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NEWLY CREATEDPROPAGATION OF CITRUS SEEDLINGS IN A SHORT TERM

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Abstract:
Experiments have shown that the vegetative method of preparing young seedlings from green cuttings is the most effective way to propagate newly created citrus cuttings. A newly created citrus seedling grown from cuttings grows normally, retaining all the genetic traits of the mother plant. For example, it was observed in the experiments that the newly created varieties of mandarin Mediana, lemon New Tashkent and ToshDAU begin to harvest in the second or third year after being transplanted into a seedling place made from cuttings, and give abundant harvest every year. The method of propagation of newly created citrus plants from cuttings is not difficult. Experiments have shown that if the temperature of the greenhouse is maintained at the same level, it is possible to continue taking cuttings from newly created citrus plants from February to September. But the best time is the beginning of May.

Keywords: Citrus, methods, preparing cuttings, lemon, plant, plant.

Introduction

For cuttings, cuttings are taken from healthy branches of newly created citrus plants that have entered the harvest. The shoots should be matured in one or two years. If the branches are raw, the cuttings will rot with increasing humidity. As far as possible, cuttings for cuttings should be taken from healthy, productive branches that have produced fruit. It is recommended to water the trees of the new varieties that have produced mother fruit for the preparation of the pen, and after picking the lemons, treat them with medicinal vitriol or one-component aphrodisiac drugs, and then take the branches for the pen. Diseased, yellowed young branches are not suitable for making seedlings from cuttings. In the preparation of kalamka, each newly created citrus plant is made into a kalamka by cutting its branches into alokida.

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Figure 1. A new method is the process of treating lemon cuttings with the Micro-Grower preparation.

Very thin branches are not suitable for making pens. Branches are cut into 8-12 cm lengths with garden shears to prepare cuttings. Then, with a sharp pruning knife, the lower cut is cut straight or slightly obliquely, just below the bud.

From newly created varieties, the top cut is taken 2-3 mm above the cutting. Leaves 1, 2, 3 at the bottom are completely removed. The remaining two upper leaves are shortened by a third. Photosynthesis takes place in these leaves until the cuttings take root.

Prepared cuttings are planted in special nurseries after adding heterooxin substance from growing materials for 12-18 hours.

Today, after 12 hours of soaking the cuttings in an ecologically clean Micro-Grower preparation obtained from local raw materials, they are planted directly in special nurseries. The standard rate of microbrewery is 200 ml for 1000 pens.

In the case of increasing soil fertility in closed conditions and short-term rooting of citrus plant cuttings, after 12 hours of treatment with the micro-plant preparation, after planting the processed cuttings in special nurseries, every day in the morning, when feeding 20-25 ml in 10 liters of water, cuttings 25 - In 28 days, the sprout takes root and becomes a ready seedling. It was found in the experiments that by increasing the storage period of the leaves of cuttings, the normal development of the leaf tissues and the improvement of immunity, as well as the improvement of the roots of the cuttings.

Micro groweraccelerates rooting, greatly contributes to the increase in the percentage of cuttings that have become seedlings and their good development.

Micro growerit was found in the experiments that increasing the humidity in the nursery during processing can prevent gommoz disease and various snow mongol and similar diseases. These results are being determined today in the 2023 experiment.

Based on the method of short-term rooting of citrus plant seedlings in specially built nurseries.

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Special district nursery

Rooting cuttings

Table-1 Micro groweron the basis of short-term preparation of seedlings from cuttings of citrus plants

Experience**options**	Varieties	Pens**stages of development**			Root**stages of acquisition**				return of the	To control**relatively**
		Start of flange formation (day)	**The beginning of the rooting process (day)**	**Complete rooting process (days)**	**New growth process (days)**	**I-Repeat**	**II- recovery**	**III- recovery**	Root**3-step percentage process (%)**	
Water**(control)**	Lemon f-1	10.0	23	29.0-30.0	32.0 31.0	82.0	72.0	90.0	81.0	**1200 +540 -660**
	Lemon f-2	10.0	23.0	29.0-30.0	24.0-25.0	83.0	80.0	94.0	85.0	
	Orange	13.0	40.0	59.0-60.0	40.0-41.0	25.0	-	-	8.3	
	Tangerine	15.0	45.0	65.0-70.0	45.0-50.0	14.0	-	-	4.6	
Micro grower	Lemon f-1	8.0-9.0	18.0-19.0	25.0	25.0-26.0	30.0	82.0	96.0	89.3	**1200 +711 -489**
	Lemon f-2	8.0-9.0	17.0-18.0	24.0	25.0-26.0	84.0	84.0	90.0	86.0	
	Orange	11.0-12.0	21.0	37.0	27.0	39.0	55.0	23.0	41.0	
	Tangerine	14.0-15.0	24.0-25.0	40.0	28.0	25.0	16.0	21.0	20.6	
Kornevin	Lemon f-1	9.0	18.0-19.0	26.0-27.0	26.0	30.0	85.0	88.0	87.0	**1200 +700 -500**
	Lemon f-2	8.0-9.0	18.0-19.0	25.0	24.0-25.0	96.0	85.0	94.0	91.0	
	Orange	12.0-19.0	22.0	28.0-39.0	23.0-24.0	50.0	14.0	33.0	32.0	
	Tangerine	23.0-24.0	35.0-36.0	47.0-49.0	25.0-26.0	15.0	20.0	26.0	20.3	
heteroauxin	Lemon f-1	8.0-9.0	19.0-20.0	24.0	26.0-27.0	87.0	87.0	98.0	31.6	**1200 +751 -449**
	Lemon f-2	8.0-9.0	19.0-20.0	24.0	26.0	96.0	87.0	98.0	33.0	
	Orange	9.0-10.0	22.0-23.0	27.0-28.0	23.0-24.0	55.0	40.0	40.0	45.0	
	Tangerine	12.0-13.0	24.0-25.0	30.0-31.0	26.0-28.0	26.0	23.0	14.0	21.0	
Idolukusni**acid**	Lemon f-1	8.0-9.0	19.0-20.0	25.0	26.0	100.0	86.0	100.0	95.0	**1200 +741 -459**
	Lemon f-2	8.0-9.0	19.0-20.0	25.0	26.0	94.0	85.0	87.0	92.0	
	Orange	11.0-12.0	22.0	37.0	23.0	50.0	27.0	38.0	37.0	
	Tangerine	**13.0-14.0**	**23.0-24.0**	**39.0**	**25.0**	**14.0**	**25.0**	**28.0**	**22.3**	

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To plant newly created cuttings, a hole 80 cm wide, 20 cm deep, and length depending on the amount of cuttings is dug in a greenhouse or a specially allocated place. Boards are stuck on the side wall so that the soil does not fall into the hole. The bottom of the pit is worked and 2-5 cm thick stone is placed, then 6 cm thick rotted manure and 20 cm coarse sand are thrown.

Before planting the cuttings in the nursery, the newly formed cuttings are sprayed several times with clean water and leveled by smoothing the sand with a flat board, the cuttings are planted in a 5x5 scheme to a depth of 2 cm. The temperature in the nursery should be moderate, that is, it should not exceed 18-25 degrees. Humidity should also be the same: 70-80%. To do this, cover the nursery with polyethylene. The sides are well fastened. It is important that they are flat. The cuttings are sprayed with water three times a day until they take root.

Newly created cuttings are fed by pouring "PMK - polymer metalocomplex" on the leaves and lower part of the cuttings 7 days after planting, so that the cuttings take root quickly.

When watering newly created cuttings, open the top of the nursery every day, ventilate it a little, and then close it well by spraying water. After 10-12 days, callus begins to form on cuttings. After 25-28 days, seedlings begin to take root. During this period, the seedlings are watered 1-2 times and the films are opened for ventilation. In order to increase the growth of the roots, it is fed daily with sodium gummate.

Newly created cuttings are exposed to film for several days before the cuttings are released into the nursery.

In the conditions of the climate of Uzbekistan, it is possible to prepare seedlings every month. In winter, additional heat and light are definitely required. Therefore, seedlings prepared in spring and summer are less expensive.

- Pencil cutting tools must be extremely sharp and clean;
- Cut cuttings are placed in clean water in a glue container;
- 25 cuttings are tied and immersed in growth substances for 12 hours or in Micro-Grower preparation for 12 hours.
- Feeding cuttings with sodium gummat increases their immunity, root development and resistance to various diseases.

Micro growerThe roots of citrus seedlings treated with the drug are rich in rootlets that feed from the soil. As a result of the research conducted by the scientists of the Tashkent State Agrarian Institute, new results were achieved on the short-term rooting of seedlings of newly created citrus plants, mandarin Medianana variety, lemon New Tashkent variety and lemon Tash DAU variety, as well as cuttings. Planting cuttings treated with biologically active substances is considered a new method in science today, and prepared cuttings can be planted directly in special nurseries.

These results were achieved based on the methods of our mentor, People's Academician Z. Fakhriddinov. Cultivation of seedlings in the pen method is an effective method of propagation of high-yielding varieties of citrus plants. Seedlings grown from cuttings fully preserve the genetic characteristics of the productive plant. After entering the

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harvest in 2-3 years, it gives abundant harvest every year. The method of reproduction from cuttings is not difficult. It allows you to get standard seedlings for one year.

Experiments show that when the temperature of the greenhouse is kept at a normal level, it is possible to take cuttings from citrus trees during the period from February to September. However, the early blooming period is the second half of February and the beginning of March.

For the pen, branches are taken from healthy branches of the harvested plants. They should be 4-6 mm thick, bending when pressed with a finger. overgrown and very thin branches are not suitable for transplanting seedlings.

Prepared branches are cut to 8-12 cm long with garden shears. Then the lower cut is renewed by cutting it at a right angle with a sharp grafting knife or slightly obliquely, it is cut right under the bud, the upper cut is taken 2-3 mm above the cutting. The lower 1,2,3 leaves are completely removed. The remaining two upper leaves are reduced to a third. Cuttings get the main nutrition from these leaves until they take root. That is, this is the process of photosynthesis.

Prepared pens are put in a container of secret glue and clean water is poured over it. If the 0.01% solution of heteroauxin has been used as a growth stimulator of the cuttings, the cuttings produced rootlets in 50-60 days. When rooting them in a short period of time, the Micro-Grower gives good results due to stimulants.

At the bottom of the special nurseries organized for the preparation of cuttings, a small stone 5 cm thick is laid as drainage. Then, 6 cm of organomineral fertilizer is applied, and 20 cm of coarse sand is placed on top of it. Before planting the cuttings in the nursery prepared in this way, the sand is treated with a solution of potassium permanganate, and the cuttings are planted in it in a 5x5 scheme at a depth of 2 cm. To ensure the same temperature and humidity, the nursery is hermetically closed with a polyethylene cloth, and the cuttings are sprayed with water 3 times a day until they take root. Also, for quick hair removal, a 50% solution of UzKhitan drug is mixed with water and sprayed once a week. Every day, the top of the nursery is opened, aired for 5-10 minutes, sprinkled with water from above, watered and closed. As shown in Table 1, cuttings begin to form callus at 10 days. And after 18-20 days, the cuttings will begin to produce primary roots. In 23-28 days, it will fully take root and become a ready seedling.

CONCLUSION

1. In the conditions of Uzbekistan, it can be concluded from the results obtained in the reproduction of seedlings of green cuttings treated with the preparation of Micro-Grower by the vegetative method.

In order to improve the biological activity of cuttings (rooting of cuttings, increase in the rate of emergence of ready-made seedlings in a short period of time) from the biologically active means of plant protection widely used.

2.Micro growerWhen rooting the cuttings of citrus plants with the drug by vegetative method, the ready seedling state was reached in 23-28 days.

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3. The standard norm for rooting of cuttings of citrus plants (lemon, orange, tangerine and grapefruit) in a short period of time was developed for the micro-breeding solution. 200 ml recycles 1000 pieces of cuttings, increases fertility, increases productivity, root wilting and root rot. the normative norm against diseases is 20 l/t.
4. Replanting of newly created cuttings in the nursery of citrus fruit plants by the vegetative method by immersing the bottom 2-3 cm of green cuttings in the Micro-Grower preparation for 12 hours is considered a new method today.

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