

**USEFUL PROPERTIES OF CORN CEREALS**

**Annotation.** *The article provides an overview of the useful properties of corn grain and its varieties. It is shown what grinded corn groats are and what products are produced from different fractions of cereals.*

**Key words:** *corn, cereals, useful properties, food industry.*

Corn takes the leading place among the main grain crops in the world agricultural production. Its official name is maize.

Over the years, botanists could not determine the origin of corn. American researchers organized many expeditions, as a result of which almost all of South America was inspected, but it was not possible to find the wild progenitor of corn.

Only in 1948, during the laborious excavations and long-term studies of caves in South Mexico, scientists still managed to discover prehistoric cobs that did not differ much from modern maize species

Thus, experts concluded that this plant for 7 thousand years has practically not changed its main botanical features. It was also found that the cultivated corn ancient tribes of the Aztecs, the Incas and Maya. The Maya tribesmen had their own cult of worshipping the god of corn Chintheotl.

The Incas also considered maize a divine plant. Even today, some people, for example, the Indians of the State of New Mexico, corn is particularly revered and it is believed that to love and appreciate "your maize" is necessary as its second half (wife).

According to statistical data corn grain and the plant itself is the raw material for obtaining almost 3500 kinds of products that are used not only in agriculture, but also in various branches of industry (medical, processing, food, etc.).

Corn has many useful properties, but it is also valued for being able to preserve all its useful qualities even after heat treatment or canning, which is not common for all cereals.

Corn has a lot of varieties, which basically differ in the size and quality of the grains, which in turn can be small and inconspicuous, or vice versa – large and golden.

One of the most popular products obtained from corn is corn groats. Croup of corn is divided into species, which depends both on the way of processing the grain, and on the size of the resulting grains.

In Ukraine, the food industry is associated with processing, mainly poppy and sugar corn, although the tooth-like and siliceous subspecies are no less valuable, especially for the production of various types of cereals.

Grinded corn groats are a crushed core of corn, during the processing of which particles of different shapes were obtained. With this method, the fruit shells and the embryo are separated from the grain, the grains are ground with rounded faces. Grinded corn from maize is divided into 5 numbers, this division depends on the size of the grains themselves.

From large corn cereals and embryos, light corn flakes are produced. Small corn groats are mainly used for the production of crispy corn sticks.

In the corn cereal are vitamins of group B, vitamins E, PP and provitamin A (carotene). In corn groats there are two essential amino acids – lysine and tryptophan. In this croup is high content of valuable dietary fiber, as well as important trace elements - silicon and iron. It is due to the high fiber content that corn croup helps to remove toxins and radionuclides from the human body, as well as to cleanse the intestines from the decay products. Corn is an excellent means of removing pesticides from the body. Corn grains help inhibit the processes of putrefaction and fermentation in the intestine.

Croup of corn grain is considered a croup that does not cause any allergic reactions, therefore it is especially recommended for baby food. There are known useful properties of corn cereals, which contribute to the prevention of diseases of the cardiovascular system [1-4].

Despite the high caloric content of corn (325 kcal per 100 g of product), the nutritional value and culinary qualities of corn cereals are lower than those of other cereals. This is due to the fact that the protein of corn cereal is inadequate and poorly absorbed by the human body. The same is due to the fact that the use of this cereal in food does not provoke excessive fullness, and is also recommended for the elderly and those who lead a sedentary lifestyle, thanks to the fact that corn helps to remove body fat.

Thus, the use of corn cereals in the production of different types of products will enrich the finished products with vitamins necessary for the human body, as well as macro- and microelements.

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