

WHY PRUNE AVOCADO TREES?

Agricultural Extension Avocado Committee

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Lack of experimental evidence on pruning avocado trees makes this subject highly controversial. Almost every degree and type of pruning can be found in practice. However, most observers believe its principal value lies in making other orchard operations easier. Where possible, trees should be allowed to develop as they please.

The following comments, based on field observations and the opinions of experienced growers, present certain points upon which most all agree:

- Frequent or annual heavy pruning results in a smaller tree. Green leaves manufacture food to feed the trees so they can grow and produce fruit. The obvious conclusion, then, is not to remove any more leaves than absolutely necessary.
- Pruning does not increase the yield of fruit. It can reduce yield by removing fruiting wood. Continual and too severe pruning can stimulate vegetative growth at the expense of fruiting.
- Greatest stimulation of growth is nearest the cut. The larger the branch removed, the greater is the stimulation to the entire tree.
- All pruning cuts should be made as close as possible to a lateral branch.
- Pruning wounds three inches in diameter should be covered with a water emulsion asphaltum paint or its equivalent.
- Pruning may be done at any time of the year. Early spring pruning gives a greater stimulus than later pruning. Late summer or early fall pruning may stimulate growth and make trees more susceptible to frost injury.
- Natural growth habits of a variety can be changed only by continual or severe pruning.

Beyond these facts there is a wide difference of opinion as to the exact method that should be used in pruning avocado trees. However, as long as the removal of green wood and leaves is limited, little harm can be done either to old or young trees.

YOUNG TREES

Newly planted trees usually are cut back heavily when they are set out in the orchard. You should allow such trees to grow as fast as possible without any more cutting.

Occasionally, you will find a tree that grows too tall without branching, that grows sideways, or makes an unbalanced top. You can correct these conditions by cutting back the tip of the unruly limb or trunk or by staking the tree. However, avocados grow irregularly, so do not be too quick to condemn a tree.

Many growers believe that trees do not have to be trained to develop a good structural scaffold branch system and this has been borne out by experience. Most trees will do better if left alone. Occasionally a variety of an individual tree will have such undesirable growth habits that some training is necessary to manage the orchard properly.

If you use a permanent sprinkler system to irrigate young trees you may have to prune off the lowest branches to get a good distribution of water all around the tree. This type of cutting should be kept to a minimum. Too much cutting can stunt the tree more than a poor distribution of irrigation water.

MATURE ORCHARDS

Management practices in mature orchards should be adjusted to the growth habits of the trees, and not the trees adjusted to fit a particular management system. Of course, there often will be some conflict, so choose the system that will give you the best results in fruit production. If the trees interfere with your irrigating and cultivating, or with picking fruit, you will have to prune them enough to make these operations possible, but keep the cutting to a minimum. Be sure your management program is as productive as you can make it before you cut your trees to fit this program.

Fruit is cheaper and easier to pick if it is near the ground. Continual removal of the lower branches tends to force trees upward. The economical height for a tree will depend upon the price of fruit, the amount of fruit borne in the top, and the cost of picking it. That is a decision you will have to make for your particular orchard.

DEAD WOOD REMOVAL

Removal of dead wood is not essential but may be helpful in those coastal regions where *Dothiorella* rot harbors on such wood. This disease causes fruit to decay when softening. Taking out dead wood will make picking and pest control easier. You will also get some satisfaction from having the trees clean and neat.

MAINTAINING SIZE OF TREE

The question of whether trees can be kept satisfactorily and economically at a given height and width is debatable. From limited experience to date, it appears that regular but light pruning is necessary to keep the tree at a given width. The amount of cutting will depend upon the vigor of the tree and will vary with the variety, the soil, and the district. Growers usually prefer to let the trees spread and then remove undesirable or interfering trees when the orchard gets too crowded.

The height of trees can, of course, be kept down by continual topping. Limited evidence indicates that the fruiting capacity of the remainder of the tree is not affected unless the

pruning is too severe. Just how it should be done, will depend upon the variety and growth characteristics. In working out such a program it would be advisable to get the advice of specialists in the field.

There may be special situations in which you will have to prune. In areas where winds are heavy and frequent, try to keep trees low and stocky in growth. This means continual cutting back to keep the tree near the desired size. How successful this proves depends largely upon the growth habits of the trees and their productive behavior under this method.

Of doubtful value is pruning to prevent loss of crop from ordinary breakage. In most cases where this is attempted, growers cut off more fruit than they would lose, even with a heavy break in a tree. Trees that are normally vigorous fill in severe breaks within a relatively short time.