

Agrotechnical activities in the orchard in November

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In fruit nurseries

The mother plants in the mother plantations are uncovered.

All rooted and unrooted shoots are cut off with pruning shears or a sharp knife as low as possible. If the mother bushes are weak, 1–2 shoots are left to strengthen them. After cutting the shoots, the mother plants are covered with soil to protect them from winter frosts.

Rootstocks are lifted from the seedbeds after the end of plant vegetation.

If the leaves have not fallen, they are removed by hand or by spraying with defoliant – 0.1–0.2% calcium chloride, 0.4% manganese chloride and others.

The rootstocks are graded according to BDS, and the weak, underdeveloped and overgrown ones are separated.

In the first-year nursery the rootstocks are planted.

The soil must be well prepared in advance. Planting distances depend on the fruit species, usually 80 x 20 cm, and for walnut – 100 x 30 cm. Seedling rootstocks are planted 1–2 cm deeper than the root collar, and vegetative rootstocks – at a depth of 20 cm, regardless of the length of the root-covered part. After planting, the rootstocks are watered and earthed up to a height of 10 cm in order to preserve moisture and ensure more successful budding.

The remaining rootstocks not planted in the nursery are stored until spring in a place sheltered from winds, away from farm buildings. The roots are covered with loose and moist soil and abundantly watered.

New mother plantations are established.

Light, moisture-retentive, deeply tilled soil, fertilised with 4–6 t farmyard manure, 100–150 kg superphosphate and 50–60 kg potassium sulphate per decare is preferred. The plants are planted at a distance of 1.8–2 m between the rows and 35–60 cm within the rows and at a depth of 25–30 cm. After planting, the aerial part is cut at about 20 cm above the soil surface.



Seeds are sown in the seedbeds.

The soil is previously fertilised with 4–5 t farmyard manure per decare and brought to a garden condition – ploughed at 30–35 cm and levelled. Apple and pear seeds are not stratified in advance, whereas seeds of small stone fruits are stratified in moist sand for two months in order to induce post-harvest after-ripening processes.

Fruit trees are lifted, graded and stored.

Lifting is carried out with a tractor plough, hydraulic mounted equipment or a special clamp. Grading is carried out according to the requirements of BDS, tying them into bundles of 25, and a label is attached with the name of the variety and the type of rootstock. The trees are stored in a flat, well-drained place, sheltered from winds, away from farm buildings and haylofts and are watered so that the soil adheres well to the roots.

Scion cuttings for spring grafting are collected.

Usually, the cuttings are taken from the southern part of the tree crowns. They are tied into bundles of 25 and stored in moist sand in a shady place in cool cellars or in cold storage rooms.

Care is taken of the stratified seeds.

At the end of the month, preparation for bench grafting begins.

In fruit orchards



In young fruit orchards, the number of missing trees is recorded and a plan is drawn up for filling the gaps by species and varieties. Wire structures are repaired and new ones are erected. The removal and spreading of farmyard manure continues.

In case of severe drought, moisture-replenishing irrigation is carried out with 60–80 m³ of water per decare.

Winter pruning for production in pome fruit species begins.

Fruit trees are planted in the new orchards. When establishing dense orchards, planting in furrows is recommended instead of planting pits.

In strawberry plantations

The lifting, preparation and storage of strawberry runners in cold stores for spring-summer planting continues.



In case of drought, plantations established in September or October are irrigated, and where weeds are present, the area is cleaned.

At the end of the month, moisture-replenishing irrigation of old plantations is carried out.

Plants are planted in heated greenhouses for early strawberry production.

In raspberry plantations

Planting material is lifted, graded and stored.



From the production plantation, the suckers are lifted manually with a straight spade. From the second-year mother plantations, all suitable suckers for planting material – except those for certification – are lifted manually. In the third year, suckers from the mother plantations are lifted with a plough or clamp. Suckers intended for spring planting are stored in furrows, covered with a soil layer 15–20 cm above the root collar. The soil is compacted and abundantly watered. New raspberry plantations are established.

In blackcurrant plantations

Mature cuttings are collected. One-year shoots from young production or mother plantations are used. The shoots are cut into cuttings. Each cutting must be 20 to 25 cm long and more than 5–6 mm thick. At the base, the cutting is cut 2–3 mm below a bud, and in the upper part – up to 1 cm above the bud.

The cuttings are rooted.



In the row, the cuttings are placed at a distance of 15–20 cm, inclined, close to an angle of 45°, into the soil. When soils are light, they are simply inserted, and on heavy soils they are planted with a dibble. The uppermost bud is left below the soil surface. After planting, the soil around the cuttings is compacted.

The planting material is lifted, graded and stored.

Rooted plants are lifted manually or mechanically at the beginning of the month, but not at temperatures below 0 °C. Plants designated for spring planting are stored in furrows or trenches 45–50 cm deep. Their roots are covered with soil, the soil is compacted and abundantly watered. Measures are taken to protect against mice.

New blackcurrant plantations are established. The bushes are pruned for fruiting.

In plantations with other crops

Fig cuttings are collected for rooting.

One-year shoots with a thickness of 1–1.8 cm and short internodes are used for rooting. The cuttings are prepared with a length of 25–26 cm. The lower cut is made directly below the node and the upper one – 1 cm above a well-developed lateral bud. The cuttings are tied into bundles of 50, labelled, buried in sand in cool rooms or outdoors in shallow pits up to 25 cm deep.

Pomegranate cuttings are collected for rooting.

They should be from one- or two-year-old shoots. The length of the cuttings is 20–25 cm, and the thickness at the base – from 0.5 to 1.2 cm. After cutting, the shoots are cleaned of thorns and lateral branches, and cuttings 20–25 cm long are prepared. They are tied into bundles and labelled. They are stored in a cool place in moist sand or in outdoor trenches. Measures are taken to prevent drying out.

Sea buckthorn cuttings are collected for rooting, in the same way as for pomegranate.

Seeds of bay laurel are collected.

The seeds are cleaned from the pericarp. They are stored in slightly moistened sand in cool cellars or outdoors. In warmer regions, the seeds are sown outdoors immediately after cleaning. They are sown in the seedbed at a depth of 4–5 cm, at a distance of 20 cm between rows and 5 cm within the row. The seeds are covered with sand or other mulching materials.

Seeds of Caucasian persimmon are collected, cleaned, dried in a shady place and stored in cool rooms mixed with moistened sand or zeolite.

The collection of seeds of terebinth (*Pistacia terebinthus*) continues, which will be used for the production of rootstocks for pistachio.

If a warm room is available, lemon seeds and trifoliolate orange seeds are sown in boxes, crates, etc.

The soil mixture consists of one part soil, two parts sand and one part well-rotted farmyard manure. It is regularly moistened.

Pomegranate, fig, persimmon, bay laurel and sea buckthorn are planted, with the areas first being marked out.

They are planted at the following distances – fig – 5 x 5 m, pomegranate – 4 x 4 m, persimmon – 5 x 5 m, bay laurel – 3 x 0.8 m, sea buckthorn – 4 x 2.5 m.

Rooted cuttings of pomegranate, fig, sea buckthorn and one-year-old grafted persimmon trees are lifted outdoors.

Pomegranate and persimmon fruits are harvested. Pruning for fruiting in persimmon begins. Fig trees are pruned.

Harvesting of dried bay leaves from the pruned shoots begins.

Winter pruning of actinidia (kiwifruit) is carried out. Crowding shoots are removed, exhausted cordons are replaced, and old fruiting wood is removed. Harvesting and storage of actinidia fruits are completed. Rooted cuttings of actinidia are set out for further growing.