THE INFLUENCE OF PLANTING RATE OF SOY VARIETIES ON LEAF DEVELOPMENT

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Abstract. The demand for soybeans in Uzbekistan is increasing year by year. In order to meet consumer demand and provide quality crops, soybean cultivation technology is accelerating year by year. A clear example of this is the cultivation of soybeans between the rows of cotton and in the fields. At the same time, soybeans have a great benefit for soil fertility, because the soybean plant has the ability to accumulate nitrogen.

Key words. Fortuna, Nafis, Uzbek-6, Agricultural technology, Physiology, Potassium, Phosphorus and nitrogen

Food supply has become an economic, social and political problem in modern times, because the demand for food products is increasing with the growth of the population. It will be watered due to the measures taken to solve this problem. grain cultivation from autumn grain crops in the fields amounted to 1372.7 thousand hectares. In this regard, great attention is paid to the supply of plant protein.

Soybeans are planted on about 100 million areas in the countries of the world. In many countries, soybean is planted as a main, repeated and mixed crop. In some countries where soybeans are grown the most, there is not enough air temperature for late maturing varieties and repeated planting. If soybean is planned for the main planting, it is necessary to choose the varieties correctly. It requires a temperature of 1200-1500 0C for early varieties, 1800-2100 0C for mid-ripening and 220-2400 0C for late varieties. Soybean is the most important crop in today's agriculture, it increases the biological fertility of the soil or after it 55-60 kg per soil. leaves pure nitrogen. In the experiment, early-early

"Fortuna" and mid-early "Nafis" soybean varieties were planted. "Fortuna" is an early variety, it takes 35-40 days from planting to flowering, 110-120 days to the ripening period, the stem branches. The stem grows upright, the bush is porous, the height of the stem is 50-70 cm. can be up to The leaf is three-lobed, large, light green. The foliage of the plant is average, the leaves are symmetrical. The length of the leaf band is 10 cm. 75% of the leaves are shed when fully ripe. There are 2-7 flowers in an inflorescence. The pods are gray, small, 2.4 cm long. from 4.0 cm. up to Pods do not split when ripe, on average 40 pods are produced per bush. The grain is average, the weight of 1000 grains is 120-130 g. Grain yield is 32 s per hectare on irrigated lands. 10-20 s grain yield is obtained when it is planted as a repeated crop. Grain contains 25% oil and 36-38% oxygen.

Table 1

Effect of tillage period on soybean productivity

Driving time	Number of weeds	Grain, s/ha
31 August	120	8.0
11 September	145	7,1
15 September	173	6.9
14 September	224	6.0

Fertilization. Providing mineral fertilizers to soybean includes basic, pre-sowing and additional feeding, taking into account plant demand in different periods of development. In general, the fertilization system is based on the plant's demand for nutrients. One centner of grain crop and related by-products (stalks and leaves) consume soybeans: 7.1 kg of nitrogen, 2.4 kg of phosphorus and 3.7 kg of potassium. Fertilizers were used in the experiment as follows. 60 kg of phosphorus and 45 potassium fertilizers with plowing in the fall, nitrogen-phosphorus fertilizers (N10R10) before planting in the spring, and nitrogen fertilizers (20-30 kg /to) is given. Nitrogen-phosphorus fertilizers (N30P30)

were given late (during the formation of pods and grain filling) in irrigated lands. Planting. Preparation for sowing seeds. When sowing soybeans, high-grade seeds of the best 37 regionalized varieties should be treated with nitrogen before sowing, the alternate terms and norms of sowing seeds should be followed, and seeds should be planted at the same depth and evenly in the wet soil layer. . It is necessary to clean (in autumn) and dry the seeds in time, to store them properly, and also to treat the seeds before planting, that is, to treat them with pesticides and to treat them with nitrogen. Soybean seeds should be treated with TMTD (3.4 kg of 80% s.p. per 1 t of seeds) or (if simkurts are present in the soil) with fentiuram (3.4 kg of 65% s.p. per 1 t of seeds) without delay 30 days after sowing should be done before, if it is delayed, these preparations may have a negative effect on the budding bacteria during seed inoculation on the day of sowing.

Organic substances are accumulated in the plant due to photosynthetic activity. Various external factors affect the development of the leaf. One of these factors is the plant's supply of nutrients and light. The light supply will be different when the planting rate is different. In return, the number of leaves will also change. The influence of planting rate on the formation of the leaf surface is presented in the following table (Table 7). The leaf surface of the Fortuna variety was 36,0-37,000 m2/ when few seeds were sown. It was observed that the leaf surface increased by 2.7% when the seed rate was 400 thousand/ha, and by 7.3% when 500 thousand seedlings were planted. In the Nafis variety, when few seeds were planted, the leaf surface corresponded to 37,0-38,000 square meters. It was observed that the planting rate increased by 2.7-8.6% when it was 400 thousand/ha, and by 5.8-7.2% when it was 500 thousand/ha. The area of the leaf surface in one bush differs from the period of pruning. Over the years, the leaf surface of the Fortuna variety during the pruning period was 213-255 cm2. In Ortapishar Nafis variety, it was 285-229 cm2. In Kechpishar Uzbek-6 variety,

it was 253-295 cm2. In all varieties, as the planting rate increases, the leaf surface per bush decreases. This law is observed during flowering and pod formation. During the flowering period, it is observed that the surface of the leaf is much higher. Leaf formation continues until the development of the first pods.

The duration of ripening periods of varieties is closely related to the biological characteristics of the variety. Effect of planting rate on the Fortuna variety. Development periods of soybean varieties. Varieties. Planting rate, thousand/ha. Development periods. The duration of the validity period differed by 2 days. Fortuna cultivar required 33-34 days from weeding to flowering, 39 days to pod formation, and 70-76 days to maturity. Nafis variety flowered in 35-37 days, pods formed in 53 days, and ripening period was observed in 85-88 days. The Uzbek-6 variety flowered in 49-53 days, pods formed in 70-79 days, this variety did not reach the ripening period. In all forms, the duration of development periods was observed 1-5 days late when planted thickly. Due to the influence of the sowing rate, the period of validity of the Fortuna variety is extended by 2-4 days, the Nafis variety is extended by 3-4 days, and the pod formation period of the late Uzbek-6 variety is extended by 4-8 days. In this experiment, the biological characteristics of the varieties were observed more. The effect of planting rate was observed, but it is not of practical importance.

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