

Oats



History

Oats and other small-grain cereals were brought to Canada in the early 17th century by European colonists. Oat was an important feed crop for the early settlers on the Prairies, who used horses as the main source of power for farming and transportation. Over the years, oat has gained in importance because of the size and makeup of the livestock industry, and an increased interest in oats in the human food market.

Production

Oats grow well with long, warm growing days and adequate moisture. Most of the oats grown in Saskatchewan are in the Eastern side of the province; especially in the Yorkton area. Oats yield can range from 50 to 180 bushels per acre.



Processing

Oats can be found in several forms, each being dependent upon the degree of processing they have been subjected to. The less processing the oat grain goes through, the more health benefits it has.

Whole Oats: Whole oats have a hard outer hull that must be removed before it is ready for human consumption. If you want whole oats to eat, purchase them already hulled. Hulled oats are known as 'groats.'

Oat Groats: Oat groats are the whole oat grain, with only the hard unpalatable outer hull removed, but with the kernel's outer bran layer left intact. They are long and thin with a smooth shiny surface and look like brown rice. They can be eaten at this stage, but are typically processed into one of the forms below.

Rolled Oats: Rolled oats are made by steaming groats and flattening them with a roller. These come in two distinct varieties. The first variety is sometimes referred to as old fashioned, or jumbo. These are made by first steaming the whole groat for a few minutes, thus partially cooking it, then passing it between rollers to flatten it out. The second variety is sometimes referred to as quick-cooking rolled oats. These are made by putting steel-cut oats through the same process. Rolled oats take about 15 to 20 minutes to cook.

Instant Oats: Instant oats are made in a similar fashion to rolled quick-cooking oats, except they are steamed longer and rolled more thinly. It produces the kind of oats used for making some types of instant porridge. Generally, the more you process a food the less nutritious it becomes. Instant oats have less nutritional value than rolled oats, but are still a healthy food choice.

Oat Flour: Oats can be ground into flour which usually comes in three grades: coarse (i.e. steel-cut oats), medium, and fine. Medium flour can be used in cakes and crumble toppings to give a nutty flavour, or added to soups as a thickener or creamer. Fine oatmeal (flour) adds a great flavour to bread and improves its shelf life due to the natural preservatives found in oats. Since oats lack gluten, they are typically mixed with gluten-containing flour such as wheat flour.

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Nutrition

There is increasing interest in oat as a functional food (a food product which provides specific nutritional and health benefits). The beta-glucan in oat, which is a form of soluble dietary fibre, is reported to lower blood cholesterol, help control diabetes, reduce heart disease and possess antioxidant attributes.

Oat is a cereal food that is generally considered to be very soothing for the nerves. Oats is one of the best sources of Inositol, which is very important for maintaining blood cholesterol level. It also contains very high levels of calcium, potassium, and magnesium, coupled with Vitamin B-complex. All these vitamins and minerals are very essential for the nervous system.

- Eating oats regularly helps to keep the blood cholesterol level low.
- Oats have also been proven to act as anti-depressants; they make you feel calm.
- Cooked oats relieve fat from the body while unrefined oatmeal can reduce stress.
- Oats also help prevent bowel cancer because of its high fibre content.
- Eating oats can cure constipation.
- Oats also helps in lowering chances of heart-disease.
- Apart from being a good source of protein, oats also provide vitamin E, zinc, copper, iron, etc.



By-Products

Food: Oats are found in many breakfast cereals such as muesli, granola, and Cheerios. Both oat ice cream and oat milk are available. Oats are a great plant-based protein which is why it's gaining popularity. Oats' natural preservative and antioxidant qualities have been put to use in bread, milk, milk powder, butter, ice cream, fish oil, olive oil, bacon, lard, frozen fish, and frozen sausage. Oat flour adds a great flavour to bread and can also be used to make a coffee substitute. Oat gum has also been suggested as an alternative to gelatin as a thickening and stabilizing agent in ice cream, sauces, and salad dressings.

Animals: Less than half of the oats grown are used for livestock purposes such as feed grain, hay, or silage. Oats is an important grain in many horse and cattle diets. Oat straw makes wonderful mulch for cattle, horses, sheep, and rabbits; is used as bedding; and can also be used as food. Whole oats are also excellent poultry food, the oat hulls help to prevent cannibalism in poultry.

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Medicine: Oats have medical benefits such as being used to help prevent heart disease and cancers, to enhance immune response to infection, and to stabilize blood sugars. They have also been used to treat rheumatism, chronic neurological pain, atonia (weakness) of the bladder, insomnia, stress, anxiety, depression, and nervous exhaustion.

Cosmetics: Oats have a soothing effect on skin. Oats can help soothe dry skin or itchiness; they can be used as a skin cleanser and are frequently used as an exfoliant to remove the surface layer of dead skin cells. Oats are therefore a common ingredient in many skincare preparations. Oats can be found in bars of soap as well as in creams and gels. Hydrolysed oat protein has been a popular ingredient in shampoos and conditioners, in particular as a replacement for animal-derived proteins, and it has been reported that the proteins condition and coat damaged hair, prevent hair dryness, and improve hair texture.

Chemicals: Oat hulls are used in the making of solvent for dyes, resins, paints, varnishes, and the nylon industry. The starches in oats have also been used in the production of adhesives. Another patented use of oats is an oil spill dispersant which

is able to adsorb oil, then emulsify and disperse it efficiently. Oat flour can be converted into starch acetates that are used in the production of biodegradable plastics. Oat proteins can be used as carriers and release agents for agricultural chemical sprays.



Industry in Saskatchewan

Production: 1.7 million metric tonnes (2018)

Number of Producers: Over 5,000 (2018)

Industry in Canada

Production: 3.4 million metric tonnes (2018)