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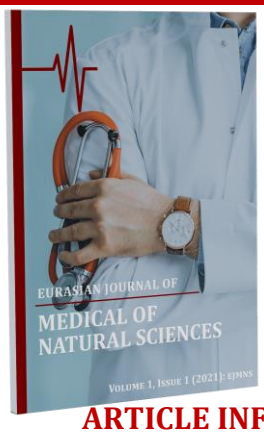

ANALYTICAL STUDY OF THE GROWTH AND DEVELOPMENT OF A VARIETY OF MUNG BEAN (RHASEO1IS AIREIS PIPER)

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ABSTRACT

The article describes the effect of planting time and planting criteria on stem growth dynamics mung bean varieties in the conditions of mung bean meadow soils.

Regarding the regular supply of food products to the population in the world, due to the favorable soil and climate conditions in our republic, more than one million irrigated fields, which are freed from grain crops every year, for 120-130 days as a repeated crop, corn, mung bean, soybeans, rice, millet, sesame, fodder crops, potatoes and various vegetables are planted, and there are opportunities to grow high and quality crops up to twice a year.

The change in the structure of crops requires the implementation of intensive technologies for growing high-quality crops from legumes. One of these technologies is to increase grain production by planting early varieties of mash as a repeat crop in the vacant fields after harvesting the grain crops planted in the irrigated fields.

Currently, in our country, a lot of attention is paid to grain, leguminous and oil crops, and the cultivated areas are being expanded. Great opportunities have been opened for the development of agriculture and efficient use of land. Today, one of the main problems is the problem of protein, that is, meeting the needs of mankind for protein. In solving this problem, mung bean plant from leguminous crops is of great importance.

Based on the conducted research, it was concluded that the most favorable temperature for lateral germination of mung seeds should be at least 12-150C. The most favorable temperature for good development is 18-22°C. Hot summer temperatures create favorable conditions for mung bean to bloom normally and produce high yields, and it is resistant to changes in hot daytime and cool nighttime weather. 20-25°C is a favorable condition during its budding and flowering phases. Such conditions occur at the end of the second half of summer when mung bean is grown in the garden. Mung bean's demand for moisture is average, and when its

"Radost" variety was grown according to its own technology with reserve water, its roots penetrated more and more into the moist layers of the earth [2; p. 35].

When mung bean is grown as a repeat crop, the flowering period is somewhat shortened. When planted in spring, flowering lasts 15-20 days [1; pp. 134-136].

Mung bean is a self-pollinating plant. Pollination takes place before the flower opens. Flowering starts from the bottom of the plant and goes up.

Grain contains 24-30% protein, 2-4% oil, 46-50% starch and various vitamins. The stem contains 8-15% protein and is a nutritious feed for livestock.

I.S. Popov [4; 168-170-p.], it was determined that 1 kg of mung bean grain contains 1.24 nutritional units, 175 digestible proteins, and 0.44 nutritional units, 30 digestible proteins. Mung bean can be added to the soil as a green fertilizer during flowering.

According to Sh. Ernazarov, S. Negmatova and others, if repeated crops are grown in the second half of summer, the vegetation period will be slightly shorter than in spring. Because in the conditions of repeated crops, the duration of the vegetation period is shortened as a result of the reaction of the plant to light in short days. As a result, repeated crops are fully ripened during the second half of summer [7; pp. 27-28].

According to B. Halikov's many years of experience, it is possible to place repeated crop varieties from June 1-5 to July 10, depending on the soil and climate conditions of our republic [5; 42-p].

18.0-19.0 s/h grain yield was obtained from mung bean planted after winter wheat in short-rotation cropping systems in the conditions of N. Ergashev's Fergana region meadow soils [6; pp. 34-35]

Phenological observations and biometric measurements carried out in scientific research were carried out on the basis of "Methodology of State variety testing of agricultural crops" and "Methods of conducting agultural cricfield experiments" (UzPITI, 2007). Determining the net productivity of photosynthesis (A.A. Nichiporovich's weight method), as well as the obtained results, were analyzed and calculated using the Microsoft Excel program "Field Experiment Methods" by B.A. Dospehov [3; 8-51 p].

The research work was carried out in the experimental fields of the Rice Research Institute. The soil layer in the experimental area is grassy swamp, clay loam soil. It is known that meadow-swamp soils are poorly stratified into layers and are characterized by a lack of humus. The driving layer of the experimental farm of the Institute is 0-30 cm, below the driving layer there is a layer of gel 30-40 cm thick, and a layer of sand and small stones at a depth of 60-70 cm.

Vegetative organs have a special role in improving plant productivity, including the height of the stem. Stem height is one of the main sources of crop formation. If the stem of the plant is close to the size suitable for the variety, then this variety has grown well.

The mung bean varieties studied in the experiment are quite different in terms of this indicator. When planted on May 12 in Navroz variety, the height of the stem was 12.4-15.5 cm according to the planting standards in the stage of development of 4 Chinese leaves. Due to the increase in planting rate, the stem height increased by 1.4-3.1 cm. In the flowering phase,

according to planting standards, the height of the stem was 43.7-46.8 cm, and due to the increase in planting standards, it increased by 1.8-3.1 cm. In the phase of podding, the height of the stem was 92.4-96.4 cm according to the planting standards, and due to the increase in the planting standards, the height of the stem increased by 1.7-4.0 cm.

When the Navroz variety was planted on July 1, the height of the stem was 17.2-21.0 cm according to the standards of planting at the stage of development of 4 Chinese leaves. Due to the increase in planting rate, the stem height increased by 1.8-3.8 cm. In the flowering phase, according to planting standards, the height of the stem was 47.1-50.8 cm, and due to the increase in planting standards, it increased by 1.8-3.7 cm. In the phase of podding, the height of the stem was 96.1-99.8 cm according to the planting standards, and due to the increase in the planting standards, the height of the stem increased by 1.5-3.7 cm.

When the Navroz variety was planted on July 10, the height of the stem was 17.7-21.0 cm according to planting standards, at the stage of development of 4 Chinese leaves. Due to the increase in planting rate, the stem height increased by 1.9-3.3 cm. In the flowering phase, according to planting standards, the height of the stem was 45.8-50.3 cm, and due to the increase in planting standards, it increased by 2.2-3.8 cm. In the phase of podding, the height of the stem was 92.0-96.6 cm according to the planting standards, and it was determined that the height of the stem increased by 0.7-4.6 cm due to the increase in the planting standards.

It was found that the stem height of Navroz variety increased as the planting period was delayed. The highest stem height was observed when planted in July. Mung bean planted in the second half of summer grew better than in spring. So, we believe that there were favorable conditions for mosh during these periods.

Conclusions and suggestions. Studied technological factors influenced the growth dynamics of mosh varieties. It was found that the height of the varieties was 2.3-5.2 cm higher when planted on June 20 and July 1, compared to the spring period. Planting rate has a significant effect on the growth of both varieties, and as the planting rate increases, the stem height increases by 0.9-4.6 cm. was found to be much lower.

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