	Bearing	Non-Bearing	Total
North Central Florida	100		100
Southwest Florida	50	50	100
Everglades		*450	450
Southeast Coast	400	100	500
South Central Florida	100	50	150
	650	650	1,300

FLORIDA AVOCADO ACERAGE

*Mostly damaged badly by frost in February, 1928.

1927 Florida production 2,000 crates—80,000 lbs.

Plus 1,200 crates (48,000 lbs.) imported from Cuba.

Planting has started again.

20,000 nursery trees will be ready in fall of 1928 or spring of 1929.

Crop prospect for 1928 about 5,000 crates or 200,000 lbs.

Frost reduced it by 2,000 acres or 100,000 lbs. Would have been 300,000 or more.

Geo. B. Hodgkin: There were about five million pounds imported from all sources during 1926.

Question: With present market prospects, what percentage of Guatemalan varieties does it seem advisable to plant? *Chairman:* I think that the questioner means "What are you going to plant besides Fuerte?"

Answer: One of the heaviest planted varieties at the present time is the Fuerte which is not a Guatemalan or Mexican but a cross between the two. You will have to ask Mr. Hodgkin whether he would class the Fuerte as a Guatemalan or not.

Chairman: I think the question is "Outside the Fuerte, what percentage would you plant?"

Dr. J. Eliot Coit: The question is so involved I do not believe I know how to go about answering it. If it were elucidated a little, I believe I might. Quite a number are planting 100% Fuertes. Some are planting others. I do not think it worth while to plant, in commercial orchards, many other Guatemalan varieties which compete with Fuerte in its season.

Question: Here is a question from a man who has soil composed of 18 inches of top loam, with one foot of clay, under which is gravel and clay cemented. The questioner wants to know if avocados will do well on such a soil or how should avocados be handled in such a soil.

G. P. Rixford: I would suggest firing a stick of dynamite in each hole.

Chairman: 18 inches of loam, a foot of red clay underlain with gravel and clay. Dr. Coit, is that what you would call a very poor avocado soil?

Dr. Coit: I should say it was quite poor.

Chairman: But the man who gave me this question wants to plant avocados and you don't want to discourage him.

Dr. Coit: It all depends on what the drainage is. He says an underlying subsoil mixture of gravel and clay. If water will go down through it and you can get drainage straight down either by the subsoil or through explosives, and can break up the layer of hard material so that the roots can get down through, it is all right but if the subsoil is of such a nature that water goes down so far and accumulates, creating a supersaturated layer, the roots will die in that particular layer and root action is limited to the surface and in those conditions trees are small and •will not grow as well although in many cases by planting close together and giving good food and attention, quite a large percentage of producing trees can be secured on such a soil.

Question: Someone wants to know if ringing or girdling has proven of value to induce fruitfulness?

C. V. Newman: We have had no experience except with an orchard of Tafts. When they were nine years old, they had borne very, very little up to that time. Two consecutive years we practice ringing those trees. They did produce—bloom and fruit and the fruit seemed to be in proportion to the bloom. We watched closely and with three rows crossways and length ways, we made a careful check. We got into difficulties by ringing limbs that were weak. There were deep circles around the limbs that were weak for several years afterwards. We would advise ringing only the very vigorous limbs and it is rather a barbarous habit at best.

Chairman: Ringing was practiced more a few years ago than now. Some make mistakes in the size of the ring. I have seen some girdling of an inch clear around. Of course that is dangerous.

Question: What is the Anthracnose situation this year?

Geo. B. Hodgkin: We have had no trouble worthy of notice this Spring. I have seen a little in Orange County. It began last year with that heavy rainfall in February and it seemed to vary according to our climate.

Question: Why are Calavos better than avocados?

Geo. B. Hodgkin: I tried to answer that this morning with those charts of mine showing in the first place that in order to be a Calavo, the fruit in many instances must contain twice as much oil as the ordinary avocado. Then it must have good keeping quality, texture, etc. There are many different kinds of avocados, of course, as you can well

imagine. There are numbers of them. There are those that come from California, and those that come from Florida, also those that come in from Cuba. Some of these are less than one-third ripe and only test around 6 or 7% when picked. Some imported lots have tested as low as 1%. There is just as much difference between these and some of our best Calavos as the difference between the Honeydew melon and a squash. We don't like to call them by the same name.

Question: What about the Ishim variety?

Thos. H. Skedden: I have one tree and it fruits heavily every other year. The fruits average twelve ounces. It is a pretty purple, a reddish purple. It has a pronounced neck and fruits in the late winter. It is all gone now. It is a fairly good fruit.

Question: How many pounds in last year's crop?

Answer: About 1,500,000 lbs. from California. Cuban exports were quite short—not over 500,000. (See Prof. Hodgson's report previously printed.) For 1928-29, there will probably be an importation of 5,000,000 or so from the West Indies, and upward of 2,000,000 from Southern California, and some hundreds of thousands of pounds from Florida.

Question: Ask Dr. Popenoe to tell about the time of ripening in Guatemala as compared with the altitude of the plantings.

Dr. Popence: This subject was treated fully in my bulletin on "The Avocado in Guatemala", published some years ago by the Department of Agriculture. During the course of our search for superior varieties of Guatemalan avocados, a search which covered about two years' time, it was possible to make fairly complete observations regarding the season of ripening at different elevations above the sea. As a result of these observations, I drew up the following table, which refers to all the principal centers of avocado culture in Guatemala:

Senahu, Alta Verapaz	3200 ft.	November to February
Amatitlan	3900 ft.	January to April
San Cristobal Verapaz	4600 ft.	February to May
Antigua	5100 ft.	March to June
Purula, Paba Verapaz	5100ft.	March to June
Panajachel, Solola	5300 ft.	February to May
Chimaltenango	6000ft.	April to July
Momostenango, Totonicapan	7400 ft.	May to August

Or, looking at the subject from a different angle, it is safe to say that the approximate season of ripening of the Guatemalan race, in Guatemala at different elevations, is as follows:

3000 ft	Nov. to Feb.
4000 ft	Jan to April
5000 ft	March to June
6000 ft	April to July
7000 ft	May to August

It must of course be remembered that there is a certain range of season among different trees at a given elevation. But it was somewhat of a surprise to me to find that this range is less than we had expected, and considerably less than would be desirable, from our point of view. We had hoped to find very early and very late varieties, in order to extend the season in California. But we did not find a great number of such sorts. Once in a while you run across a variety which is a month or two later than the average. Itzamna is one of these, and probably the best which we brought to light during the work in Guatemala. We ought to continue the search. It is urgent that we get late varieties, to fill the present gap in California; and I believe a few such varieties exist and can be found. The fact that we got Itzamna shows that they exist. But the fact that we did not get a larger number of early and late varieties, after searching two years for them, shows that they are scarce.

It is noteworthy, in certain parts of Guatemala, that avocados hang on the tree long after they are ripe. This is true in Antigua, where the soil is porous and dries out thoroughly, the dry season corresponding to the ripening season of avocados. In wet regions, such as the Alta Verapaz, you do not find fruits hanging on the tree long after they are mature.