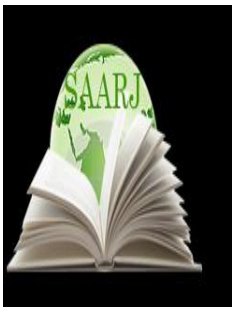

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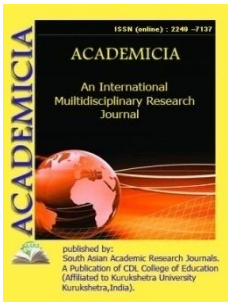

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THE IMPORTANCE OF USING LEGUMES TODAY

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ABSTRACT

It is known that in the conditions of the irrigated soils of our country, the cultivation of secondary crops allows the cultivation of additional crops from each hectare of land. When legumes are used as a secondary crop, not only the grains of these crops, but also their soybeans and other waste products are used as feed rich in whey protein for livestock, which is more "healthy" for livestock than wheat straw. This article discusses the relevance of using legumes and provides scientific advice in this regard. At the same time, the introduction of innovative technologies in the use of leguminous crops is being studied.

KEYWORDS: *Legumes, Soil, Crops, Irrigation Technology, Mineral Fertilizers, Protein, Nitrogen.*

INTRODUCTION

A number of decisions, orders adopted on more efficient use of land and water in agriculture in Uzbekistan since 2016, the introduction of best practices into the new farming system, the revision of foreign agricultural technologies, irrigation and fertilization in each region, the introduction of significant innovations in the placement of agricultural crops has served to increase the volume export and quality improvement.

The growing increase in humanity has made human needs the main criterion - the provision of food in the country and the task of increasing productivity from year to year. In recent years, the sown area under cotton and winter wheat has reached 2.2 million hectares, and the sowing of legumes such as moss, beans, soybeans, peas, on land freed from winter crops, prevented the

deterioration of the soil cover, for the development of animal husbandry, mixed sowing of peas, vignyas, vetch, beans with corn, sowing corn for grain, the extraction of oil and protein from soybeans also improve the quality of feed.

Main part

Planting plants in the spring to meet the world's protein demand, such as soybeans, peas and moss, will also help meet the protein demand. Currently, according to FAO, a person's protein requirement should be 90-100 g per day.

Protein deficiency in humans leads to physiological functional retardation of growth and development, rapid fatigue, especially mental fatigue.

Protein demand from legumes, alfalfa, alfalfa, legumes, green manures and catch crops is radically improved by meeting the demand for animal protein, which is important for improving human health. Protein from legumes is easier and better absorbed (before March 3), and animals also rank higher than other grains. Vegetable protein is the cheapest and most digestible. This means that legumes store several times more nitrogen than other plants, which makes the soil more fertile. Nitrogen, on the other hand, enriches the soil with substances that are constantly needed in the biotic world, as well as phosphorus, potassium, molybdenum, manganese, zinc.

To obtain a high and high-quality yield from leguminous crops, i.e. the use of the maximum amount of nitrogen in the air; a) depending on the pH of the soil or soil solution, lupine is good at pH -5.0, excellent at pH 6.0, good at pH -7.5, soybeans and beans - 6.5-7; 2 - conditional water regime (75 - 80%) - norm; Condition 3 should be aeration, ie, aerobic aerobics; Condition 4 If legumes have not previously been planted in the ground, the seeds should be moistened with nitrogin 3-4 hours before sowing in a cool (protected from the sun) place, otherwise the crop will not form.

5thcondition is in the fertilization system should be sprayed with seeds that consume 1 kg / ha of elements containing trace elements, spraying with molybdenum on acidic soils gives good results. Nitrogen fertilizers are applied to the young phase before sowing, phosphorus and potassium are added at 100–80 kg /ha before plowing.

DISCUSSION

In the eighteenth and nineteenth centuries, European scientists noted the effect of natural nitrogen, phosphorus and potassium on the growth of natural nitrogen, phosphorus and potassium in soil. For example, one of the founders of agrochemistry, the German chemist J.Libih (1847), in his book "Chemistry in Agriculture and Physiology" said that the plant receives ammonia from the air, but in 1856 it was even believed that the plant receives nitrogen through the roots in the form nitrate. Since then, many researchers have proven that plants need macro, micro and ultra micro nutrients.

Today, there are several microorganisms that accumulate nitrogen in the soil, including ammonifiers, nitrogen fixers, nitrifiers and denitrifiers. Scientific research has solved the problem of bacteria that bind proteins, nucleic acids, molecular nitrogen and convert ammonia to nitrate.

19 substances in the plant are elements S, N, O, N, P, S, K, Ca, Mg, Fe, Mn, Cu, Zn, Mo, B, Cl, Na, Si, CO, which are important. ; of which C, H, O, N are organogen, 95% of the body, the rest are P, S, K, Ca, Mg, Fe, Al, Na, Si, etc. 5%. 0.001% by weight of the plant, but the substances necessary for growth and development are called ultra-trace elements Mn, Cu, Ca, Mo, B, Co.

Fig.1. The structure of Root nodules in beans.

The results showed that in the initial periods of ontogenesis (10-12 days) in this and non-fed variants of fertilization of beans and peas little differs from the plant, the accumulation of the biomass of photosynthesis per day increased significantly due to the activation of growth from the beginning of branching.

It was found (determined) that in both plants chlorophylls "a" and "v" on the leaves were 4.2-4.8 mg per 1 dm2 of surface (beans) -2.90-3.15 mg when applied with nitrogen and phosphorus-potassium fertilizers. In addition, the accumulation of chlorophyll in the world flow is most intense in the morning (9-11), slows down at 13-16 hours of the day and increases again in the evening (Table 1).

TABLE 1. THE AMOUNT OF CHLOROPHYLL IN THE LEAF IN THE EXPERIMENTAL VARIANTS (ON AVERAGE FOR 2017-2018)

Options	**3-5 true leaves**		**Buddingphase**		**Flowering (blossom) phase**		**Whenthe 2-3 beans are ripe**	
	“a”	“b”	“a”	“b”	“a”	“b”	“a”	“b”
1.	7,5	1,8	7,5	1,8	8,0	1,10	7,4	0,82
2.	8,6	2,1	9,2	2,1	9,6	1,80	5,8	0,91
3.	7,9	2,3	9,3	2,0	11,3	1,84	6,0	1,10
4.	6,9	2,0	11,3	1,95	12,3	2,0	6,1	1,12
5.	7,4	2,1	11,4	2,1	12,0	2,3	6,3	1,13
6.	7,3	1,2	12,3	2,1	11,1	2,2	6,2	1,12
7.	8,3	2,3	13,6	2,4	12,4	2,3	7,2	1,14

Based on the above, since 2017, stationary experiments have been carried out to determine the effect of different levels of nitrogen on peas, soybeans, beans in the humid regions of the Chimgan hills of the Fergana region, we research mainly on the number, weight, life expectancy of branched bacteria in beans, pea root.

Fig. 2. The structure of the Root nodules of the pea plant.

In experiments carried out on pie endogenous bacteria, the seeds were treated with 137 nitrogen preparations when sowing cotton after wheat in 2016. In the second year, they were transplanted in the spring without nitrogen, in the summer 3 more times. At the same time, starting from 2017, soybeans were planted with the Nasaf variety. In 2017, 2018 and 2019, before sowing half of 30,60,90,120 kg of nitrogen per hectare, the rest was watered with cultivator fertilizers to a depth of 15-16 cm.All agrotechnical work was carried out in accordance with the recommendations of N.N.Ataboeva, Sh.Khudoikulov (2018) in “Plant growing” (“Botany”).

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