

THE EFFECT OF ENVIRONMENTAL FACTORS ON THE PRODUCTIVITY OF COTTON VARIETIES

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ВЛИЯНИЕ ФАКТОРОВ СРЕДЫ НА УРОЖАЙНОСТЬ СОРТОВ ХЛОПКА

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Annotation. This article examines the impact of different environmental conditions on the yield of a promising cotton variety. It is recommended to plant cotton in 60x15-1 scheme in light gray soil conditions of Fergana region.

Аннотация. В данной статье рассмотрено влияние различных экологических условий на урожайность перспективного сорта хлопчатника. Хлопчатник рекомендуется сажать по схеме 60x15-1 в светло-сероземных условиях Ферганской области.

Key words: nutritional area of cotton, phenotypic changes, average yield, soil fertility, fiber yield, total fiber yield, planting scheme.

Ключевые слова: площадь питания хлопчатника, фенотипические изменения, средняя урожайность, плодородие почвы, выход волокна, общий выход волокна, схема посадки.

Introduction. After the independence of Uzbekistan, one of the most important issues today is the development of agriculture, which is one of the main pillars of the economy of the Republic for the well-being

of our people, and the export of domestic products using industry. This will make a significant contribution to the development of our economy.

Therefore, today in each region of the country only in the soil and climatic conditions of this region, separate testing of cotton varieties, the development of appropriate care agro-measures on the basis of perfect, thorough methodological guidelines, high-quality, fast-ripening in these areas. The selection of varieties, the careful development of appropriate agro-measures for them, the selection of early-maturing varieties that give high quality yields in these areas, the development of appropriate agricultural techniques, improving the quality of varieties and solving the problem of seed selection.

Water, nutrients and the number of seedlings are important factors in increasing the yield of cotton. Therefore, the aim was to study the effect of the feeding area on the yield of promising cotton varieties.

The nutrient content of cotton is a normative indicator in a certain form that can fully meet the biological requirements for a single plant. The smaller the area, the smaller the latitude area in the soil and air for feeding, and vice versa. When finding (determining) the feeding area, it is necessary to determine the root system and leaf size required for a single plant, depending on the size (surface area).

According to N.Urazmatov's researches, in order to get high yields of cotton varieties in the conditions of meadow loam soils, they should be increased to 145-150 thousand / ha in 90 cm row spacing compared to 60 cm row spacing. It was found that instead of that it is necessary to leave 90-95 thousand / ha and take the buds and plant them in the system 90x12-1. In the meadow soils of the Fergana region, it was observed that the Andijan-36 variety of cotton is more suitable for climatic conditions than the Sultan variety(1).

I.Buriev, B.Tillaboev the intensity of opening of cotton buds depends not only on the biological characteristics of the variety, but also on agro-technical measures. Sowing time varies depending on the planting scheme and seedling

thickness. Planting scheme 90x9-1 when the seedling thickness is 120 thousand / ha, the opening of the cocoon is 2.3, 2.9, 1.4 and 1.0% less than in 90x13-1 It is 0.9, 0.1, 1.8, and 3.6% higher than the 60x13-1 (120 thousand / ha) (2).

D.Akhmedova, G.Makhsudova, U.Umarov, F.Gapporov taking into account the soil fertility in the light gray soils of Fergana region, in order to get a higher yield than S-6524, at least 120-130 thousand bushes per hectare 'recommend that they be mutually exclusive(3).

The experiments were conducted in 2018-2019 on light gray soils of Fergana region. For this purpose, S-01 cotton variety was planted on April 21 in different schemes 60x10-1, 60x12.5-1, 60x15-1, 60x20-1 and phenological observations were made. In the 60x10-1 scheme, 160,000 seedlings were left per hectare. The feeding area of 1 plant was 0.06 m². In the scheme 60x12.5-1 the number of seedlings per 1 hectare is 130 000, the feeding area of 1 plant is 0.08 m², in the scheme 60x15-1 the number of seedlings is 100 000, the feeding area is 0.10 m², in the 60x20-1 scheme, the number of seedlings per 1 ha was 80,000, and the feeding area of 1 plant was 0.13 m².

In the experiments conducted in 2018, the sowing date was 21.04, and the mass germination of seedlings was taken into account on 8.05. The analysis shows that the period from germination to ripening of the S-01 cotton variety in the variant planted in the scheme 60x10-1 is 126 days, in the variant 60x12.5-1 124 days, in the variant 60x15-1 120 days , 119 days in the 60x20-1 scheme variant.

In experiments conducted in 2019, the sowing date was 24.04, and in all variants the mass germination was taken into account in 2.05 days.

According to the results of the experiment, the period from germination to ripening in the variant planted in the scheme S-01 cotton variety 60x10-1 is

118 days, in the variant 60x12.5-1 117 days, in the variant 60x15-1 and 60x20-1 it lasted 115 days.

The main indicators of the prospective S-01 variety in different feeding areas were studied: average yield, fiber consumption, total fiber content, weight of cotton in 1 stalk, period from germination to ripening, wilt incidence. When analyzing the results of the experiment in the variant 60x10-1 scheme, the average yield is 35.9 ts / ha, including 21 ts / ha as of 30.09, fiber consumption is 35.8%, the total fiber yield is 12.9 ts / ha. e, the period from germination to ripening of the plant was 122 days, and wilt incidence was 7%. In the variant 60x12.5-1, the average yield is 38 ts / ha, including 25.5 ts / ha up to 30.09, fiber yield 36.1%, total fiber yield 13.7 ts / ha, period from germination to ripening 121 day, wilt incidence 9.5%, in the 60x15-1 variant the average yield was 45.8 ts / ha, including 35.3 ts / ha up to 30.09, fiber consumption 36.7%, total fiber yield 16.8 ts / ha / ha, the period from germination to ripening is 118 days, wilt disease is 11%, the average yield in the variant 60x20-1 scheme is 42.5 ts / ha, including 36.3 ts / ha up to 30.09, fiber consumption is 36.8% , the total fiber yield was 15.6 ts / ha, the period from germination to ripening was 117 days, and the incidence of wilt was 16%.

The results of the experiment show that when 100,000 seedlings are left on 1 hectare of land, the average yield is 45.8 ts / ha, and +9.9 ts / ha, 130 out of 160,000 seedlings. The yield was +7.8 ts / ha more than the variant leaving seedlings, and +3.3 ts / ha more than the variant leaving 80,000 seedlings. According to the analysis of the cotton harvest as of September 30, the average yield per 100,000 seedlings was 35.3 ts / ha, compared to 160,000 seedlings +14.3 ts / ha, 130,000 ko. chat yielded +9.8 ts / ha more than the missed option.

According to the results of experiments conducted in 2018-2019, when planting a promising cotton variety S-01 in the scheme 60x15-1, leaving 100,000 seedlings per hectare, the nutrient area of 1 plant is 0.10 m², which is different from other options. respectively biological indicators were high. It is

recommended to plant cotton in 60x15-1 scheme in light gray soil conditions of Fergana region.

Experiments have also shown that the occurrence of phenotypic changes during the growth and development of the cotton plant depends on the influence of environmental factors. The minimal or maximum impact of environmental factors on the cotton plant leads to various modifications.

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