



Local Harvest

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Features

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Wintermar Farms

Finding Local Barley
in Waterloo Region

Fresh in Focus:
Cheers to Barley!



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Local Farm Profile: Wintermar Farms

Like many farms in Waterloo Region, Wintermar's roots go back several decades and have taken a few twists and turns along the way. It began as a dairy farm in 1945 when Abner B. Martin moved his operation from Conestoga to Winterbourne. A spirit of entrepreneurship was evident back then and it has remained a constant in Wintermar's journey making it the local food success story that it is today.

Abner's sons Keith and Quentin Martin were involved in the dairy farm in the early days and are still key players in their family business which has evolved into a very successful grain and seed farm operation. In fact, Wintermar holds the distinction of being the only 'on-farm' whole grain food processor in western Ontario!

Up until the seventies the emphasis continued to be on dairy farming but the "seeds of change" were in the works. Keith and Quentin had begun to dabble in seed production, growing seed stock to be used by other farmers for the following year's growing season. At this time they also began to manufacture prefabricated corn cribs—a testament to their ingenuity! Although the cribs never quite took flight, this is in fact where their brand name "Cribit Seeds" came from. It is the name still used for their varieties of seeds of barley, oats and associated mixtures.

In 1989 Wintermar became incorporated and the seed and grain business had begun in earnest. Keith's son Craig came on board and today oversees the company's general operations. Throughout the 90's the focus was on growing the seed business and increasing the number of dealers. At this time the Martins built a new facility dedicated to the packaging and conditioning of seeds. (The Canadian Seed Act requires that seeds be cleaned and polished to meet purity standards.) Wintermar also became involved in a soybean research venture helping to develop significant new varieties.



Keith and Craig Martin are among the five family members who work at Wintermar.



Wintermar is a major grower and primary processor of seeds and grains.

"By 2000 we felt it was time to explore new options to utilize the facilities that we had," says Craig Martin, explaining that they had "hit a plateau on seed volumes". They began processing grain for the food market while looking into other marketing options for growers of oats and barley.

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Local Farm Profile continued

In the last few years Wintermar has diversified and enhanced their relationship with area farmers by contracting them to grow cereal crops of barley, oats, wheat and rye. In 2006 they acquired manufacturing equipment that enabled them to hull, roast and flake whole grains for human consumption markets. “By now we had become a primary processor of grains enabling us to produce ingredients for other food and beverage manufacturers,” says Craig.



Barley harvest at Wintermar

So where does the grain go once it leaves Wintermar? There are three or four distribution companies, each with their own niche, says Craig. While it’s difficult to trace Wintermar product throughout the entire food chain, end uses include soups (pearled barley), baking (roasted flaked grains) and yes, malted beverages! A high percentage of Wintermar wheat, oats and barley products go to a food industry and microbrewery distributor in Fergus.

Over the past decade Wintermar has also become heavily involved in research projects, participating in a 3-year study of barley nutrition with Agriculture and Agri-Food Canada as well as a cooperative barley variety breeding program with the University of Guelph. While there is currently a reduced level of public funding for researching new genetics, Wintermar continues to independently evaluate grain quality.

Today Wintermar is a major grower, conditioner and primary processor of seed and grains with approximately 6,000 acres of production coming into their facility each year. About half of the operation is devoted to seed stock while the other half goes towards food grain. Most of the seed is sold wholesale through a regional network of approximately twenty dealers. Cribit Seeds also produces, conditions and packages soybean seed. They currently share exclusive production and marketing rights to several cereal grain varieties and as a member of SeCan Association have access to a full line of crop genetics.

With a full time staff of eight, in addition to five family members, Wintermar Farms has come a long way over the past several decades. But the journey is by no means over. While they have established themselves as a player in Agri-business one could argue that Wintermar is returning to its roots by tapping into the local food business once again. “We are currently looking into new ways to service the consumer market with locally processed grains,” says Craig. It is this spirit of innova-

tion that has continued to propel their ever-evolving business, ultimately serving as a key to their success.

Wintermar’s consumer “test product” is a convenient 500 g sample bag of Pearled Toasted Barley, complete with recipes. Barley is a tasty, healthy, versatile grain that many would argue is underutilized. It is low on the Glycemic Index so it can assist in regulating blood sugar levels and it is also a good source of fibre. Craig suggests using barley in place of rice or trying it in stews, or even cooked cereals (see recipes).

Those interested in picking up a free sample of pearled barley can stop by Wintermar Farms at 265 Katherine Street South, West Montrose. Craig hopes that packaging will soon be developed and that the product will be available to consumers in local food retail shops and health stores.

This past September Wintermar participated in Foodlink’s *Taste Local! Taste Fresh!* event, which pairs local chefs with farmers for an annual culinary showcase. Wintermar barley and oats were featured in a delightful whole grain cookie, prepared by chefs from Conestoga College. They were a huge hit!

While you may not have given barley much thought in the past, chances are you’ll be hearing about it more in the future. Now that you know the story of Wintermar and the merits of this locally grown, healthy grain why not give it a chance? ♦



Finding Barley and Other Grains in Waterloo Region

Here are some local farm markets from Waterloo Region’s Buy Local! Buy Fresh! Map that sell grains and flour. Please call for hours and availability.

4 Faul Farms
1180 Wrigley Rd., Ayr
519-632-7678
www.faulfarms.com

26 Oak Manor Farms
756907 Oxford County Road #5
Tavistock
519-662-2385
www.oakmanorfarms.ca

49 Wintermar Grains
265 Katherine St. S. West Montrose
519-664-3701

9 Oakridge Acres
2132 Greenfield Rd., Ayr
519-632-7653
www.oakridgeacres.ca

27 Baer’s Organic Beef
2669 Carmel Koch Rd., Baden
519-634-8623

75 Winroe Gardens
221 Katherine St. North
Winterbourne
519-664-0556

20 Unfactory Farm
5415 Streicher Line, Crosshill
519-656-2691

30 Laepple Organic Farm
2298 Bleams Rd. Shingletown
519-634-1033
www.localorganic.ca



Cheers to Barley!

What do beer, porridge, bread, a unit of measurement and a standard of currency all have in common? They all began with barley (*Hordeum vulgare*) an ancient grain domesticated around 8,000 BCE in the Middle East. As one of the founder crops of early agriculture, barley was more widely consumed than any other grain until the concept of leavening was developed and wheat became a primary staple. Evidence from Neolithic archaeological sites suggests that wild and farmed barley may have formed up to 10% of the local diet. The workers who built the Egyptian pyramids also depended heavily on barley for their daily sustenance – three loaves of barley bread a day plus a ration of barley beer to wash it down. The Chinese learned to malt the barley into a sweetener for use in beverages and confections. Roman gladiators were served such a high proportion of barley in their diets that they became known as *hordearii*, or barley-eaters.

It is believed that barley reached Western Europe and Britain around 500 BCE. Because it is so adaptable to a variety of soils and climates, barley soon became a favourite grain wherever it was planted. So valued was this crop that farming communities began to rely on it as a unit of measurement. Since one barleycorn was equal to one third of an inch, three barleycorns laid end to end would equal one inch. Twelve inches (or 36 barleycorns) created one foot of length. In 1324, King Edward II de-



creed that since his foot measured 36 barleycorns (or 12³), his foot size would be a size 12. Each subsequent size would either remove or add one barleycorn. Even today, the barleycorn is the basis of shoe size measurement in Britain, the US and Canada.

Barley continues to be an important crop in the modern world – it ranks fourth amongst all grains in terms of both quantity produced and area under cultivation. According to the United Nations Food and Agriculture Organization's statistics for 2007, Canada squeaked by Spain to become the second largest producer of barley in the world (after Russia). While the Prairie Provinces continue to be the primary suppliers of Canadian barley, Ontario harvested 70,000 hectares of this grain in 2009, yielding about 236,000 tonnes. Waterloo Region was responsible for about 1460 hectares.

However, in contrast to barley's primary use as a food grain in the ancient world, it now tends to be grown in Canada mainly for animal fodder and the brewing industry. Along with the hay, bran and pearling (the outer layers of the grain that are removed to make pearl barley for human consumption), animals such as cattle, hogs, sheep and poultry are often fed the barley malt sprouts, hops and yeast left over from the brewing and distilling processes. Alberta alone exports about 500,000 tonnes of barley to Japan (for beef and hogs) and Saudi Arabia (for camels).

Barley has so many food applications for people that it is a shame that we don't include more of it in our di-

ets. Drinking barley water (a beverage made from boiled and strained barley mixed with fruit juice) is an ancient practice that continues today in many countries. Fermented barley leads to whisky and beer. When sprouted, barley carbohydrates are converted to maltose, a sugar that serves as the basis for malt syrups used as a sweetener in many foods. Babies are often fed barley cereal as a first food. But so many of us stop here and don't consider the many possibilities that barley provides.

A Versatile Grain

Barley is most often seen as pot or pearl barley in the store. By passing raw barley through abrasive disks, the inedible outer layer is removed to produce pot (or scotch) barley. In this form, the barley retains its nutritious bran and germ. To create pearl barley, the pot barley is further steamed to remove all the bran. Both types of barley can be processed into a variety of products including flour, flakes and grits. Further processing creates pasta and breakfast cereals. Roasted barley is also used to create an alternative hot beverage to coffee.

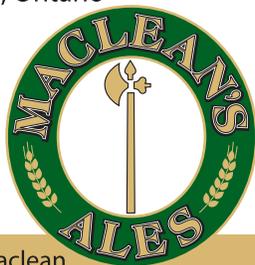
Cooked like rice in pilafs and casseroles, added to soups and stews, used in place of oatmeal for porridge and baking, barley makes a nutritious alternative to the usual meal time carbs. One cup of cooked barley provides over 50% of our daily dietary fibre and selenium needs as well as over 25% of our tryptophan, copper, manganese and phosphorus requirements. While the soluble fibre slows down the absorption of glucose into our bloodstream, the insoluble fibre breaks down into byproducts that feed the cells of the large intestine and assist in removing cholesterol from the bloodstream. Selenium has been found to reduce the risk of colon cancer significantly. It is also involved in many metabolic reactions in the body including thyroid and immune system function. When cooked, barley has a slightly nutty flavour with a pasta-like texture. Nutrition *and* taste! – look for pot or pearl barley in the dried bean section of your supermarket or check out your nearby health food store for flour and flakes.

A discussion on barley wouldn't be complete with some mention of how this humble grain is transformed into a bewildering array of fermented beverages. Barley grows in two dis-

Maclean's Ales

The Battleaxe Brewery, Barleycorn Farm
212744 Baseline Road
Normanby, West Grey, Ontario

Handcrafted
ales brewed in
small batches



Brewmaster: Charles Maclean
519.369.5061
charles.maclea@sympatico.ca



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tinct forms with either two rows or six rows of kernels surrounding the shaft. The two row variety has a lower protein and higher sugar content and is therefore better suited to the fermentation process. According to the Brewers' Association of Canada, Canadian brewers buy 360,000 tonnes of barley each year in order to satisfy the thirst of this nation. Given the long association of barley with human enterprise, it is hardly surprising that beer is one of the oldest (and most widely consumed) alcoholic beverages in the world. In order to get the process off to a good start, the whole barley is sprouted in water ("malted") to release enzymes that convert the starches into fermentable sugars, and then roasted. The crushed malts are boiled and tempered with some hops before being cooled and subjected to yeast digestion and fermentation. In as little as one week, a finished product is ready to be sampled. In order to produce malt whiskey, the fermented barley mash is distilled to an alcohol content of 60-70%.

Let's raise a glass, a bowl, a plate to barley, an ancient super food with untapped modern potential! ♦

How Craft Beer is Made

Beer is by definition an alcoholic beverage made from malt sugars, flavoured with hops and fermented by selected yeast. Here are the basic steps:



Step 1: Choosing Malt

Malting companies take the barley and soak, germinate (sprout), then dry or roast it to create what's called "brewers malt." Craft brewers can choose from several varieties to give their beer a particular colour and flavour.

Step 2: Mashing Malt

Once at the brewery, the malt is coarsely crushed to expose its starchy core but keep its husks whole and allow these

husks to act as a filter bed later in the process. The crushed malt (or "grist") is mixed with heated, purified water and through a carefully controlled process, the natural malt enzymes in this "mash" break down the starch into sugar.

Step 3: Lautering Mash

The mash is transferred to a straining (or lautering) vessel. There, the liquid is separated from the husks as hot water is "sparged" on top of the grains to rinse out the sugary extract. This sugar solution is called "wort".

Step 4: Boiling and Hopping

The wort gets collected in a kettle and boiled. Hops are then added during the boil. Hops are the pinecone-shaped, green coloured female

Spiced Barley with Apples

Here's a delicious and nutritious way to start your day!

What you will need:

- 2 Granny Smith or other tart apples
- 2 tablespoons fresh lemon juice
- 2 cups apple juice
- 1/2 cup water
- 2 teaspoons ground cinnamon
- 1/2 teaspoon ground nutmeg
- 1/4 teaspoon salt
- 1 cup pearl barley
- 1/2 cup maple syrup
- 1 container (8 ounces) non-fat vanilla yogurt
- 1/4 cup toasted chopped pecans



Method:

Peel and core apples; cut into bite-size pieces. Toss with lemon juice and set aside. Combine apple juice, water, cinnamon, nutmeg and salt in saucepan; bring to a boil. Stir in barley. Reduce heat to simmer; cover and cook 15 minutes. Stir in apple pieces and cook 20 minutes. Stir in maple syrup. Top each serving with a dollop of yogurt and sprinkle of nuts. *Makes 4 servings.*

Source: National Barley Council

flowers of the hop vine that are harvested each fall and dried for use in brewing. Craft brewers can select many different varieties of hops depending on the desired flavour. Hops also act as natural preservative in the beer.

Step 5: Hop Separation and Cooling

After the wort has been boiled and infused with the hops, it proceeds to another brewhouse vessel where the hops are removed and the wort is clarified. The clear, hopped wort is then cooled in preparation for yeast addition.

Step 6: Fermentation

The cool wort is moved to the fermenting vessels and yeast is added. Yeast converts the sugar in the wort to carbon dioxide and alcohol. Fermentation lasts about seven to ten days, during which time the yeast may multiply six-fold. When the fermentation is complete, the yeast is removed. This liquid is now called beer.

Step 7: Cellars

The young beer is stored cold for one to three weeks (or more) and then filtered to achieve clarity before it's ready for bottling or "racking" into kegs. The only thing left to do then is ship the beer to pubs, and retail locations across the province where it can be enjoyed and appreciated for the remarkable drink it is!

Source: www.ontariocraftbrewers.com