



CULTIVATION OF THE MELOTRIA (MELOTRIA SHCABRA) CROP

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Article history:	Abstract:
Received: 24 th September 2023 Accepted: 20 th October 2023 Published: 28 th November 2023	In recent years, consistent reforms have been carried out to effectively use land and water resources, increase the volume of production and expand the geography of exports. At the same time, the increasing quality and safety requirements imposed on products in the world market require additional measures to strengthen the position of products grown in our republic in international markets [3]. There is also research on the organization of work on this subject on the basis of accurate scientific results. This article details the Botany of the unconventional melotrian crop, the geography of distribution, the biology of growth and development, The Agrotechnology of care and product cultivation, the features of the organization of agrotechnological processes and the optimal deadlines for conducting.

Keywords: melotria, biology, cultivation, care, seed, sowing time, yield.

Melotria shcabra is a moth of the family Cucurbitaceae. Its homeland of origin is equatorial Africa and currently grows wild. Today it is a common crop in Africa, USA, Europe, Japan, Russia.

BIOLOGY. A temperature of +20+24°C is necessary for the growth and development of the plant, Young sprouted seedlings grow even at a temperature of +10°C, and older plants at a temperature of +15°C.

Melotria shershavaya is an annual, herbaceous plant that forms many side branches on a 3 m Main Stem. The leaves are pointed and triangular in shape, the fruits are small, 1.5-2.5 cm long, usually light green [1].

Melotria leaves are similar to cucumber leaves, only smaller. The bright yellow flowers are dioecious: the maternal flower is separate, the paternal flower will consist of several in one place. Melotria blossomed fruit from may until the onset of cold days. The leaves retain their green color until late autumn, as opposed to cucumber leaves. Melotria plant palagi develops much more energetically.

In addition to the fruit, the plants produce root tubers up to 300-400 g.in shape and taste they resemble a bat. The fruits ripen very quickly, so they are picked every day.

This crop is suitable for cultivation in areas supplied with fertile water with Meadow-swamp and rich soil. Melotria propagation is mainly grown by seedling method from seed or by direct sowing from seed into the ground.

CHARACTERISTICS. There are many useful properties of melotria. Regular consumption of melotria helps to improve the functioning of the pancreas. Melotria fruit is very low in calories and is considered a dietary crop. 100 g of fruit contains 14 kcal. In addition, it absorbs quickly into the body. Melotria is a type of plant that removes excess fluid from the body. Taking into account this feature, it is recommended to eat this vegetable for people who are prone to body swelling. Regular consumption of melotria fruit normalizes blood pressure [2].

Due to the presence of fiber in the fruit, it helps to remove slags and cholesterol from the body. Therefore, melotria fruits can serve as the best prevention for constipation.

The fruit is long, weighing 10 g. The yield of one bush is 4-5 kg, as well as up to 400 grams of root nodules are formed, and a single bush produces 1.5 kg of nodules.

In the food industry, not only the fruit, but also the rhizome can be used. The taste of the root fruit is similar to cucumber and radish. They are mainly added to salads. Melotria fruit can be used raw, marinated and salted. The chemical composition of melotria fruit includes: proteins, carbohydrates, fiber, vitamins (B₉ and C) and minerals (potassium, calcium, magnesium, sodium, phosphorus, iron).

In the food industry - its fruits can be eaten raw. In processing - it is used in the production of various canned products.

The period of ripening of the fruit depends on the variety and biology of the hybrid, on average it is 60 - 65 days. In the conditions of Uzbekistan, fruits begin to ripen from May.

Requirements for the soil climate. Melotria grows well in well-drained, fertilized dark grasslands rich in organic matter. Saline and swampy lands are not very suitable for planting. Melotria crop can not be planted after cucumbers, watermelons, melons, pumpkins, pumpkins and patisson crops. Planting tomatoes, potatoes, onions, cabbage, legumes, green peas and carrots before planting this crop will also give good results. Brussels sprouts can not be planted after cabbages, lettuce, rutabagas, truffles, turnips, radishes, horseradish and resins. Melotria can be planted

again after at least 2 years.

For every 1 ha of open area seed consumption is 4.5-5.5 kg/ha of seeds.

MAINTENANCE TECHNOLOGY. Melotria can be grown from seeds and seedlings. Cassette, peat or polymer trays with a size of 10x10 cm are used for growing melotria seedlings in the spring season. Preparation of seedlings begins at the end of February and the first ten days of March. Cultivation of melotria seedlings in peat saturated with macro- and micro-fertilizers gives good results. It is possible not to use mineral fertilizers.

In order to obtain even and complete seedlings, it is required that the quality of the sown seeds is not lower than I class, the germination rate in the field is 90% or higher, and the germination power is also high. 1-2 seeds are planted in each pot. 16–20 days after the seeds germinate, the tubers are spread. In this case, 250-300 seedlings are placed per 1 m². This is done so that the seedlings can enjoy the light well. It is necessary to reserve seedlings (15–20%) to be planted instead of diseased, damaged, stunted seedlings.

It is necessary to be very careful when watering the seedlings, they should not be allowed to get too wet or the soil to dry out, it is better to do the watering in the morning on clear days.

A high-quality seedling should have 4-5 leaves and be 8-10 cm high. During the care of the seedlings, the diseased among them, the tender seedlings, which are too far behind in growth, are removed.

The appearance of the first two green leaves in seedlings and lowering the air temperature to 13-16°C during the day and 11-13°C at night ensures high quality of seedlings. After that, it is necessary to keep the air temperature around 20-24°C on clear days, 18-19°C on cloudy days, and 16-17°C at night. The relative humidity of the air should be kept around 60-70 percent.

In the spring planting season, 25–30-day-old seedlings of melotria are planted in April, and cultivation is carried out in the same way as for planting from seeds.

Melotria seeds are sown in open fields in the southern regions on April 1–10, in the regions located in the central region on April 10–20, and in the northern regions on April 20–30. It is planted in the open field in the scheme (140+70)/2 x 50-60. Melotria is planted from seed to a depth of 4-5 cm.

Germinated seedlings are harvested for the first time after entering the cotyledon period, and for the second time after entering the cotyledon period. Between the rows, at a depth of 15-16 cm, it is necessary to soften with the surrounding of the plant, give mineral food and water. After every two to three waterings during the growing season, the rows are loosened to a depth of 15-16 cm.

480 kg of ammonium sulfate, 220 kg of ammophos, 150 kg of potassium chloride fertilizers are applied to the melotria crop on 1 hectare of land. In terms of water demand, melotria is in the first place among vegetable crops. During the period of tuberization and fruiting, melotria requires a lot of water. It is irrigated 14–15 times during the vegetation period, 10–11 times with seepage water in deep lands, and 8–9 times in surface areas.

The yield from the melotria crop depends on its varieties and hybrids, climatic conditions, soil fertility, the weight of the obtained fruits, the planting scheme and agrotechnology of cultivation. If 15.8-19 thousand seedlings are planted per hectare, the total yield is 10-12 tons

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