

DEPENDENCE OF GROWTH AND YIELD OF VEGETABLE CORN VARIETIES AND HYBRIDS PLANTED AS A REPEATED CROP ON SOWING TIMES*Nurillayev I. X.,**doctoral student,**Karshi State University*[*mr.ilhomnurillayev@gmail.com*](mailto:mr.ilhomnurillayev@gmail.com)

Abstract: The article presents the results of studying the growth, development, bush formation, leaf surface area, aboveground and underground parts of plants, productivity indicators, grain yield and silage mass in the selected adaptive hybrid varieties of vegetable corn at different cultivation times in the secondary crops.

Keywords: vegetable (sweet) corn, varieties, hybrids, secondary crop, sowing times, vegetation period, leaf surface area, productivity.

Introduction. Growing sweet corn as a main and repeated crop depends primarily on the correct determination of sowing dates. Spring sowing begins when the soil in the seedbed warms up to 10-12°C. Many researchers note that if planted too early, the seeds will rot, and if planted too late, weeds may overwhelm them. As a repeated crop, it is recommended to sow from June 5 to 20 in different regions of the Republic [3].

As can be seen from the above, obtaining a high and high-quality grain yield from sweet corn depends on the correct selection of its adaptable varieties and hybrids, and determining the optimal sowing dates for growing it as a main and repeated crop, taking into account the biology of the crop.

With this in mind, we conducted a field experiment to study adaptable sweet corn varieties and hybrids as repeated crops at different times.

Field experiments were conducted on the light gray soils of the Turdiyeva Gulzoda farm in Karshi district, which have been irrigated for a long time.

Materials and methods. The purpose of the study was to determine the growth, development, formation of the stem and leaf surface, the formation of the above-ground and underground parts of the plant, productivity indicators, grain and silage mass yields of adapted sweet (vegetable) corn varieties by sowing them as a repeated crop at different times. For this, the selected adapted vegetable corn varieties Yangi hayot, Megaton F₁ were compared with the Sherzod variety included in the state register. The studied varieties and hybrids were sown as repeated crops on 30.06, 10.07, 20.07 and 30.07 in the same order (90x20 cm) and at a planting depth of 5-6 cm. The area of the field was 18 m². The number of repetitions was 4.

All agrotechnical activities, observations, measurements, calculations, and analyses were carried out based on generally accepted methods, regulatory documents, and recommendations [1,2,4,5].

Research results and its discussion. The data show that when studying the growth and leafing of adaptive varieties and hybrids as a repeated crop at different times, when they were repeatedly planted from June 30 to July 10, the growth period was extended by 2-4 days, and the formation of the tallest (173.6-197.0 cm) and leafy (12.0-12.6 units) plants was observed.

When adaptive varieties and hybrids of sweet corn were cultivated as repeated crops at different times, the formation of the above-ground and below-ground parts differed sharply according to the development periods, and the most intensive growth rates were observed in the repeated crop during the dormant period, i.e., from June 30 to July 10. Then the productivity indicators were also high, the number of cobs per bush was 2,0-2,2, the weight of cobs was 311,3-374,6 grams, the weight of grains in one cob was 81,5-170,77 grams, and the grain yield per cob was 82,5-85,0%.

In the 2022-2024 years when the research was conducted, the average grain yield per hectare changed from 4,7 to 7,4 tons when planted as a repeated crop in the experimental variants.

When cultivating adaptive varieties of sweet corn as a repeated crop at different times, the highest grain yield was 5,4-7,4 t/ha, of which 0,7-0,9 t/ha (112,1-116,7 %) was obtained when the additional crop was planted early, on June 30. When sowing on July 10, grain yields were 5,3-7,2 t/ha depending on the variety, which was 0,6-0,8 t/ha or 109,1-114,9% higher than the control. Sowing on July 20 provided a yield of 5,1-7,0 t/ha, providing an additional yield of 0,4-0,6 t/ha or 106,1-111,1%.

Conclusion. In the conditions of the long-established irrigated light gray soils of the Kashkadarya region, it is possible to achieve grain yields of 5,3-7,2 t/ha by planting early (June 30-July 10) corn varieties and hybrids (such as Yangi Hayot, Megaton F₁, Sherzod) as a repeated crop.

List of used literature

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