

USEFUL FUNGI

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Annotation

This article provides information on the importance of mushrooms and their nutritional and medicinal properties. In addition, information about the distribution of fungi and the environment in which they grow and develop is also provided.

Keywords: Fungus, champignon, oyster, oyster, food, pharmaceuticals, protein.

Currently, the demand for food in our Republic is increasing. For this reason, nutritious species are being studied. Mushrooms with high nutritional value are highly valued. Higher fungi are also used in the field of pharmaceuticals and industry. Mushrooms are one of the highest quality sources of protein. Up to 5 grams of protein per 100 grams of product. There are many types of mushrooms and their composition is different everywhere. It is impossible to talk about mushrooms as a whole product group in detail - different types of mushrooms have different properties. But in general, fungi are a source of protein. Many types of mushrooms contain up to 18 amino acids, B, A, D, E, K group vitamins, zinc, chromium and other trace elements necessary for the body.

There are more than 2102 species of fungi in the world. They are widely distributed at high and low levels. About 200 types of mushrooms have been identified in our country, of which 20-25 are suitable for consumption. Champignon, veshenka (oyster), and lamb's tail are mainly edible species in our country. Some species are poisonous.

Champignon (lat. Agaricus) is a genus of mushrooms belonging to the champignon (agar) family (lat. **Agaricaceae**). The Russian name "champignon" comes from the French. champignon simply means "mushroom". Fruit bodies of different sizes form - from 3-5 (Agaricus comtulus) to 20-25 cm (Agaricus arvensis). The hat is dense, initially rounded, and becomes more and more flat with age. The surface is smooth or covered with dark scales; color - from white to brown and brown. The plates are free, initially white, then darken, the color of the spores changes from pink to almost black due to discoloration. On this basis, it is easy to distinguish champignons from similar poisonous mushrooms of the genus Amanita, in which the plates and spores remain white or yellowish during the life of the fruit body. Leg central, straight, dense, less loose or hollow. There is always a private cover, which forms a clearly visible one- or two-layer ring on the leg. The pulp is various shades of white. In the air, it often has a yellowish or reddish color. It usually has a distinct "mushroom" or "anise" smell.

World: Eukaryotes

Kingdom: Mushrooms

Section: Basidiomycetes

Class: Agaricomycetes

Order: Agaric

Family: Champignon

Type: Champignon

All champignons are saprotrophs and grow mainly in manured soil, in the humus of forests and meadows rich in organic matter, in the bark of dead trees and in anthills. Representatives of the genus *Agaricus* are divided into 5 groups according to their limitation to certain types of substrate: those that grow only in forests (*A. silvaticus*, *A. silvicola*); soil saprotrophs of open fertile areas (*A. bisporus*, *A. bitorquis*, *A. subperonatus*); herbophiles that grow only among grasses (*A. campester*, *A. augustus*, etc.); grows among grasses and in open places in forests (*A. arvensis*, *A. comtulus*, etc.); desert species, including halophytes (*A. bernardii*, *A. tabularis*).

Mushrooms are also used in medicine: they are considered very useful for bronchitis, diabetes, headaches, eczema and stomach ulcers, jaundice and tuberculosis. In many cases, they are also used for weight loss. They are included in the list of diet foods due to their low calorie content while retaining their nutritional value. 100 grams of marinated champignons are 30 kkal, and canned ones are even less, i.e. 20 kcal per 100 grams of product. You can prepare various delicious dishes from champignons.

Simple veshenka mushroom. *Pleurotus ostreatus* is a mushroom in the oyster mushroom family of the oyster mushroom family. The diameter of the hat is 5-20 (30) cm, fleshy, hard, round, thin-edged, ear-shaped, shell-shaped or almost round. In young mushrooms, the cap has a convex and curved edge, later it is flat or wide with a wavy or lobed edge. The surface of the cap is smooth, shiny, often wavy. When growing in humid conditions, the cap of the mushroom is often covered with a mycelial plaque. The color of the cap is variable, changing from dark gray or brown in young mushrooms to gray with a purple tint in mature mushrooms, and finally turning white, gray or yellowish. The leg is short (sometimes hardly noticeable), dense, continuous, eccentric or lateral, cylindrical, narrowed towards the base, often curved, 2-5 cm long and 0.8-3 cm thick. The surface of the foot is white, smooth; brown at base. White in young mushrooms, yellow or gray depending on age. Spore powder is white or pink in color. Spores 8-13 × 3-4 μm, smooth, cylindrical, oblong-ovoid, colorless. Young mushrooms are white, dense, soft and juicy, later hard and fibrous (especially on the stem), without a distinct smell.

World: Eukaryotes

Kingdom: Mushrooms

Section: Basidiomycetes

Class: Agaricomycetes

Order: Agaric

Family: Oyster mushrooms

Type: Oyster mushroom

This type of mushroom, rich in minerals and vitamins, is a dietary product. Among the minerals contained in oyster mushrooms are potassium, phosphorus, iron, as well as calcium, cobalt, selenium, zinc, copper and a number of other elements necessary for the human body. Oyster mushrooms are an excellent source of water-soluble and fat-soluble vitamins, comparable to meat products, vegetables and fruits. Oyster mushroom fruit body contains a complex of B vitamins, as well as ascorbic acid, vitamin PP (5-10 times more than in vegetables). Oyster mushrooms increase

immunity and protect the human body from various diseases. This property is related to the PP vitamin in them. Recent studies have shown that these mushrooms have anthelmintic properties. In short, fungi are used as useful food and medicine for humans. According to their chemical composition, mushrooms are low-calorie food. That is why it is digested quickly and is considered dietary.

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