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Growth Indicators and Phenological Characteristics of Soybean

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Abstract: The characteristics of the shadow vary according to the environmental conditions and over time develop adaptive characteristics. It is widely used as a comparative method in the study of characteristics.

Keywords: Slovia, citric acid, soy protein, Victoria, elegant, soft, soy oil.

According to the cultivated area, soy crops take the second place after wheat, rice, and corn. According to information, soy is grown in 100 million countries of the world. 53% of the world's population consumes only soybean oil. More than four hundred different products are made from the grain and protein of the soybean plant and they are used in all sectors of the national economy. In the chemical composition of soybeans, it is faster digested by the human body, harmless than cotton and other vegetable oils. The grain contains up to 45% protein and 25% vegetable oil. Also, soybeans contain all the essential amino acids found in animal protein. Therefore, soy protein can be used in milk, yogurt, cottage cheese, cheese, various meats, environmentally friendly oil, and egg powder (which contains lecithin). Blood plasmas and high-quality contact lenses are obtained from soy protein. In addition, wool products are developed. Bread products made with soy flour do not harden and remain soft for 4-5 days, and are twice as nutritious as bread made only from wheat flour. In animal husbandry, soy products are considered to be the highest quality and nutritious fodder. 100 kg of protein in soybeans. Soybean contains 134.8 units of nutrients. This indicator is not found in any other cereal or leguminous crop. After the oil is extracted from soybeans, the meal contains 14 different amino acids. These substances are recommended as a feed rich in amino acids for 3-day-old chicks. In large chicken farms, when fed soy meal, the number of eggs obtained from them increases.

Soybean is one of the most important sources in solving the main problem of today - protein deficiency. Due to the fact that soy protein is similar to animal protein in terms of its chemical composition, all developed countries pay great attention to soy cultivation. In Japan, after rice and vegetable crops, the land occupied by soybeans is the third smallest in terms of size. Japan also buys a lot of soybeans from abroad. The grains are used for different purposes. Currently, soybean protein is used in keeping silkworms. 67% of the artificial food prepared by Japanese experts consists of soy protein, 2% soy oil, citric acid, B vitamins and various other additives. In Japan, silkworms are fed five times a year, and artificial feed made from soybeans plays a major role in this. High-quality food products are also made from soybeans.

In recent years, soy cultivation has been taken very seriously in Uzbekistan. In our country, special decisions have been made to expand soybean cultivation area, to create high-yield varieties suitable for our local climate and to further improve cultivation technology. Soybean is a genus of annual leguminous plants, belonging to the Fabaceae family. Soybean germinates when 90-150% of its weight is water. The tap root develops first. Lateral roots develop when the root is long enough. Root growth is observed until the period of grain formation. Root development depends on the physical condition of the soil. depends on temperature, humidity and availability of nutrients. Grass stage. The initial development stage of soybeans can be 15-25 days or more, depending on air temperature, soil moisture and temperature, and cultivar characteristics. 3-4 days after the sprouts (grasses) germinate, opposite

seeded leaves are formed. The first leaf is formed 10-12 days after germination, and one leaf is formed every 3-5 days. It takes 10-12 days to form one leaf of fiber.

Seed leaves are preserved until 3-6 leaves are formed or bloom, then they are shed. When the air temperature is high, the leaves fall quickly. In the period of high humidity and low temperature, the leaves of the seed stage are stored for a long time. Also, in late-season soybean varieties, seed coat leaves are preserved for a longer period than in early-season soybean varieties.

In the case of soybeans, only after the formation of 3-5 leaves, rapid hanging on the stem begins, because the root system is already developed by this period. Lateral branches are formed on the leaf axils, even near the seed leaf. In soybean varieties with thin stems, the side branches hang from very low, and the stems are strong, and in evening varieties, they hang from 15-25 cm above. Lateral branches begin to appear 17-25 days after the grass sprouts. Side branches are formed in 30-50 days, depending on the climatic conditions and planting period, as well as the characteristics of the variety.

Soybean varieties were selected to study and compare the characteristics of growth and development in laboratory conditions. They are Oyjamol, Slavia (Russia), Victoria (Serbia), Vestochka (Russia) and Nafis varieties. Study of growth and development of these varieties in the saline soils of the Bukhara oasis first, it was carried out in laboratory conditions at room temperature. Soybean seeds planted in mid-April germinated in 7-15 days.

It can be seen that the fastest growing variety is slovenia (Russia), and the slow growing variety is elegant. If we make a general conclusion from the initial growth performance of the selected soybean varieties in laboratory conditions, among the selected varieties that are adapted to growing in laboratory conditions in the soil of the Bukhara oasis, these are slovenia and oyjamol varieties. Relatively less adapted is the elegant variety.

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