ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-5206, Impact Factor: 12,23

American Academic publishers, volume 05, issue 07,2025

Journal: https://www.academicpublishers.org/journals/index.php/ijai

APPLICATION OF INTENSIVE TECHNOLOGIES IN GROWING WATERMELON VARIETIES

Saloyeva Gozal Sayfiddin qizi

Head of the Laboratory of the Department of Selection of Vegetable and Melon Crops of the Navoi Scientific Experimental Station of the Scientific Research Institute of Vegetables, Melons and Potato Growing.

Bakhshilloyev Golibjon Gaybullo ugli

Head of the Department of Agrotechnics of Vegetable and Melon Crops of the Navoi Scientific Experimental Station of the Scientific Research Institute of Vegetables, Melons and Potato Growing.

Esanov Farhod Farmonovich

Director of the Navoi Scientific Experimental Station of the Scientific Research Institute of Vegetables, Melons and Potato Growing.

Nazarov Nizomjon Nazirjon ugli

Deputy Director for Scientific Work and Innovations of the Navoi Scientific Experimental Station of the Scientific Research Institute of Vegetables, Melons and Potato Growing.

Abstract: This article provides information about the varieties of watermelon grown in our republic, the cultivation of early watermelon varieties, and several intensive methods for extending the period of consumption of fresh watermelon products throughout the year by the population, and establishing watermelon consumption earlier than usual throughout the year.

Key words: Mulch, watermelon, Oriental delight, Shirin, Koziboy, Miramir, film cover, tunnel, decade, heat-loving.

Watermelon crops are thermophilic, as they originate from South Africa. Watermelon seeds begin to germinate at +14-16 °C. When the temperature drops below this, the seeds rot in the ground and rarely germinate. Therefore, watermelon crops cannot be planted too early - before the ground warms up. The optimal temperature for seed germination is +20 °C. The temperature can fluctuate around +15-32 °C during the day. At such a temperature, seedlings will begin to appear 5-6 days after sowing. A decrease in temperature delays the germination of seedlings. The optimal temperature for watermelon growth and development is +25-30 °C. If the temperature drops to +12-15 °C, the flowers of the crops fall off, they stop growing and gradually dry out. 0 °C or -1 °C completely destroys the seedlings of watermelon crops. If the temperature drops to +3-5 °C, even adult plants are damaged. Despite the fact that watermelon is an extremely thermophilic plant, it is not very resistant to heat. The protein in the leaves

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coagulates at +45-50 °C. However, since the transpiration process in watermelon is extremely intensive, the plant cools down.

This increases its heat resistance to some extent. 47 varieties of watermelon are zoned in the State Register of the Republic of Uzbekistan, of which 15 are local, the rest are foreign varieties. Currently, such varieties of watermelon as Shirin, Sharq ne'mati, Dilnoz, Ko'ziboy, Holler, L-64, Miramir are grown in the territories of our Republic. To obtain a bountiful and high-quality watermelon crop, it is necessary to use seeds with a variety of at least 99% and germination of at least 90-95%. Before planting, the seeds are soaked in a 5% solution of table salt. As a result, the dark and large fractions of the seeds sink under water, and the small and immature seeds float to the surface. The seeds that remain under water are removed, rinsed in clean water and dried until the moisture evaporates. Heating the seeds at +40-50 °C for 4-5 hours increases the resistance of the seeds to diseases, as well as the number of mother flowers, which has a positive effect on increasing the yield.

To increase the germination capacity of the seeds, it has been scientifically proven that soaking them in a 0.5-1.0% solution of copper sulfate for 1 hour before sowing increases the yield by 13-14% and seed germination by 8.7%. Methods for extending the period of consumption of fresh watermelon products by the population of our republic throughout the year:

1. Using various methods of growing a fairy-tale product.

2. Introduction of late-ripening varieties suitable for longer storage and improvement of storage methods.

There are several intensive methods for extending the period of consumption of fresh watermelon products throughout the year by establishing the consumption of watermelons earlier than usual throughout the year. Methods of growing early watermelon products include mulching the soil, planting the crop from seedlings, planting seedlings and seeds under temporary film covers, and growing in protected heated and unheated greenhouses.

There are several intensive methods for extending the period of consumption of fresh watermelons throughout the year and establishing the consumption of watermelons earlier than usual throughout the year. The methods of growing early watermelons include mulching the soil, planting the crop from seedlings, mulching seedlings and seeds under temporary film covers, and growing in protected heated and unheated greenhouses.

The first method is mulching the soil. Mulching is carried out simultaneously with sowing seeds or after sowing. In this case, a film is covered over the rows of crops and its edges are covered with soil. After the emergence of the crop, holes are made in the film so that the plants can emerge from the surface. The plants are left on the film throughout the entire growing season and removed after the harvest. In this method, the crop is sown one to two weeks before the date of planting in open ground. Mulching the soil with seedlings also gives you the opportunity to get a fabulous product.

The most effective way to accelerate watermelon cultivation is to plant the crop from seedlings in open ground, this is the second method, and most of our farmers use this method. The resulting trenches are covered with a white film as mulch. The film is perforated every 70 cm. Phosphorus fertilizer is diluted in the perforated areas. To prepare the diluted phosphorus, 2 kg of amorphous fertilizer is added to 10 liters of water, boiled and dissolved. The prepared

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solution is mixed in 10 liters of water and poured into each hole at the rate of 1 liter. 100 kg of phosphorus fertilizer is used per hectare of area. 7100 seedlings are planted per hectare.

The third method. Mulching from seedlings under a temporary film-cover. For growing under temporary film-covering, early-maturing, short-stemmed, disease-resistant varieties of watermelon are used. Specially prepared 35-45-day-old seedlings are planted and covered with a single-layer polyethylene film. Immediately after planting seedlings in the ground or sowing seeds, it is necessary to begin installing a film cover in the form of a tunnel. A strip with an irrigation furrow running through the middle of each tunnel covers two rows of crops. The width of the tunnel is 160-180 cm, the height is 60-70 cm, and the length (50-60 m) depending on the conditions.

The space between the strips is 180-190 cm, which is left open and serves as a corridor. Later, the plant's foliage is placed in this corridor.

The fourth method - when 30-35-day-old seedlings are planted in areas cleared of grain, the crop is harvested no later than late autumn. Late varieties have a long shelf life after harvesting. In the first method, the crop is harvested in the third decade of June, in the second method in the first half of June, and in the third method in the third decade of May. In the fourth method, which is planted in a repeated period, the fruits ripen in the third decade of September and are harvested in bulk. Of course, the ripening period of the fruits varies depending on the weather, soil conditions, planting dates, and the early or mid-ripening of the varieties.

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