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The Technology of Germinating Hot Peppers From Seedling as a Secondary Crop

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Annotation: In production, practice, literary and scientific articles there is no information on planting and gathering harvest in the fields freed from the main crop.

Based on the experience, dehkan landowners and farmers can use the following recommendations as a secondary crop.

Introduction of innovations in the article is a source of income, along with the rational and efficient use of land resources.

Key words: Replanting, hot peppers, tomatoes, family, bell pepper, capsaicin, substance, vitamins, spices, tropical, spices, ripening period, yield.

Hot pepper is an annual and perennial plant in the tomato family (Solanaceae Capsicuum). Bitter and sweet peppers are distinguished by the amount of bitter substance in their composition. Rich in vitamins is considered to be unmatched within vegetables in terms of their aromatic taste.

This vegetable crop is native to central and South America and is grown as a spice crop in the warm and tropical States of the globe. Today, on 44 million hectares of the world, hot peppers are planted and 68.3 million tons of dressing are obtained. The average dressing is 15-20 tons. Hot peppers can be obtained 1 kg of dry pepper from 5 kg of whole fruit.

The majority part of this production is grown in Indonesia, China, and Mexico. 90% of the resulting product is processed and exported to foreign countries for large-scale use in the direction of fragrance supplier (aromatizer), perfumery, medicine. Hot pepper fruits can be eaten raw in abundance. When technical ripeness, the amount of dry matter is 8.2% Sugar-2.0%, acids-0.13% vitamins C -64.5 Mg, when reddening or biological ripeness, the amount of the above indicators increases. It is widely used in medicine due to its richness in various vitamins and acids necessary for the human body.

In the period of the Soviet Union, when cotton was ruled by the sole government of the republic, this vegetable crop was not given much importance, so it was planted in small areas in the farms and yielded at a low level.

After the independence of our republic, the interest in vegetable crops increased. Special attention was paid to hot peppers among vegetable crops. Therefore, this plant was applied to the production of new early-fruiting varieties. Today, by the help of skillful farmers and farms harvest 22-25 tons of this plant.

One of the urgent issues of today is to increase the source of income by planting a repeated crop on the fields empty of grain in our republic and replenishing the assortment of vegetables in the markets. Farms are the first task for landowners to grow high-quality vegetables and fill market stalls with high-quality and cheap products. This increases competition in the market. It leads to an increase in income.

In our experience, we tried to create a yield as a repeated crop by growing seedlings of hot pepper varieties at the Andijan experimental station in order to make good use of the areas freed from grain.

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The experiment was conducted in 2022-2023. Local hot pepper varieties were selected for the experiment. These varieties have been cultivated in practice for several years.

Margilan-330 is a medium-ripened 120-130-day yield from 13 to 15 tons, the bush is low, medium-leaved fruits are singly, elongated, conical, and turn red when ripe.

Uchkun was created at the Scientific Research Institute of Vegetable and Potato Cultivation of Uzbekistan. It has been included in the State Register since 2015. The average growing period is 115-120 days. The height of the bush is 60-65 cm, the fruit is conical and long, with a semi-bitter taste, weighing up to 22-26 tons.

We tried to harvest Margilon and Uchkun varieties of hot pepper as a repeated crop on the fields free from spiked grains. Special trenches are prepared for the purpose of growing seedlings for conducting experiments. The trenches are 50-60 cm deep, 1.0-1.5 m wide, 2 m long. a nursery will be prepared on the account. A 20-25 cm thickness of unrotted manure, cotton waste, and wood shavings is placed in a specially prepared nursery and thoroughly moistened and mixed. A 20-25 cm thick layer of clean, weed-free soil is spread over it. The composition of the mixture consists of 40% rotted manure, 20% wood, rice husks and some sand. Prepared trenches are moistened from time to time, and after 3-5 days, seeds are sown.

Since our experience is to harvest as a repeat crop, the seeds are sown in the first ten days of April. Sown seeds were covered with humus 2-3 cm thick. Since the temperature was moderate at the beginning of April, the nursery was covered with a film at night. The soil in the nursery was kept at 80-85% humidity. Sown seeds germinated in 8-10 days. The 1st feeding is carried out when sprouted seedlings have 4-5 leaves. In suspension feeding, 10-15 g of ammonium nitrate, 20-25 g of superphosphate and 12-15 g of potassium fertilizers were used per 10 l of water. An area of 3.0-3.5 m2 was fed with 10 l of fertilizer. After 5-6 days (picrovka), the spacing of seedlings was thinned to 5-6 cm. Agrotechnical activities such as loosening and watering of seedlings were carried out.

The 2nd feeding of seedlings was carried out after 10-12 days. In this case, the rate of fertilizer used in the 1st feeding was increased by 1.5 times.

The next feeding was carried out one week before taking the seedlings to the prepared field. Care was continued until the seedlings in the trenches were 10% pruned. When the plant is 60-65 days old, it is planted in a previously prepared area.

Taking into account the place of hot pepper in alternating planting, the area freed from cabbage was prepared at the level of demand. During soil preparation, 30 tons of rotted manure, 50% of the annual norm of phosphorus, and 50% of potassium were given. It was used to extract 25% of nitrogen and phosphorus from fertilizers. Fertilization was determined based on soil conditions as follows: **N120, R100, K80.**

Seedlings were taken to the field on June 10 and planted. The field prepared for planting is irrigated to its satisfaction. After planting, irrigation is organized on the same day.

Phenological observations were carried out continuously throughout the experiment. The total productivity was determined by taking into account the growth of the stem, the number of branches, flowers, the length of the stem before entering the harvest, the number of fruits, technically ripe fruits and harvests. Monitoring was carried out every 10 days on 10 plants. The experiment consists of 2 options, 4 returns.

Irrigation should be given special importance in pepper cultivation technology. Because pepper is moisture-demanding, soil moisture should be 75-80%. If there is a lack of moisture in the soil, the flower buds will fall off. This plant is watered 12-14 times in soils with deep seepage. Especially during the ripening of fruits, its demand for water increases. Feeding is appropriate if it is carried out in compliance with the norms of fertilizer as indicated above.

We paid special attention to the location and compared the varieties planted in 2 different schemes. In the next feeding, when the plant blooms and bears fruit, fertilizing is done at the rate of 200 kg of

nitrogen fertilizer in the middle of fertilizing. if drainage along with water is organized, moisture in the soil is well preserved. The assimilation of mineral fertilizers available in the soil is accelerated. The plant grows vigorously and productivity increases. Fruit quality improves. The fruits ripen technically in 30-35 days from the day of the production of the nodes in the seedlings planted in the field. When technically ripe, the medium-sized fruits are green in color and have a pleasant aroma. You can eat green fruit.

Productivity of hot pepper planted as a recurrent crop Scheme 1

Species	Planting Scheme	The height of the plant sm	Number of horns PC	Number of flowers (PC)	The length of the stem before entering the harvest (SM) is cm	Number of fruits (PC)	Texnikyetil-gandameva soni (dona)	Umumiy xosildorlikt/ga
Uchqun	70x30-1	20	10-12	14-16	65	22-24	28	18-20
Marg‘ilon-330	70x40-1	18	8-10	12-14	60	18-20	24	16-18

From the data presented in the table, it can be seen that the advantage of the Uchkun variety over the Margilon-330 variety, which has been cultivated for many years, has been clearly demonstrated in the development phases. These indicators are reflected in the table. The main reason for the difference in the productivity of the 2 varieties observed in our experiment is that the Uchkun variety, which is planted closely, showed its good sides in the practice introduced for production.

As with all types of crops, the planting pattern is very important in vegetable crops. When placing crops, the nutrition area between plants is of great importance for the uniform growth and development of plants. From a scientific point of view, physiological processes such as photosynthesis, respiration and water intake and polishing are considered to be the main factors in increasing productivity. Therefore, in our experiment, we studied the effect of the spacing of seedlings, that is, the planting scheme, on productivity.

As can be seen from the table, when the pepper seedlings planted as a repeated crop were planted in the 70x30 scheme, the morphological appearance of the seedling was not observed, such as excessive branching and leaf shedding. Such conditions are clearly visible in the Margilon 330 variety planted in the 70x40 scheme. So, the process of thinning the plants caused the main stem to grow, its side branches to grow, and the leaves to thicken. Such a situation caused the plant to enter the harvest later and reduce the total yield.

Any new variety will use its full potential for 4-5 years before showing many years of experience. Later, such characteristics in the variety will decrease. This situation is characteristic of all varieties and has been proven in scientific literature and in practice.

The conclusion from the experience is that hot pepper can be harvested in fields free from grain instead of being planted in specially allocated fields from early spring. All you need is interest and a little skill. Based on the numbers covered in the article, you can get a good harvest of hot pepper and get profit.

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