

Structure and Types of Poly Vegetables

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Abstract: In this article, the structure and types of vegetable crops, as a result of the study of vegetables, students will learn the biological characteristics and varieties of the main vegetable crops, the modern technology of their cultivation in open and protected lands, and the types, structure, function of protective structures, requirements for the quality of products, purchasing characteristics. acquisition of technologies of transportation and temporary storage of vegetables, new proposals about the timing of planting of Polish crops are determined depending on the weather conditions.

Key Words: Fruits, tubers, cabbage, onions, tubers, stems, leaves, buds, roots.

Enter Vegetables are juicy, fleshy and tasty (fruits, tubers, tubers, bulbs, tubers, stems, leaves, buds, roots, etc.) edible herbaceous plants. A branch of plant science that deals with growing them is called horticulture. This network has directions such as open field vegetable growing, protected land vegetable growing, policing, and seed growing. As a result of studying horticulture, students learn the biological characteristics and varieties of the main vegetable crops, acquire the modern technology of growing them in open and protected areas, the types, structure, function of protective structures, requirements for the quality of products, purchasing characteristics, transportation and temporary storage of vegetables. must Functions, purpose, origin and characteristics of vegetable gardening. Vegetable crops are grown everywhere in our country and occupy about 1% of the total arable land. However, according to the amount of total production per hectare, vegetables are in the first place in plant science.

As a branch of agriculture, the main tasks of vegetable growing are as follows: to fully meet the needs of the population and processing industries for vegetable products, to expand the variety of vegetables, to ensure the population's demand for vegetable products at the same rate throughout the year and improve the quality of products.

In order to fully satisfy the population's needs for vegetable products, it is necessary to increase their cultivation. This can be achieved by reducing the cost of products and increasing productivity while reducing manual labor. For this purpose, the expansion and specialization of vegetable growing, strengthening of its technical resources, the introduction of mechanization into production, the use of accelerated technology of crop care, the way to the destruction of the product in care, harvesting, transport, transportation, storage and sale. should not be put. The role of policing in agriculture. Farming is an important branch of agriculture. As a science, he studies the morphology, biology and technology of high-yielding crops (watermelon, melon and pumpkin) and theoretical and practical methods. Watermelon, melon and pumpkin are characterized by their extreme demand for heat, light, soil softness and the content of nutrients. 6.2 mln. planted per hectare, 142.4 mln. tons of gross crops are grown. China, Turkey, India, USA, Iran, Egypt, Spain are the countries that produce polys products.

Since the soil and climate conditions of Uzbekistan are favorable for growing crops, they have been cultivated since ancient times. Melon has long been the most important and favorite product of the peoples of Central Asia due to its high nutritional value and taste. Melons of Uzbekistan are distinguished from other crops not only by their good taste, but also by their ability to be transported over long distances and stored. Melon is native to Central and Asia Minor. People's breeders created many varieties and local varieties of melons, which are very different from each other. Especially in Uzbekistan, the regions of Khorezm, Bukhara, Tashkent and Fergana are the centers of melon cultivation. However, until 1991, policing in Uzbekistan was considered as a secondary branch of agriculture. Lands with low productivity or where there is no possibility of growing other agricultural crops are allocated for cash crops, their areas are small and

scattered. As a result, those who did not have the opportunity to use advanced technology began to disappear.

Nowadays, thanks to the changes taking place in the agriculture of our republic, attention has also been paid to policing. Especially in the era of market economy, when food is a problem, it is also required to increase the production of high value crops such as watermelon, melon and pumpkin. In Uzbekistan, the current area of field crops is 52-55 thousand hectares with a yield of 120 ts. it is planned to deliver to tons. For this, the police of Uzbekistan faces the following tasks: - to restore and expand the area of rare varieties of melons that are disappearing and rarely cultivated; - increasing the yield of rice crops by using modern technology in specialized farms; - strengthening of selection works in the field of policing and improvement of seed yield; - improvement of the methods of storage and processing of Polish products. Importance of polys crops. Fruits of polys crops are used fresh for consumption and as raw materials for processing in industry, and as juicy food for livestock. In addition, the importance of their treatment has been known in folk medicine since ancient times. The fruit of polys crops contains carbohydrates that are well absorbed by the human body. The reason why watermelon is sweet is that the fruit contains a lot of fructose (low amounts of glucose and sucrose).

Most khoraki watermelons contain up to 13-14% dry matter, of which the sugar content is 10-12%. Hashaki watermelon contains 3-5% dry matter and 1-3% sugar. Melon fruit usually contains the largest amount of sugar among the fruit crops, some hard-fleshed summer melons contain up to 18% of sugar, mainly in the form of sucrose (glucose and fructose are equal). Dry matter content of pumpkin fruit (in some varieties of pumpkin) is up to 26.8%, and sugar content is up to 13.8%. In addition, various vitamins (B1 - thiamin, B2 - riboflavin, PP - nicotinic acid), ash elements and organic acids (apple, amber, lemon, etc.) are found in the fruit of polys crops. China ranks first in the production of vegetables and fruit products (202-205 million tons or 170 kg of vegetables per capita, 100 kg of watermelons). Countries with developed vegetable production are India (68-75 million tons), USA (34-36 million tons), Turkey (17-21 million tons), Italy (12-15 million tons), Russia (11.5- 14.2 million tons), Japan (11-13 million tons), Iran, Mexico, Spain, France, Indonesia (6-11 million tons), etc. Annual production of vegetables per capita is 230-250 kg in Italy, 150-160 in Poland, 130-145 in the USA, 120-140 in Japan, 90-100 in Ukraine, 86-94 in Russia.

Various products are made by processing the fruit of polys crops. For example, you can make honey, jam, candy and all kinds of sweets from watermelon. Honey (molasses) and melon rind are also made from melon fruit. Polys crops store a large amount of oil in their seeds (25-30% in watermelon and melon seeds, and up to 50% in pumpkin seeds). If, on average, 22 tons of melons are harvested from one hectare of land, the yield of oil is 90-100 kg/ha. Oil is extracted mainly from the seeds of pumpkin, and partly from the seeds of melons and watermelons. 600-700 kg of oil per hectare can be obtained when pumpkin varieties with soft skin and smooth seeds are planted. The fruit of polys crops is also of great importance for medicine. In the folk medicine of Central Asia, melon fruit has been used since ancient times in the treatment of tuberculosis and bronchitis, anemia and diseases of the body, heart, nerves, atherosclerosis and liver. Watermelon meat and juice are recommended for treating anemia, anti-inflammation, expelling bile, and treating diseases of the liver and cardiovascular system. Pumpkin flesh contains easily digestible sugar, which is used in the treatment of kidney, liver and cardiovascular diseases. Pumpkin flesh is anti-inflammatory, and seed extract is also used as an anthelmintic. Polys crops are also of great importance as fodder.

Raw and crushed fruits, as well as watermelons and pumpkins, which can be stored well throughout the winter, are given to livestock as juicy food. The agrotechnical importance of polys crops is also great. They are not picky about the soil, they are not demanding on the topography of the land, they are resistant to drought and salt, they can be grown even in dry conditions without irrigation (especially watermelon and partially melon). Although some types of pumpkins are grown in small quantities in Uzbekistan - pumpkins with a hard skin such as pumpkin, nos pumpkin, chilim pumpkin, stone pumpkin, pumpkin, nos dish, chilim, various toys and lyuffa (pot washer). can be used for various household purposes. Botanical description. Polys crops are an annual herbaceous plant belonging to the Cucurbitaceae family. Polyz crops are arrow-rooted, consisting of main and lateral roots. At a depth of 15-40 cm in the soil, secondary and third-order side roots emerge from the main root. The tap root of watermelon can penetrate to a depth of 1 m, but the main lateral roots grow in the arable layer of 20-25 cm of soil. Watermelon roots can occupy up to 7-10 m³ of soil with their spread. The roots of the melon are structured and located like those of the watermelon. It is

only relatively weakly developed. The main roots can penetrate to a depth of 60-100 cm. Late ripening varieties of melon have a strongly developed root system compared to early and mid-ripening varieties. Pumpkin roots are more developed than watermelon and melon roots. The main roots of the pumpkin penetrate to a depth of 2 m, the lateral roots reach a radius of 2-5 m. According to most of the received data, the total length of the main roots reaches 57.5 m in a watermelon bush, 32 m in a melon, and 171.5 m in a pumpkin.

In the early stages of growth, the roots of polys crops develop strongly compared to the above-ground parts. Therefore, they cannot be propagated by transplanting or transplanting. In general, the growth, development and spread of roots in polys crops depends on the type of soil, mechanical composition and depth of seepage. Famous scientist K.I. Pangalo writes in his work "Origin and development of poliz crops" that the first descendants of poliz crops were liana (creeping) perennial plants. At present, there are shrubby and herbaceous plants in the field crops. However, most of the cultural species grow mainly as grass. In most types of vegetable crops, the stems are thin and long, but only in pumpkin (especially large-fruited) the stems are well developed, thick and strong. In some pumpkin plants, the length of the main stem and even the side stems exceeds 10 m. The length of the main stem is 4-5 m in watermelon and 1.5-2 m in Central Asian melons. Non-palak species and varieties are also found among polys crops. For example, zucchini, patison, thick-skinned pumpkin, Takhmi, Bush varieties of melons, and Kustovoy, Desertnyy royal varieties of watermelon. Types and varieties of polys crops differ in leaf shape, size and color. However, the leaf surface is very large in all polys crops. For example, one bush of watermelon can have 2000 leaves, one bush of pumpkin can have a leaf surface of 30-32 m². Watermelon leaves are gray-green in color, the leaf band is long, deeply cut, 3- or 5-lobed, and young leaves are covered with dense hairs. Watermelon has alternate leaves like other citrus crops. In melons, the leaf bands are long, not very deeply cut around them, covered with hairs, round or kidney-shaped. Zucchini has large leaves, long bands, different shapes, colors and hairs depending on the species and varieties. Polys crops differ in the types of flowers, location, methods of pollination and fertilization. Watermelon has 3 types of flowers, male, female and hermaphrodite. Most varieties have male and hermaphrodite flowers, and some varieties have both male and female flowers. Such flowering plants are called monoecious and monoecious. In most varieties of melon, the female flowers are bisexual. Some varieties of melons have separate male and female flowers. Large-fruited watermelon and melon varieties have hermaphrodite female flowers, and long-fruited varieties have flowers of separate sexes. Pumpkins mostly have single-sex flowers, only in some cases bisexual flowers are found, they do not bear fruit, or even if they bear fruit, they are seedless. In a watermelon, male and female flowers are located separately, and male flowers are larger than female flowers.

Grouping of crops. The Cucurbitaceae family includes 100 genera and about 1100 plant species that grow in the tropical and subtropical regions of the globe. The most important of these are watermelon (*Citrullis edulus* Pang.), melon (*Cucumis melo* L.), three types of pumpkin, large-fruited pumpkin (*Cucurbita maxima* L.), hard-skinned pumpkin (*Cucurbita pepo* L.) and nutmeg. pumpkin (*Cucurbita moschata* L.). This family also includes the following less common and less important species: Luffa or (boiler) (*Luffa* Mill.) - grown in tropical and subtropical climates, fresh young fruits are fried and cooked until they turn blue. You can make bath wash from fully ripe fruits. Chayot or Mexican cucumber - (*Sechium edule*). This crop is grown as a perennial crop in the tropical zones of South and Central America, Africa and Asia. The taste of its fruit is similar to zucchini, and the quality of its tubers is similar to that of potato tubers. Snake cucumber (*Trichosanthes anguina*) is common in India and Sri Lanka, and young fruit buds are eaten fresh and cooked. Pumpkin (*Lagenfsia siceraria*) is common in India and Central Asia. Young fruit pods are cooked and eaten, and fully ripe fruits are used as dishes.

Conclusions and suggestions:

Tasks before Uzbekistan and the world vegetable industry. First: Increasing the productivity of vegetable crops and reducing their cost. Second: Eliminating seasonality in providing the population with vegetables. Third: Expand the variety of vegetables and improve their quality. The following are the tasks that hinder the regular production of high-quality crops and increase the efficiency of vegetable growing in our republic:

1. Although the climate and soil conditions allow the cultivation of various vegetable plants, there are no more than 20 types of vegetable crops. Expanding the assortment of vegetables not only meets the growing needs of the population, but also the demand of foreigners coming and going to our country and living here, and enriches the potential of the industry.
2. The lack of farms specializing in a certain type of crop reduces the level of mechanization of production processes and increases the need for manual labor.
3. Wide use of high-yield heterozygous hybrids in horticulture.
4. Use of organic and mineral, nitrogen, phosphorus and microbiological fertilizers depending on the type of crop, soil properties and planned harvest. Application of potassium fertilizers.
5. Use of new progressive methods (drip irrigation, rain irrigation, etc.) rather than just irrigation of crops.
6. Timely and high-quality implementation of production process activities, eliminating shortcomings in the introduction of technologies. Application of advanced methods in preparation of seeds for sowing.
7. Fight against weeds, diseases and pests based on differentiated methods. Adequately carry out seed contamination.
8. The prevalence of various diseases of polys crops, especially fusarium wilt disease in melons, and the development of effective measures against it.
9. Extensive use of dry and hilly lands in the foothills, where polys crops produce good yields.
10. Expanding the area of unique melon varieties and increasing the export of products to the world market.
11. Achieving the use of modern economical techniques, seeds, fertilizers and effective means of protection in the main and repeated cultivation of crops.

In order to increase the production of vegetables, potatoes and sugarcane products, it is necessary to implement quality changes in these sectors. For this purpose, it is necessary to increase soil fertility with the help of intensification factors and to fully use the agrobiological and productive potential of plants. Because the highest factor is bringing the components of production such as soil - plant (variety, seed) - technology - chemistry - melioration - organization - human into a single whole. It is recommended to create and produce modern technologies by science and technology in order to use factors that accelerate crop formation. As a result, productivity and product quality will increase, and the level of utilization of all positive opportunities of vegetation and climatic conditions will increase.

Central Asia is the center of origin of cultural melons. Melon was grown here in the 4th century BC. Our unsurpassed freshness, long-term storage, long-distance transportation, hard-fleshed summer and mainly autumn and winter melon varieties were traded to many foreign countries in the Middle Ages. Melon has long been grown in large areas of irrigated agriculture in various valleys and oases of Uzbekistan. As a result of natural and purposeful selection in these latitudes, various forms and specific varieties of melons, which differ from each other in terms of biology and economy, have emerged. Currently, about 160 varieties of melons are grown in our country.

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