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TECHNOLOGY OF GROWING TOMATOES IN GLASS AND FILM GREENHOUSES.

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Annotation *Methods of planting tomatoes and their advantages, as well as methods for increasing their yield using new methods.*

Keywords. *Tomato planting methods, planting dates, their effective use, ensuring food security, and improving soil structure***.**

The demand for varieties and hybrids, the technology and conditions of cultivation in protected and open areas differ significantly. This leads to the use of varieties and hybrids suitable for these conditions and meeting specific requirements. Therefore, cucumber varieties and hybrids are divided into those grown in open and closed fields.

Special first-generation heterosis hybrids are mainly used for cultivation in fallow lands, and varieties that do not meet production requirements are used less frequently. Varieties and hybrids are distinguished by the presence of varieties and hybrids grown year-round, adapted to winter-spring and transitional crops, as well as spring-summer crops and wintering with short days and low light, as well as long days of spring-summer months and high whiteness (when the duration of bright days is doubled, the light increases by 10 times). Varieties and hybrids in this group must be resistant to high abrupt changes due to their low productivity.

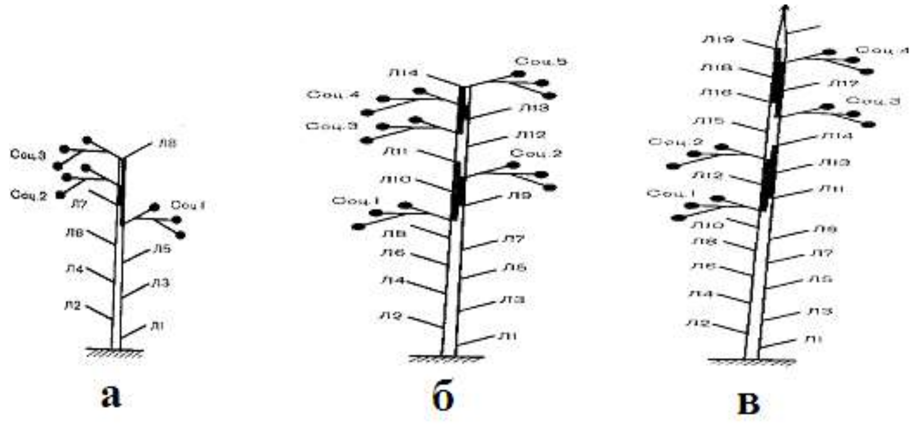
Varieties and hybrids grown in spring greenhouses (summer crops) have high growth and yield formation characteristics. For this crop, it is very important that it be able to withstand temperature drops, swelling, and temperature variability, since the possibilities of climate regulation in unheated greenhouses are limited and there are cases of swelling. Resistance to fungal and viral diseases is very important for this crop. During these periods, bee-pollinated and parthenocarpic hybrids are typically produced. When grown in the winter-spring period, plants grow and branch more vigorously than in winter, therefore the costs of shaping them increase. Therefore, it is important for this crop that the varieties begin branching on their own. There are three types of branching:

1. Slowing down (inhibition) of branching - due to the predominance of apical ridges. Branches are mainly formed when the cotyledon growth point is cut.

2. The slowing of branching is mainly the result of the simultaneous formation of several fruit tubers. Branching mainly begins after harvesting the cotton stalks.

3. On branches with mutual branching, the branches formed due to the formation of 2-3 segments and the cessation of growth (determinant type), self-shortening. A distinctive feature of environmental conditions is the high humidity of the air in late autumn and winter, excessive swelling in late spring and summer, the rapid accumulation and development of diseases and pests, and significant changes in environmental conditions during one cycle. Therefore, tomato varieties and hybrids grown in harvested areas must be well-adapted to specific growing conditions. The correct selection of varieties and hybrids is of great importance for obtaining high tomato yields in greenhouses. Certain specific requirements are imposed on greenhouse tomato varieties and hybrids. They should be productive, early-ripening, and resistant to diseases.

Their fruits should be high in commercial quality indicators (weight 80-100 and higher), produce good yield in poor light conditions, have large and shaped petals, as well as be uniform on the plant, uniform in color, without a bluish base at the junction of the fruit stem, resistant to long-distance transportation, and have good taste. Such requirements are met by local greenhouse varieties Subhidam, Gulqand, and Ava-Mariya. Their place was taken by high-yielding, long-distance-resistant first-generation hybrids of foreign selection.In the selection of varieties and hybrids for various rotations, the type and determinant of the roots are an important indicator. For long-term rotations (intervals) and winter-spring seasons, indeterminate variety hybrid plants produce up to 20-25 flowers when grown for a long time.



1. Scheme of leaf and inflorescence arrangement on the head of superdeterminant (a), determinant (b), and semi-determinant (c) tomato varieties.
2. Super-determinants - after the formation of 2-3 panicle flowers on the main stem and cessation of growth, the first panicle flowers appear after 6-7 leaves, while the rest appear after 1-2 leaves or overlapping.
3. Determinants - 4-6 Limits growth after flower formation. The first inflorescence develops after 8-9 leaves, followed by 1-2 leaves.

Indeterminate tomato varieties grow continuously and unlimitedly, forming a strong base up to 1.5-5 meters tall. Their distinctive feature is the ability to flower and bear fruit throughout the growing season. Typically, these are considered mid-late and late-ripening varieties. Their advantages are high and uniform yield, and ease of formation on a single stem. Among indeterminate varieties, several groups can be distinguished based on their speed and intended use.

Indeterminate varieties include the local Ava-Mariya greenhouse varieties. Most of the foreign greenhouse hybrids regionalized in Uzbekistan are indeterminate. In determinant tomato varieties, stem growth stops after the formation of 3-5 inflorescences and formalization in the last inflorescence at the tip of the stem. Determinant varieties can be short or medium-sized (40-80 cm). These varieties are distinguished by their speed and smooth yield.

Determinant hybrids have a number of advantages during a short rotation period. Firstly, due to the appearance of the first inflorescence in the lower part of the plant, it is important from a biological point of view (the day after the appearance of the flower, the time it takes for the first fruit to ripen), as well as from a economic point of view due to the dense arrangement of flower clusters on the stem (in the first month of the fruiting period).

Secondly, the formation of 2-3 times more inflorescences per stem length allows for the efficient use of greenhouse space. Besides these, they are resistant to favorable conditions and diseases. The disadvantage of populations of determinant varieties and hybrids is their unevenness in terms of product formalization and fruit size. Indeterminant and semi-indeterminant varieties of tomatoes are mainly grown in greenhouses, while determinant varieties are usually grown under film coatings.

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