

# Barley



## History

Barley has been a valued grain in food products, including bread, for many millennia. References can be found from Neolithic times, through Israelite, Egyptian, and Greek cultures, and the middle ages in Europe. Barley was the food of Roman gladiators, who were called *hordearii* or "barley men." They believed that barley bread gave them greater strength and increased stamina compared with other foods.

Although wheat also has a similar ancient past it is only in more recent times that wheat has become a predominant food grain with its greater versatility and more refined consumer tastes. The current trend away from fully refined flours to more whole grains, especially grains with high nutritional value such as barley, is a step back in history and a leap forward in healthy eating.

Barley and other small grain cereals were brought to Canada in the early 17<sup>th</sup> century by European colonists. The barley was two-rowed and was targeted for making beer. The first Canadian brewery was built in Quebec City in 1668.

## Production

Barley is grown mainly in the black and dark brown soil zones of Saskatchewan. Yields range between 40 and 80 bushels per acre.



## Varieties

Barley is grown mainly for feed (for animals) or malt (making beer). The price for malt barley is higher than for feed and the majority of farmers attempt to grow malt barley. Malt is a main ingredient for brewing beer. The malting process requires plump and clean barley with high germination percentage and vigorous growth. They want protein to be within a certain range. Too much protein is more often a problem than too little protein.

Barley varieties are either two-row or six-row. The two-row market is much larger for Canadian barley producers. The United States' malt market is transitioning from six-row to two-row and the overseas export market demands two-row varieties.

In addition to the conventional malting and feed markets, breeding efforts are targeting specialty markets: hull-less barley cultivars are available for the poultry and hog industries and cultivars with high beta-glucan content and/or waxy types (special starch composition) are available for specialty food markets.

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## Nutrition

Intake of barley is very likely to help you maintain your overall health in the long term. These whole grains are rich in protein, vitamins, minerals, and amino acids and are essential for our health. More importantly, barley provides us with one of the richest sources of both soluble and insoluble fibre.

Insoluble fibre aids in proper excretion of waste products in the body, while soluble fibre, which includes beta-glucan, mixes with liquid, binds to fatty substances, and allows them to leave the body. Beta-glucan has been shown to reduce cholesterol which may reduce the risk of heart disease. It is also thought that beta-glucan is associated with regulation of blood glucose, having implications for diabetics, and may help stimulate the immune system response. Barley is also seen to be rich in tocotrienols, which is an antioxidant that helps lessen risk for contracting heart disease and cholesterol problems.

## By-Products

Barley is primarily used for human and livestock consumption. Most barley that is consumed by humans is in the form of beer although barley is sometimes used in bread, other baking, soups, and pasta.

If the grain is a lower quality and is not accepted for malt, it goes to the feed market. Some barley is intentionally grown for feed because it is a high quality livestock feed. It can also be cut when it is green for livestock silage.



## Industry in Saskatchewan

Production: 4,449,200 tonnes (2019)

## Industry in Canada

Production: 10,382,600 tonnes (2019)