## PROTECTION OF NEWLY PLANTED AVOCADO TREES

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In planning the hole for the new tree, if a balled tree, dig it as deep as the height of the ball. When the ball is placed in the hole, the top of it is on a level with the surface of the ground. If any fill is necessary in the bottom of the hole, the ball is lifted about one inch above the surface. The diameter of the hole is about six inches greater than the diameter of the ball. The soil which is placed in the hole around the tree when the tree is planted is moist but not wet nor too dry. It is carefully tamped in around the ball.

If the grower is planning to use the basin method of irrigating during the early life of the tree, the basin is made at planting time so that the water will concentrate in the basin at the base of the trunk. Two or three good applications of water following planting, at short intervals in order to facilitate the settling of the ball in loose soil, is advisable.

If one is planting tip-grafted trees, since the containers in which they were grown are usually not so large, the hole need not be quite so large. In planting, the container is cut on one side, top to bottom, so that it can easily be removed after the tree is placed in the hole. After planting, a constant and adequate moisture supply is necessary.

One primary consideration is to not plant in a location where competitive roots will be a hazard.

Recently planted trees need protection from sunburn, rabbits, squirrels, gophers, field mice, deer, in addition to certain insects and diseases. Protection from frost depends upon the location and susceptibility of the variety to frost.

Protection from sunburn is very important. Many growers use some sort of an obstruction to keep the sun's rays from the tree, such as palm leaves or some other available protector. Two objections to this method are that the material and labor increases the expense, and the young tree will not have the sunshine it should have during the greatest growing period.

Other growers use white wash or tree white, which they apply to the trunk or areas exposed to the sun which is susceptible to sunburn. White wash will wash off the tree quite readily, especially when sprinkled, and tree white is also somewhat susceptible to washing after too long a period.

One material, which has been used by Tedd Todd of Corona on his many acres in Riverside County for a year or more, is white latex paint. (See Fig. 1.) This contains no oil and can be thinned, if necessary with water. Having a rubber base, it has "sticking" qualities and remains, probably, as long as necessary.



Fig. 1. Young avocado tree with trunk painted with white latex paint for lasting protection.

One additional benefit in not having the trunk of young trees covered with paper or other material—it may be advisable, occasionally, to observe the trunks of the trees from the crown branches to the ground.

In most avocado districts, young avocado trees are subject to considerable damage from rabbits. One inch mesh chicken wire, 18 to 24 inches in diameter and slightly higher than the trees, will usually keep the rabbits from the trees.

Where field mice are present in large numbers, a mulch around the trunk is avoided.

Squirrels need to be eliminated before planting, if possible. Deer are a problem, almost continually, to growers near the mountains. To protect from deer, young trees can be surrounded by one inch mesh wire, as with rabbits, but will have to be covered with a tight one-inch mesh covering as well. When the trees get too large for the small protector, the deer become a menace and are difficult to control, although the proportionate damage to larger trees is not so great.

Gophers are a big problem at all times to a new planting. They can do considerable damage in a short period of time. Many growers water by the basin method the first year; therefore, there is a small area around the tree which is watered and the gophers frequently infest it. The roots of the young tree are the food supply, and gophers are frequently fatal. A heavy mulch is not advisable because the workings of the gopher is sometimes difficult to see. Therefore a shallow mulch is the best to use.

Frost protection of trees the first year is economically done by covering with an opened

up barley sack, one for each tree. Four one inch by one inch stakes are driven into the ground around the tree; two on the north and two on the south side. They should be slightly shorter than the tree so that when the sack is put over the tree and fastened to the top of the stakes, it will be higher in the middle where the usual center stake is located. The sack does not come down to the ground on any side, but the tree is not exposed to the sky. The sack is nailed permanently to the two north stakes and thrown over them until it is cold enough to put over the tree, when cold weather is forecast, the sack is pulled over the tree and fastened to the two south stakes by means of a screw hook on the opposite side of the stakes. This cover usually makes a difference of 3 or 4 degrees. If and when the weather gets warmer, the sack can easily be removed from the two south stakes and thrown over to the north stakes.

The advantage in not making it necessary to leave the cover on several months during the winter is that the trees will receive more sun.

The trees are protected by means of preventing radiation of heat when below freezing. (See Fig. 2 & 3).





Fig. 2. (Left above) Frost protection cover folded back. Fig. 3. (Right above) Frost protection cover in place.





Picture at left above shows Zutano tree allowed to grow untrained. Picture at right shows a well-trained tree.