

PROGRESS OF THE AVOCADO AND LIME INDUSTRY IN THE RIDGE SECTION OF FLORIDA

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Avon Park

AVOCADO:

The first commercial avocado planting was made in Highlands County in 1920 by J. L. Ivey of Lake Placid. About the same time, some plantings were made in Polk County at several places, among which were some by the Buckeye Nursery near Winter Haven. Several small plantings were made in Polk County during the Twenties but no large plantings were made during that time. Those in Polk and Highlands Counties who wished to plant trees were at a loss as to what varieties to plant, the type of soil to plant the trees on and the care to give the trees after they were planted. Some growers in the area from Miami southward were quite skeptical about avocados being grown that far North and advised the interested parties to come to Dade County to make their plantings. This advice caused those interested to try certain varieties of the Mexican and Guatemalan races which would withstand more cold, so many trees were sold of the Fuerte, Puebla and Gottfried varieties and lesser numbers of many other Guatemalan varieties. All the growers were groping in the dark and plantings were made on the trial and error basis.

The 32 acre grove planted by J. L. Ivey in 1920 was made up largely of Fuerte, Taft, Cantel, Panchoy, Nimlioh, Winslow, Winslowson, Eagle Rock and Lula varieties furnished by George B. Cellon of Miami. All of these varieties except the Lula were discarded or topworked later.

In 1924 and 1925, the writer made his first planting of 20 acres to avocados, using all varieties planted by Mr. Ivey except the Fuerte and, in addition, planted trees of the Collins, Collinson, Itzamna, Gottfried, Puebla, Trapp, Linda, Hardee and Taylor varieties and a limited number of a few other Guatemalans. In addition, 417 West Indian and Guatemalan seedlings were planted and grown to 9 years of age to see if any especially desirable trees could be developed. Of all the budded or grafted varieties planted, only the Lula and Taylor were finally kept. Of the 417 seedlings, all were finally topworked except one which was named the Avon and is now being propagated for commercial planting since it has many desirable qualities. The grafted varieties were kept until they were 10 years old and careful observations and notes were made. Of 35 Puebla trees kept until 10 years old, all would bloom heavily and set a good crop of young fruit but not a single fruit ever reached maturity. The Nimlioh, Panchoy and Taft were very shy bearers, seldom ripening but a few fruit per tree. The Collins bore heavily but the market did not like the fruit which was of poor quality. The Collinson was a good eating fruit but a little too large and the trees were rather shy bearers. The Winslowson fruited well but

could not be kept in cold storage without turning black near the seed and got a bad reputation on the market. All the other varieties tried out except Lula and Taylor had several faults which doomed them to failure. At one time, it was thought the Lula might fail because of its intense susceptibility to avocado scab but after a spray program was worked out for the control of scab, it became one of our best and most profitable varieties.

At this time, our best commercial varieties of avocados are Lula, Taylor, Booth 7, Booth 8, Nabal and Tonnage. One or more good varieties ripening in July and August is quite to be desired since it would lengthen the shipping season.

By 1925, about 50 acres of avocados were growing in Highlands County and by 1949, this had increased to about 530 acres of which 230 acres are in bearing. Polk County probably does not have over 100 acres of good commercial avocado groves at present.

The production of avocados in Highlands County for the calendar year of 1948 was approximately 25,000 bushels or about 110 bushels per acre for all groves of various ages. The crop for the calendar year of 1949 was estimated at 30,000 bushels for the county but the August hurricane blew about 90% of the crop from the trees. The old Futch Grove was carrying a crop of about 250 bushels per acre prior to the storm but suffered a 93% loss of fruit.

From 1890 to 1940 or for 50 years, only one real hurricane passed through the Ridge Area and that was in 1928. In the last 6 years, we have had 5 severe storms which have been quite destructive to avocado plantings and have held back additional plantings.

For the warmer and better protected areas in the south end of the Ridge Section, the outlook is still good and it is expected that the industry will continue to expand slowly. The trees grow larger, produce heavier and have a deeper root system in the Ridge Section than the trees in the Dade County area and if hurricanes do not come too frequently, the industry should remain on a profitable basis.

LIMES:

The first commercial Persian lime grove in Highlands County was planted by Charles Townes, Sr., just southeast of Lake Placid on the south side of Saddlebags Lake immediately following the big freeze of 1895. This grove was of about 5 acres and most of the trees were budded on sour orange root with some of the trees being on grapefruit root. I visited this grove last week and found that about 75% of the trees were still living although they are over 50 years old. Many of the original trunks have decayed but sour orange sprouts which had come out from the old stump or the roots have been budded and the grove continues to bear very well. A large percentage of the trees show signs of gummosis or psorosis but even though afflicted with this disease, they are still bearing. About 20 years ago, the belief was quite prevalent that limes were incompatible with sour orange rootstock and would not do well when propagated on same. This is not borne out by the behavior of the Townes Grove nor by many other groves planted in recent years. About 25 years time elapsed after the Townes Grove was planted before other commercial lime groves were planted in Highlands County. The majority of the groves in Highlands County were planted from 1924 to 1944.

A few years ago, there were many lime groves in Polk County and it appeared that Polk would produce a tremendous amount of limes, however, the freezes in the early Forties damaged trees to such an extent that many growers did away with their groves, later planting the land to oranges and grapefruit. At the present time, the production of limes by various counties ranks as follows: Dade, first; Highlands, second; Polk, third; Hillsboro, fourth. Dade County produces over 75% of the seedless limes in Florida; the Ridge Section about 20% and other South Florida Counties produce the remainder.

The lime trees of the Ridge Section are grown chiefly on lemon root and become much larger in size than those grown on the rocky soils of Dade County. For this reason, from 60 to 70 trees are grown per acre in Highlands and Polk Counties while about 100 trees per acre may be planted in Dade County.

At the present time, Highlands County has about 200 acres of lime trees in bearing and the production of fruit last year was about 27,000 bushel crates, weighing 55 pounds each. From January 1st to October 25, 1949, the Futch Packing House at Lake Placid has handled 27,800 bushel crates of limes from Highlands County with other shippers in the county having handled about 1200 bushels. This makes a total of 29,000 bushels in 10 months for this county and it is expected that approximately 1000 bushels will be picked from November 1st to December 31st. This 29,000 bushels is the production figure for Highlands County and does not include about 3000 bushels from Polk County which have been handled by the Futch Packing House. The average production this calendar year was 145 bushels per acre in addition to some loss from the hurricane of August 26th. The trees range from 4 to 25 years old with an average of about 14 years. In 1948, the production from these same groves was about 140 bushels per acre. The production from 24 acres of my personal groves this year has been 330 bushels per acre from trees averaging about 15 years old. Last year, the average production from these same groves of mine was 300 bushels per acre.

Young groves not yet in bearing comprise about 50 acres in Highlands County. While our production of limes per acre is heavy, the acreage is small and is not increasing fast for the following reasons:

1. Lime trees are more easily injured by cold than the common varieties of orange and grapefruit trees;
2. Considerably more pruning is required due to bark diseases;
3. Limes have to be picked nearly every month of the year and the average citrus grower does not care to take on this additional work.

Most of the lime crop had been picked when the hurricane of August 26th hit the Ridge but nearly all of the remaining fruit was blown from the trees. Defoliation was heavy and the damage from split and twisted limbs was very severe. The highest recorded winds reached 120 m.p.h. in gusts. Practically all groves have been pruned and fertilized since then and recovery is taking place rapidly.

It is expected that for future plantings in the Ridge Area most lime trees will be planted on lemon and Cleo rootstocks. Lime trees on Cleo produce a very high quality fruit. Trees on Cleo stock are slower in growth and do not bear quite as heavily under 10 years of age as do trees on lemon root but they will eventually attain about the same

size and bear equally as well as lemon root trees.

The outlook for limes the next 5 years in the Ridge Area is for slowly increased plantings with profitable operation of the groves.