

The History of the Discovery of Red Beans (*Phaseolus Vulgaris* L.) And It's Meaning

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Annotation: The article provides information on the significance, origin, distribution, biological properties and varieties of common beans (*Phaseolus vulgaris* L.). It is also emphasized that common beans are an important legume and vegetable crop rich in high-quality protein, microelements, vitamins and antioxidants.

Keywords: Beans (*Phaseolus vulgaris* L.), protein, biological properties, morphology, agricultural technology, seeds, legume crop, yield.

Bean (*Phaseolus*) is a type genus of plants in the Legume family (Fabaceae), which unites about 97 species in warmer regions of both hemispheres. They are bred for fruits and seeds (beans), and some species (for example, the fiery red bean (*Phaseolus coccineus*), with red flowers) are also used as an ornamental plant.

Of the cultivated species, the first place is occupied by common beans (*Phaseolus vulgaris*) with many varieties and varieties, some of which are curly, others are bushy. This species is native to Latin America.

Beans are widely known and in demand in many countries of the world. It is considered a valuable product recommended for inclusion in the diet in order to maintain a balanced diet.

Interest in beans originated in ancient times. According to a number of historical sources, it began to be eaten around 2800 BC. During archaeological excavations in Pompeii, a clay vessel containing bean seeds was discovered.

Archaeologists have found bean seeds in Peru and Mexico, which indicate that it was cultivated 5,000 years before our era.

After the expedition of Christopher Columbus in the XV century, beans began to be bred in Europe, Africa and Asia.

In the work "The General History of New Spain" (1547-1577), Bernardino de Sahagun, based on information from the Aztecs about the properties of plants, gave various information about beans, in particular, about its diversity.:

It is known that beans were used in the diet of Napoleon's army — he was sure that this product helps soldiers to become more resilient and smarter. Exploring the expanses of the Wild West, American settlers often took beans with them on the road, combining it with baked chicken meat and sweet syrup - this dish was characterized by simplicity of preparation and high nutritional value.

An interesting way to use beans was also known in ancient Egypt: Cleopatra, famous for her appearance, used bean mixture as a cosmetic product. She diluted the crushed beans with warm water and applied the resulting mass on her face. This natural mask not only brightened the skin, but also visually smoothed out fine wrinkles, while not causing harm, since the ingredients were of plant origin.

Despite the various uses, beans should primarily be considered as a food product. There are about 200 varieties of this plant in botany, but only four of them are most widespread: white, red, black and green beans. Each of these varieties has its own characteristics, both in taste and nutritional properties.

Bean varieties can vary in color, seed size, and composition.

Interestingly, fresh beans contain natural glucosides, phasin and phaseolunatin, which can cause hydrocyanic acid poisoning in the body. However, during soaking and subsequent heat treatment, these compounds are destroyed, and the beans become safe to eat.

White beans are considered an even more dietary product than their red variety, and they are a rich source of trace elements. It contains almost all B vitamins, as well as vitamins E, PP and K. Due to its low caloric content (approximately 320 kcal per 100 g in raw form and about 104 kcal after cooking), this product is especially recommended for people seeking to lose weight, as it helps reduce the absorption of excess calories.

In addition, white beans have a positive effect on the endocrine system and are useful for maintaining women's reproductive health. It activates metabolic processes, helps to remove excess fluid from the body, and is also involved in the repair of muscle and immune cells.

Green beans can be an excellent source of energy and also play an important role in lowering cholesterol levels in the body. Like red beans, they are rich in vitamin B9, which makes them especially valuable for women during pregnancy. In addition, it contains vitamins B5, C, which is important for maintaining immune protection, and vitamin K, which promotes normal blood clotting and calcium absorption.

Due to the manganese content, the use of green beans helps slow down the aging process of the skin and preserve its elasticity and smoothness for many years.

However, a large amount of dietary fiber in this product can have a dual effect: on the one hand, fiber improves the functioning of the gastrointestinal tract, but if consumed excessively, it can cause bloating and discomfort.

Black beans, despite their inconspicuous appearance, are an exceptionally valuable product among legumes. Its high protein content makes this type of bean an excellent choice for people who fast or prefer a plant-based diet. It is noteworthy that black beans are able to reduce pain in the joints, although in the presence of such symptoms, of course, it is necessary to consult a specialist. In addition, these beans contain a rare trace element, molybdenum, which has a beneficial effect on the nervous system. In general, regular consumption of black beans can serve as a prevention of neurodegenerative diseases such as Parkinson's disease and Alzheimer's disease, and also helps reduce the risk of inflammatory processes, cancer, and disorders in the respiratory system. The product helps to improve appetite and gently cleanses the body of toxins.

Red beans are known for their beneficial properties: it helps to saturate the blood and maintain the health of the cardiovascular system. This type of legume is rich in important minerals such as calcium and magnesium, and also contains vitamin B9 (folic acid), which plays a key role in cellular renewal, body growth, and is especially necessary during pregnancy for the full development of the fetus.

Due to the presence of iron, red beans help to combat fatigue and increase mental activity. The dietary fiber included in its composition contributes to the normalization of intestinal function, and phosphorus strengthens bone and dental tissues.

At the same time, the energy value of the product is only about 310 calories per 100 grams, which makes red beans an excellent component of dietary nutrition. Regular inclusion of these beans in the diet can not only support heart health, but also reduce the likelihood of developing diabetes.

Red beans are a close relative of the well-known green beans. Its homeland is the territory of modern Peru, from where this species eventually spread to the regions of Central America. As a result of the colonial processes, red beans were imported to Europe.

Like many other bean varieties, red has deep roots in South and Central America. After entering Europe, thanks to the development of trade and colonization, this product quickly became known and in demand all over the world. Beans play an important role in the diet of many peoples, serving as a valuable source of protein and other important nutrients.

For successful cultivation of red beans, light, well-drained sandy soils, a warm climate and areas protected from strong winds with abundant sunlight are necessary. Today, the main regions of production of this crop are Africa, South America, especially Peru and China, from where beans are exported to different countries of the world.

Red beans belong to the garden bean group and got their English name, kidney bean, due to their shape resembling a human kidney. In addition to its characteristic shape, it has a typical taste with soft powdery and slightly sweet notes. This type of bean is considered a very satisfying product. Its skin is thin, and the shade varies from red to purple, while the inside of the bean is white. Red beans can be cooked in different ways - boiled, fried or stewed. Ripe beans reach a length of one to five centimeters and contain phytohemagglutinin, which is why beans should be consumed only after heat treatment. Rich in carbohydrates, red beans are a good plant-based energy source. In addition, it contains significant amounts of minerals such as magnesium, calcium and potassium, which makes it a popular product among athletes and people who lead an active lifestyle. The benefits of red beans make it a universal product: it contains a rich set of vitamins, macro- and microelements. It contains a variety of acids, carotene, vitamins C and PP. Beans are a storehouse of proteins and carbohydrates. Bean proteins, which are easily digested, are similar in composition to proteins found in meat and fish - eating beans will allow you to avoid animal products without much harm to your health.

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