

Proc. Fla. State Hort. Soc. 69:274-275. 1956.

SOME OBSERVATIONS ON LIME AND AVOCADO GROVE CULTURAL AND MAINTENANCE PRACTICES IN DADE COUNTY

Norman E. Sutton

Grove Management, Inc., Goulds

In recent years there have been considerable changes in the way that lime and avocado groves have been planted in Dade County. These changes have made it necessary to change the cultural and maintenance practices.

By changes in grove planting, I refer mainly to the number of trees that are now being planted per acre and to the way the land is prepared before planting. In the last 6 or 7 years there has been a gradual tendency on the part of growers to plant more trees per acre and to prepare the land more thoroughly before planting. Better land preparation has been made possible by equipment perfected during this time, such as the trenching plow, rock crushing machine and heavier scarifying equipment. This equipment has made it possible to get a much deeper soil in which to plant and this gives the trees a better chance to grow in the limestone rock soil in Dade County. The older methods usually resulted in trees being planted in very shallow soil.

Previous to 6 or 7 years ago the average avocado plantings consisted of about 75 trees per acre and the average lime plantings about 90 trees per acre. This has been increased to as high as 100 trees per acre in some avocado plantings and to as high as 125 to 150 trees per acre in some of the lime plantings. There has been some mixed planting of avocados and limes running about 122 trees to the acre. The main reason for the increase in the number of trees per acre during the past 6 or 7 years is the steadily increasing price of land which makes it imperative to utilize the land to the fullest extent while the trees are young and so increase production as much as possible during this early growing period. Land prices in Dade County have risen to \$1300 to \$1700 per acre during the past year.

Cultural methods, of course, have been changing right along as new methods were found and shown to be profitable. We have noted that irrigation, more timely fertilizer applications, fertilizer of higher analysis together with application of minor elements have all increased fruit yields and been of economic value. Because of the Marketing;

Agreement Programs adopted by the growers, there has been the necessity to carry on a better spray program to insure a higher percentage of quality fruit.

Another factor which is helping the lime and avocado growers to attain better production and better quality fruit is the practice of more careful selection of budwood material from trees of known fruiting habits and other beneficial qualities. Work has been done on propagation methods, such as marcotting, which looks very promising as a means of propagating limes.

In the avocado plantings there has been considerable top working to varieties which are

more prolific and of the type which are in demand by the commercial markets. All of this, along with the inauguration of the budwood certification program by the State, should permit the grower in the Dade County area to get much better production per acre than ever before. Therefore, even though a good many of the older groves are being bought up for housing or for speculative purposes, and despite the fact that in the past two years very few new groves have been planted, the over-all production of avocados and limes in Dade County will not decrease but should even increase until the existing groves planted in the last 3 or 4 years reach their maximum production.

Along with all these changes, there has also arisen many new problems which the grower will have to solve in order to maintain maximum production and quality, especially in the close planted groves when they reach maturity. We realize that we face the problem of continually higher labor costs. This, together with the probable shortage of labor, indicates that we will have to utilize methods and machines used by other industries, such as the hedging machines, speed sprayers, fertilizer distributors, etc. However, there are other problems which have not been solved but must be as the necessity arises.

It is too early as yet to say for certain whether these closer plantings' are the right thing to do in the long run. Certainly, there is a limit to how far this can go. However, at the present time maximum production is being attained in these young plantings and this justifies the planting of land which has now risen to such high prices that it is nearly prohibitive to plant or use the same as grove land.