

Inside Feed Chain

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cooperation

Barley check-off dollar shortfall hurts Alberta cattle feeders and producers



policy

Influencing government

Barley check-off dollars are as important to influencing government policy as they are to funding scientific research.

When registration of a new barley variety became mired in bureaucracy, the Alberta Barley Commission joined the fight for its approval.

The University of Saskatchewan Crop Development Centre (SCDC) had developed HB379 in near record time for the feeding industry. A low phytate barley with higher available phosphorus levels, HB379 reduces the need for added dicalcium phosphate and/or enzyme supplements in hog-feed rations. Most importantly, HB379 reduces phosphorus in animal effluent by as much as 44 per cent, compared to traditional barley diets.

But HB379 hit a major roadblock during registration in 2007. The Canadian Food Inspection Agency's (CFIA's) feed division labeled the new low-phytate variety of barley as "novel." This was after the CFIA's seed division had agreed the variety was "not a plant with a novel trait (PNT)."

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The Alberta Barley Commission is working to capture a greater percentage of barley check-off dollars so it can deliver more value to barley farmers, feedlot operators and cattle and hog producers.

At 50 cents a tonne (slightly more than a penny a bushel) on a commodity that regularly sells for \$175 or more a tonne, barley check-off dollars don't seem like a lot. But those pennies can add up.

In 2006, Alberta farmers reported they produced 4.6 million tonnes of barley. But the Alberta Barley Commission received check-off dollars for just 2.67 million tonnes, about 60 per cent of the annual crop.

"We realize that some farmers grow barley for their own use, but we also estimate that at least \$750,000 a year in check-off dollars isn't submitted," says Mike Leslie, the Commission's CEO.

A recent study by the Commission found that as many as two-thirds of feedlot operators in Alberta have not been submitting check-off dollars. Feedlot operators are one of barley's biggest customers: about 80 per cent of

Alberta barley is used for cattle and hog feed.

Alberta's Marketing of Agricultural Products Act mandates that anyone purchasing barley from a producer must deduct check-off dollars from the amount they pay the producer and then forward those check-off dollars to the Commission.

The Commission has launched a campaign to bring the issue of the check-off dollar shortfall to the attention of the feeding industry – and to make it easier for barley buyers to submit check-off funds.

"We'd rather encourage payment than enforce it," says Leslie, adding, "We're hoping that by creating awareness about just how important those dollars are to the feed and crop industries, that more funds will be submitted."

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The weight could be over for feed barley

Ten years from now you could be buying barley based on its digestible energy content and not its weight alone.

A research project at the Alberta Crop Development Centre in Lacombe is investigating the use of a precise and rapid method for testing and analyzing organic materials. The multi-million-dollar near infrared reflectance spectroscopy (NIRS) project has examined thousands of samples of livestock feed for characteristics such as nutritional value and net digestible energy.

“NIRS can distinguish between starch, protein, fibre and other components,” says plant breeder Dr. Jim Helm. Most of Helm’s 40-year career has been focused on improving the qualities of feed barley. “The big question feeders ask is ‘how does this affect my bottom line?’”

The project is all about finding definitive answers. “If we’re successful in proving what we believe is the answer, it could be worth billions to the hog and cattle industries.”

Helm has already found that bushel weight/test weight and plumpness have little correlation to the digestible



Plant breeder Dr. Jim Helm of the near infrared reflectance spectroscopy (NIRS) research project has found barley’s nutritional content is a better measure of value than its weight and plumpness.

energy an animal gets from feed, and that selecting two-row versus six-row barley does not ensure better feed performance.

“Even though feed barley is getting high prices right now, it’s still not sold on the basis of quality as is done in malting barley,” says Helm. “If we can improve the quality of the 20 per cent of the barley

produced for malt, why can’t we do that for the 80 per cent used for feed?”

Turning NIRS into an effective tool, says Helm, requires more research and more cooperation between the crop and livestock industries to define and determine the right kind of barley for livestock – and Alberta’s changing climate.

The Alberta Barley Commission is working to bring the crop and livestock industries together. Plus, it has contributed more than \$500,000 to NIRS research in the past 14 years. The Alberta Crop Industry Development Fund will contribute a further \$4.8 million to the project over the next five years.

“Our goal is to give barley feeders varieties that meet their exact needs. Feed is their biggest input cost and we want to provide the most value,” says Albert Wagner, a Stony Plain barley producer and the Commission’s Region 5 director.

feed

Better barley depends on industry support

Alberta feed barley producers are determined to improve your feed.

They – along with the Alberta Crop Industry Development Fund (ACIDF) – have developed the Alberta feed barley development strategy. The strategy has four goals:

1. To put a higher quality of feed in your feedbunk by increasing the starch/sugar content of barley kernels or by increasing the digestibility of fibre.
2. To increase the nutrient and water efficiency of feed barley to reduce risk and lower production costs.
3. To improve the yield of new and existing feed barley varieties while maintaining sound agronomic practices.
4. To work with the livestock industry to set and reach targets.

ACIDF, a not-for-profit company that represents a wide array of organizations throughout Alberta’s crop industry, has allocated more than \$3 million to the feed barley strategy.

“A check-off dollar invested in research can easily be doubled by co-investing with ACIDF, and perhaps tripled or quadrupled with other prudent funding sources,” says Doug Walkey, ACIDF’s executive director.

Brian Otto, a Warner barley grower and the Alberta Barley Commission’s Region 1 director, says the success of Alberta feed hinges on the livestock industry’s interest and support.

“If we’re going to find solutions for livestock, producers and feeders, we have to work with them and we have to share knowledge and resources,” Otto says.

Barley check-off dollar shortfall

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An all-too-common scenario in barley sales is that sellers ask buyers for a “favour”: not to have any check-off dollars deducted.

“But that’s against the law,” says Leslie. “Check-off dollars must be deducted from payments to farmers and they must be submitted to the Commission. It’s unfortunate funds aren’t being submitted because they are important to so many parties.”

Check-off dollars are the Commission’s sole source of revenue and are used for research and marketing activities to improve the value of barley, both for the farmers who grow it and the customers who buy it. This can mean higher yields

for producers or higher average daily gains per bushel fed for a feeder. Improved disease resistance can result in the higher bushel weights and plumper kernels desired by the feeding industry.

“The Commission is mandated to serve the interests of Alberta’s barley producers, but we also respond to the needs of our customers including those in the cattle and hog feeding sectors,” says Doug Robertson, a barley producer in Carstairs and the chairman of the Alberta Barley Commission. “Check-off dollars make the barley value chain stronger and more profitable for everyone involved.”

Stopping a destructive barley disease

A farmer's nightmare, a hog producer's fear and a maltster's curse, fusarium head blight (FHB) costs agriculture tens of millions of dollars every year in crop damage.

Alberta Agriculture and Food describes fusarium as "the most destructive fungal disease of barley and wheat in Canada." In Manitoba, farmers lose \$50 million a year in quality downgrades and livestock losses (especially swine), estimates the Manitoba Rural Adaptation Council.

Once mainly confined to Manitoba and the northern U.S. Plains, FHB has gained a substantial foothold in Saskatchewan. Alberta's drier climate provides some protec-

tion against the disease, but the fight to stop fusarium's spread to Alberta is being fought on several fronts.

One is through research. In 2000, a joint Canada-wide research project was launched to increase barley resistance to fusarium. The project involves Agriculture and Agri-Food Canada research centres from Charlottetown to Lacombe, the Saskatchewan Crop Development Centre (SCDC) and the Alberta Field Crop Development Centre. One of the project funders is the Alberta Crop Industry Development Fund (ACIDF). The Alberta Barley Commission is an ACIDF signatory.

The project is also testing

barley varieties for deoxynivalenol (DON), the most prevalent toxin associated with FHB. Most hog producers and maltsters have zero-tolerance for DON; Agriculture and Agri-Food Canada guidelines for acceptable feed are one part per million (ppm) for swine, dairy cattle and horses and five ppm for beef cattle, sheep and poultry.

The project's lead researcher, Dr. Bill Legge of Agriculture and Agri-Food Canada's Brandon Research Centre, has identified numerous lines in barley breeding programs across western Canada that have at least moderate fusarium resistance. His research continues to test these lines to determine the

long-term stability of their FHB resistance and their suitability as potential new varieties. In 2007, the project released its first new variety, CDC Mindon, a two-row feed barley developed by Dr. Brian Rossnagel at the SCDC.

Legge says more new varieties with improved FHB resistance should be released during the next two to five years.

"Any time we reduce the impact of disease in barley, we benefit in a healthier plant that produces a plumper, more uniform grain and that's good for cattle feeders," says Ron Heck, the Commission's Region 6 director and a Fairview barley producer.

support

The simplicity of submitting barley check-off dollars

Submitting barley check-off dollars is a straightforward, four-step process.

1. When settling a sale with a barley producer, deduct the barley check-off dollars (\$0.50/tonne) from the selling price.
2. Report the barley check-off dollars you deduct each month. The Alberta Barley Commission can provide a reporting template or ready-made Excel spreadsheet. All the information needed for reporting and calculating check-off dollars is on your grain tickets (sale receipts).
3. Send the Alberta Barley Commission a monthly summary of barley purchased from producers. Your summary can be mailed, e-mailed or faxed to the Commission, and should note:
 - your business name and contact information (address, phone, fax and e-mail)
 - the net tonnes of barley purchased
 - the check-off dollars you will be submitting (net tonnes x \$0.50).

If you buy barley from a grain company or broker, they are responsible for submitting the check-off dollars. Check-off dollars are only deducted once, when barley is purchased from a producer.

4. Mail in payment of the check-off dollars. Payment is due within 55 days of purchase; many barley purchasers submit check-off dollars monthly.

It's that easy. For more information and a report template, contact:

Audra Crump, Alberta Barley Commission
Phone: 1.800.265.9111 ext. 21 Fax: 403.291.0190
Email: acrump@albertabarley.com

Influencing government

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While the term "novel" has varying definitions within the CFIA and among other Canadian regulators, the rest of the world uses "novel" to describe genetically modified organisms.

"Any Canadian variety labeled as 'novel' would have been looked upon as 'Franken food' by any other country,"

Fearing such demands would hamper future research projects, industry partners – among them the Commission – called upon the federal government to align and harmonize regulations at the CFIA and other departments such as Health Canada, Environment Canada and Agriculture and Agri-Food Canada.

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**This was an example of . . .
how our regulatory environment got in
the way of approval**

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says Darcy Kirtzinger, the Commission's research and policy coordinator.

"This was an example of a significant, positive change to a variety and how our regulatory environment got in the way of approval," says Dr. Brian Rossnagel, the SCDC plant scientist who headed HB379's development. "CFIA put the onus on us to prove or disprove the risk of low phytate barley."

Rossnagel was forced to conduct additional and extensive research to demonstrate that low phytate barley has no associated risk.

"This was an example of how we needed many producers to come together and apply political pressure," says Rossnagel, "the regulations were in place but any decision came down to CFIA feed section's interpretation."

In October 2007, the CFIA cautiously approved HB379, now named CDC Lophy-I. Nonetheless, Mike Leslie says the Commission and its research and industry partners will "continue to press government for regulatory approaches that inspire innovation, not quash it."

Check-off dollars about a penny a bushel

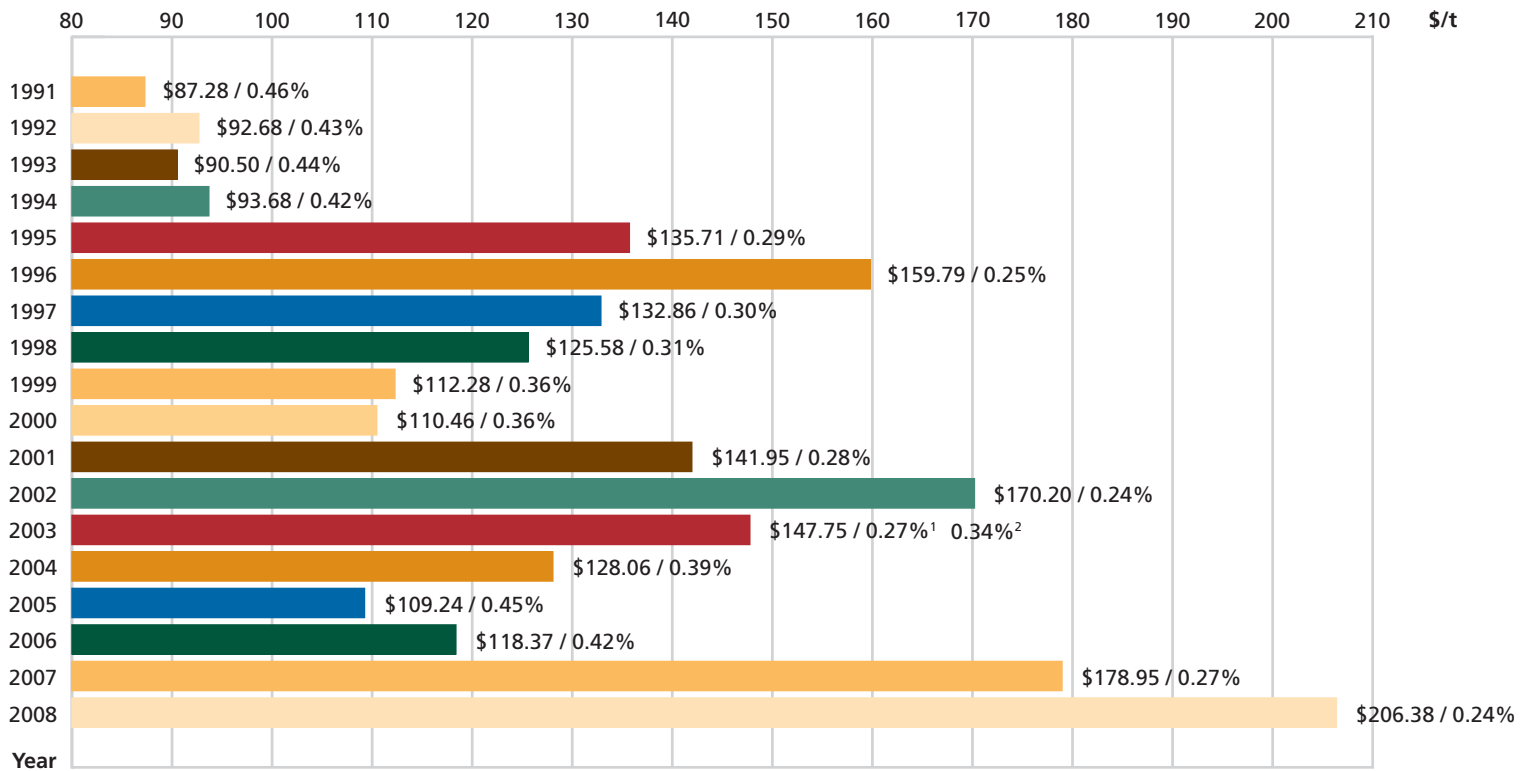


Chart shows the average annual midpoint price of feed barley delivered to Lethbridge from 1991 to January 25, 2008, and the percentage barley check-off dollars were of that sale price. From 1991 to July 31, 2003, the barley check-off rate was \$0.40/tonne or \$.008/bushel. Since August 1, 2003, the barley check-off rate has been \$0.50/tonne or \$.011/bushel.

¹ percentage to July 31, 2003 ² percentage after July 31, 2003

solutions

More leaf disease research needed

As a feedlot operator, you may not give a passing thought to spot form net blotch or scald. But they – and other leaf and root diseases – can affect the quality and quantity of your barley supply.

And a supply affected can translate into a supply interrupted.

“In the past five to 10 years, we’ve seen more leaf and root diseases than in the past,” says Dr. Kelly Turkington, a plant pathologist with Agriculture and Agri-Food Canada at the Lacombe Research Centre.

Turkington says significant problems with leaf diseases in the Brooks/Medicine Hat corridor, where numerous feedlot operators rely on a local supply of barley silage and feed barley, were first brought to his attention in the mid 1990s.

“We have shown that producers can have up to 25 per cent reduction in silage pro-

duction from leaf disease,” says Turkington. Such losses were most common when farmers grew the same barley variety three or more years in a row in the same field.

Turkington says he and other researchers have helped barley farmers find some short-term solutions to leaf and root diseases – through practices such as crop rotation, barley variety rotation and fungicides – but more research is needed.

“We need to look at an integrated approach to crop production and disease and weed management. Unfortunately, plant pathogens can adapt to cropping practices and varieties. We’ve seen scald-resistant varieties of barley become susceptible to the disease.”

Producers – and the end-users of barley, cattle feeders – need long-term, sustainable solutions.

“And long-term solutions

need long-term research funding, and to get that you need the support, cooperation and infrastructure of barley producers and barley feed sectors,” says Turkington.

Today, the Alberta Barley Commission recognizes that leaf and root diseases in barley pose an increasing risk to its 17,000 members and their customers. But the Commission currently lacks the funding needed to support new research projects.

“Capturing a greater percentage of barley check-off dollars would help us to fund new research projects,” says Terry Young, the Commission’s vice-chairman and a Lacombe barley producer. “These projects would serve producers by increasing yields and disease resistance and serve feeders by improving feed quality and consistency.”



Feed Chain is produced by the Alberta Barley Commission and distributed to operators and stakeholders in Alberta’s livestock feeding sector. To learn more about submitting barley check-off dollars and how they benefit your business, contact:

Mike Leslie,
Chief Executive Officer
mleslie@albertabarley.com

Audra Crump,
Office Assistant
acrump@albertabarley.com

Toll free in
Alberta: 1.800.265.9111
#200, 3601A - 21 Street NE
Calgary, Alberta T2E 6T5

Established in 1991, the Alberta Barley Commission represents the interests of Alberta’s 17,000 barley growers.