



Nutrition

Barley is a tasty grain packed with nutrients, protein and fibre. It contains several vitamins and minerals including niacin, thiamine, selenium, iron, magnesium, zinc, phosphorus and copper.

Barley is high in both soluble and insoluble fibre and contains the most fibre of any cereal grain. This is because, unlike most cereal grains, the fibre in barley is found throughout the entire grain, not just the outer portion (bran). Barley fibre absorbs water, which helps create a feeling of fullness after eating that helps with weight management.

Barley is also rich in beta glucan, a soluble dietary fibre that plays a role in regulating glucose and cholesterol. Years of research and documentation led to Health Canada approving a health claim linking the consumption of barley beta-glucan, a type of soluble fibre, to reduced blood cholesterol.

Barley has the lowest glycemic index of the food grains. Low-glycemic-index foods may help in the treatment and prevention of diabetes.



Innovation

Alberta continues to invest in technologies that ensure our farmers have access to world-class varieties that keep our barley industry at the leading edge of innovation.

Alberta is home to the Field Crop Development Centre (FCDC). The FCDC is recognized as a world-class research facility that is focusing on producing new barley varieties, as well as maintaining a vast gene bank. The researchers continue to focus on improved disease resistance, higher yield, superior feed, food and malting quality characteristics, as well as nitrogen-use efficiency. The FCDC has created over 40 new varieties of barley with improved agronomic performance.

Alberta's Barley Supply

Alberta accounts for over half of Canada's annual barley production making it a reliable supplier of high-quality feed, malt and food barley. In addition, Alberta-grown barley is recognized internationally for its superior product qualities.

Canada exports on average 1.5 million tonnes of barley annually, with 40 per cent coming from Alberta.

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Alberta Barley

Nature's Advantage

Domesticated over 10,000 years ago, barley has been planted and harvested for centuries. Today, barley's versatility is put to use in the feed, malt, food and bio-products sectors.



Alberta

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Barley is classified into three main categories: general purpose, malting and food. Most general purpose barley is used as feed for livestock including cattle, hogs and poultry.



Malting barley is used to make beverages like beer and whiskey and also as a sweetener in a variety of foods like cookies, ice cream and other processed foods. **Hulless barley** is used in soups and stews, noodles, desserts, breakfast cereals and instant baby formulas.

Alberta has a number of advantages when it comes to producing and supplying high quality barley for its international customers.

Production

European settlers brought barley to Canada in the early 17th century. Today, Canada is one of the world's largest barley suppliers, producing about eight million tonnes annually. Alberta's average annual barley production is over 4.5 million tonnes, accounting for over half of Canada's crop.

Barley has the genetic diversity to perform well in many environments and thrives in southern Alberta due to long summer days and cool nights.

Feed Barley

In Alberta, as much as 80 per cent of the barley used domestically is for feed. Barley is rich in starch, protein, fibre and phosphorus. As a feed ingredient, barley is an excellent source of energy (starch) and can make up the total grain portion in feed for beef cattle and dairy cows. Barley contains more protein and has a higher level of starch digestion in ruminants than corn.

Using barley as a feed for cattle results in beef that is finely textured and delicately marbled with the white fat preferred by grain fed beef consumers around the world. Barley is regularly used to feed hogs, poultry, sheep and camels. It can also be used to feed horses, rabbits and aquaculture.

Malting Barley

Malt or malted barley is made from malting barley. To be classified as malting barley, the harvest from a malt barley variety has to meet strict specifications to ensure its quality.

Malt barley is primarily used to flavour beer and spirits. Malt extract is also used around the world in many foods—from cookies and cakes to beverages and baby foods—to enhance flavour, colour, fermentation and aroma, as well as improve texture, shelf life and enrich nutritional content.

Alberta produces an annual crop of about one million tonnes of malting barley. Alberta exports over 300 thousand tonnes of malt (not roasted) every year.

Alberta's high-quality malting barley is free from frost or heat damage, free of chemical residues and free from disease. Selected malting barley shows no signs of pre-harvest germination and has plump kernels of uniform size. Alberta barley selected for malt has an average protein content of 11 to 12.5 per cent (dry basis) and moisture content of 13.5 per cent maximum.

Hulless Barley for Food

Hulless barley varieties are primarily used for food, but can be used for other uses as well. Hulless barley varieties have a weaker attachment of the hull to the seed kernel than regular barley varieties. This allows the hull to easily separate from the kernel when the seed is mature and dry. These varieties are well suited for human food applications, like flour production, because the hull does not need to be removed prior to milling.

Alberta-grown barley has a rich nutty taste with a high beta glucan content that gives the whole grain a chewy texture similar to al dente pasta. When cooking, barley expands to three to four times its size in moisture and absorbs the flavours of the foods it is cooked with.

Barley can be milled to produce flour (pancakes and muffins), flakes (similar to rolled oats for breakfast cereals) and bran for healthy diets. Barley can be used as a high fibre alternative to rice and couscous, to add flavour to baked goods and sweets and for alcoholic beverages such as whiskey and shochu (a Japanese liquor).

