EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS) ISSN 2660-9630

www.ejlss.indexedresearch.org Volume 13, 2022 ||



Effect of Chasing in Andijan-35 and Uzpiti-201 Types of Cotton in Different Plant Thickness on Change of Leaf Sature

Teshaev Fatullo Jurakulovich, Kamilov Rustamjon Mahamadovich Fergana Polytechnic Institute

Date of Submission: 04-12-2021 Date of Acceptance: 11-01-2022

It is known that the growth and development of cotton depends on climatic conditions, agrotechnical measures, biological characteristics of varieties. If agro-technical measures are carried out in a timely and quality manner, the growth and development of cotton will be improved and the desired yield can be achieved.

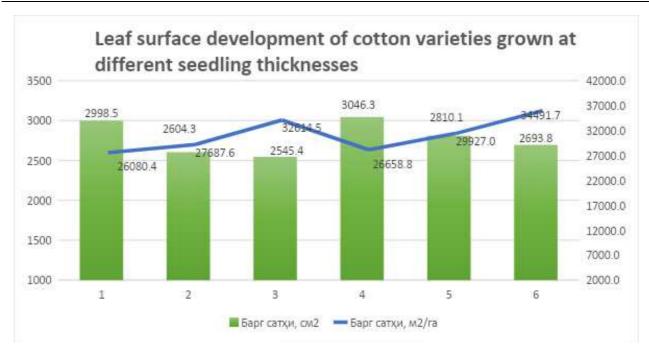
According to H. Egamov, G. Mirkhamidova, O. Kadyrov, the chasing of UzPITI-201 cotton variety is carried out taking into account the thickness of cotton seedlings in a certain area. It is recommended to carry out an average of 13-14 fruiting branches per plant when the seedling thickness is 90-100 thousand bushes per hectare, 12-13 fruiting horns per 110,000 bushes, and 12 fruiting horns per 120,000 bushes. It is said that if the UzPITI-201 variety of cotton is cultivated at a high agro-technical level, in accordance with these scientific recommendations, it will be possible to grow 39-43 quintals of high-quality and early cotton per hectare [6].

It is clear from the above literature that it is necessary to carry out pruning depending on the thickness of the seedlings and the characteristics of the morphobiology of cotton varieties. Therefore, in the conditions of Andijan region, we conducted scientific research on the impact of medium-fiber cotton on the growth and yield of cotton, depending on the seedling thickness of cotton varieties Andijan-35 and UzPITI-202.

Field experiments were conducted on the basis of "Methods of conducting field experiments" (2007), adopted at UzPITI. The results of the experiment were mathematically processed by the method of analysis of variance on the basis of the manual "Methods of field experiment" by BA Dospekhov (1979) [3; 4].

In all variants, phenological observations were made at the beginning of each month, and the effect on the growth and development of cotton was clearly seen in the final results after the pruning.

Andijan-35 cotton variety 80-90 thousand / bush with a thickness of 15-16 seedlings on the twigs, the height of the plant is 101.5 cm, the yield is 13.6, the stems are 4.5, the flowers are 3.1, the nodes are 5. The number of 2 cossacks was 11.0. These figures were observed to be the highest among the other options. 01.09. According to the results of the day's observations, the number of cocoons was 16.9, of which 6.8 percent were open and 6.8 percent were open.



In Andijan-35 cotton variety, it is planned to leave 80-90 thousand bushes per hectare by September. In the background, the leaf level was found to be 2998.5 cm2 per plant and 26080.4 m2 / ha per seedling, while in the UzPITI-201 cotton variety these indicators were correspondingly comprehensive. In Andijan-35 and UzPITI-201 cotton varieties the seedling thickness is 80-90 and 100-110 thousand / bush. In the background, the highest values were found, the plant leaf area was 3046.3-2810.1 cm2, 26658.8-29927.0 m2 / ha per hectare.

In these cotton varieties, the thickness of the seedlings was maintained at 120-130 thousand bushes / ha. In the background, the results close to the above data were obtained, and it was observed that the above laws were maintained.

Hence, we can observe correlation correlations by comparing the plant leaf growth rate with productivity indicators.

Leaf level in UzPITI-201 was higher than in Andijan-35 in all seedling thicknesses. Leaf level in UzPITI-201 was 80-90 thousand bushes per hectare formed, seedling thickness was left at 100-110 and 120-130 thousand balls / ha per hectare, in the background was 31478.5-34380.7 m2 / ha, respectively.

As mentioned, the leaf level is directly related to the seedling thickness, which was reflected when the figures were calculated per hectare. In other words, the leaf level per 1 plant was higher in the areas where the seedlings were less, while the leaf level was higher in the areas where the seedlings were less.

It is known that the pruning agronomic measure is also directly affected the change in leaf level. Calculations in this regard were made in September after the pruning agronomic measure. According to the results obtained, under the influence of cotton varieties and seedling thickness on the leaf surface, the above regularities were maintained. However, slightly different results were recorded as a result of the pruning.

Seedlings of medium-fiber Andijan-35 cotton variety planted as a model were left with a thickness of 80-90 thousand bushes / ha. In the background, the leaf surface is 2862.1 cm2 when pruning on 11-12 branches, the leaf level is 3132.6 cm2 when pruning on 13-14 harvest branches, the leaf level is 3276.2 cm2 when pruning on 15-16 branches 3276.2 cm2, and when pruning is not held 3123.4 cm2.

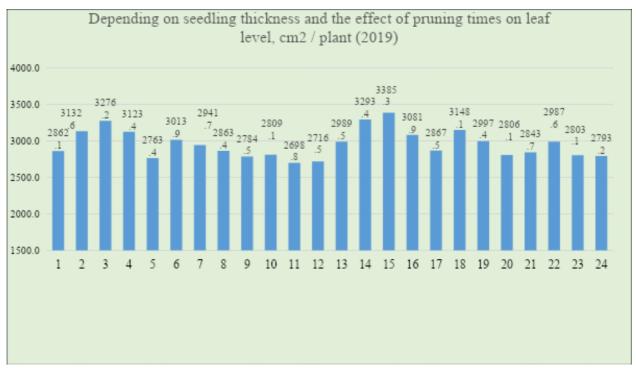


Figure 1. Cotton varieties are cared for at different seedling thicknesses at different times to the leaf surface of the pruning 1 plant cm2. 2019.

Seedlings of this cotton variety were cared for with a thickness of 100-110 and 120-130 thousand bushes / ha. In the background, the level of leaves is 2763.4-2784.5 cm2, respectively, when pruning on 11-12 crops, the leaf level is 3013.9-2809.1 cm2 when pruning on 13-14 crops, 2941, when pruning on 15-16 crops, 7-2698.8 cm2, and 2863.4-2716.5 cm2 in the variants when the pruning was not carried out at all.

UzPITI-201 variety of cotton was planted, 80-90; 100-110; and in the cultivated area with 120-130 thousand bushes / ha left, the leaf surface was 2989.5-2867.5-2843.7 cm2, respectively, when pruning was carried out on 11-12 crop branches, while the leaf level was pruned on 13-14 crop branches 3293.4-3148.1-2987.6 cm2. When the cotton seedlings were pruned on 15-16 fruiting branches, the leaf surface averaged 3385.3-2997.4-2803.1 cm2, respectively. It was also found that the leaf surface in this cotton variety was 3081.9-2806.1-2793.2 cm2 in the variants when the pruning was not carried out at all.

It should be noted that by September, the highest level of leaf level was observed in the UzPITI-201 cotton variety, leaving a seedling thickness of 80-90 thousand bushes / ha. It was found that the background was derived from a variant in which 15–16 fruiting branches were pruned. The lowest level of leaf accumulation was recorded in the variant of medium-fiber Andijan-35 cotton variety, which was pruned on 15-16 crop branches of the cultivated background, leaving 120-130 thousand seedlings.

In conclusion, it can be said that the development of leaf surface in areas with low seedling thickness was found to be higher at the expense of plants in a bush, while in areas with high seedling thickness the seedling count was explained by higher leaf level.

References:

- 1. Bo'riev Ya. Influence of different agroomils on cotton leaf surface change // Journal of Agro-Science, 2013; №3 (27) –B. 20.
- 2. Davronov Q.A. Improving measures to prevent the loss of nutrients in cotton through agrotechnical factors: Autoref. diss. q.x.f.d. Tashkent .: 2019. -28 p.

- 3. Methods of conducting field experiments. UzPITI, Tashkent, 2007, 147 pages.
- 4. Dospekhov B.A. Field experiment technique. –Moscow: Kolos, 1985. –S. 248-256.
- 5. Egamov X, Mirkhamidova G, Qodirov O. Biological, morphological features and short-term agro-techniques of promising cotton variety "UzPITI-201". Proceedings of the scientific-practical conference "Actual issues of increasing the role of research institutes and higher education institutions in improving the efficiency of the agricultural sector of the Republic of Uzbekistan" Book 1 February 22-23, 2018. Pp. 311-312.
- 6. Mirzaeva MA Methods of drying grapes // Universum: technical sciences. 2020. No. 5-2 (74). S.21-23.
- 7. Mirzaeva MA, Rakhmonalieva NN, Kholmatov SN U. STUDYING WAYS OF STORING SEEDS // Universum: technical sciences. 2021. No. 6-3 (87). S. 50-52.
- 8. Mamatozhiev Sh. I., Mirzaeva MA, Shokirova GN INFLUENCE OF PRESOWING TREATMENT TECHNOLOGY ON MOISTURE CONTENT IN SOIL // Universum: technical sciences. 2021. No. 6-3 (87). S. 46-49.
- 9. Mirzaeva MA, Akramov Sh. Sh. U. BIOLOGY OF SUGAR BEET VARIETIES, PESTS, DISEASES AND METHODS OF CONTROL WITH THEM // Universum: technical sciences. 2020. No. 11-3 (80).
- 10. Mirzaeva MA Research of grape seed oil // Oil and fat industry. 2007. No. 1. S. 28-27.
- 11. Mirzaeva MA Akramov ShSHU Biology of sugar beet varieties, pests, diseases and ways to combat them // Universum: technical sciences. 2020. No. 11-3. S. 80.
- 12. Shodmonov Kh.M., Nematova F.Zh. To substantiate the conditions and operating mode of non-versatile clamshell loading when loading raw cotton into transport means. UNIVERSUM :: Engineering sciences. Science Magazine. Moscow, ed. MCNO LLC, 2020 Issue 11 (80), November 2020, part 2.
- 13. Shodmonov Kh.M., Neymatova F.Zh. The influence of mineral fertilizers on the yield of soybean grain. Actual science :: International scientific journal. Volgograd, Research Center "Absolute", 2020 Issue 1 (30), November 2020
- 14. Shodmonov Kh.M., Nematova F.Zh., Akramov Sh.Sh. Efficiency of mechanization of technological processes of harvesting and primary processing of onions. UNIVERSUM: Engineering sciences. Science Magazine. Moscow, ed. MCNO LLC, 2020 Issue 12 (81), November 2020, part 4.
- 15. Ubaydullayev M.M., Ne'matova F.J., The importance of planting and processing of medium-fiedl cotton varieties between cotton rows in Fergana region. The American jurnal of agriculture and biomedical engineering. USA., №3 (09), 2021.
- 16. Ubaydullayev M.M, Ne'matova F.J, Marufjonov A. Determination of efficiency of defoliation in medium-fiber cotton varieties. Galaxy international interdisciplinary research journal (giirj). Volume 9, Issue 11, November, 2021. SJIF Impact Factor: 7.472
- 17. Ubaydullayev M.M. Optimal norms and terms of defoliation in cotton. Monograph. Fergana AL FERGANUS 4.11.2021 https://zenodo.org/record/5722721#.YbIuRNJBzIU
- 18. Teshaev, F. Zh., & Ubaydullaev, M. M. (2020). Determination of effective norms for new defoliants in the conditions of meadow-saline soils of the Fergana region with the opening of bolls of 50-60% of cotton varieties s8290 and s6775. Actual problems of modern science, (5), 62-64.