

**Impressions of the Avocado Industry in Florida, Cuba, Mexico, Guatemala and California\***

**James G. France**

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**A. W. Christie:** While we all know that California is, of course, the most important avocado producing section of the world, there are a few other scattered places where they are grown and our group has expressed a certain amount of curiosity to know how these avocados are grown and what is done with them in these other minor places. Once in a while it happens that one of our good friends in the local industry has a rare opportunity to observe what these "foreigners" are doing with avocados in other regions.

Our old friend, Jim France, for many years Farm Advisor of San Diego County, has just returned from a trip to Florida, Cuba, Central America and many other places, and we are going to have the pleasure of listening to him as he tells us about his observations on his recent trip.

**James G. France:** Chairman Christie, Members, Ladies and Gentlemen: In preparing this paper, I tried to be a little bit modest about California, knowing that so many of these things appear in our Yearbook, but now, after the remarks made by your chairman who is stealing a part of my speech, by the way, I think perhaps I have been a little too modest. I am sure I am going to disappoint some of you in the things I am going to tell you because I know a great many avocado growers are particularly interested in one thing—diversity of interests. In this paper this afternoon I am only going to touch on the high spots and the impressions secured along the way.

I want to take time to express my appreciation to a number of you in the audience, who were very helpful to me by giving me letters of introduction, and advice. My appreciation in particular is for the very efficient help given by Mr. Wilson Popenoe, well known to many of you, for the excellent itinerary he helped me lay out. Without this advance information, I would not have been able to cover the ground which I did in the time at my disposal. He asked me to extend to all of the "old guard of the Avocado Association" his very best regards.

The picture which I have of the avocado industry of California, its problems and future, is somewhat changed from what it was before I visited these other avocado producing sections. This picture, for the most part, is brighter, although there are still some shadows. It is my intention to stick to the title of this paper, "Impressions of the Avocado Industry in Florida, Cuba, Mexico, Guatemala and California" rather than to draw conclusions or to present a mass of facts and figures.

## **YEARBOOK SEEN IN EACH COUNTRY**

The first-hand impressions of even a trained observer may not always be in line with the facts. I well remember a talk given by the late Thomas Hunt, Dean of the College of Agriculture of the University of California, to a group of farm advisors a number of years ago. Dean Hunt told us that on a trip by rail through the Valley of the Nile in Egypt, he was greatly impressed by the fields of alfalfa which he saw, also by the herds of fine Jersey cattle, and by the way in which the water buffalo pastured, carefully eating everything clean as they grazed and not wandering over the fields as other cattle do. Upon investigation, however, he found that the alfalfa fields were not alfalfa but Alexandria clover, that the Jersey cattle were not Jerseys but the native cattle of Egypt, and that the water buffalo were tethered and therefore could not roam at will. "Impressions" should, therefore, not be taken as facts until investigations have been thorough. To have the complete facts of the avocado industry of Florida, Cuba and the countries south of us, would require a much longer time than I had at my disposal. A complete round of the seasons, spent in each country, rather than the few weeks I was able to spend, would doubtless change some of my impressions, as well as such conclusions at which I have arrived. However, I have been asked to give you my "impressions," and at some risk of inaccuracy, I have agreed to do so. I am going to give them to you frankly and trust that the many friends who were so helpful to me in Florida and the foreign countries which I visited, will not take offense, for none is meant. It is inevitable that many of them will read this paper. Some of you may have no idea of how widespread is the circulation of your annual year book, and how avidly it is read. I saw copies of back numbers in all of the countries which I visited. I will ask those readers of this article who may not be so 'fortunate as to live in California, to attribute anything to which they may take exception, to the well-known California enthusiasm.

## **CALIFORNIA LEADS—MOST PROGRESSIVE**

With this rather lengthy introduction, I am now ready to start on the subject of the talk. However, I am at something of a loss as to know where or how to begin. First, I think I will give you a general impression that grew on me the further I traveled and the more I saw, and that is, "That the attitude of the grower and shipper of avocados is the most important factor in the success of the industry; more important than soil, climate, natural advantages, shipping facilities, or species of avocados." The greatest advancement of the industry has occurred where the most thought has been given to selection of varieties, grading and packing of fruit, and efficient marketing methods. Need I tell a California audience what section leads in these things? Florida ranks second, and Cuba, third. If my impressions of conditions in Cuba are correct, and the present government of Cuba stands, both Florida and California may need to look to their laurels, for Cuba is in a position to enforce standardization and cooperation to a much greater degree than either Florida or California. I will go into that situation a little more fully later. Another general impression which I gathered is, that regardless of whether the avocado is a natural or adopted child, the tendency to alternate bearing of heavy and light crops is universal. In the countries where the avocado is native, the total annual production does not seem to vary so greatly as it does in Florida and California, but the heavy production comes from different trees.

The bearing habits of avocado trees, or I might say the non-bearing habits of many trees, naturally brings up the variety question. It is my impression that progress in our California industry can be made more quickly by careful study and selection of the most promising of our own trees, rather than by further search in either Mexico or Guatemala for new varieties.

### **FLORIDA HAS 3,000 ACRES**

My purpose in visiting Florida and Cuba was to study the avocado industry from an economic viewpoint and its possible bearing on our own California industry. I visited the State Department at Tallahassee, the Experiment Station at Gainesville and the Experiment Station at Homestead which is located in the heart of the principal avocado section of Florida. I was first impressed by the great discrepancy in acreage and tree number figures issued by the State Department and the Experiment Station, and later, by the difficulty of obtaining accurate acreage figures from the Avocado Associations. The discrepancy between the State Department figures and the Experiment Station amounts to nearly 100%. My impression is that the Experiment Station figures, which are the lower, are more nearly accurate, and would indicate about 3,000 acres, of which probably about 2,500 are commercial. It is my impression that about 90% of the acreage is over five years old. I saw no plantings under two years of age, and almost no nursery stock. The impression naturally follows that there will be no increase in avocado acreage in Florida during the next few years. However, production will undoubtedly increase as orchards grow to maturity.

### **LIME INDUSTRY "BOOMING"**

At this point, I wish to digress for a moment from avocados to mention the Persian Lime industry of Florida, because I know that many of our avocado growers are interested in this fruit. In contrast to the avocado industry in Florida, the lime industry is going ahead by leaps and bounds. It was reported that there are over six thousand acres of Persian limes already planted. I saw many young groves and a large amount of nursery stock. The Persian lime is in all respects similar to our Bearss Seedless. I give this information for what it may be worth and will let you get your own impressions of its significance. I also saw several plantings of the Meyer lemon, which looked well and were carrying a good crop of nice quality fruit.

The two principal avocado districts of Florida are located in Highlands County in south central Florida, and in Dade County, about thirty miles south of Miami; the latter is the most extensive. In Highlands County, the soil is sandy and leachy; in Dade County, a pure oolitic limestone, with nothing that we would recognize as soil. This limestone is soft enough to be cut into blocks with a hacksaw, but hard enough to make good building material. More than one grower has taken the rock which he has blasted out of the holes in which he planted his trees and built his home and out-buildings with it. Such soil conditions mean that very large amounts of complete fertilizer must be used every year. My impression is that the cost of ample fertilization in Florida offsets to a considerable degree the cost of irrigation in California.

## **LITTLE TOPWORKING SEEN**

I was asked to look into the report that Florida growers were grafting their trees over to varieties that would compete with California's winter and spring fruit. My impression is that only a small amount of topworking has, or is being done for this purpose, or will be done. However, the topworking that is being done is largely to the Lulu and Taylor varieties, which have a season of October or November to January, following the Trapp, which is still the leading Florida variety. Some Nabals are being planted and look well. Fuerte is a failure in Florida. It is my further impression that Florida growers will prefer to raise varieties that will be marketed before the annual winter hazards of hurricane and frost are imminent. Florida growers are greatly concerned about Cuban competition, and principally so they say because of the poor condition in which Cuban fruit has reached the American markets in the past, and consequently, selling at a very low price. Considerable Cuban fruit has been sold on the Florida markets, which the Florida growers resent.

While I was in Florida, a conference was arranged with Cuban growers and shippers at Havana to discuss the situation. The president of the "Florida Avocado Growers Association," Mr. Chas. Pratt; the manager and vice-president of the "South Florida Growers," Mr. John R. Mathers, and myself, were met at Havana by a committee of the Growers and Shippers Committee of the Cuban National Chamber of Commerce, and a long conference was held. Although this conference was arranged by the Florida and Cuban growers and shippers, and the lone Californian simply "sat in" to listen as much as possible and say as little as possible, yet, as usual, California stole the head lines and "El Mundo," the leading Havana paper came out with head lines the next morning stating "California Seeks Agreement With This Country." The second line stated, "Florida growers also desire an agreement." Before giving my impressions of the Cuban situation, I should like to comment briefly on the marketing situation in Florida. Neither the "Florida Avocado Association" nor the "South Florida Growers" are cooperative marketing organizations as we know them in California. They are in reality, stock companies. Considerable fruit is also marketed by growers outside of either organization. The impression which I gathered, however, is that relations are much more friendly between the various groups than have existed in our own state.

## **CUBA PRESENTS FUTURE COMPETITION**

Four things impressed me as a result of the conference held with the Cuban growers and shippers committee (emphasis should be placed on "shippers", as they are the most important part of the group). First, that the Cuban shippers of avocados have come to a full realization of the damage they have done to themselves and the markets by the slip-shod methods of grading, packing and marketing, of which they have been guilty in the past. Second, that they have already taken steps to improve conditions by establishing standard packages and made some progress in grading without waiting for mañana, and have a program planned for further improvements. Third, that under the present governmental set-up, they have the power to enforce their standards and methods far in excess of similar powers of Florida and California. A policy or ruling, agreed to by a majority of the members of the Shippers and Growers Committee of the

Cuban National Chamber of Commerce, when approved by the Secretary of Agriculture, becomes binding without further legal proceedings. Fourth, that the members of the committee, which I met, are business men of intelligence and foresight. The Cuban avocado crop is a factor to be considered in the future of the avocado industry.

I was impressed with the productive possibilities of Cuba. Rich, fertile soil, ample rainfall, and an ideal growing climate. Some of the finest and largest avocado trees I have ever seen were in Cuba. One of the two budded orchards, planted in regular orchard form, which I saw in foreign countries, was also in Cuba.

My purpose in visiting Mexico and Guatemala was to see the avocado growing in its native or wild state. I arrived at Vera Cruz in the evening and took an over-night train to Mexico City. I was up at daylight to catch my first glimpse of a wild avocado tree, but all I saw was the ubiquitous Maguey plant which supplies the national drink of Mexico, and thousands of pepper trees. The more I traveled in Mexico and Guatemala, the more I was impressed that the avocado is not a very wild, wild tree. In Mexico, outside of door-yard trees, most of the avocados are found in sheltered, well-watered canyons, or on the lower slopes of the mountains where sufficient moisture is available to carry them through the dry season. Mexico is a large country, and I was not able to visit all of the widely scattered avocado sections. A good deal of time, money, and knowledge of Spanish are essential for a thorough study of the Mexican avocado industry, and I was not over-supplied with any of them. However, I did see two of the most important sections, La Canada in the State of Querre-taro, 166 miles northwest of Mexico City, and Atlixco in the State of Puebla, about 50 miles southwest of Mexico City. I also traveled by rail from Mexico City through the Isthmus of Tehuantepec to the Guatemalan border, a distance of 895 miles. This latter trip required two nights and two days. Much of the day light part of this trip was spent in the jungles of eastern and southern Mexico, and as the speed of the train seldom exceeded twenty miles an hour, and also, as it stopped at the slightest provocation, I had ample time for observation.

## **VISITS OFFICIALS IN MEXICO CITY**

Before starting out into the back country, I spent several days in and around Mexico City, visiting the various bureaus of the Mexican Government concerned with agriculture. The official and business Mexicans have the rather inconvenient habit of laying off work from 1:00 to 3:30 P. M. for siesta. At least, I found it inconvenient, although they seemed to like it. However, I was able to spend the time profitably and interestingly in visiting the many public markets, where I saw not only avocados, or rather ahuacates, but also a great variety of other tropical and subtropical fruits and products, as well as native handicraft.

I realize that this paper has degenerated into a narrative, rather than an account of impressions, but I wanted to give you a little of the background upon which my impressions are based.

Regardless of what you may read in the papers, or in the many recent books on Mexico, of political turmoil and general backwardness, the fact is obvious that agricultural development is making rapid strides. The National Department of Irrigation has sixteen

large projects, either completed or under way, and a number more being planned. Intensive studies are being made of diseases and insects affecting fruit and field crops, and the Department of Agriculture and Business, have made careful statistical studies of their agricultural crops. The impression grew on me that with all this development and activity that soon Mexico will be a well fed nation, and a full stomach is a great help in preventing revolutions.

I was favorably impressed by the work that the Mexican Government is doing in an effort to control the fruit fly, but unfavorably impressed by the information that this pest is gradually making its way northward along the west coast of Mexico toward our own borders. Our own United States Department of Agriculture is cooperating with the Mexican Government on this pest, and two members of the staff of the Plant Quarantine Board are stationed in Mexico City.

### **MEXICO DOING LITTLE FOR AVOCADO**

At present, the Mexican departments interested in agriculture are doing little to improve the culture of the avocado. I found one Agronomo Regional, an office similar to our farm advisor, but with two states to look after instead of one county, who was doing a little budding, but without much point to it. I was impressed with the fact that there is much room for improvement of the Mexican avocado. The markets are full of fruit, but it was for the most part small and inferior. Very few fruits would weigh over six ounces, and most of it would weigh less. Fruits of this size could be bought for one peso per hundred. At present, a peso is worth twenty-eight cents. In southern Mexico, I saw good-looking fruit offered for sale by vendors at train stops, that would weigh at least twelve to sixteen ounces, but it was of the Guatemalan type, which the highland Mexicans rather sarcastically, I think, call "Pahau." Avocados were not offered on the menus of any of the dining cars or first class hotels or restaurants in Mexico, and the only time I found them on the menu was in a typical Mexican restaurant in Mexico City, where they were served in an unsavory looking and tasting mess called guacamole.

As great as the need is for an improvement in varieties for their own markets, it is my impression that such improvement will be slow in coming. I recall that someone, I think Carl Newman, once said that if a well-selected flat of Calavos were displayed on the Mexican markets, it would cause a sensation. I think he was right.

At La Canada, in Queretaro, the avocado does grow naturally in jungle style. However, here and there were individual trees with plenty of room which looked much better and, according to the owner, produced better than the closely growing trees. My impression that so-called jungle, and I might add, close planting, of avocado trees is a mistake, was strengthened.

While in Mexico City, I was told that a mysterious root disease had attacked avocados in La Canada, killing many trees and blighting others, and I was asked to make a study of it. Upon seeing the affected trees, my first impression was that it was a case of drowning, but in a place where avocados had been growing for hundreds of years, and without irrigation, that hardly seemed reasonable. Upon investigation, however, I found that last summer, from June to September, the rainfall in that section had exceeded

1,000 m. m., whereas the normal was 450 m. m., and that much of the area had been flooded. The cause of the "mysterious root disease" was obvious, at least so far as I was concerned.

The La Canada growers have an association for the marketing of their fruit to which all growers belong. Perhaps my impression that progress will be slow in developing better conditions in Mexico is wrong.

## **SAW ORIGINAL FUERTE TREE**

At Atlixco, I had the pleasure of seeing the original Fuerte tree, the Mecca of all California avocado growers, visiting Mexico. The tree is about fifty feet high, in fairly good condition, and carrying a fair crop of fruit. The owner, Alexandro LeBlanc, has a ranch a few miles south of Atlixco where he has some budded trees in regular orchard form; the other "orchard" which I previously mentioned as having seen in foreign countries. The original Fuerte is in the patio of Senor LeBlanc's home in Atlixco, and had most of the patio to itself.

My impression of the "tameness" and individuality of the avocado tree was further strengthened by my observations in Guatemala. I saw only a very few avocado trees in the jungles of the coastal plain. It was not until our train reached the more thickly populated sections of the Guatemalan highlands that they began to appear in greater numbers, and then, always as individuals.

I had the privilege of staying at the Popenoe house in Antigua while inspecting this area. Antigua is one of the leading avocado sections of Guatemala, and the first impression I got was of the comparative scarcity of avocado trees compared with other trees. Later, I obtained figures from the Minister of Agriculture at Guatemala City which were enlightening. In the entire Republic of Guatemala, an area of 42,353 square miles, there are only 24,751 avocado trees of record. At our usual planting distance of twenty-four by twenty-four feet, that would only amount to 330 acres.

Avocado trees in Guatemala are found in the yards and gardens of the Indians, and scattered here and there in the coffee "fincas",—Always as individuals. My knowledge of coffee growing was practically nil. I had the idea that coffee was a field crop and grown in the open, but instead coffee is grown in the shade, and trees are planted especially for that purpose. The tree most commonly used for shade is Gravillid Robusto, a fern leaved tree with golden yellow bloom with which many of you are familiar, but here and there can be found avocado trees among them, probably where an Indian threw away the seed from the avocado he had eaten for lunch.

## **GUATEMALAN MARKETS**

The Guatemalan markets display many avocados; most of them are round, although there are some that are pear-shaped; both purple and green fruit can be seen. The fruit run from eight or ten ounces to two pounds. The larger fruits were selling for three cents, the smaller ones for one cent. The appearance of the fruit was good, but the quality usually inferior. The hotel did not have avocados on the menu regularly, but they

could always be obtained by asking for them. I tried three one day before I got one fit to eat. I had one really good fruit out of about a dozen I tried during my stay in Guatemala. The fault, I believe, is more a matter of maturity than in the inherent quality of the fruit. If these people, after hundreds of years of growing this fruit, can't tell when it is ready to pick, what chance have we with the thick-skinned varieties? I was impressed with the apathy of the Guatemalan Ministry of Agriculture toward their fruit industry, with the exception of the banana. They are doing excellent work on bananas and coffee, the two principal export crops. So far as other fruits are concerned, the department seems to be content to gather figures on the number of trees and the annual production, and let it go at that. I believe that some excellent varieties of avocados could be found in Guatemala, but it would require a careful and systematic study of individual trees. Finding a good fruit on the markets is little help, as the seller can seldom tell you from what tree it was obtained. The Guatemalan idea as to what is a desirable fruit and our idea is apt to be different.

On the United Fruit Company steamer from Porto Barrios, Guatemala to New Orleans, the steward served what he called a "tropical" dinner. The menu card was in the shape of a bunch of bananas, but the only thing tropical on the menu was "fried plantains" and Banana Forms ice cream.

It is my impression that the avocado industry of Guatemala will remain about as it is, indefinitely.

In that part of my trip in our own country, which amounted to over five thousand miles, avocados appeared once on the menus of dining cars and hotels, and that was on the diner of the Southern Pacific Railway west of El Paso, where "Calavo" Salad was offered. The salad itself consisted of about two ounces of avocado and the rest canned fruit and lettuce. It is my impression that two medium-sized "Calavos" served the whole train.

## **OURS NEEDS MORE ADVERTISING**

I visited the Tibbetts and Garland Store in Chicago, the largest and finest grocery in the city, just off Michigan Boulevard. Avocados that would go thirty to the flat were priced at fifteen cents each—fancy California Navel oranges, seventy-five cents per dozen, for comparison. The manager of "Calavo's" Chicago branch told me that this store would use about ten flats per week, at \$3.00 per flat, under ordinary circumstances, but when they put on a special advertised sale, they would use thirty flats. Such information, coupled with the fact that on most markets outside of California you see so few avocados offered, gives me the impression that there will have to be more trade promotion and advertising, not less, if we are to sell such crops as we produce, at a profit.

The avocado growers of California may feel that they are getting inadequate help from their Experiment Station and Department of Agriculture, but, and this is not an impression but a conviction, you are getting a great deal more help than any of the other avocado producing sections I have visited.

I am impressed with many of the problems that confront the California avocado grower,

but that is another story.

I come back from my tour of these other avocado sections with the distinct impression that California, the baby in the avocado industry, has outgrown its parents, its brothers and sisters, and that the same enterprise and intelligent forethought that has brought it to this position, will assure a successful and profitable future.

**A. W. Christie:** Jim, you did a swell job. That is all I can say. We certainly enjoyed it a lot. It is a rare and unusual combination when one can go on a trip like that and make use of one's eyes and then come back and write it up in such an interesting fashion and then get up and read it as if he didn't have the paper before him.

No doubt you will have questions to ask Mr. France, so please include them with the rest of the questions for our Question Box later.