

Elite Barley

Canadian Malting Barley
Grower Recognition Program



2012 SPECIAL REPORT

CELEBRATING EXCELLENCE IN MALT BARLEY PRODUCTION IN CANADA

www.elitebarley.com

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Photos appear courtesy of Deb Marchand and Michael Interisano on behalf of the Alberta Barley Commission.



ELITE BARLEY: CANADIAN MALTING BARLEY GROWER RECOGNITION PROGRAM 2012

Producing malt-quality barley is an achievement for many barley growers. The Elite Barley: Canadian Malting Barley Grower Recognition Program is an industry-led program that celebrates producers who overcome the challenges of producing the best malt barley in Canada.

In Elite Barley's third year, participating grain and malting companies nominated 15 elite barley growers from across Western Canada. Nominating companies are: BARI-Canada Inc.; Canada Malting Co. Ltd.; Rahr Malting Canada Ltd.; Richardson Pioneer, Prairie Malt Limited; Seed-Ex Inc.; South West Terminal; and Viterra.

Nominees will be recognized in front of industry representatives and fellow producers at the Western Barley Growers Association's (WGBA) 35th annual convention, which runs February 15–17, 2012.

"These elite growers take great care in pre-seeding planning and in the growing, harvesting, and storage management of their malting barley to the needs and specifications of their customers," explains Michael Brophy, president and CEO of BMBRI and co-chair of the Elite Barley program. "They treat their malting barley as a specialty crop."

"Only the very best growers consistently achieve malt barley status with their crop each year," says Elite Barley co-chair, Michael Edney of the Canadian Grain Commission. "The growers nominated under this program typically represent that level of success."

This year's nominees shared best management practices, including variety selections, crop rotation, seed rate and date, crop protection, harvest methods and storage practices.

As one of the founding partners and a current program sponsor, the Alberta Barley Commission (ABC) sees value in promoting the expansion of barley acres in Canada.

"Sharing effective production tips is the key to encouraging producers to try growing malt," says ABC Chairman Matt Sawyer. "Different weather patterns, soil types, and crop rotations largely affect yield. There is a big benefit to learning the tips of successful growers in your area."

The growers nominated for 2011 are: Brian Broberg, Gull Lake, Sask.; Terry Hunt, Gull Lake, Sask.; Jack Kuntz, Balgonie, Sask.; John Germs, Saskatoon, Sask.; Vern Neill, Kelliher, Sask.; Frank Hamel, Olds, Alta. and Outlook, Sask.; Gerard Neill, Morrin, Alta.; Ken Hughes, Gull Lake, Sask.; Warren Morris, Kerrobert, Sask.; Cadieux Farms, Letellier, Man.; Chris & Robert Izyk, Blackie, Alta.; Francois Messier, Saskatoon, Sask.; Mike Vavrek, Sexsmith, Alta.; Rodney F. Koch, Edenwold, Sask.; Wade Koch, Edenwold, Sask.

Program sponsors include the Alberta Barley Commission (ABC), the Brewers Association of Canada (BAC); the Brewing and Malting Barley Research Institute (BMBRI); SeCan; Syngenta; and the Western Barley Growers Association (WGBA).

The program also enjoys support from a number of key industry partners. Supporting companies are: Canada Malting Co. Ltd., Canadian Grain Commission (CGC); Canadian Wheat Board (CWB); Canterra Seeds; Malteurop North America Inc.; Prairie Malt Limited; Rahr Malting Canada Ltd.; Richardson Pioneer; Sierra Nevada Brewing Company; Sleeman Breweries Ltd; and Viterra.

Elite Barley's organizing committee for 2011-12 is co-chaired by Michael Brophy of BMBRI and Michael Edney of CGC. The other members of the organizing committee are: Anne-Marie Bruzga Luchak, ABC; Bob Chappell, Canada Malting Co. Ltd.; Dale Matchett, Richardson Pioneer; Doug Munro, CWB; Floyd Howard, Cargill; Kailen-Renelle Krawec, ABC; Kenric Exner, Viterra; Kevin Sich, Rahr Malting Canada Ltd.; Leah Fullerton, Prairie Malt Limited; Leslie Mckenzie, Viterra; Lisa Skierka, ABC; Patrick Rowan, BARI-Canada; Taryn Dickson, ABC/BMBRI; Yvan Bruneau, Richardson Pioneer.

Background information on the Elite Barley program, production tips from past nominees, and other resource information is available at www.elitebarley.com.

ELITE BARLEY PROGRAM SPONSORS

The Elite Barley Program would like to thank the following:



The Alberta Barley Commission is pleased to be part of a program that not only honours the best in malt barley production, but helps our members grow better malt through sharing production tips.

~ Matt Sawyer, Chairman



BMBRI's members regard production of more selectable supplies of quality malting barley as critically important to their success in the malting and brewing marketplace. With declining overall barley acres in North America, it is now even more important to share the expertise and practices of the best malting barley growers with other growers.

~ Michael Brophy, President and CEO



Brewers Association of Canada

We believe that Canada has a competitive advantage when it comes to malt barley and that this advantage gives our country the ability to be a global force in beer and malt. Our support for the Elite Barley program is one way of expressing this belief.

~ Ian Faris, President & CEO



SeCan is pleased to support the Elite Barley Program for 2011–2012. Canada has a strong reputation for producing some of the best malt barley in the world—this is due to a combination of great genetics backed by a pedigreed seed system that is second to none, experienced growers, and a world class handling system. The Elite Barley Program celebrates the best of the best!

~ Todd Hyra, Business Manager, Western Canada



Syngenta commends the Elite Barley program's ongoing support of high quality malt barley production. We recognize that leadership comes from dedication, which is why Syngenta is solely focused on agriculture, enabling continued development of innovative technologies such as Axial, Quilt and Cruiser Maxx Cereals, for Canadian growers.

~ Andrea McConnell, Cereals Portfolio Manager, North America



The WBGA believes Western Canadian barley producers grow the best malt barley in the world. We support the Elite Barley program as it recognizes farmers who demonstrate the ability to produce top quality barley for the malting industry. WBGA believes that the malt barley industry in Western Canada has not reached its true potential. It is growers who have received recognition through the Elite Barley program that demonstrate to the world the quality of Western Canadian barley and this will continue to develop the reputation of our industry in world markets.

~ Brian Otto, President

ELITE BARLEY PROGRAM SUPPORTERS

Canada Malting Co. Ltd.

At Canada Malting Co. Ltd, we believe that a better malt is in the details. Elite Barley promotes excellence in growing malting barley and communicates the production practices that allow growers to achieve quality malt barley at every harvest. Sharing the value in these initiatives make Canada Malting Co. Ltd a proud sponsor of this program.

~ Robert Chappell, Senior Director of Grain

Canadian Wheat Board

The CWB is proud to support the Elite Barley program. The program was designed to allow elite barley growers to share their agronomic and storage techniques with other barley growers. The goal is to give all growers the management practices needed to grow selectable malt barley.

~ Doug Munro, Malting Barley Program Manager

Canadian Grain Commission

The Canadian Grain Commission is a proud supporter of the Elite Barley program and its efforts to recognize malt barley producers considered the best in the business. We are committed to working with the Elite Barley Program to grow the industry through increased awareness and interest in malt barley production.

~ Michael Edney, Program Manager Applied Barley Research

Canterra Seeds

Canterra Seeds is pleased to support the Elite Barley program and its recognition of those who successfully produce malt barley. The management practices these individuals share help to optimize the potential of malt barley genetics.

~ Brent Derkatch, Director, Operations & Business Development

Malteurop North America Inc.

Raising quality malt barley requires production techniques that are sometimes as much an art as they are science. Malteurop Canada Ltd supports the Elite Barley program in showcasing growers who have mastered these techniques so that all growers can strive to implement them into their own operations.

~ Derek Prell, Director, Barley Procurement

Prairie Malt Limited

Prairie Malt Limited supports the Elite Barley program as a tool for malt barley growers to collaborate with one another and share effective practices for producing malt quality barley. The ability for these growers to successfully achieve malt quality is a true testament to their knowledge and understanding of malt barley production.

~ Chantelle Donahue, Canadian Barley Supply Chain Manager

Rahr Malting Canada Ltd.

Barley farmers are absolutely critical to the success of our company and our industry. We at Rahr Malting fully support the Elite Barley program and its goal to recognize and promote the efforts of the top malting barley farmers that are so essential to us.

~ Kevin Sich, Manager Grain Department

Richardson Pioneer

Richardson is pleased to support this program recognizing best production and management practices for malting barley.

~ Dale Matchett, Malting Barley Merchant

Sierra Nevada Brewing Company

Sierra Nevada Brewing Company is proud to be a supporter of Canada's Elite Barley grower recognition program. Malting barley growers in Canada using best management practices are an important component of the raw material supply for Sierra Nevada's 100 per cent malt beer products.

~ Gil Sanchez, Director of R&D

Sleeman Breweries Ltd.

Brewing great beer begins with excellent malting barley, the Elite Barley program recognizes those producers on whom the industry can depend year over year.

~ Ed McCallum, Director of Brewing & Development

Viterra

Viterra supports the Elite Barley program in celebrating innovative Western Canadian growers producing superior malt barley on the Prairies.

~ Kenric Exner, Merchandiser Manager



ELITE BARLEY PRODUCTION TIPS

The Elite Barley: Canadian Malting Barley Grower Recognition Program honours top producers of malt barley in Canada, providing an interesting look at the best management techniques of these elite growers. It also provides an inside view on how they manage to consistently produce malt under sometimes challenging conditions. The goal of the Elite Barley program is to promote grower best management practices for malting barley, and showcase the value that malt and malt barley bring to Western Canadian agriculture and the Canadian economy.

The following are some of the management techniques emerged from the information collected from the 2011 crop year nominees.



Growers' Pre-Seeding Plan

Elite growers often maintained production of the variety that proved to be superior in agronomics, yield potential and demand, while continuing to look for new, improved varieties. Regardless of the varietal choice, it was always crucial to be well organized and plan crop rotations and field selection in advance.

Buying certified seed and soil testing was common among elite growers, although some producers only used these management techniques once every 2 to 3 years. Seed treatment was noted as important by producers.

Growers that have implemented environmental farm plans continue to reap the benefits from these plans. Malt barley was successfully seeded into canola stubble, summer fallow, pea and lentil stubble (minding the soil nitrogen level) and even flax, depending on the region.

It was very common among elite growers to use glyphosate or another chemical as pre-seed weed control, although one farmer preferred to use cultivation to accomplish this objective.

Working closely with their local elevators/malting companies helped producers choose a variety in demand, analyze market signals, and set up production contracts with the use of Cash Plus or other pricing mechanisms.

Growers' Crop Management

Elite growers agreed that for seeding "the earlier, (the seeding date) the better". This allowed crops improved chance of success reaching maturity and developing throughout preferred weather conditions (avoiding summer heat too early in crop development), as well as an early harvest.

A variety of tillage methods are still used, from deep tillage in black soil zones to minimum and zero tillage in brown or grey soil zones. A wide range of seeding rates were reported, from 60 to 135lbs/ac (approximately 1.25- 2.81bu/ac), generally with increased tillage at higher seeding rates. Some producers even experimented with different seeding rates from year to year. The seeding depth varied from .75 inch-1.25 inches.

Disease management was not nearly as prevalent as weed management, which almost always required a chemical application, sprayed at the recommended stage (as a result of regular crop monitoring). Some farmers have opted for a half rate of fungicide as a precaution against diseases.

Fertility plans for most top producers incorporated spring applied fertilizer, including nitrogen (from 34-80lbs), phosphorus (10-40lbs) and sometimes potassium and sulfur.

Fertility plans for individual growers are a function of soil type, topography, soil tests and weather conditions in each producer's area.

Growers' Harvest Management

Straight cutting between 13.5 per cent and 16.5 per cent moisture, followed by bin aeration was still viewed as the lowest risk harvest method. However, a surprising number of producers nominated advocated swathing, followed by combining 4-7 days later, which allowed them to practice selective swathing if needed, hasten and homogenize the maturity of the crop.

Producers agreed that adjusting swathing and combining settings according to the barley crop and weather conditions is critical. This included slowing the rotor down, opening up the concave and setting the wind to 900rpm, aided in the maintenance of high quality malt barley. Careful inspection of barley samples coming off the combine by the producer was another safeguard against incorrect combine settings.

Growers' Post-Harvest Management

While it was essential for elite growers without aerated bins to take the crop off dry, some growers with aeration followed suit, preferring to haul their barley to malting company elevators directly after harvest. Others stored it in clean, odour-free flat-bottom or hopper bins with aeration to drop the moisture down. This was carried out with large diameter augers set to low speeds to reduce peeled and broken kernels. Once in the bin, regular monitoring and necessary turning was determined to maintain top quality until delivery.

Proper sampling and labelling methods, including preparing a composite from samples taken off each load of barley hauled, were considered essential. Regardless of a production contract, promptly bringing accurate samples in to the elevator were useful for delivery and acceptance opportunities.

The fall season was used by many top producers to soil sample, harrow straw into the field or manage weed problems, either by cultivation or post-harvest spraying.



OVERALL PRODUCTION TIPS

General Technical Practices

Elite barley growers understand the benefits of certified seed and most of them use it every other year, but some use it every third year.

- Growers seed their malt barley most often into canola stubble.
- They strive for an early seeding date (early May) to allow for early harvest and, thus, reduce concerns with drying the grain.
- Seeding rates vary considerably, from as low as 60 lbs/acre to as high as 135 lbs/acre.
- Seeding rates depended on location on the prairies and anticipated water supply during the growing season, with higher rates in areas with adequate moisture.
- Most elite growers in 2011 seeded established varieties (AC Metcalfe and CDC Copeland), but there was increased interest in Newdale.
- Growers were almost split evenly in their preference for swathing versus straight cutting.
- Those who favour swathing waited for the grain to reach 16 per cent moisture and then swathed when there was a five-day window—they liked to combine within five days of swathing.
- Growers who prefer straight combining generally waited for grain to reach less than 14 per cent moisture before cutting, especially if they had no access to aeration.
- The majority of growers did aerate, even when straight combining, to dry and cool down their barley.
- Many of the growers commented on the need to monitor and continually adjust combine settings as the harvest day progressed in order to reduce peeling and breakage of the harvested grain.
- Auger speeds were also closely monitored to reduce peeling and breakage, which becomes the greatest concern in years with ideal harvesting conditions.

••*Note-See also specific individual Elite Barley Growers' Production Tips (pages 8-17)

THE ELITE BARLEY NOMINATED PRODUCERS FOR 2011 CROP YEAR

Canada's best malting barley farmers and how they achieved success

BRIAN BROBERG

Gull Lake, Sask.

Nominated by: South West Terminal

Barley balancing act an enjoyable challenge

By Sarah Weigum

For 30 years, Brian Broberg of Gull Lake, Sask. has grown malt barley, adapting to changing agriculture practices along the way.

"When we first started growing malt, we always had summer fallow acres and you were pretty much guaranteed the plumpness," says Broberg. In these days of continuous cropping, he knows his fields need some nitrogen to get the yield, but he also knows that too much nitrogen compromises the low protein that malsters covet. Regular soil testing allows him to make informed decisions about fertilizer rates.

Broberg devotes about 200 acres—a quarter of his total acreage—to malt barley annually. He seeds barley early in the season, usually in the first two weeks of May. He uses certified AC Metcalfe seed and prefers to plant into lentil stubble.

Broberg seeds about 60 pounds per acre, a rate that balances the limitations of dry conditions on his southwestern Saskatchewan farm, but also produces a heavy enough crop canopy to reduce late season tillers that lead to uneven maturity at harvest. A pre-seeding glyphosate burn-down, combined with an Axial application later on, cleans up many of the weeds that would be present at harvest if left untreated.

"A clean field is important," he says. "If there's a lot of good malt and yours looks cleaner, they'll take the best of the best."

When he pulls in to straight cut a malt barley field, Broberg dials down his rotor speed to about 75 per cent of normal.

"I slow the rotor speed and run as little return as possible to prevent cracking or chipping," says Broberg. It must work, because the staff at the South West Terminal near Gull Lake are consistently impressed with the quality of grain he delivers.

"We always look forward to Brian's malting barley submissions," says sales manager Warren Mareschal. "He always has malting suitable quality in regards to colour, plump, cleanliness, and varietal purity. He shows to be gentle at threshing due to the lack of peeled and broken seeds in his sample."



Broberg estimates that he has sold barley for malt 25 out of the 30 years he has grown it. Despite the risks associated with this crop—from unfavourable weather to disappointing prices—he remains committed to keeping malt barley in his rotation. He encourages other determined farmers to do so, as well.

"If you enjoy a challenge, then it's a good crop to grow."

PRODUCTION TIP: FIND THE RIGHT SEEDING RATE FOR YOUR SOIL AND WEATHER CONDITIONS TO PRODUCE AN OPTIMAL CROP.



CADIEUX FARMS LTD.

Letellier, Man.

Nominated by: Seed-Ex Inc.

New grower keen to expand barley crops

By Maeve O'Rourke

Cadieux Farms of Letellier, Man. was chosen as an Elite Barley nominee in its fourth year of producing malt barley.

"Barley is beginning to be a bigger part of our 3,800-acre farm and we are adding 300 acres to total 800 acres of barley for the 2012 growing season," says Kerry Cadieux. "The price is really good and we are confident that with good practice we can make malt consistently."

He explains that Cadieux Farms is geared for improvement and growth, and that one advantage of growing barley is that it improves conditions for other crops in rotation.

"Too much canola and soy grown year-over-year makes for the potential of disease," says Cadieux. "When we grow soy on canola, it's not good. We find that growing soy on cereal makes for better results and a healthy crop."

Working with Seed-Ex to determine the best crop for his farm, Cadieux grew Celebration for the first time in 2011. He seeded the new variety on June 8 at the seeding rate of 2.5 bushels per acre. His land is deep tilled in the fall with 6-inch sweeps and 12-inch spacing, and is harrowed in the spring.

Cadieux says they also input what is required for best yield results, as well as proper crop and soil management. He explains there are some challenges.

"You have to have adequate moisture and even germination or you can run into problems with vomit being high," he explains. "High vomit means you don't make malt and your crop goes to feed. It's very important to have even germination when it comes down to timing fungicide. Wait until the head has elongated from the flag leaf, wait three days and then apply a fungicide. This will ensure 80 per cent of heads are covered for disease protection."



What is his advice for new producers? Cadieux says that even maturity is key.

"Ensure you spend the extra money on a product you know works well for fungicide application," he says. "Even germination is up to the weather. If you have good moisture in the springtime, I highly suggest growing barley. With a dry spring, I would caution against growing barley."

PRODUCTION TIP: PROPER CROP ROTATION IS IMPORTANT FOR HEALTHY CROPS AND ALSO HELPS PREVENT DISEASE.

CHRIS AND ROBERT IZYK

Blackie, Alta.

Nominated by: Rahr Malting Canada Ltd.

Shooting for the malt market

By Kailen Renelle Krawec

The Izyk Brothers of Blackie, Alta. have been consistently growing malt quality barley for 20 years using environmentally sustainable practices.

"We always shoot for the malt market, and if we come up short then we're in the feed market," says Chris Izyk, who, along with his brother and farming partner Robert, devotes a third of the farm's acreage to malt barley production.

The Izyks plant certified AC Metcalfe seed as early as the last week of April. Prior to seeding, they do a pre-seed burn and always seed on canola stubble. They use a good broad leaf and wild oat herbicide

tank mix targeting sound weed management. The brothers use a four-crop rotation of canola, wheat, barley and peas, and never plant barley on barley in order to keep disease in check.

"We've straight combined as long as I can remember, even before it became *en vogue* for combine people" jokes Chris. "That was always the key, my dad used to do that, and it generally brings a much higher quality."

Chris and Robert's number one tip: Get a good drill.

"You get even emergence—with the one pass, with the right drill, you're going to maximize your soil moisture and get an even crop, even germinations. So that when it comes time to harvest it, you're not dealing

with an uneven crop," explains Chris. "You can get in and straight combine, and it just makes everything easier, which leads to higher quality and better yield."

In the past 20 years, the brothers have had malt quality barley selected 90 per cent of time.

This may explain why their nominating company, Rahr Malting, wanted to recognize them for their commitment to the barley, malting and brewing industry. It also explains why these brothers at the grass roots of the value chain are so exceptional.

"Rahr Malting likes to consider growers in their direct barley program as partners in a business relationship," explains Kevin Sich, manager of the grain department for Rahr Malting. "We want to align with growers that take growing barley seriously and want to be successful."

Responsible stewardship of the land is important to the Izyks, who have completed the environmental farm plan program.

"Respecting the land and environment is number one in our operation and should be passed on to future generations," says Chris.

PRODUCTION TIP: A GOOD QUALITY DRILL WILL MAXIMIZE YOUR SOIL MOISTURE AND LEAD TO AN EVEN EMERGENCE, WHICH MAKES STRAIGHT COMBINING EASIER AT HARVEST TIME.

FRANCOIS MESSIER

Saskatoon, Sask.

Nominated by: Viterra

Better bins mean better barley

By Geoff Geddes

How many people can say they contribute half-a-billion dollars to the economy with one crop? Well, Francois Messier, for one. On his farm northeast of Saskatoon, he produced 9,000 tonnes of malt barley in 2011. As he points out, "that's the equivalent of 175 million bottles of beer." At three dollars a bottle, you can do the math.

Messier has been growing malt as long as he has been farming, devoting 40 per cent of his land to it and seeding at 90 pounds per acre. He uses CDC Copeland as his main variety and recently added CDC Meredith to the mix. Both offer an excellent yield, lower protein levels, and strong disease resistance.

Messier strongly believes that the early bird gets the malt, so he begins seeding May 1 to provide the widest possible window come harvest time. For Messier, it is a form of risk management that offsets the uncertainty of prairie weather patterns.

"In this climate, you're bound to have periods of good and bad weather," says Messier. "If you seed for one month and have one week of rain, you can still produce a decent harvest of malt-quality barley. But if you seed for two days and get hit by a heavy rain at harvest time, you'll be wiped out."

His proactive philosophy extends from seeding to harvest and beyond. He keeps his fields sanitized by pre-treating the seed and employing a one-half rate of fungicide application with the herbicide in a continuous cropping rotation. When it comes to fighting disease, "proper field maintenance is always the best prevention."

Messier swathes everything to ensure consistent dryness. He opts for rotor technology over conventional combines because it's "kinder to the kernel," and he prefers to harvest within five days of swathing.

What sets Messier apart? In nominating him, Viterra pointed to his use of aeration bin storage. By cooling the stock to below 15° Celsius after harvest and constantly monitoring the temperature, he maintains malt quality until delivery.

A strong return on investment is one incentive for growing malt. But Messier is equally motivated by the challenge of producing superior malt on a consistent basis and the satisfaction of a job well done.

PRODUCTION TIP: HARVEST WITHIN FIVE DAYS OF SWATHING AND TAKE OFF BARLEY AT 15 PER CENT MOISTURE.

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**FRANK HAMEL, HAMEL FARMS LTD.**

Olds, Alta. and Outlook, Sask.

Nominated by: Canada Malting Co. Ltd.

Growing consistent malt in two distinct areas

By Maeve O'Rourke

Frank Hamel of Hamel Farms Ltd. is nominated as an Elite Barley grower for his consistent delivery of high-quality malt barley. With a farm in Olds, Alta. and another in Outlook, Sask., he deals with two completely different soil types, weather types, and altitudes. Yet the quality of barley from both areas is top notch every year.

What's his secret? Hamel seeds early, harvests at 15 per cent moisture, and aerates. He has been farming in both regions since the late 1970s, growing malt barley after canola on the rotation over and over.

Hamel has figured out the differences in crop maturation between regions. He swathes his barley in Alberta and straight cuts it in Saskatchewan. With cooler weather and higher altitude at the farm in Alberta, crops don't always mature evenly. Getting the grain off as soon as possible helps him beat the frost in Alberta. The use of aeration bins helps to dry the barley down and this proves to be a method that maintains quality year-over-year.

"My biggest challenge is harvesting 2,000 acres of barley before the rain comes," says Hamel. "If the grain sprouts, we will lose quality. We start combining at 16 to 17 per cent moisture and then put the barley in aeration bins, which gives us a big advantage. This way we don't have to wait until the moisture drops down to 13.5 per cent and then face combining all of the acres of malt barley at once."

Hamel works directly with the malsters to determine the variety of barley they need. The last two years, he's grown about 75 per cent AC Metcalfe and 25 per cent Newdale.

"We use a little bit higher of a seeding rate. We seed about 130 pounds per acre, that's about 30 per cent higher than average," says Hamel. "We don't seed on rows. We spread quality seed on full-width with very narrow spacing and, somehow, we find that protein levels are decreased doing it this way."

PRODUCTION TIP: TREAT THE SEED WITH MICRONUTRIENTS AND SEED AS EARLY AS POSSIBLE.



GERARD NEILL

Morrin, Alta.

Nominated by: Canada Malting Co. Ltd.

Malt barley runs in the family

By Wendy Grosfield

Gerard Neill, along with his wife, parents and uncle, has been growing malt barley near Morrin, Alta. for the past 40 years.

"We live in a great part of the province for producing malt barley through the sheer luck of where my grandfather chose to homestead," says Neill. "Over the past 40 years, there has only been one growing season where we didn't harvest a malt barley crop. It has been a pretty 'bulletproof' crop for us."

A comprehensive rotation that includes wheat, summerfallow, barley, canola or peas, as well as the use of certified seed every three years, allows the Neills to produce a consistently high-quality malt barley crop from year to year. Malt barley is an attractive part of the rotation for the Neills, as it is a profitable crop with an annual yield averaging 80 bushels per acre.

The Neills have grown Newdale for the past seven years.

"Newdale is a strong variety, has good straw length, and increases the odds of being able to straight cut," says Neill.

The number of malt barley acres each year depend on whether there is a wet or dry spring, but generally account for up to 50 per cent of the available acreage.

"Due to the gumbo soil in this area, we till the ground in the spring to get the black soil to the top and to allow the soil to warm more quickly," says Neill. "Our main challenge in growing malt is excess moisture, so we look for well-drained fields to seed the malt barley on."

The Neills don't employ a disease management or fungicide program. They believe that potash fertilizer makes a plumper kernel in a dry year and use a 34-17-5-0 fertilizer blend.

The Neills don't have aeration bins, so they typically wait until the crop is at 13.5 per cent moisture before harvesting. A detailed sampling program ensures excellent detail on each truck load of grain is available for examination.

Canada Malting Co. Ltd. nominated the Neills as Elite Barley growers "because they are great farmers who enjoy farming and have pride in growing grain.

"[We] have a very good partnership," says Darren Marson of Canada Malting. "It's the kind of relationship I would like to have with all of my customers."

PRODUCTION TIP: BE MINDFUL OF THE SEEDING RATE, ALWAYS STRIVE TO PRODUCE A SUPERIOR PRODUCT, AND FOSTER A GOOD PARTNERSHIP WITH YOUR MALTSTER.

JACK KUNTZ

Balgonie, Sask.

Nominated by: Richardson Pioneer

Practice makes (near) perfect

By Geoff Geddes

What's in a number? How about 35 years of barley production? Or 25 years of growing malt barley?

For Jack Kuntz of Balgonie, Sask., it was another number—his success rate of 98 per cent—that earned him a nomination from Richardson Pioneer as an Elite Barley grower. The company credits his practices of keeping a sound rotation and introducing new certified seed every other year as key factors in his strong malt production.

Malt barley comprises 35 to 40 per cent of Kuntz's operation, so he always uses a production contract to ensure his crop has a home at the end of the year. For optimal crops, he rejuvenates his barley seed with certified seed every three to four years.

While he has tried growing a few varieties simultaneously, he now stays with CDC Copeland to avoid cross-contamination.



Barley is the first thing he seeds each year, so it will be ready for harvest by late August. In doing so, he maximizes his exposure to warm growing days while minimizing staining and chitting. Kuntz seeds 90 pounds per acre while adopting a zero till practice.

So why malt? He cites a number of benefits, including weed control, good revenue, and favourable results using malt both before and after oilseeds. He also receives a premium to cover storage, something that doesn't exist for other cereals.

"I save enough on storage after two or three years to pay for a new bin," explains Kuntz.

While he likes both straight cutting and swathing, he finds the latter is a great way to control the timing of his harvesting and ensure an even crop that's free of green pockets.

For those new to the business, Kuntz advises constantly scouring malt barley fields for scald, mildew and other diseases, and being ready to spray with the proper chemicals, if necessary. Oh, and don't forget to "always monitor the weather and hope for a little luck."

When it comes to defining successful malt production, Kuntz's numbers speak for themselves. But nothing beats his own perspective: "On a warm summer day, you can't beat a juicy steak and a good beer, and you can't have a good beer without good malt barley."

PRODUCTION TIP: ALWAYS DO A PRE-SEED BURN OFF TO GIVE YOUR CROP THE BEST START POSSIBLE.

JOHN GERMS

Saskatoon, Sask.

Nominated by: Richardson Pioneer

A long-term commitment to growing malt barley

By Wendy Grosfield

John Germs started growing malt barley on the family farm near Saskatoon, Sask. in 2010.

"I plan on growing malt for the rest of my life," he says. "The opportunities for growing malt in Western Canada are huge."

Germs is nominated as an Elite Barley grower by Richardson Pioneer for his effective crop management strategies, land stewardship priorities, and practices related to seed selection, fertilizer choice, and weed/pest control.

He is an advocate for strengthening agronomic practices through research and consultation with specialists.

"When we spend time educating ourselves on new processes, products and technologies, we increase yields and become better stewards of our land," says Germs.

The Agriculture Knowledge Centre, a service of the provincial agriculture department that provides unbiased information and advice to Saskatchewan farmers, is a key resource for the Germs operation.

"We also use the services of a private agrologist to map out rotations and crop strategies up to six years in advance," says Germs. "We dedicate approximately one-third of our acreage to malt barley production and maintain a rotation between lentils, barley and canola."

The farm maintains a 100 bushels per acre average yield, with 100 per cent of the barley crop accepted as malt barley.

Next crop year, Germs will be switching from CDC Copeland to CDC Meredith, a lower protein barley.

"By seeding barley on lentil stubble, we run the risk of a higher protein grain," he explains. "We believe switching to a lower protein variety in combination with a fertility plan that includes soil testing and application of 70 pounds of nitrogen per acre, prebanded with NH_3 and a seeding rate of one-and-three-quarters bushels per acre, will result in the ideal protein level for maltsters."

For producers who are considering growing malt barley, Germs suggests using certified first- or second-generation seed and well-researched fertility, fungicide and weed control programs. To grow a superior malt barley crop, incorporate a fungicide application (like Headline at a 40 acre per jug rate) at the flag leaf stage and consider post-harvest spraying with glyphosate for weed control.

Germs also stresses the need for effective grain storage management. He turns his barley in the storage bins between four to six weeks after harvest to remove heating and storage risks.

PRODUCTION TIP: SPEND TIME EDUCATING YOURSELF ON THE LATEST SEED VARIETIES AND TREATMENTS, WEED MANAGEMENT PROTOCOLS, MICRO-NUTRIENT AND FERTILIZER OPTIONS, AND NEW TECHNOLOGY TO INCREASE YIELDS AND CROP QUALITY.



KEN HUGHES, JOKEN FARMS

Gull Lake, Sask.

Nominated by: South West Terminal

Good farming practices key to an elite product

By Wendy Grosfield

Ken Hughes of Joken Farms was nominated as a 2011 Elite Barley grower based on his crop and disease management practices.

"Mr. Hughes uses great farming practices, along with excellent marketing skills, to ensure his grain is consistently one of the 'elite' amongst barley growers in the area," says Warren Mareschal of South West Terminal near Gull Lake, Sask.

Hughes operates a family farm with his wife and parents. Most years, he grows barley on about 320 acres of the 2,500-acre operation. Although he has been growing barley for most of his 20 years of farming, he has "ramped up" his malt barley production in the past four to five years.

Hughes plants AC Metcalfe on summerfallow. He seeds at a rate of 75 pounds per acre and to a depth of about one-and-a-quarter inches. He has tried the CDC Copeland, but finds AC Metcalfe is more universally accepted by maltsters.

This past crop year, Hughes used Tilt for disease control for the first time and was happy with the outcome. He routinely sprays Axial on the crop for disease and pest control.

"For young producers just getting into the malt barley business, it is important to focus on using quality certified seed and to keep weeds and pests in check," says Hughes. "The crop and weed management practices you engage in one year will pay dividends in the following crop year."

Hughes seeds his barley crop in mid-May and plans to harvest before the end of August.

"I make sure the ground is dry enough and isn't packed before spring seeding," he explains.

Hughes also uses aeration bins and makes sure his product is dry to maintain a high-quality grain. He stresses the importance of a good sampling program.

"We use a sample stick and take four to five samples from each truck load to make sure our quality is consistent," says Hughes.

"He uses the right products on his crop to ensure a disease-free and clean barley sample," says Mareschal. "We can count on the Hughes farm to bring us a great product."

PRODUCTION TIP: FOLLOW ACCEPTED PRACTICES FOR MALT BARLEY PRODUCTION AND MAKE ADJUSTMENTS BASED ON YOUR KNOWLEDGE OF THE REGION YOU LIVE IN, THE WEATHER, NEW INFORMATION AND TECHNOLOGY, AND WHAT YOU HAVE LEARNED FROM PREVIOUS CROPS.

MIKE VAVREK

Sexsmith, Alta.

Nominated by: Viterra

Working smarter and harder sets grower apart

By Geoff Geddes

If Mike Vavrek's life was a musical, the theme would be "Takin' Care of Business." On his farm near Sexsmith, Alta., he devotes 40 per cent of his crop, and considerable time and energy, to growing malt barley. So it's no wonder that Viterra nominated him as an Elite Barley grower once again.

In addition to his well-organized malt production system, Viterra noted Vavrek's flair for innovation and attention to detail.

Vavrek's quest for quality starts early, with seeding from May 1–15 at 2.5 bushels per acre. The tendency of malt to ripen earlier than other crops is a big part of its appeal, giving him a head start on the harvest each year.

After experimenting with different varieties, Vavrek chose CDC Copeland for its higher yield, better standability, and tendency to shell out less often than other two-row barleys. He soil samples in the fall and carefully selects his fields to ensure even land and drainage before seeding his barley in the spring. While it isn't cheap, Vavrek says that "with the high cost of fertilizer these days, the \$100 price tag for a soil sample is money well spent."



Vavrek straight cuts his CDC Copeland, and with early seeding it helps mature the crop by late August so the green seed count is minimal. He starts combining at 16.5 per cent moisture so as not to crack and peel the kernels, and gets registered seed every two years because he feels that “quality seed is crucial to success.”

As he harvests, he samples each truck, keeps representative samples of the bins and labels the pails appropriately. He always keeps the barley in aeration bins unless it is lower than 13.5 per cent moisture.

Young farmers would do well to emulate Vavrek. Although he is no stranger to technology, he is quick to stress the importance of that personal touch.

“Dad would often jump out of the tractor and check for accurate seeding depth,” says Vavrek. “Machines are great, but they’re no substitute for a well-trained eye.”

PRODUCTION TIP: MONITOR COMBINE SETTINGS AND ADJUST THE CONCAVE IF BARLEY IS TOO DRY.

RODNEY KOCH

Edenwold, Sask.

Nominated by: Viterra

High standards lead to great malt

By Sarah Weigum

Early seeding and attention to soil health are the cornerstones of Rodney Koch’s successful malt-growing career. For 30 years, this Edenwold, Sask. farmer has included malt barley in his rotation of canola, durum, flax and legumes. Koch aims to have his barley planted by the beginning of May so he can take advantage of early harvesting.

“It’s usually one of the first crops I put in,” he says, adding that he finds it easier to get his barley accepted as malt and get early movement on contracts with malting companies looking to boost their stocks in early fall.

Before he seeds, Koch assesses the nutritional needs of potential malt barley fields. He is not afraid to tinker with soil test recommendations.

“Even if my soil tests do recommend a lot of nitrogen, I have an amount that I’m careful not to exceed,” says Koch, who uses about 70 pounds of actual nitrogen in his blend.

Koch plants treated, certified AC Metcalfe seed at a rate of 100 pounds per acre and tries to plant into canola or flax stubble. Once the crop is up, he continues to attend to it.

“You need to be watching what your crop is doing while it’s growing,” says Koch. He knows barley is susceptible to net blotch; he applies fungicide with his herbicides and again just before it heads out.

His attention to detail has garnered Koch the praise of the local terminal where he contracts his barley.

“Mr. Koch could best be described as meticulous in his farm management practices,” say the Viterra Balgonie staff, who regularly send malt barley tour groups to his farm.

At harvest, Koch is in the fields early, not shy about taking off his malt a few percentage points tough.

“I can’t stress enough about aeration,” says Koch. “You can take off a crop somewhat early and it gives you a head start on the harvest.”

When combining malt, Koch opens his cleaning sieves wider than normal, rather than sending more unthreshed kernels back to the cylinder where they may peel and break. While he admits that the exacting standards of the Canadian malt industry can be tough to meet, he recognizes those standards ensure the strong reputation of Canadian barley.

“We are growing a quality product, probably one of the best in the world,” he explains.

PRODUCTION TIP: GET A HEAD START ON HARVEST BY COMBINING MALT BARLEY A BIT TOUGH AND USE AERATION TO BRING DOWN THE MOISTURE.



TERRY HUNT

Gull Lake, Sask.

Nominated by: South West Terminal

An original approach yields high return

By Sarah Weigum

When Terry Hunt started farming three decades ago, he regularly produced malt barley. As prices started to slide, he took a break for several years. Last year, he saw an opportunity to make a premium, so he jumped back into the market with an unconventional approach.

"I fertilized for yield with the anticipation that if the protein wasn't there, I'd have plenty of barley to sell for feed," says Hunt, who farms near Gull Lake, Sask.

Many growers limit nitrogen in their malt fields to keep protein low, but Hunt chose to apply a high level of nitrogen and hit the jackpot this year with high-yielding acres that were also accepted for malt.

"Terry is a very smart and unique barley grower," says Warren Mareschal of South West Terminal.

Last year, Hunt put 15 per cent of his 6,000 acres into malt barley. He planted certified AC Metcalfe at 80 pounds per acre. Hunt also grows lentils, peas and durum, and he sees barley as a great fit in that rotation.

"It seems like the land is really mellow after you grow barley," he says. "It leaves the ground in nice condition for a lentil or a pea crop."

Hunt prefers to seed malt early—before the end of April, if possible.

Mareschal adds that Hunt's success with malt barley is due to a variety of techniques.

"He uses certified seed, as well as appropriate seed treatment, fertilizer applications and pre-seed burn-off for cleanliness of crop," says Mareschal. "He also uses old school technology, as barley is one of the first things to go in, in order to stay ahead of the heat and the grasshopper infestation."

Early seeding also gives Hunt's barley time to dry on the stalk. He prefers to straight combine and avoid the risks associated with swathing.

"If you happen to get a shower, standing barley will stain less and has less chance of sprouting," says Hunt.

Even though he takes his barley off dry, he still uses aeration bins to cool the grain. Hunt believes malt may have been his highest paying crop in 2011. Because of his unique approach to growing malt barley, he does not sign production contracts, but remains optimistic about the future of the industry.

"I think we're going to have opportunities to move barley quickly," says Hunt. "We're probably going to grow as much, or maybe a little more, next year."

PRODUCTION TIP: EARLY SEEDING GIVES PRODUCERS PLENTY OF TIME TO STRAIGHT COMBINE.

VERN NEILL

Kelliher, Sask.

Canada Malting Co. Ltd.

Innovative producer has Mother Nature on-side

By Wendy Grosfield

Vern Neill has been a successful malt barley producer for the past 10 years. He and his wife farm about 1,700 acres and dedicate around 20 per cent of their land to malt barley production each year.

Neill has held production contracts with Canada Malting Co. Ltd. for the past three years. He is nominated as an Elite Barley grower based on the attention to detail and innovation he brings to his farming practices. Neill explains that he benefits from his close proximity to a malting facility, which provides a local market for his product and an opportunity to build a solid, reciprocal relationship with the maltster.

"In choosing which variety to grow, I look at what best suits my farm and Canada Malting's selection advice," says Neill. "I have switched from growing CDC Copeland and AC Metcalfe to Newdale this past year. Newdale is a nice variety to grow agronomically. It meets the maltster's product specifications and desire for a low protein grain very well."

Neill seeds his barley on canola stubble early in the seeding season, generally before May 15. He seeds at a rate of two-and-a-half bushels per acre and does not skimp on weed, pest and disease control measures.

"I am a firm believer in premium herbicide and fungicide applications," says Neill. "Since I purchased my own high-clearance sprayer to apply fungicide, it has been easier and more economical to grow malt."

Neill also stresses that providing product samples to the maltster shows pride in your operation and helps build a relationship of trust. At harvest time, he takes representative samples of each truck unloaded and retains well-labeled samples to submit to the maltster for selection. His barley is stored in hopper bottom bins with aeration to ensure the quality of the grain is maintained at storage.

"Being a successful malt barley producer takes intense management and you have to have Mother Nature on your side," says Neill. "I would tell producers looking to get into the malt barley business that there is a steep learning curve and that a well planned operation that includes fungicide application and 'hands-on' crop management is important for success."

PRODUCTION TIP: MAINTAIN YOUR FARM EQUIPMENT AND STORAGE AREAS, TRACK AND DOCUMENT YOUR MANAGEMENT PRACTICES, AND ALWAYS BE AWARE OF YOUR INPUT COSTS AND RESOURCES ON A PER ACRE BASIS TO MAXIMIZE YOUR POTENTIAL FOR SUCCESS.

WADE KOCH

Edenwold, Sask.
Nominated by: Viterra

High-value crop worth the investment

By Sarah Weigum

If Wade Koch had one piece of advice for a producer considering malt barley, it would be this: "Treat it as a specialty crop."

The Edenwold, Sask. producer has grown malt barley for 32 years and consistently meets the high industry standards. He puts between 750 and 1,500 of his 4,500 acres into malt each year. Many years, he says, barley has earned him more per acre than wheat.

Knowing the potential for high returns, Koch invests accordingly.

"I consider it a high-value crop, so I put all the inputs into it to try to get the most out of it," says Koch.

These inputs include certified seed every second year, Raxil seed treatment, and a customized fertilizer blend based on regular soil testing and personal experience.

"Our soil tests normally don't call for potash," says Koch, "but I have been using it in my fertilizer blends because, from my research, it helps give the plant a little more disease resistance and give you a little plumper kernel."

Koch seeds about 120 pounds per acre, ideally into canola stubble. Canola stubble dries the earliest in the spring, allowing him to hit his



target seeding date of May 1 more often. He generally grows AC Metcalfe, but is willing to experiment with other varieties, as yield potential and demand require.

Always looking for ways to improve his farming practices, Koch has drawn the attention of Viterra, his nominating company. Viterra staff describe him as an "innovative producer."

"He is willing to experiment with seeding rates and row spacing to determine how it will increase his quality and yields," they explain.

Koch usually contracts his malt barley with Viterra, which allows him to take advantage of early grain movement at the nearby terminal. Most of the time, he swaths his barley to avoid shatter loss and combines it dry. Delivering straight to the elevator is ideal, but if he needs to use on-farm storage, he has access to aeration bins and monitors the barley to maintain quality.

All these measures are not without their challenges and extra costs, but Koch sees the benefits of his hard work both at home and beyond the farm gate.

"I enjoy a cold bottle of beer in the summer," says Koch, "and I'm happy that I'm able to produce something that's valuable and enjoyed by people around the world."

PRODUCTION TIP: TAKE ADVANTAGE OF CONTRACTS WITH GRAIN HANDLERS TO MOVE BARLEY EARLY IN THE FALL.

WARREN MORRIS*Kerrobert, Sask.*

Nominated by: Prairie Malt Limited

Saskatchewan fields ideal for growing malt*By Maeve O'Rourke*

Warren Morris has consistently delivered quality malt barley almost every year since 1977.

"One reason barley works well for us is because it works with our rotation after a canola crop," says Morris. "Economically, it's always been very good if I can achieve quality and yield, and it's always been in the top one or two as far as returns go."

With about a third of his total farm acres dedicated to barley, Morris credits his success to the area where he farms in Kerrobert, Sask. He has level ground, with excellent moisture and soil conditions. The barley matures evenly, which enables him to straight cut.

Expert management allows Morris to provide consistent quality year-over-year. He explains that the tough part is harvesting the barley and getting it down to 13.5 per cent moisture.

"It can be trying depending on the weather," says Morris. "It's tough waiting for it to dry down. If I start with 14 per cent moisture, the majority will come off at 13.5 or less."

Morris also uses aeration bins, if needed, to cool down the barley and bring down the moisture slightly.

With minimum tillage on the farm, Morris typically seeds his barley from May 10–15 and has been slowly increasing the seeding rate each year. In 2011, he seeded the barley at 1.8 bushels per acre. Never having sprayed for disease, as rotations get more intense and high rainfalls occur, he has come close to spraying but has managed to avoid it so far.

Morris always chooses mainstream malt that will likely be accepted by brewing companies. He grows AC Metcalfe because it grows well in the area and has good leaf disease resistance.

What is his advice for new producers? Morris says it's key to use the right seed.

"The purity of the seed is important," he explains. "Make sure it's all the right variety with no impurities."

Morris buys certified seed every three years to maintain seed vigor.

PRODUCTION TIP: PURITY OF THE SEED IS KEY TO A GREAT CROP. MAKE SURE YOUR SEED IS ALL THE RIGHT VARIETY WITH NO IMPURITIES.



Elite Barley

Canadian Malting Barley
Grower Recognition Program

FOR MORE INFORMATION

Information on the Elite Barley program is available on the Special Report website: www.elitebarley.com.

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