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INFLUENCE OF THE TIME OF PLANTING ON THE GROWTH AND DEVELOPMENT OF THE SUNFLOWER

[1]Togaeva Sarvinoz Suyunovna, [2]Ergasheva Nargiza Hoshimjonovna
[1]Doctor of Agriculture sciences, Tashkent state agrarian university
[2]Assistant, Tashkent state agrarian university
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Abstract. *The main way to increase the yield of sunflower is to grow modern tezpishar varieties adapted to the soil conditions of the region for each region. In this scientific article, the main elements of the technology of cultivation of oil sunflower as a repeated crop of high-yielding tezpishar varieties have been developed. The number of seeds in one basket and their weight depend on the time of planting, and the increase in the number and weight of seeds has been proven when the time of sowing seeds is spent in the second ten days of June as a repeated crop.*

Keywords: *sunflower, repeated, crop, term, oil, variety, productivity, early, predecessor, economic signs, seed, seedling, productivity, basket.*

Introduction. The development and introduction of methods of intensive use of land to obtain crops from the field several times a year is a problem of modern agriculture and plant science. Scientific studies have proven that the widespread introduction of some agricultural crops in the system of year-round use of irrigated land is economically efficient. One of the sources of increasing plant production is the expansion of the area of repeated crops, in particular, the repeated cultivation of sunflower varieties in the summer.

Object and method of research. Field experiments were conducted at the experimental station of the Tashkent State Agrarian University in 2018. In the experiment, 4 sunflower varieties "Jahongir", "Rodnik", "Dilbar" and "Navroz" were planted on June 20, July 1 and July 10, with a row spacing of 70 cm, one hectare. 47619 pieces of fertile seeds were planted in the area, N200R80K60. Mineral fertilizers were applied in the amount of kg/ha. [1,3].

Research results and their discussion. Planting time plays an important role in the formation of valuable economic characteristics of sunflower. It is advisable to plant clean seeds with high fertility in order to obtain a high-quality and high yield from cultivated plants.

In Jahangir (st) variety, at the beginning of the growing season, at the planting date of June 20, the number of sunflower plants was 47,612 thousand pieces per hectare, and during the harvest period, the number of plants decreased to 45,713 thousand pieces. During the growth period, 1899 plants died due to various conditions. During the planting period of July 1, 2356 plants died and 45124 plants were saved. On July 10, during the planting period, the death of plants decreased and amounted to 2350 units, and 45190 units of plants were saved. It was observed that such regularity is repeated in "Rodnik", "Dilbar" and "Navroz" varieties studied in the experiment. It was found that the number of seedlings is preserved in the "Dilbar" variety of sunflower in all variants compared to other varieties and variants in the experiment. It was observed that 18.0, 164.0 and 255 more seedlings were preserved in this variety compared to the "Navroz" variety.

Table-1

The influence of planting dates on the number and development of sunflower seedlings

№	Varieties	Planting period	The number of seedlings is 1000 bushels/ha		Sunflower stem height, cm	Number of leaves per plant, pcs	Sunflower leaf surface, (thousand m2/ha)	Basket diameter, cm	Productivity of one plant	
			At the beginning of the growing season	During the harvest season					number of seeds, pcs	seed weight, gr
1	Jahongir (st)	20.06	47612	45713	142,4	26,0	22,4	19,0	801,3	53,0
2		1.07	47480	45124	135,8	24,9	21,4	18,4	737,4	46,9
3		10.07	47540	45190	130,6	23,2	20,4	18,1	617,8	34,9
4	Rodnik	20.06	47460	45595	187,9	26,5	22,8	19,2	895,2	61,3
5		1.07	47476	45102	182,0	25,6	22,3	18,9	780,1	50,1
6		10.07	47460	45085	176,2	24,2	21,8	18,7	606,8	37,9
7	Dilbar	20.06	47618	45713	195,9	30,0	24,3	30,1	920,3	78,5
8		1.07	47618	45237	183,1	29,3	23,3	28,5	865,2	71,7
9		10.07	47616	45235	165,8	28,1	22,4	26,4	860,1	69,2
10	Navroz	20.06	47580	45695	185,5	29,2	23,7	32,4	948,5	74,3
11		1.07	47500	45071	179,7	28,2	22,5	31,6	880,3	67,2
12		10.07	47500	44980	142,4	26,7	21,9	30,2	725,4	53,4

The stem of the variety "Dilbar" was tall compared to other varieties in the experiment in terms of planting dates. When planted on June 20, it was observed that the stem grew tall and reached 195.9 cm, while in late planting options, it grew low, reaching 183.1 and 165.8 cm. The height of the stem of this variety is 53.5 cm lower than that of the control variety "Jahongir" (st) when it was planted on June 20, 47.3 cm when it was planted on July 1, and 35.2 cm when it was planted on July 10. observed. Compared to the "Rodnik" variety, it was 8.0 cm, 1.1 cm taller in terms of planting dates, and in the third option, when planted on July 10, on the contrary, it was found that the Rodnik variety grew 10.4 cm taller. Navroz variety is close to Dilbar variety in terms of stem height, and it was observed that it was 10.4 cm lower in the variant planted on June 20, 3.4 cm lower and 23.4 cm shorter when planted on July 1.

It was found that planting dates have a great influence on the development of leaves on the stem and their number of sunflower varieties. Planting sunflower earlier after cereal crops resulted in an increase in the number of leaves. It was observed that the average number of leaves per plant was 26.0 leaves in the early planting period of June 20, 24.9 leaves in the July 1 planting period, and 23.2 leaves in the July 10 planting period. The number of leaves in the early planting period was 1.0 and 2.0 more leaves than in the late planting period.

This pattern was also repeated in the variants of Rodnik, Dilbar and Navroz varieties studied in the experiment. The number of leaves in the early planting dates of the four cultivars was high (26.0, 26.5, 30.0 and 29.2 pieces) and when planted late on July 10 (23.2, 24.2, 28.1 and

26.7 pieces) was observed to be low. Among the varieties, it was found that Dilbar and Navroz varieties produced more leaves than Rodnik and Jahangir varieties.

According to the research results presented in the table, the "Jahongir" variety was 22.4 thousand m2/ha at the June 20 planting date, 21.4 thousand m2/ha when the planting date was delayed to July 1, and 20.4 thousand m2 when the planting date was delayed to July 10. made up /ha. It was found that the leaf surface decreased to 1.0-2.0 thousand m2/ha in the late planting period compared to the early planting period with high leaf surface area.

According to the results of the research on the parameters of the leaf surface per hectare of sunflower varieties, the highest indicator was observed in the varieties "Jahongir", "Rodnik", "Dilbar" and "Navroz" in the variant with an early planting date (22.4-22.8-24.3 and 23.7 thousand m2/ha).

It was determined that Navroz variety baskets are larger in diameter compared to Jahangir, Rodnik and Dilbar varieties studied in the experiment.

It was found that the next 20th of June will be 32.4cm, 31.6cm in the 1st July and 30.2cm in the third period. The baskets of this variety are 2.3 cm, 3.1 cm and 3.8 cm in diameter compared to the Dilbar variety at planting dates. ha, 13.2 cm, 12.7 cm and 11.5 cm compared to the Rodnik variety and 13.4 cm, 13.2 cm and 12.1 cm compared to the Jahangir control variety, it was observed that the diameter of the baskets was larger.

The number of seeds in one basket and their weight depended on the sowing period, and when the sowing period was carried out in the second ten days of June as a repeated crop, the number and weight of seeds increased. Jahangir control variety in the first option planted early had an average of 801.3 seeds per plant and its weight was 53.0 grams. In the second option, when planted on July 1, there were 737.4 seeds and its weight was 46.9 grams. In the third variant, when planted late on July 10, there were 617.8 seeds and its weight was 34.9 grams. It was found that the number of seeds in the basket is 63.9 and 183.5 less, and the weight of the seeds is also lighter, from 6.1 to 18.1 grams, when the planting dates are delayed from June 20.

In the experiment, the parameters of the yield elements of the Dilbar and Navroz varieties were close to each other and were higher than those of the Jahangir and Rodnik varieties. Dilbar variety, when planted early on June 20, averaged 920.3 seeds per plant, weighing 78.5 grams. On July 1, there were 865.2 seeds, its weight was 71.7 grams. In the late planting period on July 10, 860.1 seeds were planted, the weight of which was 69.2 grams. In this variety, the number of seeds and their weight were 119.0, 127.8 and 242.3 more and heavier by 25.5, 24.8 and 34.3 grams than the Jahangir control variety. Compared to the planting dates of the Rodnik variety, it was 25.2, 85.1, 253.3 more and heavier by 17.2, 21.6 and 31.3 grams.

On June 20, the Navroz variety had an average of 948.5 seeds per plant and its weight was 74.3 grams. In the second term, there were 880.3 seeds, its weight was 67.2 grams. In the third planting period, there were 725.4 seeds and its weight was 53.4 grams. The number of seeds and their weight in this variety was 147.2, 142.9, and 107.6 more seeds and their weight was 21.3, 20.3, and 18.5 grams heavier than the control variety Jahangir. It was found that the number of seeds of the Dilbar variety increased by 28.2 and 15.1 seeds, and on the contrary, in the period of July 10, Navroz variety was 134.7 seeds less and weighed 4.2, 4.5 and 15.8 grams.

Summary

It was found that sunflower variety "Dilbar" in all variants preserves more number of seedlings compared to other varieties and variants of the experiment. According to the results of

the research on the parameters of the leaf surface per hectare of sunflower varieties, the highest indicator was observed in the varieties "Jahongir", "Rodnik", "Dilbar" and "Navroz" in the variant with an early planting date (22.4-22.8-24.3 and 23.7 thousand m2/ha). The number of seeds in one basket and their weight depended on the sowing period, and when the sowing period was carried out in the second ten days of June as a repeated crop, the number and weight of seeds increased.

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