

PRODUCTIVITY INDICATORS OF VEGETABLE CORN MEGATON F1 AND MERIT F1 HYBRIDS WHEN PLANTED AT DIFFERENT PERIODS IN THE CONDITIONS OF KASHKADARYA

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ANNOTATION. The article describes the growth and development of the following hybrids in the conditions of Kashkadarya region, grain and silage mass productivity, and changes in the behavior of several other signs and characteristics according to the planting period.

KEY WORDS. Megaton F1, Merit F1, growth, height, leaf length, anthocyanin, pollinator.

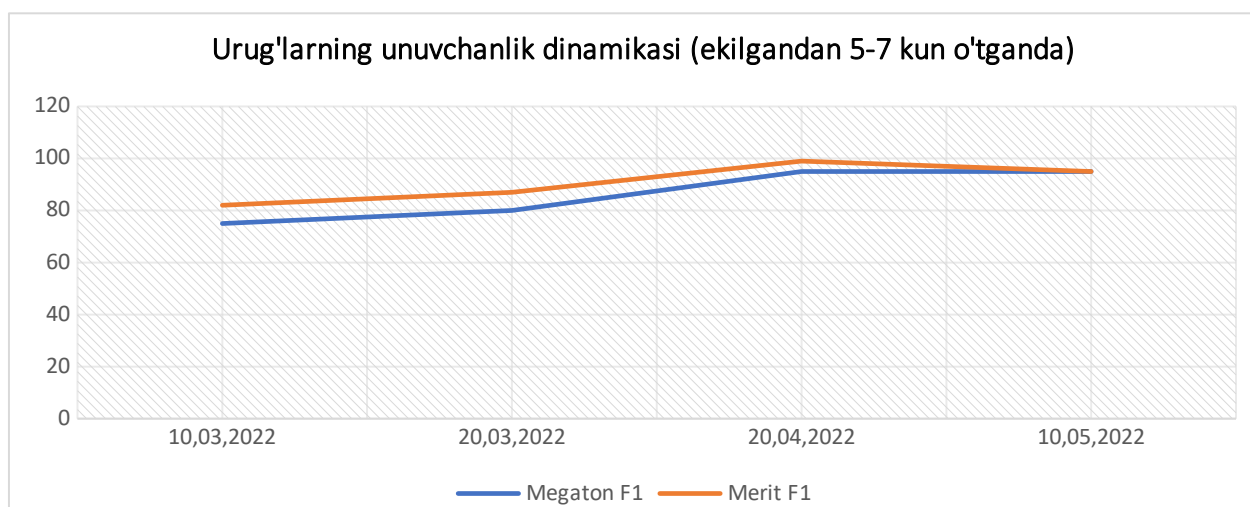
INTRODUCTION. One of the main global problems today is the lack of quality and nutritious food. In the course of our research, we analyzed the vegetable (Shirin) corn crop, which is one of several crops that solve food problems. Sweet corn (*Zea mays* ssp. *saccharata*) is becoming more and more important among the many cultivated subspecies of corn[2,5]. The taste and nutritional value of sweet corn have made it a prized crop in all countries, and the scale of sweet corn production is constantly increasing among the countries of the world. Sweet corn has been a known agricultural crop since the 18th century.

Methods. Field experiments were carried out in the years 2022-2023 in the conditions of light gray soils that have been irrigated since ancient times in the Karshi district of the Kashkadarya region. During the experiment, Megaton F1(st) and Merit F1 hybrids were planted in different periods, and the growth, development, productivity and productivity indicators of plants were carried out in 2 irrigation regimes and 4 fertilization rates. Plants were planted in a 70x20 scheme. Megaton F1(st) is a hybrid heterozygous plant that produces bright yellow full and dense seed pods during pod ripening. When the pods are ripe, they are suitable for consumption, storage and canning. According to the growing period, it

is a medium-ripe hybrid. A plant with a strong root system produces stems that are resistant to falling under the influence of wind. When the plant stalks are mature, 1.8-2 stalks of almost the same size are produced on each cylindrical stem of the same shape. The amount of dry matter in the plant is 28%.

Merit F1 is a sweet corn hybrid suitable for main and repeat crops and requires relatively warm temperatures. For the growth and development of the hybrid, the optimal temperature of the soil is required to be around 22-25 0C. When hybrid seeds are sown in a favorable environment and time of planting, the seeds will produce even lawns in 7-9 days. The growing season is 90-95 days[7]. During the experiment, the seeds were planted as the main crop in 10.03, 20.03, 20.04 and 10.05 at a depth of 4-5 cm. During the planting period, precipitation was observed in March, and the germination process was 7-10 days, and in the remaining periods, 5-7 days, respectively (diagram 1). The process of sprouting took place with the formation of even grasses. In the course of the experiments, when the height of the plants reached 12-15 cm, the treatment between the first row was carried out. In order to fight against diseases and pests, fungicides and insecticides were applied every 20 days during the growing season. So, it can be seen that germination was delayed in both hybrids planted in 10.03. It was found that the Megaton F1(st) hybrid slightly outperformed the Merit F1 hybrid by the germination index even at relatively low temperatures.

1-diagramma



Almost no differences were observed in the seeds sown in the period of 20.03. Germination was found to be 80-81%. When it was planted in the period of 20.04, it was observed that the germination rate was the same in both varieties, i.e. 97-98%. When planted in the 10.05 period, a relatively low rate of germination was recorded due to the lack of moisture in the soil. It was found that when optimal agrotechnical measures are applied to plants, the growth and development is uniform and standard plants are formed. However, it was observed that the fertilizing process of the plants changed according to the planting period.

Discussion. So, based on the results, planting periods had a significant impact on plant growth and productivity indicators. In this case, there was no significant difference in the growth indicators of Megaton F1(st) and Merit F1 hybrids planted at 10.03, in particular, it was found that the average height was 175.7 cm and 177.4 cm, respectively. It was found that the samples planted in the period of 20.03 were 170.9 cm and 173.2 cm respectively. Among the plants among the samples planted during this period, the Megaton F1 hybrid recorded a relative advantage in terms of plant length. The Merit F1 hybrid planted in 20.03 had a low height, that is, an average of 175.2 cm. Among the planting dates, the highest height plants were planted in the 20.04 period, i.e., on average, 172.4 cm and 181.0 cm, respectively. It was found that the Merit F1 hybrid recorded a higher result (plant height) compared to the standard. The period with the lowest result was 160 cm and 165.0 cm, respectively. In addition, it was found that the planting period had a significant effect on the changes in other productivity characteristics of plants, in particular, it was noted that the joint intervals in the plant changed in accordance with the planting period. Among the planting dates, the highest result (long joint spacing) was recorded when planting in the 20.04 period, with an average of 20.4 cm and 18.9 cm, respectively. The shortest joint spacing was 14.2 cm recorded by the Megaton F1 hybrid planted in the period of 10.05. In the Merit F1 hybrid, the shortest joint spacing is 16.7 cm, 20.03. noted when planted in the term. In addition, it was found that the length of the leaves in the plants varied depending

on the planting period, and it was found that the plants with the longest leaves were 73.1 cm and 80.1 cm, respectively, when planted in the 10.03 period. During this period, there was a difference between the length of the leaves of the planted plants, and relatively long leaf plants were recorded in the Merit F1 hybrid. It was found that the plants with the shortest leaf length were 70.2 cm and 75.0 cm when planted in the 10.05 period, respectively. Another productivity indicator is the change in leaf width depending on the planting period. In this case, plants with a high leaf surface were 7.8 cm and 7.5 cm, respectively, when planted in the 10.03 period. It was noted during the experiment that the plants with the shortest leaf width were 6.5 cm and 6.8 cm, respectively, when planted in the period of 10.05. It was also noted that the number of leaves changed when the planting dates were different. In particular, it was found that the plants with the largest number of leaves were 13.0 pieces and 14.4 pieces, respectively, when planted in the period of 20.03. There was no significant difference in the number of leaves in both hybrids planted in this period. It was found that the plants with the least number of leaves were 11.8 pieces and 11.3 pieces, respectively, when planted in the period of 10.05.

Conclusion. It can be seen that the height of the plants has changed according to the planting periods of these two hybrids, along with the other productivity indicators of the plant, and the analysis of the results has been carried out.

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