

Growing Vegetable (Sweet) Corn and Hybrids as a Resowing

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ABSTRACT: The article provides information on the growth, development, productivity of plants and the productivity of vegetable soybeans and grain when growing vegetable (sweet) varieties and hybrids of corn as the main sowing and resowing.

KEYWORD: Main sowing, re-sowing, vegetable (sweet) corn, cultivar, heterozygous hybrid, State Register, corn grain, milk ripening period, stem, growth period, plant height, number of side stems, height of placement of the first corn cob removed from grains, amount stalks per bush, weight of corn cob cleared from grains, productivity of plants.

INTRODUCTION. In countries of the world with continental climatic conditions, the use of effective agricultural technologies in the cultivation of vegetable crops as the main and secondary crop is important to ensure food security and the effective use of existing irrigated areas [7]. In particular, it is urgent to improve the technology of growing vegetable (sweet) corn in Uzbekistan as the main and secondary crop, to determine the optimal sowing time, nutritional norms, fertilization and watering of plants, as well as to conduct research on the selection of commercial and high-yielding varieties and hybrids [5]. In recent years, the country's focus has been on a radical increase in the yield of vegetable crops, product quality and economic efficiency through the effective use of irrigated land through the introduction of scientifically based innovative agricultural technologies in agricultural production [4].

That is why, the purpose of our research is acclimatization, the development of various soil and climatic conditions and technologies for their cultivation at different times and methods, taking into account the biological characteristics of fast-growing varieties, suitable for growing local varieties of vegetable corn and hybrids as the main and auxiliary crop. [3].

The advantages of growing vegetable (sweet) corn in all regions are as follows. Vegetable (sweet) corn is suitable for growing on weak, saline soils, as the main and secondary crop [2]. Due to the short growing season of the vegetable crop, water consumption is reduced in comparison with other crops, soybeans are harvested at the stage of milk-wax ripening, boiled, canned, frozen and consumed [1]. After the stems, the stem of the plant becomes a green and essential nutritious food for livestock due to the high sugar and nutrient content in stems and leaves [6].

THE PURPOSE OF THE STUDY: vegetable (sweet) corn varieties and hybrids were grown as repeat crop, their growth, development, and productivity of corncobs as vegetable were studied and analyzed.

THE OBJECT AND METHODS OF RESEARCH. The object of study was the seed grains of vegetable (sweet) corn varieties Sherzod, Zamin, Mazza, Eureka, as well as hybrids Megaton F1, Sentinel F1, Spirit F1,

Soyan F1, Baron F1. Seed grains of vegetable (sweet) corn varieties were sown on June 10, 70x20 cm as a secondary crop on lands vacated from the main crops, the timing of germination, formation of 1-2-3 petals, panicle, flowering of the panicle, formation of cobs, the beginning of ripening of milk and wax (10%), and full occurrence (75%) were determined. Taken results were processed using Excel program.

RESULTS OF THE STUDY. In the experiment, phenological observations and biometric measurements were carried out on modular plants of a set of varieties and hybrids of sown vegetable (sweet) corn.

The sprout of vegetable (sweet) varieties of corn mainly fell on June 18-20, that is, on the 9-10 th day of sowing. Relatively fast sprout (18-19. 06) was observed in Sherzod and Zamin varieties. And late sprouts were recorded in the Eureka variety (21.06). In addition, when releasing the 1st leaf, the 2nd leaf also maintained an interspecific pattern. Among the studied varieties, selection was observed mainly from July 28 to August 4. Peeling corn cobs, however, was observed in all varieties, mainly on August 8-9 in Sherzod and Erika varieties, and partially later, on August 12-14 in Mazza and Eureka varieties. When milk-wax ripeness was studied in the experiment, the fastest maturation was recorded in the standard Sherzod variety on September 1, and in the other varieties on September 3-8, 2-7 days later than in the standard variety.

In phenological observations on hybrids of vegetable (sweet) corn, early sprouts were recorded on hybrids Sentinel F1(17.06) and Megaton F1 (18.06). Germination was recorded relatively late in hybrids such as Spirit F1, Soyann F1 and Baron F1 (19-20.06). In the hybrids of vegetable (sweet) corn studied in the experiment, the processes of production of the 1st leaf, 2nd leaf, sweeping, as well as milk and wax ripeness proceeded fastest in the hybrid Spirit F1, and milk maturity (as a vegetable) fell on 28.08. In such hybrids as Soyann F1 and Baron F1 (3-5, 09), milk maturation was observed relatively late. The latest daily ripeness was observed in the hybrid Megaton F1(10.09).

Biometric indicators of vegetable (sweet) corn varieties were studied in the experiment and the highest plants were recorded in the varieties standard Sherzod (165.6 cm), Zamin (161.2 cm), Eureka (158.1 cm), as well as in the hybrids Sentinel F1(178.1 cm) and Megaton F1(176.2 cm). The shortest plants were observed in the hybrid Spirit F1 (102 cm),. The location of the first cob was 30.0-34.3 cm between varieties and 15.4-30.3 cm between hybrids. The accumulation was 1-4 pieces in varieties and 1-3 pieces in hybrids. In the studied varieties and hybrids, the number of leaves on the head stem varied from 8.7 to 14.2 pieces. And the intervals between the joints were from 7.5 to 11.4. The highest rates of harvest formation on one bush were recorded in the varieties Zamin (5.3 pcs.), Sherzod (4.9 pcs.) Eureka (2.0 pcs.) and Mazza (2.0 pcs.) and hybrids Sentinel F1(3.9 pcs.) Soyann F1(2.1 pcs.) and Baron F1(3.1 pcs.). Varieties Eureka (2.0 pcs) and Mazza (2.0 pcs) and hybrids Soy F1(2.1 pcs), Spirit F1 (1.8 pcs) were relatively low. No seedless plants were observed in the studied varieties and hybrids.

Productivity. In our experiments we studied the productivity of varieties and hybrids of vegetable (sweet) corn, which differed from each other by weight of cob, number of grains per cob, number of grains per row, number of grains in ear, weight and yield of grain.

In vegetable (sweet) varieties of corn, the weight of one cob is recorded within the intersorts of 245.5 – 314.4 grams. The highest indicator by weight of the cob was observed in the variety "Sherzod" (314.4 grams. In the study of the number of rows of grain in the cob of intersorts, the distance reached 12.8-15.3 rows. The largest number of rows is noted in the Zamin variety. The number of grains in one row of intersort cob increased to 32.5 – 39.7 pcs., the number of grains in one row-to 458.3-526.3 pcs. The weight of grains in one row was 194.1-247.5 grams. the increase in the mass of the cob was 46.4-66.9 grams, the consumption of grain from the cob was recorded from 78.7 to 81.9 % . The highest rates of consumption of grain from the cob were noted in such varieties as Zamin and Sherzod. Of the hybrids studied in the experiment, the highest productivity indicators were recorded in the Sentinel F1, Megaton F1 and the Baron F1 hybrid.

The weight of 1000 grains with the yield index of vegetable (sweet) corn in general for the studied varieties and hybrids was 200.3 – 390.7 grams.

The experiment also studied the mass yield of silage per hectare of vegetable (sweet) corn, while the interspecific and interspecific mass yield of silage was 30.2-35.7 tons per hectare. Due to the fact that the main purpose of growing vegetable varieties and corn hybrids is the cultivation of vegetable cobs, when studying the yield of vegetable cobs per hectare, the highest indicator was observed in hybrids Sentinel F1 (105.2 thousand pcs), Megaton F1 (101.6 thousand pcs) and Zamin varieties (105.3 thousand pcs). The weight of one cob varied between 245.5-370.0 grams between varieties and hybrids. Up to 3.5 – 5.8 tons of dry grain were obtained per hectare of varieties and hybrids. The highest yield was recorded in the Zamin variety (5.8 tons).

CONCLUSIONS. Analysis of the results of our experiments showed that when growing vegetable (sweet) varieties and hybrids of corn as vegetables in a repeating period, you can get 75-105 thousand pieces or 10-12 tons of vegetable corncobs per hectare. If it is grown for seed grains, it is possible to grow up to 5.8 tons of grain per hectare. At the same time, it was noted that 35.1-37.6 tons of succulent forage silage per hectare are produced for livestock breeding. Growing of vegetable (sweet) corn varieties and hybrids as vegetables for repeated period will provide an income of 65-70 million UZS per hectare and a profitability rate of 125-130%.

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