

THE AVOCADO INDUSTRY OF CENTRAL FLORIDA

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Central Florida, as referred to in this paper, is that section of the State made up of Highlands, Polk, Hillsboro and Pinellas Counties. At present there are commercial avocado groves in the four counties of approximately 500 acres divided as follows: Highlands, 180; Polk, 150; Pinellas, 145; and Hillsboro, 25. Of the 500 acres of commercial groves now planted, about 200 acres are in production, or about 40 per cent of the total. Several times this area is planted to avocados in Dade County alone. During the 1937-1938 season over one million pounds of fruit was shipped from the 200 acres of producing groves in Central Florida, besides that used for local consumption. Due to droughty conditions in the spring of 1938, the 1938-1939 crops from Polk and Highlands Counties was about 600,000 pounds. It is yet too early to predict what the crop will be for the next season, although a good bloom has been quite general.

With only 40 per cent of the trees in Central Florida in bearing and nearly all of them under twenty years of age, it is reasonable to expect that if there is no major damage from cold and if the growers give their groves good attention, that the production within ten years should be several times as much as at present. It is also reasonable to expect increased planting of avocados in the warmer locations of Central Florida. The low prices prevailing for citrus fruit at present are causing many growers to cast about for some crop to plant other than citrus trees. What the future production of avocados in Central Florida will be is therefore, quite problematical, although increased production is undoubtedly coming.

In Central Florida avocados are planted almost entirely on Norfolk soils, the plantings being made in the main on well protected hill lands. Growers have found that a warm location, in protected areas, with good air drainage, is especially desirable for avocados. The avocado growers of California have had this brought very forcibly to mind in the last five years, since cold damage has been much more severe on flat lands and in the lower valleys than on hillsides where the cold air could drain away.

The Norfolk sands are low in humus, but this can be readily supplied by growing leguminous cover crops, using stable and chicken manure when available and using fertilizers rather high in organics. Growth of trees after the second year is quite rapid where they are well cared for and it is believed that the trees will attain much greater size than in the lower East Coast section. For this reason it is not advisable to plant as many trees per acre in Central Florida as in other sections. While the industry is too young to have determined the best distances for planting, it is generally believed that 70 trees per acre is about as many as should be planted in Central Florida, and we may find that this is too many, especially if such spreading varieties as the Booths, Nabal and Collinson are used extensively. More trees per acre of the upright growing varieties,

such as Taylor, Tonnage and Lula may be grown satisfactorily.

During the last '20 years there have been about 50 varieties of trees tried out in Central Florida, but in my opinion the varieties which are most satisfactory for commercial plantings at present are Lula, Taylor, Collinson, Nabal, Linda, Booth 7, Booth 8, Waldin and Wagner. While several other varieties grow well and produce crops satisfactorily, there are definite reasons which prevent them from being desirable for commercial planting, such as season of ripening, shipping and storage qualities, appearance, lack of popularity with the consumers, and eating quality.

There are a number of new varieties or hybrids which may prove quite desirable in the future, but are still in the trial stage. Growers who expect to make avocado growing a major part of their work will do well to try out on a small scale some of the promising hybrids or seedlings and watch their performance carefully. A small tract used for a "Variety Grove" or testing ground may prove quite valuable to the industry. It is entirely possible and quite probable that in the next few years varieties will be found that are more valuable than many we have. The California growers realize the importance of such work, and while more than 80 per cent of the commercial avocados produced in California are Fuertes, they are looking for an even better variety for some sections to supplement or supplant the Fuerte plantings. The California Avocado Growers Association have about 450 varieties listed and many new varieties are being listed each year for observation and the more promising ones for trial under various conditions. The reports of the Variety Committee of that Association are truly interesting and fascinating. A concerted effort is being made by several hundred growers to find and test out better varieties. It is believed that growers in Florida have a better chance to find seedlings or hybrids produced within the State that may develop into a superior variety for our particular conditions than by securing new varieties from other countries.

The general care of the grove in Central Florida differs little from that of other sections of the State. More cultivation is practised than on the East Coast, since it is desirable to work the cover crops into the top soil if the grove is to be fired with wood for cold protection. Otherwise, the litter and trash might catch fire and do greater damage to the trees than the cold. Eventually growers may have to install heaters in the poorer protected groves, but at present where good lightwood is available, it is cheaper than heaters because of reasonable prices for such wood and no investment in equipment. Within a few years the supply of this fat pine wood will diminish to such an extent that it may be necessary to use heaters.

On the sandy hill lands more care is necessary in growing trees the first year than on the lower East Coast since more protection from the hot sun, due to reflected heat from the sand, from the wind and more frequent watering is necessary, but the initial cost of preparation of the land for planting is considerably less than in the East Coast area. One probably effects the other, but it is certainly more tedious and expensive and a greater amount of skill and careful supervision is necessary in developing a young avocado grove than in growing a similar citrus grove. Those who are not prepared or not willing to devote considerable time to the trees will save money by not planting them. On the other hand he who will devote himself carefully to his grove, using good judgment in all operations, from the selection of the land to the production of the fruit, will doubtless find it a profitable business.

Copper sprays are necessary to control avocado scab and black-spot for the production of fancy fruit, and dusting or spraying with sulphur may be required occasionally to control spiders and mites. Scale has never given us trouble on avocados in Central Florida, and I have given but one oil spray to avocados for scale in fourteen years. However, if dictyospermum scale should get started in a grove, a good oil spray should be applied. H. E. Stevens and his coworkers have done considerable research work in the control of avocado scab and blackspot and have outlined a spray program which is quite satisfactory in the control of these diseases. Following a well planned spray program is essential for the production of the best grade of avocado fruit, which should be entirely free from scab and blackspot. Few kinds of fruit will pay the grower such dividends for the cost of spraying as the avocados. The bright, smooth fancy fruit sells readily at good prices while rough, scabby fruit may not pay the cost of picking, packing and marketing. There is a tremendous difference between the prices paid for the best and poorest grades of avocados.

Little pruning is necessary with avocados, except with certain trees which may eventually get into a weakened condition and begin dying back on the terminal branches. Severe pruning back of top and main limbs, combined with liberal fertilization and frequent irrigations or watering, may prove quite beneficial. Dr. H. P. Traub can tell you about that.

While irrigation may not be necessary for growing avocados in Central Florida, it is my firm belief that in most cases irrigation is not only quite desirable, but will pay big dividends. It not only will increase the growth of the trees and keep them in better physical condition, but will bring out a better bloom and cause the trees to set and develop a heavier crop of fruit. Last spring I had occasion to watch two other groves closely which were not irrigated in comparison with my own which was irrigated. All three groves had a good bloom and set the young fruit about equally well, but in the drought following, one grove lost its entire fruit crop and the other lost most of it, while the third grove with irrigation, produced the heaviest crop of fruit in its history. About 3400 bushels of fruit was sold from 1000 trees on fifteen acres. The trees were fourteen years of age, but many had been topworked during that time to more desirable varieties and had tops from three to six years old. The same grove with irrigation has set a tremendous crop of fruit again this spring. It is believed that in two such years the increased fruit secured may more than pay for an irrigation outfit complete.

With increased production of avocados in the various sections of Florida and the tremendous increase which recently has taken place in California, with prospects for still larger crops there due to young groves coming into production, it behooves the Florida growers of avocados to begin studying the various phases of marketing of this fruit very carefully, lest this industry enter a period somewhat similar to that confronting the citrus industry today.