

## AVOCADOS IN ORANGE COUNTY

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Like a lady recalling an illustrious past and contemplating a tranquil future, describes the present day avocado industry of Orange County.

The coming of freeways and subdivisions has placed a goodly portion of this agricultural enterprise in the "wait and see" category. Many growers are watching where the urban development goes and waiting until the price for land is high enough to induce them to liquidate.

Historically, avocados have been grown commercially in Orange County for nearly fifty years. The first commercial Fuerte orchard is in Yorba Linda. Spaced among what is now an oil field, are a few of the original trees in this block.

The climate of various parts of the county has been desirable for avocado production. In some instances, it has met the exacting requirements of the Fuerte variety. However, through much of the Valencia orange belt, Fuerte production has been disappointing. In recent years the more cold tolerant varieties, such as the Bacon and the Zutano have been making inroads against the Fuerte acreage. The production of some of these young trees certainly indicates that they are going to be superior from the standpoint of yield. In the more frost-free areas, the Hass is finding greater adaptability. Thus the major varieties in commercial production can be listed as Fuerte, Hass, Bacon, and Zutano.

With the variety change-over program taking hold in the local industry, it looks very possible that production volume from this county will increase over the next five years. This can happen with the acreage remaining stable or even declining slightly. The reason, of course, being the heavy producing varieties outyielding the erratic Fuerte. The typical average of production has ranged from 1200 to 4300 pounds of fruit for average groves. A ten year average is very close to 3000 pounds per acre. It can be hoped that the 4000 pound level, in time, will be the more typical. It also should be added that there are extremes and in some years excellent orchards have had in excess of ten tons of fruit per acre. But not very often.

A unique feature of the avocado industry in Orange County is the nature of its being established. In contrast to some of the other areas, avocado plantings locally have largely been the intersetting of a citrus orchard with avocados. Lemons were long grown in the warm foothill part of the county. These old-line Eurekas made the growing of avocado trees in conjunction with lemons a simple and convenient method of changing one enterprise over to another. It has also meant that where avocado root rot has become established, the change-over has gone the full cycle with some orchards having old citrus, fairly old avocados, and young citrus again.

It was not until the post-World War II avocado boom that extensive areas never before used for tree crops were planted to avocados. Many of these brand new areas were on the steeper hillside slopes and a goodly portion of this new land was designed for sprinkler irrigation in contrast to the furrow irrigation of the citrus-avocado combinations. Many soils where these new plantings have been made are risky from the standpoint of long term avocado enterprises. They often have a clay subsoil or bedrock substructure. It seems safe to say that it will merely be a question of time before these conditions favor the development of root diseases.

In the cultural practices in Orange County there are a few which can be listed as special or different. One situation causing considerable interest lately has been the training or pruning of upright growing varieties such as the Bacon. This variety as a young tree and as a rapidly growing graft has a tendency to grow up fast. Various methods have been attempted to control this rapid upward growth and encourage the tree to (1) thicken up a little bit and (2) keep harvesting from becoming too much of a problem. One system has been to pinch back the growth flushes several times during the growing season at the top shoots. This has been done both on new trees and on grafts. This type of work requires a fair amount of time, but the operation is very simple. As the height of the tree increases because of other branches taking over the role of the central leader, the person doing the pinching has to grow up with the trees, so to speak.

Another system used on both young trees and grafts which is accomplishing almost the same results as the continuous growth flush pinching has been a pruning back each fall of the central leader with a lopping shear. In the case of an orchard grafted to Bacons in a windy area, the cutting back was an operation which at first seemed quite severe. Young grafts which had grown to a height of six or seven feet were cut back to about a four-foot length. They withstood the windy weather extremely well this way. As a matter of fact, this is a suggested practice when grafting these upright varieties. It is essential that they be cut back before windy weather each fall or the loss of grafts is a very great risk. Young trees handled in a similar manner where one large cut was made in the fall have responded much the same. They have become sturdier and, although they still have a tendency to eagerly reach for the sky whenever they can, are not nearly as tall as unpruned varieties.

A question which of course is of interest and concern to all folks connected with this industry is, "What is the future for avocados in Orange County?" Summarizing the situation briefly, here's the way it looks to some folks. The problem of root rot will continue to plague this segment and probably increase because of the nature of many of our avocado soils. New plantings of avocados on ground not now planted to tree crops will be extremely limited because of costs and water supplies. Some new plantings may occur where a change-over of tree crops, such as lemons, seems economically feasible. Increased production can be anticipated as more productive varieties are topworked on the existing acreage. This increase may be sufficient to pay for anticipated hikes in production costs from greater overhead charges such as taxes and insurance rates in urban or suburban area. The size of an avocado enterprise appears to be becoming smaller as the suburban development continues to take place in a considerable portion of the avocado growing area.