

Nutritional and Economic Importance of Buckwheat

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Abstract: *The buckwheat is a grain plant, and this article is devoted to the problem of its sowing technology, chemical composition of grain, application in the field of medicine, importance of stem in industry. Suggestions and conclusions have been made about the importance of sowing buckwheat in the country's economy and the productive usage of moisture places.*

Keywords: *fagopyrum esculentum, vegetation, transpiration, lysine, arginine, rutine, cholesterol, nematode, pH.*

Buckwheat (Polygonace) belongs to the family of buckwheat's, which includes 30 generations and 800 species. The most common varieties of buckwheats' are fagopirum esculentum and wild buckwheat - Fagopirum tataricum. In some sources there given information that Middle and Central Asian or Indian Himalayan Mountains are as its homeland. In France, the USA, Canada, China, India, seeds type (Fagopyrum esculentum) are planted in large areas. Because of its liking moisture condition, it is taken good harvest in Ukraine, Bashkortostan and in the Far East. In agriculture process it has been planted since the 3rd millennium BC. The one-year-old Tatar buckwheat is found in the form of weed.

The buckwheat plant grows to a height of 50-150 cm, with a branch full stem, edged, reddish-green plant. The flowers are rich in white, pink, red, with the smell of honey, thyroid, there are a lot of nectar in the large flower. The fruit is dark, grey, or brown with three edges.

Buckwheat is a spring plant which loves moisture and hot. Young growth are harmed at temperature -2 °C. Optimal temperature for plant growth and

development is 18-20 °C. If the temperature exceeds 25 °C or less than 13 °C, the plant will not well develop, the yield will be low. Vegetation period is 70-90 days. Pollinated by bees. It is a plant of honey sap. Up to 60 kg of honey can be obtained from 1 hectare of buckwheat.

The technology of sowing varieties of buckwheat has been studied, and the sowing norm of the cultivation of 'Krupinka' (is a type of buckwheat) is determined by the sowing of seeds and the survival of the plant to harvesting. When the sowing norm was increased from 1.0 million to 2.0 million seeds, it was determined that the viability of the plant variability varies. Because of increasing sowing capacity of the fertility of seeds increased by 1.6-2.6%.

Buckwheat grains are high-qualified nutritious, and it is close to the quality of wheat. Grains contain 12-18% protein, 59-62% non-nitric extractive substances, 2.5-2.7% fat, 2% fiber, 0.3% sugar. Granules and flour are made from buckwheat.

Buckwheat contains vitamin and mineral components such as iron Fe, zinc Zn, magnesium Mg, selen Se, phosphorus P, calcium Ca, apple, sorrel acids and B, B2, E, P (rutin). It contains lysine and arginine, which contains essential amino acids that are important for the human body. Lecithin oil reduces the amount of cholesterol in the human body.

Because of the high quality of fat, the buckwheat grain is stored for a long time. Buckwheat protein meets the medical requirements according to ratios of lysine, methionine, and tryptophan amino acids.

Not only the grain but also its flower is used in medicine. Brewing its flower and leaf is useful for atherosclerosis, colds, and blood pressure. Honey, which has been harvested from its flowers, is remedy for liver, diabetes and diarrhea.

The cut straw is also useful for cattle. 100 kg of cut straw contains 29 feed units, 2.4 kg of proteins, 1.6 kg of calcium, 140 kg of phosphorus, 24 g carotene.

Buckwheat is sown for its grain as the main and repeated plant in Uzbekistan. When applied to the biological properties of the agro technics, it will give stable harvest.

At present, the buckwheat production rate is low in the country, mainly it is distributed to population due to imports from abroad.

If taking into account the fact that the vegetation period, the cultivation technology is not so complex that can be harvested twice a year. The buckwheat is sown primarily on moist soil places and the soil moisture content should not be below 80%. The soil type is not demanding. The transpiration factor is 500-600. The most exacting period for moist is the period of ripening and flowering period. During this period, 80% of the water consumed during the growing season. The buckwheat is a light lover, short-term plant, and it grows well when the soil is pH 5-7.5.

Buckwheat improves the phito-sanitary condition of the cultivated area. Therefore, it is good for many plants especially for autumn grain plants.

Buckwheat acquires 3.4 kg of nitrogen, 1.82 kg of phosphorus and 3.31 kg of potassium for the production of leaf mass and for 1 mc Grains and a suitable stem. If the buckwheat is sown for changing on cotton, sugar beet, corn silo, it will be placed after leguminous crops, autumn seed plants, and many-year leguminous grasses. If oats and potato are harmed with nematode disease, then it should not be planted buckwheat after them.

We can add the buckwheat to the plant without waste. Its grains used in the food industry, cut straw for cattle, leaf and flower in medicine.

In addition, scientists from the Primorsky University of Russia received ecologically clean materials from buckwheat bark. This material combines the characteristics of wood and plastic. According to scientists, it is possible to produce from it building materials and finishing materials. In Russia, buckwheat is

a raw material grown every year, and so far, its bark has not been practically used. The Russian Federation is one of the leading producers of buckwheat.

In summary, we can say that it is noteworthy that cultivation of this buckwheat crop will be beneficial, taking into account the no complexity of growing technology, the shorter vegetation period, its importance in the food industry and its role in the national economy. We offer a deeper study of this plant, to increase cultural varieties and use this plant as non-waste technology.

The list of used literature:

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