"DETERMINATION OF MORPHOGENETIC INDICATORS OF THE INITIAL SOURCES OF VARIETIES OF PEA PLANTS IN UZBEKISTAN AND ABROAD."

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Annotation: increasing soil fertility is one of the pressing problems today. To do this, it is possible to maintain and increase soil fertility by growing legumes. Because the subsequent introduction of a 1:1 alternating planting system instead of an alternating planting system led to a decrease in the amount of humus in the soil by 40-50. In increasing the amount of humus in the soil,legumes especially alfalfa,mosh,chickpeas and soy plants improve the physical, chemical and technological properties of the soil with a sharp increase in the amount of humus in the soil.

Keywords: soil fertility humus, recurrent crop, peas, legumes, yield, crop rotation, crop rotation, phosphorus potassium, protein,vitamins.

Enter. In our country, the cultivation of ecologically clean products in the fields where agricultural crops are grown is the first issue, and to the same extent, improving soil fertility is one of the most important tasks. To increase soil fertility, the organization of rotation system, use of biological methods instead of chemical methods, planting of repeated crops, especially planting of leguminous crops, are among the above tasks.

As a result of scientific research carried out for many years, it was found that the amount of humus in the soil has decreased by 40-50% in the area where grain has been planted chronically (over the last 10 years). On the contrary, it is noted that the amount of humus in the arable layer of the grain fields, which are planted alternately with leguminous crops (alfalfa, peas, chickpeas), is kept at 1.1-1.2 percent and a tendency to recovery is observed.

The hot summer, cold winter and salinity of cultivated fields are characteristic of the soil and climatic conditions of our Republic. With global

climate change, the warming of the atmosphere, water shortage and the increase in the salinity of cultivated areas have a negative effect on the productivity of agricultural crops and remain one of the urgent issues of today. This issue was adopted by our government in the "Action Program of the Cabinet of Ministers of the Republic of Uzbekistan for the near term and long term" focusing on further strengthening of food security, development of selection and seed production, salinity and drought it has been shown that the creation of resistant varieties is one of the priority tasks [1,2, 3].

The fact that our government paid attention to this issue is due to the fact that, firstly, 50% of cultivated areas in our Republic are saline, and secondly, it is impossible to get a high yield from agricultural crops without water. For this reason, great importance is attached to the creation of varieties resistant to salt and drought.

Reasonable use of irrigated cropland in agriculture, improvement of soil fertility, increasing grain production, including peas, play an important role in the social and economic development of the population.

Peas are a valuable food and fodder crop, and their grain is rich in protein. Among the cultivated legumes, it ranks third in terms of cultivated area and first in terms of nutritional value.

Growing peas helps solve the problem of protein, increase grain production, maintain and increase soil fertility, and provides environmentally friendly products. Pea accumulates a large amount of organic matter in the soil, planting pea crops after peas increases the yield per hectare by 40-60%, and on average accumulates about 50 ha/kg of biological nitrogen in the soil, which and it has been proven in experiments that it is equal to applying 6-8 ha/t of rotted manure. It also improves the nitrogen balance in agriculture, converts hard-to-dissolve phosphates into plant-absorbable forms, and provides additional protein production on the ground.

Amino acids contained in peas are unique and distinguished by their ability to eliminate various harmful and pathological factors in the human body. Peas contain a lot of phosphorus, potassium, magnesium elements, lecithin, riboflavin (vitamin B2), nicotinic and panthenic acid, choline, and vitamin C. Being rich in amino acids asparagine and glutamine, pea grain replaces meat in the human consumption fund. For this reason, two-thirds of the peas grown in the world are consumed as food.

It is known that sufficient protein plays an important role in the food products consumed by humans. P.P. Vavilov, G.S. According to the Posypanovs, protein should make up 12% of a person's daily calorie intake. Currently, the amount of protein consumed by the world's population per day is 60 grams, of which 30 percent is animal protein. In developed countries, this figure corresponds to 90-95 g, and in developing countries to 20-25 g. These numbers indicate that protein is produced 4 times less than the demand in the world [10].

Pea protein is of high quality, with 20.7 g/kg of lysine, 5.2 g/kg of methionine, 4.8 g/kg of cysteine, 11.3 g/kg of phenylalanine and 10.5 g/kg of protein. kg of threonine [11] .

Grain contains 25-30% protein, 4-7% fat, 47-60% nitrogen-free extractables, 2.4-12.8% cellulose, 4.0% ash, and salts with vitamin V1. If its grain is added to mixed fodder, their digestion becomes easier. The stems and leaves are rich in malic and malic acids. Straw can not be fed to cattle, it is good feed for sheep. Malic and malic acids are obtained from peas in India.

Peas were cultivated in the arid regions of Central and Asia Minor before Christ. It is assumed that the homeland of peas is the mountainous regions of Tajikistan and Uzbekistan [9].

Peas occupy the third place among leguminous crops in terms of cultivated area. It is cultivated in about 30 countries of the world, it is widely

cultivated in India, Pakistan, Spain, USA, Brazil, Turkey, Iran, Tajikistan, Tatarstan, Turkmenistan, North African countries.

Cultivated area is 12 million ha, 8.9 million ha. the field corresponds to India and Pakistan. Also 1.4 million/ha in Iran and Turkey. planted in the ground. In the following years, Australia and Canada paid attention to this crop. Productivity is 0.6-0.8 t/ha.

In Uzbekistan, peas are planted on an area of 4-5 thousand ha in dry and wet lands. 20-25 tons per hectare is grown on irrigated lands, 8-10 tons per hectare on dry land.

In the following years, peas are planted in autumn and spring in different soil and climate conditions of our republic, and the technologies of its wintering and cultivation are being studied. At the same time, among the hundreds of varieties provided by the International Center for Scientific Research on Agriculture in Arid Regions (IKARDA, Syria) under irrigated conditions, new high-yielding varieties with biological autumn and biological spring forms were selected and these varieties passed the State variety testing control and were recommended for dryland and irrigated fields of our Republic. With this in mind, creating new modern varieties of chickpeas that ensure a higher and better quality harvest and organizing seed production is one of the urgent issues of today.

Taking this into account, we conducted field experiments to cross-breed IKARDA CW-134, Cw-110, Cw-129 and Cw-201 hybrids to locally grown Zumrad and Polvon varieties in Andijan region under light gray soils. Experiment 6 option 4 - was taken on the way back

When we analyzed the morphogenetic parameters of the cultivated varieties and hybrids, the average weight of 1 grain of local Zumrad and Polvon varieties was equal to 0.408 to 0.380 grams, and the weight of 1000 grains was equal to 39.1 to 36.9 grams. ldi. Among the hybrids of IKARDA, among these indicators, CW-201 and CW-129 hybrids have a high indicator, i.e. the weight

of 1000 grains is 36.9 grams in CW-201 and 39 in CW-129 hybrids. It was equal to 7 grams.

In the experiment, we also analyzed the productivity of the crops. In this, the local Zumrad and Polvon varieties yielded 19-22 s/ha, while hybrids yielded 17-23 s/ha.

So, it is clear from this that it is possible to get a high yield not only from local varieties, but also from hybrids imported from abroad, adapting them to our soil and climate conditions.

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