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Two-Line Cottage Cotton

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Recently, in a number of cotton-growing countries, research has been carried out on the cultivation of cotton with an increased plant density. The purpose of using thickened crops in conditions of a high degree of mechanization of cotton growing is to obtain the largest amount of cotton from a unit area with the least labor and cost, to accelerate the ripening of the crop and improve the quality of fiber.

... COTTON WITH INCREASED DENSITY OF PLANTS

... DIFFERENTIATED INCREASE IN CROP DENSITY IN ZONES OF THE REPUBLIC

... EXPERIENCE ONE CLUSTER

... WITH TWO-LINE SEWA METHOD PER HECTARE MORE THAN 160

THOUSAND PLANTS

... TOTAL RAW YIELD INCREASES

... ECONOMIC PERFORMANCE IN TWO-LINE COTTON CULTIVATION

Experiments are now being carried out in various versions at a plant density of 250 - 300 - 500 thousand plants per hectare and more. To do this, during the pre-sowing soil preparation or simultaneously with sowing, they wear a full rate of mineral fertilizers, treat the crops with herbicides and fungicides. Sow with specially designed cotton seed drills that evenly place bare cotton seeds, one seed per nest. The row spacing is 15 - 25 - 30 - 40, and the distance between plants in a row is 10 centimeters. Vegetation irrigation on thickened crops is carried out by flooding or by underground irrigation. With the help of mechanization, pest control is carried out. The mass cultivation of cotton with an increased planting density will require a radical alteration of seeders, cultivators, harvesting machines, which is still very difficult to solve in practice. Therefore, in our opinion, at present, the main reserve for increasing the yield of cotton is a differentiated increase in the density of standing of cotton against the existing one in different soil and climatic zones and the selection of early ripening, wilt-resistant, high-yielding varieties with the limiting type of branching. [1] Since 2020, in the cluster named after Sakhovatteks in the Shakhrikhan district of the Andijan region, field experiments are being carried out aimed at increasing the density of the cotton plant. In 2020. For example, a two-line sowing was carried out here, in which due to the uniform

zigzag placement of nests in the lines, the optimal plant density, a high degree of mechanization of planting and harvesting were ensured. The purpose of the experiment is to obtain stable high and high-quality better yields with a low cost on the basis of existing agricultural equipment for cultivation and harvesting. Plants were placed according to the following schemes: 90x10x1 and 90 (60x30) x1 The first number 90 is the distance between the outer rows, the second - 10 - between the lines, - 1 - 2 - the number of plants in the nest. The soils of the site are meadow, old-arable. Groundwater occurs at a depth of 2 - 3 meters. Winter plowing was carried out in November.[2] Presowing soil cultivation was completed on April 1. We sowed cotton of the UzPITI-201 variety with ordinary seeds using a specially adapted seeder. Simultaneously with sowing, each hectare was sprayed with a rate of 1.5 liters. With a 90x10x1 scheme, 110 thousand nests are obtained per hectare. The use of a consistently variable number of plants in each nest (2-1-2-1, etc.) makes it possible to increase the planting density up to 165 thousand per hectare, and an increase in the number of plants to two in each nest - up to 220 thousand. Moreover, the nests in the lines were placed in a conjugate-coordinated manner with their mutual displacement in adjacent lines by half of each row spacing. Frequent nest sowing according to schemes 90 (60x30) x1 was carried out with serial seeders. Seedlings were thinned out in the phase of 3-4 true leaves. During the growing season, 4 irrigations were carried out, their timing was set based on the need for cotton in water. The crops were hoed twice and weeded the same number of times, cultivated four times. The minting and defoliation of cotton was carried out in a timely manner. For winter plowing, 70 percent of the annual rate of phosphorus was applied, 250 kilograms of nitrogen and 150 kg of phosphorus were given in three under-edges. The crop was harvested with a cotton picker.

In 2018, in the cluster, the names Sakhovattex, according to the 90 (60x30) x1 scheme, cultivated cotton on an area of 13 hectares, in 2019 already on 60 hectares, and last year - on 110 hectares. For all three years, with the two-line sowing method, 159.7-161 thousand plants were placed per hectare. Despite the fact that the number of bolls on the plant and and the weight were slightly higher in cotton cultivated according to the schemes 90 (60x30) x1 and 90x10-1-2, the total and home-grown yield was higher for two-row crops. [3] This was achieved primarily due to the greater density of plants per hectare. This is clearly seen in the table given by us.

Cotton harvest - raw in the Sakhovattex cluster

Shakhrikhandistrict, c / ha

Sowingscheme	2018			2019			2020		
	Home-rose harvest	Total harvest	Completion dateofharvesting	Home-rose harvest	Total harvest	Completion dateofharvesting	Home-rose harvest	Total harvest	Completion dateofharvesting
90x10-1 90(60x30)-1 76(50x12)-1	29,0 44,2 33,0	33,7 55,8 39,0	8.X 5.X 25.X	28,5 41,2 39,7	31,3 45,0 44,0	10.X 7.X 19.X	30,1 44,2 43,4	34,3 46,5 45,3	13.X 7.X 23.X

The thickened crops had fewer weeds. Plants were less susceptible to wilt disease. It has been established that in cotton of both the UzPITI-201 and UzPITI-203 varieties, the length of the sympodial branches is much shorter when the two-row crops are damped, and the gabistus of the bush is compressed-conical. Here, internodes are also shorter, and cotton lodging is not observed. It

is interesting to note that on the plants cultivated by the two-line method, there are fewer fruit areas, but the percentage of preserved formed bolls is greater. With two-line sowing per hectare, 5-10 kilograms of seeds are consumed more than with the 76 (50X12) -1 scheme and 40 more than with the 90 (60X30) -1 scheme and 40 more than with the 90x10-2 scheme ... But due to a sharp increase in productivity in this case, less labor and funds are spent on the production of a centner of raw material. So, the cost of a centner of cotton under the scheme 90 (60X30) -1 in 2019 amounted to 224 thousand sums, with the scheme 90x10-1, 198 thousand, and 191 thousand sums on two-line basis.[4] Thus, the new method of cotton cultivation differs from the usual schemes by the greater plant density and uniform distribution, which contributes to better use of irrigated hectares, irrigation water and nutrients. The yield with the two-line method is much higher than with conventional schemes, the quality of the crop is better, the harvesting work ends earlier, the cost of raw cotton is lower. There are all the possibilities for mechanizing the processes of sowing, cultivation and harvesting using existing equipment for wide-row sowing. In 2020, the two-line sowing method was introduced by the clusters "Khantex", "Sakhovatteks", "Samoteks", Andijan regions on a total area of about 1,700 hectares. These farms received from 40 to 55 centners of raw material from each hectare, which is higher than according to other plant placement schemes. This year, the Sakhovatteks cluster of the Shakhrikhan region will carry out a two-line sowing of cotton throughout the entire area, and it is planned to sow 1 thousand hectares in this way in the region.

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