



STUDYING THE EFFECT OF TOMATOES ON THEIR FERTILITY WHEN GROWN FROM SEEDS AND SEEDLINGS

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ABSTRACT

In this article, the effect on the fertility of tomatoes when grown from seeds and seedlings was studied. Recommendations for its care were made.

INTRODUCTION

Although the word tomato is used in scientific terminology mainly by the name of tomato, in Uzbekistan both the plant and the fruit are “pomidor” and among the people it is referred to as “pamildori”. In addition, the word tomato is derived from the Italian word “pomo d’oro”, which also means “Golden Apple”. It is also known as “tomato” in English, Japanese, Korean, “arbe a tomates”, “tomate arbustive” in French, “tomatobaum”, “zbaumtomate”, “baumtomatenstrauch” in German, and “tomate” in Spanish.

Some sources also find that tomatoes are an annual plant, which they once called “apples of paradise”. In fact, we can say that tomatoes got this name due to their amazing taste, flavor, medicinal properties and nutritional properties. [1,4]

According to historical sources, the homeland of tomatoes is the territories of the countries of Peru, Ecuador and Chile of the South American continent. [2] nowadays, a huge number of varieties of tomatoes are widely grown in different countries of the world as one of the main nutrients. We want to talk in this article about the impact on productivity when growing tomatoes from seeds and seedlings and how it is cared for.

METHODS

This article made extensive use of methods of historicity and objectivity. On the topic, we used the books of our Republic and foreign scientists, scientific articles.

RESULTS AND DISCUSSION

It is necessary to emphasize separately, tomatoes are a heat-loving plant. For its normal growing development, it is considered acceptable that the temperature is 20-25 °C, the relative humidity of the air is 40-65%. Growth slows down when the temperature drops from 15 °C, and stops growing altogether at 0-1 °C, with the plant dying at -1, -2 °C. Extreme temperatures (35 °C) also negatively affect the growth and development of the tomato plant. Also, tomatoes are a light-loving plant, and when grown in a shady place not forming fruit.



Tomato is currently one of the most widely grown vegetable crops in the whole world due to its valuable and dietary properties. To date, more than 1,000 different varieties of tomatoes have been created, which are grown in open and protected areas (such as greenhouses). For example, in 2009, about 4.4 million hectares were planted in the world, producing 153 million tons of gross crop. The main tomato producing countries are China (45.4 million tons), the United States (14.14 million tons), India (11.15 million tons), Turkey (10.7 million tons), Egypt (10.0 million tons). Tomatoes are also one of the main vegetable crops in Uzbekistan. In 2010, tomatoes were grown in Uzbekistan on an area of 75,000 hectares. 70% of the gross crop was processed. 10-15% were realized in the domestic market, 15-20% were exported.

Separately, we must note that when growing tomatoes from seeds, as well as when growing from seedlings, its choice of varieties is first of all considered an important factor in increasing productivity.

At first, tomatoes are required to have information about them before buying varieties. For example, it is better for residents living in the northern region to choose tomato varieties that ripen mainly earlier. Because, under such conditions, late-yielding tomatoes can only be grown in a closed way. In the southern regions, however, any varieties of tomatoes can be harvested in the garden.

Also, in order to get a good harvest of tomato seeds, it is worth paying attention to the following factors:

- The percentage and speed of germination of seeds depends on the shelf life. If we compare sweet peppers and tomato grains, then the storage life of the first does not exceed three years. And the storage life of tomato seeds is five years. The manufacturer always indicates the storage life on the packaging. It should be noted here that the longer the seeds are stored, the slower they germinate. If there is a choice, it is better to buy freshly packaged tomato grains.

- Seed storage conditions are a very important factor affecting the percentage of germination. The optimal storage conditions for tomato grains are considered a dry place with an air temperature of about +18 C. Of course, it is impossible to find out how tomato seeds were stored until they hit the store counter. However, if the paper packaging indicates exposure to moisture, poor twisting, or the presence of any defects, then the storage conditions will be violated.

- When growing tomatoes from seeds and seedlings, their fertility is also affected by the land being planted. For this reason, it should not be planted after crops such as potatoes, eggplants, which are susceptible to pests — a disease that occurs in tomato plants. Tomatoes can be grown in one field and planted again after three years.

When growing tomatoes from seeds, we recommend following the following when increasing their impact on fertility.

1. When a tomato is planted from seed in the ground, it is required to give the seed a hint at its germination. There is nothing difficult in this matter. It is enough to place the tomato grains in a warm place, placing them between two layers of gauze or any natural cloth, on a tray. The fabric should be soaked from time to time, but not filled with water.



2. Germinated tomato seeds should be planted carefully so as not to damage the germination. If everything is done correctly, after a few days it will appear on the surface of the soil.

3. There is also a method of growing a tomato seedling grown from a seed, first using polyethylene bottles. In this case, the top and bottom of the polyethylene bottles are cut off, and the cylinder (short tube) is dressing. After planting each tomato seedling in a prepared pit, a polyethylene cylinder is placed on top of it, which is slightly dipped into the ground. This method serves to keep the seedling from winds, pests. If the weather conditions change and a stream of cold air is expected to arrive, the top of the cylinder is closed.

When growing tomatoes from seedlings, we recommend following the following when increasing their impact on productivity.

Before planting tomato seedlings in a permanent place and in an open ground area, it is necessary to adapt them to this. We can adapt seedlings grown in greenhouses in the following way:

- the first four days open the greenhouse 2-3 hours a day during the day.
- in the next four days, the greenhouse is opened for 10-12 hours a day during the day.
- for the last four days, the greenhouse is left open both during the day and in the evening. (unless the cold suddenly falls). [3,16]

When growing tomatoes from seeds and seedlings, attention should be paid to the following when increasing their impact on fertility:

The best time for planting a tomato seedling is a cloudy day, and in open and sunny weather, it is better to plant it in the evening. An hour before planting, the seedlings are thoroughly watered, the land on which the seedlings are tamed for planting is also thoroughly moistened and put in them by mixing a couple of glasses of humus. When planting a seedling in an open ground area, it should be planted deeper than the previous one.

For planting, tomato seedlings of 40-45 days are selected. Their stems and roots are developed, the leaves should be healthy, dark green in color. To combat diseases, the seed is heated to 50-52°C for 48 hours and 80°C for 24 hours before sowing.

The first processing of plants begins after the seedlings are caught, that is, 10-12 days after planting. In this, the soil between the seedlings is loosened. 12-15 days after the first care, the second water is given. After the soil matures, it is chopped once again. In this, the Earth is cleared of weeds, loosened, the soil is pressed around the seedling. In order for the tomato to give a rich harvest, the layer on which its roots are located must be supplied with air.

Tomatoes are a water-demanding plant, watered 18-20 times during the growing season in deep-lying areas of sizot water. Sizot water is watered 12-15 times on the ground where the surface is located. After the onset of autumn, the crop is watered less often.

CONCLUSION

It is advisable to tie a sprouted seedling with a thread, increasing the effect of tomatoes on their fertility, both from seeds and from seedlings. When tying, you should not tie the root by pulling it hard. The tip of the plant is wrapped around the thread every week, wrapped around the transverse as it grows to the top.



Such methods are most often used in greenhouses. But it can also be applied in open fields. Because this method does not lead to a decrease in productivity by touching the ground of the crop.

References:

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