Analysis of Phenological Observations of Soybean 6310 and 7213 Collection Samples

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Soyanining 6310 Va 7213 Kolleksiya Namunalarining Fenologik Kuzatuvlar Taxlili

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Abstract: In this article, ew describe the results of the phenological observation and analisis of soybean germination, flovering and pot phases for 6310 and 7213 samples

Keywords. Soybean collections, phenological observation

Annotatsiya. Ushbu maqolada soyaning 6310 va 7213 namunalarining unib chiqishi, shonalashi, gullashi va dukkaklash fazalari fenologik kuzatuv natijalari bayon qilingan.

Kalit so'zlar. Kolleksiya namunasi, fenologik kuzatuv.

Introduction

Soybean is an oil-rich, protein-rich legume crop that occupies an important place in agriculture. Soybean contains 35-55% protein and 20-27% vegetable oil, 20-30% carbohydrates, various compounds, trace elements and vitamins. More than 300 different food products are prepared from it.

Its role in the food industry. Oil, margarine, cheese, milk, flour, confectionery products are produced and prepared from soybeans. Soybeans have 14 times more protein than chicken and 3.5 times more than beef. Soy protein is 25 times cheaper than milk protein and 50 times cheaper than beef protein

Eco-friendly quality oil and egg powder containing lecithin are produced from soy protein. The main products of soybeans are soybean meal and soybean oil. Soybean flour is used as food for the production of confectionery products, fillers, meat substitutes, milk, cheese and diabetic products.

Importance in fodder preparation. Soybean grain is highly nutritious fodder, soybean hulls, meal, flour and greens are used as fodder. Kunjara contains 38.7% protein and 5.5% oil. Soybean meal and meal replaces

milk in calf rations. Soy greens, hay, straw contain protein and oil. In animal husbandry, soybean products are considered to be the most nutritious and high-quality feed, and according to the protein content, 100 kg of soybean grains contain 134.8 nutritional units.

The purpose of the study. The aim of the thesis work is to create a selection material suitable for local conditions and used in the creation of a new variety, with a high protein and oil content, suitable for mechanization, suitable for mechanization, and used in the creation of a new variety, and to develop scientifically based recommendations.

Tasks of research. Based on the purpose of the dissertation, the research tasks are as follows:

- study of valuable economic signs and characteristics of varieties and samples of the collection;

- on the basis of the obtained results, to recommend selection materials with valuable characteristics for further theoretical and practical research for use in creating a new variety.

The object of the study. Samples of the 6310 and 7213 collection varieties available at the Rice Research Institute of Uzbekistan.

The subject of the research: biology, morphology and phenology of collection variety samples, selection of breeding methods and conduct of control experiments, as well as productivity and its quality indicators.

Research methods: conducting field experiments, planting, phenological observations, biometric measurements, plant care, yield determination. Sources of the Ministry of Agriculture of the Republic of Uzbekistan, the Research Institute of Plant Science of Uzbekistan, the State Commission for Testing Varieties of Agricultural Crops, "Metodika Gosudarstvennogo sortoispytaniya selskohozyaystvennix kultur" , "Methods of Conducting Field Experiments" based on methodological manuals and statistical analysis of the results obtained by B.A. It is performed according to the method indicated by Dospekhov.

Review of literature. Soybeans are not grown in large quantities in Uzbekistan. The main part of products made from soy raw materials - mainly vegetable oil - is imported from abroad, and the main suppliers are the countries of the Eurasian Economic Union, Russia and Kazakhstan. The domestic oil industry produces products both for the food industry and for a number of industries.[1; 11-b, 2; 6-b, 3; 76-b, 4; 96b,]

Despite the increase in oil fields, which is unusual for Uzbekistan, its raw material base is still insufficient to establish production capacities. This is the most urgent problem of the field. Since soybean seeds are not used for the production of vegetable oil in our country, we can say that there is currently no reserve of soybean raw materials in the country. If we depend on imported raw materials under such conditions, the country's economy will suffer a lot. [5; 11-b, 6; 45b, 7; 48-b, 8; 73-b, 9; 17-b, 10; 36-p]

Soy isolate is used to make various sausages. If 800,000 tons of soybeans are grown, this means 320,000 tons of protein. 4 million 200 thousand tons of meat should be grown to get this amount of protein. If soybean flour is prepared and added to bread, sweet cakes, pasta and products made from whole wheat, their protein content increases.

Research results. There are more than 200 collection samples at the Agricultural Research Institute, and I chose Uzbek 2 as the standard sample 6310 and 7213. In order to study them, I conducted phenological observations. Observations were carried out at the experimental farm of the Scientific Research Institute of Rice. These collections have been studied by the employees of the institute for 4 years, and they expected that they showed high performance compared to the standard Uzbek 2 varieties. Model 6310 is imported from Russia. Sample 7213 is a variety sample belonging to Uzbekistan. The seeds were sown by hand on April 24. According to the results of observation, after a week, the seeds began to germinate. Fertility is the main quality indicator of these seeds. Germination energy is also an indicator that determines the quality of the seed or material. The first sample of digital collection of catalog 6310 brought from Russia has sprouted. That is, it started spawning on April 31. Our standard variety started to germinate on May 2. Another collection specimen 7213, belonging to Uzbekistan, also began to germinate on May 2. It can be seen that the Russian sample has the characteristic of early sprouting.

According to this indicator, the Russian sample is in the first place, and it sprouted a day earlier than the sample. Our standard sample started to germinate on 15.05, 7213 Uzbekistan sample on 02.05. The pruning phase started at 15.06 in our standard variety. Our sample 6310 bloomed on 12.06, our sample 7213 bloomed on 13.06. Our 6310 sample showed a good performance in terms of this indicator as well.

The podding phase started at 15.07 in our standard sample. In our 6310 sample, it began to fail at 10.07, in our 7213 sample, at 10.07. Compared to the standard, our 6310 and 7213 samples began to falter a while ago.

PROCESS OF PLANTING AND MONITORING GERMINATION OF SOY COLLECTIONS

The results of the observations showed that it took 7-10 days for complete germination.
As a starting material, we can recommend our 6310 and 7213 samples, as they show a faster speed than the standard

Catalog no	Origin	Planting time	Beginning of germination	Full germination	Shonalash	Flowering	Beaning
Uzbek 2	Uzbekistan	24,04	2,05	15,05	15,06	25,06	15,07
6310	Russia	24,04	31,04	14,05	12,06	23,06	10,07
7213	Uzbekistan	24,04	2,05	18,05	13,06	23,06	10,07

Soybeans are divided into the following groups according to the vegetation period: early 95-96 days, ultra-early 98-99 days, medium-early 100-103 days, early 105-110 days, medium-early 110-115 days, evening 120-125 days.
Our samples belong to the group of early adopters. It takes 100-110 days until pods and pods mature to get grain from soybeans, but to get green mass from it, it is harvested before it reaches the flowering phase. Because green pulp is a high-quality and nutritious feed for livestock. When the soybean is ripe, its leaves fall off and dry stalks and pods remain. Spilled burs enrich the soil with nitrogen.

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Conclusion

As a result of the observations, it was concluded that the early varieties give a good harvest in our region, and if they are planted as a repeated crop to get green mass after harvesting, it is possible to get two harvests in one year. In the future, it will be appropriate to create new varieties using these samples. Currently, since the population is increasing year by year, it is appropriate that the newly created varieties are early in order to use each land wisely.

Our samples 6310 and 7213 showed a high performance in terms of biometric indicators and productivity indicators. These materials can be used in future selection work aimed at increasing productivity.

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