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Methods of Grafting Seed Seedlings and Creating Arboretum of Unabi Plant

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Abstract: This article provides information on the biological, morphological, bioecological features of the unabi plant, as well as the methods of grafting seed seedlings and the establishment of nurseries using these seedlings.

Keywords: seed, bud, organ, bud, stratification, tube.

It grows wild in Central Asia and the Caucasus at 700-1600 (1800) meters above sea level. It is almost always pure, without mixing with other tree species, forming forests. It is one of the valuable fruit trees growing in the mountain area. At the same time, it is a drought-resistant tree. Pebbles can grow in most soils with low nutrient content. It can withstand very hot weather as well as cold. Cultivated sorghum is a very valuable species in saline soils and mountain reclamation. Unabi is a small tree 12-15 m high or a tall bush, with crooked and prickly thorns.

The trunk is made up of latticed, branching bark, shiny, dark green and leaves. Unabi blooms significantly later (in June) than other species. Therefore, it is not damaged by spring frosts. Unabi lives up to 100 years and bears fruit. The tree belongs to the group of slow-growing trees. It is noted that it is a low-demanding, drought-resistant, relatively heat-loving species, and in some years it was partially affected by the cold in the conditions of Tashkent. It reproduces from seeds and vegetative organs (mainly rhizomes).

Most of the root system is located in a layer one meter deep from the surface of the earth, and it reaches 10-12 m around, and forms a root ball.

Fruits are single-seeded, round or elliptic, brick-brown, shiny and floury sweet flesh. It contains a large amount of sugar (fructose, glucose, sugar) and vitamins (C. P. B), and is widely used among the people of many countries. It is used fresh in food, in jams, juices, candies, marinades, and in the form of high-quality dried fruit. Dates are a wonderful fruit. As a medicinal product, it is a very valuable species.

The seeds are separated from the flesh of the fruit in autumn before planting and stratified for 60-90 days. The rate of sowing seeds per 1 ha is 150 kg (in special cases, the seeds are separated and processed in a lime mixture. Such seeds germinate in the first year during spring sowing).

Cultivated plants are established from 1-year-old summer seedlings (well grafted varieties). The feeding area is planted 5x3 m on irrigated land, 3 m on roadsides, 5x5 m on irrigated areas (in the garden). The date of planting seedlings is March 20 in the southern regions, and April 1 in the northern regions. After planting, the trees are cut.

In Uzbekistan, fruit crops are propagated mainly by grafting. Bud grafting is a particularly common method of grafting fruit trees. Bud grafting has several advantages over pen grafting: shoots look

better and keep 100%, labor productivity increases, bud grafting is easy to learn, it is easy to learn, cuttings for bud grafting are used less, shoots remain firmly attached to the graft, grafts are less damaged and " "wound" heals quickly, when the bud is grafted, no dressing is required. The bud is grafted in 3 ways: with wood, without wood and with a tube. A bud that is hidden by its woodiness is grafted.

The roots of the graft should be strong, good, combed, have high absorption power and be as resistant as possible to various harmful diseases.

It is better to graft seedlings without bud grafting. The advantage of bud grafting is that the cuttings begin to grow earlier than the buds, some of which can be used before sap movement begins. Therefore, it is better to graft the cuttings on such species, which have failed to graft the bud.

In practice, the following methods of pencil grafting are more often used:

- simple pen graft;
- butt graft;
- bird or intermediate graft;

The best graft for Unabi is the Melkoplodniy variety of unabi.

Cutting one or two buds of a cultivar plant with a little bark and thin wood and connecting it to a graft is called bud grafting. Bud grafting is done from the end of July to the middle of September, when there are still saps in the plant body and the bud, that is, the bark of the graft, is well transplanted. In order for the grafting bark to move well, it is necessary to water the seedlings 4-5 days before grafting. When the bud is grafted, the grafts should be well separated from the bark of the wood. The stems of grafts next to the root neck should not be thinner than a regular pencil, and there should be no side branches in the upper part of 20-25 cm from the root neck. Bud grafting starts with almonds, then pears, plums, cherries, cherries, apricots, peaches, gooseberries and quinces are grafted. Bud grafting is done with a special knife. The knife must be sharp and clean. The best bud on the branch is placed on the graft. The length of the bark of the cut shoots together with thin wood should be 2.5-3 cm. When taking a bud, he takes the thin side of the branch to the graft in his palm and squeezes it with 4 fingers. In it, the index finger rests under the bud to be cut. Holding the knife with four fingers of the right hand, while pressing the thumb on the branch, the bark of the branch is cut crosswise with the knife from 1.5 cm below the bud to 1.5 cm above. Then, with the tip of the knife lying down, it is moved along the rod until it reaches the first cut. Then, along with some wood, the bark and the bud migrate and the branch separates. To put the bud with the bark on the graft, the seed is cut in the shape of a T from the side of the seedling facing north, a smoother place 3-4 cm above the root joint. After the bud is placed, the bark is pressed with both hands from the bottom to the top with the index fingers. Under normal conditions, the pods of the attached shoots grow in two weeks and the seed is added to the seedling. Connected shoots will grow next spring.

In the conditions of Tashkent region, July is the most convenient period for grafting seedlings in unabi, and the retention rate of the grafts made during this period is 70%. The retention of grafts made relatively late in August is very low and does not exceed 30%, and this is due to lignification and hardening of the graft branches. In the 2nd-3rd decade of May, the length of the green shoots of the graft is 15-20 cm. After the appearance of 4-5 buds, one-year grafts can be grafted with green shoots. Grafting rods are taken in the morning and kept in water with the bottom side. Before grafting, the graft is cut above half its length, and bud grafting is carried out like all fruits. The grafted shoots begin to turn blue after 18-20 days, and at this time the upper part of the grafted shoot is cut off. This will lead to faster growth of the graft bud and the seedling will be ready by autumn.

In case of non-acceptance (building) of the bud grafted to the graft, it is immediately re-grafted from the opposite side of the graft. In practice, it was observed that when grafting is done from green buds, their acceptance (blooming) is very high, 90-98%. 80-90% of standard seedlings can be obtained from the average amount of grafting. This ensures 25-30 thousand seedlings from 1 hectare.

In Unabi, the nursery should not be too far from the main area from which the cuttings are taken, because green cuttings lose their properties in a short time despite being kept in water.

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