

IMPROVING THE ECONOMIC MECHANISM OF INTENSIVE HORTICULTURE DEVELOPMENT

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Annotation: Recently, a lot of attention has been paid to the development of intensive gardens in our country. In modern fruit growing, orchards consisting of low trees are the most promising. Intensive gardens require advanced agrotechnical methods such as water feeding regime, special shaping and pruning process.

Keywords: intensive garden, efficiency, advanced agrotechnics, productivigrafting.

Low trees are divided into 2 groups: natural and artificial. These trees have small branches and are distinguished by their early harvest.

The low height of the fruits makes it easier to take care of them: to fight against weeds, pests and diseases, and to harvest the crop. But in free-growing low tree groves, tillage becomes more difficult due to the close spacing between the rows.

Trees grown on short grafts reach harvest 4-5 years earlier than normal trees, and 2-3 years earlier than those on semi-small grafts. For example: a pear seedling grafted on a quince will bear fruit 3-4 years after planting. This is due to the early onset of higher concentrations of sap in the lower parts of trees. Therefore, it ensures their early harvest.



A characteristic feature of intensive garden trees is their small size. Normal and short trees grow almost uniformly in the first years.

But the difference in growth is gradually becoming noticeable and it is evident when the trees come into fruition. Short trees are 2 times smaller and branches are 2 and a half times thinner than normal trees. But the growth of trees depends not only on grafts, but also on grafting. The cases of fruiting of short trees (skipping one year of fruiting) are very rare. This depends on the very early completion of the growth process and the fact that the leaves remain on the tree until late autumn, and the nutrients in the tree. accumulate more.

The productivity of short trees is lower than that of fast-growing trees. But because short trees are planted thickly, 2 times more harvest can be obtained. In addition, the quality of fruits, their average appearance (standard) improves. Also, the juiciness of fruits increases, their taste and color improve. In particular, 90-95% of the crop grown in apple orchards grown on low grafts will be standard fruits. Among them, 80% of the harvest will be first grade fruits.

The short life of small fruit trees is often considered their main disadvantage. But it is wrong to think like that. Because small trees give a harvest during their 25-30 years of life that tall trees live for 45-50 years.

Farmers are well aware of the advantages of intensive orchards. Due to the small trunks of the early-harvesting fruit trees, it is very convenient to handle, water, cut, shape, spray and pick their fruit. In such gardens, the quality of the fruit is high because the light falls on the body of the sprouts, and the air circulation is good.

Picking the fruit is also very convenient. For example, one hectare of an ordinary apple orchard can produce up to 10-20 tons. 50-80 tons can be obtained from small and semi-small trees. After all, productivity will be high due to the level of sunlight and the process of photosynthesis is going well.

In the establishment of new gardens, special attention is paid to the planting of fruit tree saplings connected to intensive, fast-yielding pakana and semi-pakana grafts.

This year intensive gardens were created in our republic on an area of 2.4 thousand hectares.

The advantage of intensive orchards is that these trees are easy to work with (handling, watering, pruning, shaping, spraying and picking fruits) because of their small trunks. In such orchards, the quality of the fruit is high due to good light and air circulation. Picking the fruit is also very convenient. Especially, in orchards with sybagaz, the harvest is done without using ladders, in which the work is efficient and high, and the marketability of the harvested product also increases, and the number of perishable fruits decreases.

To ensure high productivity of intensive gardens, it is necessary to constantly feed the soil. For this, 30-40 tons of compost, 240-260 kg of nitrogen, 120-150 kg of phosphorus and 60-70 kg of potassium are added annually.

If these agrotechnical processes are carried out on time, it is possible to harvest 50-60 tons per hectare in 4-5 years.

Depending on the types and varieties of seedlings connected to small grafts, they are required to carry out maintenance work.

For the organization of intensive gardens and their maintenance, the following is recommended:

- In autumn, the area selected for planting seedlings should be plowed with a plantation plow to a depth of 50-60 cm. If the field is not plowed, in the spring, the ground is plowed to a depth of 35-40 cm, leveled, and a plan is drawn for planting seedlings. Depending on the types of seedlings to

be planted in the plan, small grafted apple seedlings 3.5 x 2.5 m, medium growing 3.5 x 3 m, pear seedlings 3.5 x 2 m, medium growing 3.5 x 2.5 m, 6 x 4 m, 6 x 5 m schemes for apples, 5 x 3 m, 5 x 4 m schemes for pears are recommended for medium-growing seedlings connected to MM-106 grafts.

The amount of yield depends not only on the variety and grafting, the level of agrotechnics, but also on the row spacing and tree spacing.

The more seedlings there are in the field, the higher the harvest, but there is also a limit to the density of the trees. It also depends on the size of the trees and the degree of technical treatment between the rows. The quality and quantity of the harvest depends on the quality and quantity of the light falling on the trunk of the tree.

- The depth and width of the seedling pits are 60 x 60 cm. When digging a pit, 20-25 cm of the top soil is taken to one side of the pit, and the rest of the pit is taken to the other side. Before planting seedlings in the pit, 350–400 g of phosphorus, 30–40 g of potash fertilizer and 8–10 kg of rotted manure are mixed with the soil, and then seedlings are planted.

Before planting, the seedling is dipped in a specially prepared mixture (new cattle manure is prepared in a 1:1 ratio of cream). The seedling is poured into a pit, the previously taken soil is placed at the bottom of the pit, and the place where the root is grafted should be 4-5 cm above the soil. After planting seedlings, water is poured into each pit. In this case, the soil is compacted and the seedling grows well. After the soil settles, it is filled with soil around the seedling.

Planted seedlings are softened during the growing season so that the surroundings of the seedlings do not become rough. Depending on the soil conditions, it is watered from 10-12 to 16-20 times. After each watering, the soil is cultivated. When necessary, young plants are treated against diseases and pests.

- It is necessary to pay great attention to water supply of newly planted seedlings in the initial period. In order for the seedlings to turn green completely (if the drip irrigation systems have not been activated), it is necessary to make a circular ditch around the seedlings and pour water until the ditch is full, or if watering through a ditch, it is necessary to circulate the water around the seedlings. Depending on weather and soil conditions, young gardens are watered up to 12-20 times a year. After each watering, the seedlings are softened to a depth of 10-12 cm so that they do not become lumpy.
- The level of resistance of young gardens to diseases and pests is much lower. Therefore, it is necessary to prevent them or to apply control measures if necessary.

In the conditions of Uzbekistan, in intensive gardens planted in small grafts, the seedlings are cut 60 cm above and given shape. Seedlings coming from the outside in the form of veretino, that is, the main leader branch is left, and it is directed to give more branches next to it, that is, it is branched. When shaping, 50 cm is left for the stem on the main leader branch of the seedling, 8–10 eyes are left above it, and then 3 eyes are left in the roof, and the excess is cut.

For sufficient branching in the future, 3 eyes located 50 cm above the trunk in the shape of a moon (if the seedling has not branched in the nursery) are cut (cut) from the growth of the eye, and after leaving three more eyes, three more eyes are made in the form of a straight pattern. Doing this process when the seedling starts to grow well will give good results. Branches are planted 900 in July-August and tied. In order to form fruit buds in young branches, they are pruned at a certain time. This method ensures the formation of more fruit buds.

In the first year, planted saplings are tied to symbags and reinforced concrete beams are installed for growing. According to the scheme of planted seedlings, if the row distance is 3 m, 429 units, 3.5 m -

370 units, and 4 m - 325 units of reinforced concrete beams are used per hectare. 450-600 kg of galvanized wire with a thickness of 2.5 mm is used.

After newly planted apple and pear orchards, reinforced concrete pillars and wire are drawn, the branches of the seedlings are tied to the wires, and maintenance work is carried out for the growth of the branches in the future.

100–120 g per seedling in the second half of April for the better development and growth of young planted seedlings. Nitrogen fertilizer is applied. The second time in June, the same amount of nitrogen fertilizer is added.

In gardens with a drip irrigation system, it is advisable to drip all mineral nutrients through water. In this case, the efficiency of assimilation of fertilizer will be much higher.

Vegetables, potatoes, and potatoes can be planted in the first year among the gardens with young seedlings. It is not recommended to plant these crops in the second year. Because crops are not planted due to the work being done between all the rows.

In the first year, young seedlings are well prepared for winter, so it is not recommended to water them from the second half of September.

In October-November, the young sprouts and the rows of seedlings are cut, softened, and weeded. Moisture is well preserved in the soil.

In autumn, in November, phosphorus and potassium fertilizers are applied, that is, 90 kg of phosphorus, 45 kg of potassium and 20 t of organic fertilizers per hectare.

Newly planted intensive gardens begin to harvest from the second year,

It begins to bear fruit in 4-5 years.

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