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TECHNOLOGY OF GROWING SWEET PEPPER IN GREENHOUSES

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ANNOTATION

All spice (Latin appiit Capsicum) is an annual plant native to Central America (Mexico, Guatemala). A valuable vegetable crop is also known in Uzbekistan as Bulgarian pepper (Bulgarian). After the discovery of the American continent, sweet pepper quickly spread throughout Europe and Asia. Pepper first began to be cultivated in Spain and Portugal in the 15th century, and then spread to Italy, Algeria, Asia and the Mediterranean countries in the middle of the 16th century. From this period, the pepper was known to other Asian and African countries by the Portuguese. Sweet pepper was brought to Russia in the 16th century through Turkey and Iran. It is important that sweet pepper was first grown on the territory of Uzbekistan by Bulgarian peasants in the vicinity of Tashkent.

Keywords: sweet pepper, vegetable, bell pepper, soil, air, nutrition, harvest period, variety, planting date.

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ТЕХНОЛОГИЯ ВЫРАЩИВАНИЯ СЛАДКОГО ПЕРЦА В ТЕПЛИЦАХ

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АННОТАЦИЯ

Перец душистый (лат. appiit Capsicum) — однолетнее растение родом из Центральной Америки (Мексика, Гватемала). Ценная овощная культура известна в Узбекистане также как болгарский перец (булгарский). После открытия американского континента сладкий перец быстро распространился по странам Европы и Азии. Перец впервые начали культивировать в Испании и Португалии в 15 веке, а затем распространился в Италии, Алжире, Азии и странах Средиземноморья в середине 16 века. С этого периода перец был известен в другие азиатские и африканские страны португальцами. В Россию сладкий перец привезли в 16 веке через Турцию и Иран. Важно, что сладкий перец впервые был выращен на территории Узбекистана болгарскими крестьянами в окрестностях Ташкента.
Ключевые слова: перец сладкий, овощ, болгарский перец, почва, воздух, питание, период урожая, сорт, срок посадки.

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SHIRIN QALAMPIRNI ISSIQXONALARDA YETISHTIRISH TEXNOLOGIYASI

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ANNOTATSIYA

Shirin qalampir (lot. appiit Capsicum) - bir yillik o‘t o‘simlik bo‘lib, vatani Markaziy Amerika (Meksika, Gvatemala) hisoblanadi. Qimmatli sabzavot ekini O‘zbekistonda shuningdek bulg‘or qalampiri (bolgarskiy) deb yuritilgan. Amerika qitasi kashf qlingandan keyin shirin qalampir Yevropa hamda Osiyo davlatlariga tezda tarqlala boshladi. Dastlab qalampir 15 asrlarda ispaniya va Portugaliyada yetishtirila boshladiyushundan keyin 16 asrning o‘rtalarida Italiya, Jazoyr va Osiyo hamda O‘rta yer dengizi davlatlariga tarqay boshladi. Shu davrdan boshlab qalampir Portugaliyaliklar tomanidan boshqa Osiyo va Afrika qitasi davlatlariga yetib bordi. Rossiyaga shirin qalampir 16 asrda Turkiya va Eronga kirib borgan. O‘zbekiston xududida shirin qalampir dastlab bulg‘or dehqonlari tomanidan Toshkent atroflarida yetishtirila boshlaganligi muhim ahamiyatga egadir.

Kalit so‘zlar: shirin qalampir, sabzavot, bulg‘or qalampiri, tuproq, havo, oziq-ovqat, ekin muddati, nav, ekish muddati

INTRODUCTION

The peculiarity of the vegetable growing of our republic is that by choosing the right types of crops and planting periods, it is possible to show the possibility of getting two or more crops from the same land in one year, as well as the possibility of early cultivation.

For example, vegetables that are harvested twice a year in one area are divided into two groups. In the first group: crops that are sown early in the early season - quick-ripening varieties of cabbage, cauliflower, potatoes, carrots, asparagus, poppy, leafy green vegetables, in the second group-evening cabbage, carrots, radishes, turnips, which are sown in the late season as a repeat crop. om, tomatoes, cucumbers, potatoes, beets, etc.

The issue of providing the population with food is of great scientific and practical importance. In particular, provision of vegetable products rich in vitamins throughout the year is a great responsibility for farms [11].

Sweet pepper is especially important among vegetables. It differs from others in its vitamins and healing properties.

Cultivation of tomorrow's vegetables in the southern districts of our republic is economically important, and requires conducting scientific research in this regard [2].

METHOD OF CONDUCTING RESEARCH

Pepper requires high soil and air temperature. The relative humidity of the air for pepper is relatively high, it requires 70%. The relative humidity of the soil should be 75% until the first fruit is formed, and 80% during the period of the next crop.

Soil temperature should not be lower than 20°C. Pepper is close to tomato in terms of light requirements. If the light intensity is 4-5 thousand lux, pepper will not grow. The most

comfortable light for it is 20-30 thousand lux (0.11-0.17 cal/cm min.) Pepper is a demanding plant for soil fertility and its physical properties.

It grows well in soils with a light mechanical structure, as well as in peaty soils with a low alkaline reaction and straw bales, and in hydroponics with stone, gravel and expanded clay. The homeland of pepper is the tropical regions of America, so it is a plant that requires temperature, humidity and light (compared to tomatoes and eggplants) [1,3].

RESEARCH RESULTS

Agrobiological properties of sweet pepper. The main species of cultivated pepper (Capsicum annenum L.) is a member of the family of Capsicum and is not found in the wild. It is grown in glass and film greenhouses in most countries.

In our country, it is now grown in greenhouses as a greenhouse plant. This plant is a valuable crop in terms of nutrition. Sweet pepper fruit is rich in vitamins, mineral salts and dry matter. Its fruit is superior to all vegetables in terms of ascorbic acid (vitamin C) production. When the fruit is technically ripe, 100 g of fruit mass contains 50 mg to 450 mg, and physiologically ripe fruit contains 170 mg to 450 mg of ascorbic acid.

Pepper fruit contains up to 12.6% of carotene (provitamin A), vitamin B group substances (tianine, riboflavin, phallic acid), as well as a certain amount of rutin (vitamin R). There are varieties of sweet pepper that contain up to 140-170 mg of R-active substance.

Depending on the growing conditions and the type of pepper, its fruit accumulates from 5.6 to 12.2% of dry matter, and the main part of it is sugars. During the storage period of the fruit, the sugar content naturally decreases, and Vitamin C is relatively well preserved, even depending on the level of maturity, its amount can increase by 1.5-2.0 times. Keratin content increases 3-6 times during 2-3 weeks of storage. The amount of thiamine also increases [7,9,10].

If the pepper root is damaged, its regenerative properties are very slow. For example, sprouts that have been grafted will restore the roots they had before grafting before the first harvest. The rate of root regeneration slows down as the plant ages. This feature should be taken into account when growing pepper. If the roots of seedlings are pruned during the period of seed leaves or when they form 1-2 true leaves, the regeneration of the roots will be accelerated. Based on the above, when working between rows of newly planted seedlings, it should not be damaged deeper than 5 cm.

The pepper flower is white, has 5-7 petals, 5-10 male elements, is bisexual, and is formed in the places where the lateral branches of the stem appear. Blooms 18-22 days after bud formation. Flowers close at night. Unpollinated flowers open the next day. One plant can open 7-10 flowers in one period.

High air temperature and soil moisture have a positive effect on the flowering of the plant. Dust from newly opened flowers has good pollination properties. After the opening of the flower, its mouth keeps its pollination feature for 2 days, and its pollen keeps its viability for 3 days.

Pepper fruit is a two- to four-chamber multi-seeded false fruit, the inner wall of the fruit (pericarp) is 2-8 mm, the fruit has different shapes, from tomato-shaped to khartoum-shaped, but in cultivated varieties it is conical-prism-like. . The length of the fruit is 2-20 cm, the thickness is 4-10 cm in diameter. The color of the fruit is light, dark blue when technically ripe, and from yellow to dark red when biologically ripe. The weight of the fruit is on average from

25g to 100g. The fruit contains from a few dozen to 500 seeds. The seed is also round, light yellow in color, and there are 110-200 seeds in 1 g. The seeds retain their germination properties for three years.

According to grade, it takes 60-70 days from sprouting to flowering, and 98-126 days until the first harvest. The growing season lasts 8-9 months depending on the active and method of cultivation [4,5].

Table 1. Heat regulation during the growing period of pepper
(ToshDAU experimental site, 2012)

Growing period	On a sunny day, sm		On a cloudy day, sm	
	during the day	at night	during the day	at night
Seedling preparation: Planting	26-30	25-30	24-28	24-28
Until the peak	19-20	17	16-17	15
After shooting	23-25	19	17-19	17
In cultivation: September-15/XI	27-28	17-19	20-21	15-16
15/XI-30/XII	25-26	16-17	19-20	12-14
January-June	28-29	18-19	20-22	16-17

Pepper is hotter than tomato, and less demanding than cucumber. When growing peppers in greenhouses, the temperature regime depends on the light day: the more light there is, the temperature should be correspondingly higher and vice versa.

Pepper requires high soil and air temperature. The relative humidity of the air for pepper is relatively high, it requires 70%.

The relative humidity of the soil should be 75% of the DNS until the first fruit is formed, and 80% during the period of crop production [6,8].

SUMMARY

Sweet pepper is annual in our country, and perennial in its homeland. In young plants, the stem is round and herbaceous in older plants, and the lower part of the stem is slightly woody in old plants, so the pepper flowers do not lie down during the growing season.

The height of the plant is 30-125 cm, depending on the variety and cultivation technology. The leaves are flat and smooth, oval in shape, sharp at the tip, blue and dark blue in color. The root is an arrow root, and due to digging and transplanting the seedling, it forms many small rhizomes, and they mainly spread to a depth of 5-40 cm in the soil. The increase in the mass of root and above-ground parts is regular during the growth period, but may decrease or decrease at certain stages of the development period. They grow very slowly until the fifth pair of leaves is formed on the plant.

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