

CULTIVATION OF PUMPKIN CUCURBITA PEPO VARIETIES IN THE SOIL-CLIMATIC CONDITIONS OF KARAKALPAKSTAN

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Farming in agrocenoses for many years with the use of various agricultural technologies and chemicals can negatively affect the indicators of soil fertility (composition and reserves of organic matter in the soil, nutrients, acidity of the soil solution, bulk mass, etc.). In the history of mankind, the development of agriculture is one of the factors determining the center of international culture, and it plays an important role in reducing natural landscapes and, in turn, in changing the ecological balance. Ensuring the sustainability and profitability of agricultural production depends on the effective use of all biological resources in the agrocenosis. In agriculture, based on modern agrotechnologies, it is necessary to study the biological and genetic characteristics of varieties suitable for the agro-climatic characteristics of the region. Adaptation of various varieties to local soil and climatic conditions in agriculture, i.e. biologization and ecologization, requires systematic use of natural, biological, man-made, labor and other resources. The balance of agroecology in the agrocenosis is an important factor in the formation of species and varieties of cultivated plants [5,6].

The greening of the intensive farming process is aimed at increasing productivity, environmental sustainability, and the efficiency of using the resource energy of agrobiocenoses. These factors of biological activation ensure the full and effective use of favorable environmental factors, allowing for high productivity, environmental sustainability and profitability of agrobiocenoses [1,3]. Agrocenosis consists of rational use of the soil, maintenance of its fertility, development and implementation of technologies appropriate to natural conditions. Tillage, fertilization and other indicators that are elements of agriculture based on varieties adapted to soil and climatic conditions have a positive effect on the biological, agrophysical and agrochemical properties of the soil. Therefore, the use of reclamation technologies that effectively use the resources of the biocenosis is of great practical importance in soil fertility management [7].

The maintenance of soil fertility is ensured by the introduction of excellent agricultural technologies in the care of plant varieties that are maximally adapted to the natural conditions of the region. The most important component of the productivity indicator for soil layers is its agrophysical and chemical state. When the water-physical and agrochemical properties of the soil are optimal for plant development, the process of metabolism and energy is activated, which has a positive effect on productivity. Also, the rapid flow of biological processes in the soil leads to a significant reduction in the cost of agrotechnical tillage, increasing the efficiency of the use of agricultural machinery [2,3].

The Cucurbita pepo family includes 90 genera and about 900 species, and the Cucurbita family includes 21 species [6]. According to T. E. Ostonakulov, 6 pumpkin species belonging to the genus Cucurbita are cultured, and the rest are wild [6]. In Uzbekistan, 3 types of pumpkin

(Cucurbita pepo) are cultivated and many varieties of subspecies belonging to these species are grown. According to the morphological features of Cucurbita pepo, the bark is hard, the structure of the stem has ribs and ribs, and the leaves separating from it are dark green with five leaflets. Vegetative organs such as leaves and stems, as well as the fruit strip are covered with hard spikes. Some pumpkin varieties belonging to this type also include long-stemmed plants. The fruit of Cucurbita pepo pumpkin is smaller than the fruits of other species, egg-shaped, yellowish-golden or pale yellow in color, has a striped pattern. The shape of the fruit consists of many varieties that differ from each other in size and shape.

The shape of the fruit consists of many varieties that differ from each other in size and shape. The fruit stripe has a pointed, prismatic shape. Pumpkin with hard skin consists of four subspecies, including pumpkin with a long stem, bushy pumpkin, decorative pumpkin and wild pumpkin [4,5].



Pumpkin variety Shirintoy of Takhiatashsky region (05.06.2022)

The following phenological observations, measurements and calculations were performed in experiments: - phenological observations and biometric measurements; - the influence of applied agrotechnical measures on the growth, development and productivity of pumpkin varieties under the influence of environmental factors has been studied; - the germination of pumpkin seeds was observed under the influence of agroecological factors; - periods of development of pumpkin varieties under the influence of agroecological factors (leaf formation, leaf budding, branching, budding, flowering); - periods of fruiting and ripening of pumpkin varieties.

The growth, development, maturation rate and productivity of pumpkin are determined by the temperature of the soil and air, humidity, illumination and its spectral composition, mineral nutrition, soil conditions, and seed germination begins at 9-10 ° C. When the temperature drops below 9-10°Sown seeds can rot on the ground or give scant shoots. For this reason, it is not recommended to plant pumpkin seeds too early – before the soil warms up. The favorable temperature for seed germination is 20 ° C, seedlings appear 5-6 days after sowing. If the temperature drops during the growing season, the growth and development of the plant slows down. When the temperature drops to 12-15 ° C, their flowers fall off. With an average daily

weather of 0 ° C, the herbs of polypose crops completely die, and when the temperature drops to 3-5 ° C, even adult plants are affected. According to the results of the conducted studies, too high air temperature has a negative effect on plants. Zucchini has a large leaf surface, and especially during the period of strong growth, the transpiration coefficient is very high, equal to 834 mm. ecological features of the pumpkin variety of Breadth, proper management of the water-physical and organic properties of the soil, i.e. moderate use of mineral fertilizers, improvement of nutrition conditions ensure a high-quality harvest. Also, in terms of the content of mineral salts, vitamins and medicinal properties, it is an acceptable dietary product. At the same time, pumpkin is an industrial, nutritious product, and high economic efficiency can be achieved by processing it and manufacturing various products.

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