

Care of Avocado Grafts

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The success or failure of avocado grafts is largely due to the kind of care that is given them after the grafting has been done. To obtain a healthy, sturdy growth and to build a strong symmetrical tree, careful, persistent follow-up work must be given. Ordinarily, the time required for this work will extend over a period of eight months to a year or more, depending on the size and the shape of the tree at the time of grafting. The neglect in one detail as given herein may cause the loss of the graft, or a weak, misshapen tree.

Protecting from Sunburn

The graft union should be covered up with paper until such time as the leaves from the graft will shade it. Do not open the paper bags until the growth of the graft has nearly reached the top, and in doing so do not tear the bottom out, as it will admit too much sunshine, but cut one or two sides of the bottom of the bag with a knife and allow the growth to push up through it.

The trunk and branches below the grafts should be covered for about a year. The material used, preferably burlap, should be tied securely but hung loosely. Any material which will not exclude air, but shuts out the sunshine will be acceptable.

Irrigation

Less soil moisture is required by a tree after it has been grafted, on account of its reduced leaf surface. Do not irrigate until the soil becomes dry, or at least as dry as was necessary for irrigation before it was top-worked, and then give the area alternate irrigation, i.e., if by basins, divide the basin in half by a ridge of earth, and irrigate one side at a time. If by furrows, alternate the furrow irrigation. If by sprinklers, irrigate one side at a time or, if this is not possible, apply less water at each application. Too much water on heavy soil is injurious, as it will rot the tree roots by excluding the air from the ground. After the grafts have made several feet of growth, more water will be necessary. On well-drained soil there is less danger of over-irrigation.

Weed Control

Weeds should be eradicated and kept away from near the graft, to favor moisture control in the soil and prevent injury from insect pests.

Cultivation

No special recommendations in regard to cultivation.

Suckering

One of the most important factors in starting a graft to grow and maintaining its growth is the removal of suckers. This should be done at least once in two weeks; once a week may be better. This is especially true of those coming from below the bud union, which should be removed at the point where they start, preferably with a shovel or long knife.

All the suckers from the trunk also should be removed. Where nurse limbs are left, only the most vigorous suckers should be taken off. A certain amount of old and new growth is necessary for the best growth of the graft.

Sometimes it may be necessary to graft below all the limbs. In such cases, the leaves of a young graft may be small and look shriveled. As the graft grows, this condition will disappear and the leaves will become larger. Extra irrigation will not improve this condition.

Staking the Grafts

After grafts make a good start, they will grow very rapidly, making them so tender and brittle that a gust of wind frequently will break them off. In two years' time a healthy graft will sometimes grow to the size of the original tree.

Only one bud of one graft in each graft union is selected for a tree. If there were more than one graft placed in a graft union, the rest of the grafts should be nipped to check their growth enough to permit the proper development of the bud selected to make the tree. The object of keeping these subdued grafts growing is to maintain a better sap circulation in the graft union, or decay may set in at that point.

When the bud selected for a tree is about a foot in length it should be staked. For trees with graft union over three inches in diameter, Redwood 2-in. by 2-in. by 8-ft. split stakes should be used; 1-in. by 2-in. stakes for smaller trees. The stake should be driven into the ground perpendicularly, on any side of the tree, and deep enough to make it firm. If the graft union is several feet from the ground the stake may be made more secure by tying it with heavy cord to the trunk of the tree.

Set the stake in such a position that it is about 1½ inches away from the bottom of the selected graft. Interference by the tree roots may vary this position. This will allow for the expansion of the graft and give support to the whole length of the graft.

The graft should be tied with heavy cord or strips of cloth at intervals close enough together to keep it growing straight. On trees with large root systems, a 1-in. by 2-in. extension should be nailed to the top of the stake. Inspect the ties occasionally to see that they do not cut into the bark, or that the stake does not cause scarring.

Do not cut back or nip the terminal growth of the graft. If left alone it will not ordinarily grow too high. In a very few cases, after the tree has reached 8 to 10 feet in height, it

may be necessary to cut the top, and then it should be done, if possible, just above the buds on the main leader.

Pruning- the Graft

A graft will usually make a more symmetrical tree than a nursery tree. As stated above, in practically all cases do not cut back or nip the main leader of the graft. If it becomes unbalanced by excessive growth or strong arms, these may be nipped or removed entirely.

If the graft has made a satisfactory growth, the nurse limbs may be removed in eight months to a year from the time of grafting.

When the grafts of an average-sized tree have made a growth of six or eight feet, one side of the top of the trunk of the original tree and opposite the selected graft should be sawed off at about a 45-degree angle, to remove wood decay, if any, and prevent further decay from taking place.

All big cuts should be covered with a tree seal and, if exposed to the sun, cover fresh seal with white paper.

Frost Protection

Unusual frost may occur. Grafts, like young nursery trees, are more susceptible to injury than older trees. See that the trunks and nurse limbs, if any, are well protected with burlap. Also wrap the grafts for several inches up from the graft union with strips of burlap. On smaller grafts cover the whole top, on very cold nights, with sacks. Remove the sacks during the day. In early Spring remove the strips of burlap.