on well-managed fields . . . we're not sure why the nitrogen supply from soil was so high but we think it's related to conservation tillage practices that include direct seeding, continuous cropping and diverse rotations."

Although confident of the project's findings, co-researcher Neil Harker warns barley producers shouldn't reduce their inputs without considerable thought and preparation.

"Perhaps a good way to go with reduced inputs is that you need to have a full package in place for a number of years and then, for example, you may be able to reduce herbicide rates," Harker says. "But the time to reduce the rate is not when you have a big outbreak of weeds."

This study did show that the combined effect of several inputs was usually greater than the sum of their individual effects. For this reason, producers should also avoid trying to reduce more than one input at a time.

News and events

continued from page 20…

Dr. Hugh Beckie, a research scientist with Agriculture and Agri-Food Canada in Saskatoon, says, "Resistance to Group 2-herbicides appears to be linked to a high frequency of the resistance gene in the kochia population as well as through pollen transfer. Add to the mix that kochia is a tumbleweed, and resistant seed can be spread rapidly throughout fields and onto adjacent land."

Beckie adds: "We advise growers who have documented or suspected Group 2-resistance to tank-mix the Group 2 herbicide with a different mode of action that controls kochia, or to switch to a different mode of action such as a Group 4 herbicide."

Syngenta says Pulsar provides an effective alternative against resistant and non-resistant kochia. It is customizable with rate range and an ethanolamine salt (MCPA) tank mix option, and is tank mixable with Horizon®. Main pests controlled or suppressed with the addition of MCPA include kochia, stinkweed, flixweed, lamb's-quarters, shepherd's purse, volunteer canola, wild buckwheat, wild mustard, cleavers and volunteer flax.

Looking for LitterMate?

Not always easy to find, LitterMate, an all-natural, barley-based cat litter made in Saskatchewan, is now available at Sobeys and IGA stores across Western Canada. Besides being a valued-added barley product, LitterMate reduces the environmental footprint of domestic felines. Traditional cat litter is made from clay that is strip-mined and, LitterMate says, accounts for an estimated two million tonnes of non-biodegradable waste every year in municipal landfills.

LitterMate's makers proudly boast their product is clumpable, flushable, biodegradable, compostable, renewable and non-toxic. For more information, see www.luckyapproved.com.

Soil Council tests new tool

The Soil Conservation Council of Canada is evaluating a new computer-based tool to help agricultural producers identify opportunities to calculate and reduce greenhouse gas emissions on their operations.

Holos is a greenhouse gas calculator designed by Agriculture and Agri-Food Canada that analyses how greenhouse gas can be reduced. It covers various conservation practices such as zero tillage, rotations with perennial forages, shelterbelts and riparian buffers, Council executive director Glen Shaw says.

"At a time when the agricultural industry is under pressure to reduce its carbon-based emissions, this tool offers producers the opportunity to identify and set specific reduction goals," Shaw says.

The Advancing Canadian Agriculture and Agri-Food Saskatchewan Program are funding the project. The Council plans to test the tool across Canada. For more information, visit www.soilcc.ca.

update

Grain Growers of Canada Ottawa update

by Richard Phillips

The following issues and concerns are among the many that our member groups, including the Alberta Barley Commission, have asked the Grain Growers of Canada to work on in Ottawa this spring. The Grain Growers' policies and priorities come from the bottom up, so if you have thoughts or ideas on these or other ag issues, contact your local Alberta Barley Commission delegate or director.

Grain transportation

The perpetual challenge of shipping grain (and other commodities) in a timely and predictable manner is in the midst of a "level of service" review by Transport Canada. QGI, a consulting company from Edmonton that offers a range of consulting and technology services is conducting the review. It is a sister company of Quorum Corporation, which is under contract to the federal government as the grain monitor. QGI will report to an eminent panel. We have been working through the Rail Shippers Coalition to ensure that as shippers we put forward a credible and competent representative for the panel. The key now is to ensure government accepts our recommendations.

Safety nets

We are supporting the lead of the Canadian Canola Growers, which commissioned a thorough review of past and present agricultural safety nets. A first draft is complete and a final report is close. This could very well set the stage for the next round of business risk management programs for grains, oilseeds and pulses. We have met with Agriculture and Agri-Food Canada and the department is anxious to see the concept.

Biofuel

The regulations to implement legislation passed in the spring of 2008 appear to be bogged down and not moving as quickly as industry would like. Along with Canadian Renewable Fuels, we are working with government to ensure these regulations receive the priority necessary for the industry to be functional in 2010.

Canadian Grain Commission

A bill to modernize the Commission has been introduced (see story on page 12). It contains a number of controversial provisions, among them the removal of producer security (bonding) and inward inspections. This bill is not moving very quickly due to concerns that grain companies could face additional costs if the Canadian Wheat Board calls for more inspections at country locations. Faced with this, the grain companies are cautious about removing inward inspection. The issue of bonding is also very contentious as many producers want coverage. After consulting our members, we have asked the House of Commons Ag Committee for a thorough review of bonding costs and alternatives, including insurance or a clearinghouse.

Pesticide use

The Own Use Importation Steering Committee has become increasingly frustrated at the Grower Requested Own Use (GROU) program in regards to the tighter requirements of Pest Management Regulatory Agency (PMRA) and the rules around different cross-border manufacturers of the same products. A revolt may be in the making!

Public Research

Public research is probably the one defining issue that all members of the Grain Growers, the Western Grain Research Foundation (WGRF) and Ontario/Quebec farmers can agree on. As a result, these groups are forming a lobbying coalition to push hard for more new dollars into Agricultural and Agri-Food Canada's core A-base funding for public research. The private sector already invests substantial dollars in corn, soy and canola, but even there, base agronomic research is needed. The same is needed to address the very serious concerns of cereals and pulse growers who have seen diminishing plant breeding and research.

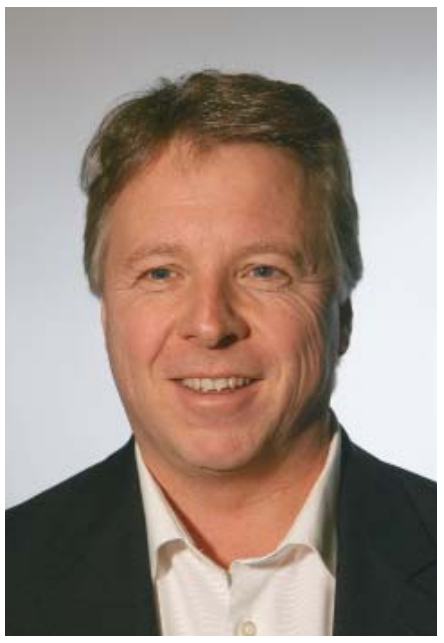


photo credit Dave Olecko

Richard Phillips

Richard Phillips is the executive director of the Grain Growers of Canada.

policy

Pesticide ban disappoints Ontario farmers

Agricultural and landscaping groups, along with Canada's plant science industry, are disappointed with new regulations by the Ontario government banning the sale and use of pesticides for lawns and gardens. They say the government has failed to develop a solid, scientific foundation for the new regulations and warn the decision will have negative impacts.

"Ontario farmers are disappointed that these regulations are not science-based," Bette Jean Crews, president of Ontario Federation of Agriculture said. "The government is discouraging innovation with these regulations and that jeopardizes the ability of farmers to continue to produce a safe and affordable supply of healthy foods. Without access to the newest pest control innovations, Ontario farmers will soon find they are at a competitive disadvantage."

"These regulations send a negative—and inaccurate—message to the public about the adequacy of the federal regulatory system and at the same time increases the risk of Ontario farms being exposed to pest infestations from non-agricultural land," Paul Wettlaufer, a farmer and vice-chair of Agricultural Groups Concerned about Resources and the Environment, said.

In Canada, all pesticides, whether they are intended for agricultural, lawn and garden, golf, forestry, or structural pest control, must meet high standards set by Health Canada before they are approved for sale and use.

support

Ontario Oat & Barley Council joins GGC

The Oat and Barley Council of Ontario (OBCO) has joined the Grain Growers of Canada (GGC).

"The farmer members of OBCO bring experience to our organization on the issues facing all areas of the supply chain regarding their commodity and we look forward to that input," CCG President Doug Robertson says. "Their communicative forum organization fits well with our vision, and they feel there is value in belonging to a strong policy-orientated national farm organization."

"Over the last years, consumer recognition of the value of our crops has been increasing in importance across the country," Carl Coleman, chair of OBCO, says. "Oat and barley producers are keenly aware of how industry forums and communication benefit the advancement of national policies and crop success."

The OBCO's mission is to increase communication in the agricultural industry that will enhance the profitability for the grower and increase value to the customer.

"The Council feels that by joining the Grain Growers of Canada, we are in fact achieving our own goal in promoting a voice for the industry to articulate its needs to government. Although we already work in close collaboration, we hope this partnership will enhance the learning curve for producers as well as the knowledge base of consumers," said Coleman.

News and events

Young farm workers safety training
May 1, 2009

Young farm workers 14 years old and up are encouraged to attend this day-long safety training workshop at Olds College. Registration is $30. For details, call (403) 346-8101 or email info@centralabsafecommunities.ca.

Western Canada Farm Progress Show
June 17-19, 2009

Held in Regina at Evraz Place, the Western Canada Farm Progress Show is the largest dryland farm technology show in the country, attracting more than 700 exhibitors and 40,000 qualified attendees from 30 countries. Over its 30 plus year history, the event has earned the right to be called "Canada's National Farm Show" and has continued to remain relevant to the industry it serves. For admission costs and other show details, visit www.myfarmshow.com or email farmshow@evrazplace.com.

Grain Growers summer meeting
July 8-10, 2009

The Alberta Winter Wheat Producers Commission will host the Grain Growers of Canada 2009 annual summer meeting in Waterton, Alberta. The meeting includes tours of ag sites in and around Lethbridge and an evening barbeque for farmers, families and industry representatives. Meetings will take place in Waterton's Bayshore Inn. For more information, visit www.ggc-ppc.ca or call (613) 233-9954.

Seed Growers annual general meeting
July 8-11, 2009

The Canadian Seed Growers' Association will hold its annual general meeting at the Fairmont Hotel in Winnipeg. For details and registration, visit www.seedgrowers.ca or call the Alberta branch secretary, Lorena Pahl, at (403) 782-8022.

Seed Trade annual general meeting
July 12-15, 2009

The Canadian Seed Trade Association will hold its 86th annual general meeting at the Westin Whistler Resort and Spa. For agenda and details, call (613) 829-9527 or visit www.csta.org.

The 17th International Farm Management Congress
July 19-24

This summer's International Farm Management Congress in Bloomington, Illinois will be the closest it's been to Canada since 1997 when it was in Calgary. This Congress offers invaluable insights and connections to understanding and addressing farm management challenges. About 300 to 400 delegates from 20 countries attend. Programs include three days of sessions and two days of field trips to farms, businesses, and research and educational sites. For more up-to-date details, visit http://www.ifma17.org/.

Wheat Growers elect Bender as president
The Western Canadian Wheat Growers Association recently elected Kevin Bender of Bentley as president.

"The Wheat Growers have a proud history of promoting open and competitive markets and I plan to continue in that tradition," Bender, who is also a Region 3 delegate for the Alberta Barley Commission, says. He replaces Cherilyn Jolly-Nagel who was the Wheat Growers' president for nearly five years.

Bender, 38, farms with his father and brother and grows barley, canola, oats, peas, spring and winter wheat on 1,520 hectares (3,800 acres). He has a bachelor's degree in religion from Taylor University College in Edmonton. He is also a delegate with the Alberta Canola Producers Commission.

Kevin Bender

"It's an exciting time to be a grain farmer," Bender says. "There is tremendous potential in the Western Canadian agriculture industry and the Wheat Growers will continue to promote policy changes to help us reach that full potential."

Fusarium Update
Fusarium graminearum is starting to establish itself in some areas of southern Alberta, but it is not commonly found in the rest of Alberta.

"Fusarium graminearum is mainly a problem where highly susceptible durum and soft white wheat are grown under irrigation," says Lacombe-based Agriculture and Agri-Food Canada researcher Kelly Turkington. In Alberta he notes: "It's much less common in dryland production."

The fungus Fusarium graminearum causes Fusarium head blight, barley and wheat's most destructive fungal disease. The disease greatly decreases yield and seed quality, and generates mycotoxins. Producers in Manitoba and the eastern part of Saskatchewan have suffered major crop losses due to Fusarium head blight.

Surveys by Ag Canada from 2001 to 2003 in central and northern Alberta rarely found Fusarium graminearum on crop residue, where the fungus often overwinters," Turkington says. "If it's not in the residue you wouldn't expect to see a lot on the heads."

More recent testing has found similar results: outside of southern Alberta Fusarium graminearum is not commonly found in the province.

Producers can take steps to protect themselves from the fungus and its resulting disease by:

- Checking seed for Fusarium before planting
- Choosing crop varieties with high Fusarium resistance
- Using a good rotation
- Considering use of registered fungicides that control (not eliminate) Fusarium
- Using caution when bringing in off-farm seed, feed grain and straw.

Syngenta introduces Pulsar
Syngenta Crop Protection Canada, Inc. has launched, Pulsar™ for use on all varieties of durum, spring wheat and barley. Pulsar contains two Group 4 broadleaf herbicides: dicamba and fluroxypyr.

Pulsar controls a variety of weeds, including kochia and provides dual-action management for Group 2-resistant kochia and non-resistant kochia.

"Kochia is a serious problem for spring wheat, durum and barley growers in the brown and dark brown soil zones," Jason Pickering, Syngenta's agronomic brand manager, says. "Kochia spreads incredibly quickly and can have devastating impact if not controlled effectively. Group 2-resistant kochia is even more challenging."

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To have your event listed in *Barley Country*, submit it by fax to (403) 291-0190 or by email to barleyinfo@albertabarley.com.

ALBERTA BARLEY COMMISSION KEY CONTACTS

Alberta Barley Commission
#200, 3601A 21 Street N.E.
Calgary, AB T2E 6T5
Phone: (403) 291-9111
Toll free in Alberta: (800) 265-9111
Email: barleyinfo@albertabarley.com
Web: www.albertabarley.com

Chairman & director-at-large
Terry Young, Region 3
RR 2, Lacombe, AB T4L 2N2
Phone: (403) 347-7664
Fax: (403) 347-7354
Email: tcyoung@yourlink.ca

Vice-chairman & director
Albert Wagner, Region 5
Box 2826, Stony Plain, AB T7Z 1Y3
Phone: (780) 963-7753
Fax: (780) 963-8753
Email: ajwccr@xplornet.com

Directors-at-large
Glenn Logan, Region 1
PO Box 249 Lomond, AB T0L 1G0
Phone: (403) 792-3696
Fax: (403) 792-3397
Email: seed@wheatcrest.com

Leo Meyer, Region 6
RR #1, Woking, AB T0H 3V0
Phone: (780) 774-2051
Fax: (780) 774-2246
Email: mgrain@telusplanet.net

Regional directors
Greg Stamp, Region 1
Box 1822 Enchant, AB T0K 0V0
Phone: (403) 739-2646
Fax: (403) 739-2167
Email: stamp.greg@gmail.com

Matt Sawyer, Region 2
Box 97, Acme, AB T0M 0A0
Phone: (403) 546-2259
Fax: (403) 546-2256
Email: sawyerm@airenet.com

Trevor Petersen, Region 3
RR1, Penhold, AB T0M 1R0
Phone: (403) 886-4717
Fax: (403) 886-4719
Email: wavylakefarm@xplornet.com

John Wozniak, Jr., Region 4
Box 671, St. Paul, AB T0A 3A0
Phone: (780) 645-6955
Work: (780) 645-5915
Email: wozfarm@mcsnet.ca

Albert Wagner, Region 5
Box 2826, Stony Plain, AB T7Z 1Y3
Phone: (780) 963-7753
Fax: (780) 963-8753
Email: ajwccr@xplornet.com

Ron Heck, Region 6
Box 817, Fairview, AB T0H 1L0
Phone: (780) 835-4431
Fax: (780) 835-2168
Email: rheckfarms@hotmail.com

Administration, (403) 291-9111
Mike Leslie, CEO, Ext. 26
Nikki Jeffrey, Manager, Office & Projects, Ext. 25
Queena Zhang, Accountant, Ext. 24
Darcy Kirtzinger, Policy & Research Coordinator, Ext. 23; cell (780) 608-9471
Mandi Tilleman, Office Administrator, Ext. 21

Terry Bullick, *Barley Country* Editor,
(403) 246-5225 tbullick@telusplanet.net

Cj Perrin, Advertising Accounts & Promotions
(403) 648-1793 cjperrin@albertabarley.com