CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 04 Issue: 12 | Dec 2023 ISSN: 2660-5317
https://cajotas.centralasianstudies.org

The Effect of Planting Period And Strategy on Sunflower Variety Yield

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Received 28th Oct 2023, Accepted 29th Nov 2023, Online 30th Dec 2023

Abstract. *the article cited data on the yield of sunflower varieties ertapishar SAMQKHI 20-80 and SUR varieties when planted as a recurring crop on land vacated by Bush grain crops in different (July 1; July 10; July 20) terms and in 70x20x1; 70x25x1; 70x30x1; 70x40x1 CM planting schemes. As the planting period was delayed from July 1 to July 10 and from July 10 to July 20, there was a decrease in yield depending on the variety. In all the planting schemes studied, from 70x20x1 CM to 70x40x1 CM of nutrition there was a good growing development of plants due to the expansion of the area, but due to the low number of bushes at the expense of the area, a very high yield was not obtained on the account of hectares. As planting dates were delayed, the flowering phase of the plants corresponded to the 2 decade of September. At these times, due to the reduction of light days compared to sowing in the period of July 1, the pollination process did not pass in moderation due to the observation of wind, dust dust and precipitation, and at the expense of hectares, the yield decreased by 10-12% for the period of July 1 and 15-17% for the period of July 20. The highest yield in general was obtained in the samqxi 20-80 variety in a 70x30-1 cm planting scheme for the period of July 1 to 33.8 s/Ha. Also for the period of July 1 by the Sur Variety, the highest yield was achieved in the 70x25-1 cm planting scheme with an indicator of 29.5 s/Ha.*

Keywords: *Sunflower, SAMQXI 20-80, SUR, sowing period, planting scheme, yield, variety.*

Introduction

Methodology: The research was carried out at the educational experimental farm of the Samarkand State Veterinary Medicine University of Animal Husbandry and Biotechnologies in the Okdarya District of the Samarkand Region of the Republic of Uzbekistan. The soil in the experimental region is gray and minerally rich. The investigation focused on the first reproduction seed of the early-

season oil sunflower types SAMKXI 20-80 and SUR. In the trial field, as a repeating crop on the ground liberated from fall grain crops on July 1, July 10, and July 20, and 70x20-1, 70x25-1, 70x30-1, 70x35-1 cm., and 70x40-1 cm. planted in planting schemes. A planting pattern of 70x25-1cm was used as a control. The rows were 4 rows, 0.7 m between rows, 20 m long, 56 m^2 for the option. The experiment consists of four returns.

The purpose of the research: The goal of this study is to assess the influence of planting dates and schemes for the sunflower varieties SAMKXI 20-80 and SUR on the productivity of irrigated meadows in the Republic of Uzbekistan.

Today, as worldwide demand for vegetable oil rises, there is an increasing trend in the production of seeds of the major oil crops. Vegetable oil has replaced animal fats in human consumption due to its great nutritional value. On Earth, sunflower is planted on an area of 25.6 million ha [FAO], the average yield is 19.3 s/ha, and the total yield is 51.5 million ha. [4;].

Any agricultural agrotechnological measure should seek to increase plant production and crop quality. A variety of scientific studies have been undertaken all around the world in this area.

On June 20, a seed yield of 36.5 s/ha of the "Dilbar" variety of sunflower was obtained during the early planting season. When the planting date was July 1, the yield was 33.2 s/ha, a loss of 3.3 s/ha, and it was 29.7 s/ha when planted late on July 10, a decrease of 6.8 s/ha compared to the early sowing period. ha, with a drop of 3.5 s/ha found as compared to planting on July 1. [3; 73-81 p].

The early ripening of sunflower types, as well as the production of oil from the harvest, have various indications in different seasons and planting thicknesses. The Pioner variety is cultivated in Tayloq area till July 1, 70x25 cm. li, SamQXI 20-80 variation is available till July 10, 70x30 cm. When planted in the system, it grows well and produces a lot of fruit [2; pp. 15-17].

As a repeating crop, it is recommended to sow seeds of Jakhongir, Sur, and Pioner kinds with a growth time of 70-85 days in fertile ground free of fall grain harvests [1; 26-27 pp].

It is critical to determine ideal planting dates and planting plans for sunflower production in the Samarkand region's meadow gray soils to increase yield.

Sowing dates and schemes, in our experience, had a considerable impact on the seed output of sunflower types. In the varieties planted on July 1, the maximum production of pistachios was in the range of 27.3-33.8 s/ha in the SAMKXI 20-80 sunflower variety. The minimal indication in the choices planted on July 20 was 21.0-27.8 s/ha.

Planting time compared to the options planted on July 1, on July 10, according to the options, on average 3.6; 3.5; 3.4; 3.2 and 2.7 s/ha fewer, and 6.3 on average during the planting period of July 20b, respectively; 6.2; 6.0; It was observed that there was a poor seed yield of 5.8 and 5.7 s/ha.

According to planting plans, the SAMKXI 20-80 variety was the most common in the 70x30-1 option for all planting periods. In harvest, the early [1.07] planting phase averages 33.8 s/ha, the middle [10.07] period averages 30.4 s/ha, and the late [20.07] planting period averages 27.8 s/ha. On July 1, the yield in the 70x20-1 planting scheme was 27.3 s/ha on average, and it was discovered that it reduced by 4.8 [14.9%] s/ha on average when compared to the control. It is on average 1.7 [5.3%] s/ha greater in the 70x30-1 planting scheme than in the control option, and on average 1.3 [4.0%] s/ha higher in the 70x35-1 planting scheme. In the 70x40-1 planting pattern, the average yield reduced by 2.9 [9.0%] s/h compared to the control variation. The similar trend was seen in the middle [10.07] and late [20.07] eras. On July 20,

the variety in the 70x20-1 planting scheme with a feeding area of 1400 cm^2 obtained an average yield of 21.0 s/ha, compared to the control option in the 70x25-1 planting scheme with a feeding area of 1750 cm^2, an average of 25.9 s /ha, on average 27.8 s/ha compared to the variant in the 70x30-1 planting scheme with a feeding area of 2100 cm^2, 27.6 s/ha compared to the variant in the 70x35-1 planting scheme with a feeding area of 2450 cm^2 and a feeding area of 2800 cm^2 and in the 70x40-1 planting scheme option, an average yield of 23.5 s/ha was obtained.

Effect of planting scheme and additional pollination on yield of sunflower SamQXI 20-80 variety planted in different periods [2020-2022]

Planting scheme	Productivity by years, s/ha			Average yield s/ha	Additional yield s/ha	
	2020	2021	2022		According to the planting period	According to the planting scheme
1-July						
70x20-1	28,1	27,6	26,2	27,3	-	-4,8
70x25-1	33,1	32,4	30,8	32,1	-	st
70x30-1	34,8	34,1	32,4	33,8	-	+1,7
70x35-1	34,4	33,7	32,1	33,4	-	+1,3
70x40-1	30,1	29,5	28,0	29,2	-	-2,9
$EKF_{0,5}$	3,04	3,18	3,06			
S_x%	3,28	3,67	3,58			
10-July						
70x20-1	24,4	23,9	22,8	23,7	-3,5	-4,9
70x25-1	29,5	28,9	27,5	28,6	-3,5	st
70x30-1	31,3	30,7	29,2	30,4	-3,4	+1,8
70x35-1	31,1	30,5	29,0	30,2	-3,2	+1,6
70x40-1	27,3	26,8	25,4	26,5	-2,7	-2,1
$EKF_{0,5}$	2,86	2,93	2,80			
S_x%	3,20	3,42	3,29			
20-July						
70x20-1	22,1	21,2	19,7	21,0	-6,2	-4,9
70x25-1	27,2	26,2	24,3	25,9	-6,2	st
70x30-1	29,2	28,1	26,1	27,8	-6,0	+1,9
70x35-1	29,0	27,9	25,9	27,6	-5,8	+1,7
70x40-1	24,7	23,7	22,1	23,5	-5,7	-2,4
$EKF_{0,5}$	2,78	2,89	2,68			
S_x%	3,24	3,65	3,36			

In terms of planting seasons and feeding areas, the yield gained from the SUR variety was determined to be smaller than the yield obtained from the SAMKXI 20-80 variety. In this scenario, the following yields were achieved in the early July 1 planting period, according to planting schemes or feeding area, compared to the SAMKXI 20-80 variety: 2.4 s/ha, 2.6 s/ha, 4.6 s/ha, 6.0 s/ha, and 4.2 s/ha. Low yields were recorded throughout the planting season on July 10 in the following order: 2.1 s/ha, 2.3 s/ha, 4.4 s/ha, 5.8 s/ha, and 4.8 s/ha, and finally on July 20 and during the planting period, on average, 1.9 s/ha, 2.0 s/ha, 4.1 s/ha, 5.4 s/ha, and 4.3 s/ha were less harvested.

Due to the delayed planting dates, the SUR variety's seed output was also reduced. The variation planted in 20 years had the shortest harvest duration in this variety. The seed yield was 2.5, respectively, in the variations of the late July 20 planting date; 2.4; 2.3; It declined by 2.2 and 2.5 s/h, compared to the July 10 planting date; 23.9; 23.7; 22.2; and 19.2 s/ha.

The control variation with the planting pattern of 70x25-1 produced the maximum seed output of the SUR variety. The fall in plant count resulted in a decrease in seed output.

In all planting periods, the lowest seed yield in the 70x40-1 planting scheme options with a feeding area of 2800 cm^2 averaged 25.0 s/ha, 21.7 s/ha, and 19.2 s/ha, respectively. was found to be

Effect of planting scheme and additional pollination on the yield of sunflower SUR variety planted in different periods

Planting scheme	Productivity by years, s/ha			Average harvest s/ha	Additional yield is s/ha	
	2020	2021	2022		According to the planting period	According to the planting scheme
1-July						
70x20-1	25,6	25,1	23,9	24,9	-	-4,6
70x25-1	30,4	29,8	28,3	29,5	-	st
70x30-1	30,1	29,5	28,0	29,2	-	-0,3
70x35-1	28,2	27,7	26,3	27,4	-	-2,1
70x40-1	25,8	25,3	24,0	25,0	-	-4,5
$EKF_{0,5}$	2,96	2,84	2,82			
S_x%	3,59	3,38	3,50			
10-July						
70x20-1	22,2	21,8	20,7	21,6	-3,3	-4,7
70x25-1	27,1	26,6	25,2	26,3	-3,2	st
70x30-1	26,8	26,3	25,0	26,0	-3,2	-0,3
70x35-1	25,1	24,6	23,4	24,4	-3	-1,9
70x40-1	22,4	21,9	20,8	21,7	-3,3	-4,6
$EKF_{0,5}$	2,84	2,72	2,69			
S_x%	3,69	3,44	3,56			

20-July						
70x20-1	20,1	19,3	18,0	19,1	-5,8	-4,8
70x25-1	25,1	24,1	22,5	23,9	-5,6	st
70x30-1	24,9	23,9	22,3	23,7	-5,5	-0,2
70x35-1	23,3	22,4	20,9	22,2	-5,2	-1,7
70x40-1	20,2	19,4	18,0	19,2	-5,8	-4,7
$EKF_{0,5}$	2,62	2,69	2,66			
S_x%	3,35	3,67	3,84			

In conclusion, it was discovered that planting time and feeding area have a major influence on sunflower seed output, and that early planting time on July 1 as a recurrent crop is suitable for both kinds. The SAMKXI 20-80 variety produced the maximum output in the 70x30-1 planting scheme with a feeding area of 2100 cm^2, whereas the SUR variety produced the highest yield in the 70x25-1 planting strategy with a feeding area of 1750 cm^2.

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