

Avocados

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Mr. President, Ladies and Gentlemen, Members of the Society:

The time when I was asked to talk on the subject of Avocados came so late that I had no time for a reply letter, and I was not sure until I arrived here whether I would make a talk or not, so with the consent and approval of Mr. Skinner, Mr. Floyd and Mr. Alsmeyer, it is arranged that my talk shall be more in the nature of answering questions. The only difficulty is that the man who is answering questions is supposed to know all about the subject, which I do not presume to know. But you may ask your questions and I will try to make the talk as interesting as I possibly can. My suggestion, if it meets with your approval, is that inasmuch as the question of planting comes first with varieties, it might be well for you to ask questions pertaining to varieties, and we will take the other subjects as they come along. Because our conditions in Miami are different from those in central Florida the answer, while perhaps correct for our section may not be in yours.

Member: Have you at Miami found any special form of root stock?

Mr. Brooks: No, the larger nurseries are all around Miami and Palm Beach, and the question of getting quantity has been paramount. We secure seeds mostly from Cuba, and after we plant them if they do not grow rapidly, we throw them away. The wastage is not very high. It is conceded that the Fuerte is good, and the Gottfried, I think, is considered most excellent.

Member: What do you think of the Gottfried as to maturity?

Mr. Brooks: It is just fairly early. It has high oil content; it does not make an especially good shipper, and I don't think it is considered very high class as a fruit. Still there are a few people that go wild over it.

Member: It has Mexican blood, hasn't it?

Mr. Brooks: It has.

Member: What is the most desirable time to plant?

Mr. Brooks: In one sense, it makes no difference whatever. The only question, as far as I can learn, is that if you plant in dry season you have got to do more hand watering. When setting out trees in dry weather, we water the trees three times a week, and later but once a week. If you start planting in May or June, you will do away with all that hand-watering, and you will get during the summer season the very best possible growth; consequently it is cheaper at that time.

Member: What age do you advise to plant?

Mr. Brooks: As a rule, we like to get them in the ground as early as we can after the

buds get matured, say about six months old buds. One of the best practices is to set your trees in the lath houses, say four rows of boxes; then a space, and four more, and after the trees are sufficiently matured they are set out in the open sun two rows together, one row partly shading the other. After they have hardened up for about a month you can set them in the open with practically no mortality. Our mortality is only a fraction of one per cent.

I will ask the permission of the President of the Society to allow me to incorporate in the Proceedings the report of our Committee. I have not with me a list of the varieties, but I will attempt to tell you now approximately what they are:

We start with the Fuchs, named for one of the old-time homesteaders. It is the very earliest. It was a seedling, and very frequently matures as early as late June, always by the first of July, and has the advantage of maturing from two to four weeks before the Pollock. The disadvantages are that the Fuchs has a sort of bottle neck. It is lighter green than the Pollock, therefore not so desirable from the standpoint of sale. It has a loose seed which is not desirable. It always brings a good price in competition with the early seedlings, so the Fuchs is a good experimental variety.

Next in order as to season comes the Pollock—the good old reliable Pollock. There is a lot we don't like about the Pollock—a lot we don't know, but it is a pleasure to speak of its advantages. It has a wonderful color, the finest colored we have; it is also of very fine quality. It begins in late July and runs through August—sometimes into September.

The Simmons (named for Prof. Simmons) is of much the same appearance—slightly smaller; perhaps two weeks later in season. It is more free from scars or ridges. I think most of you will know it has a tendency to "ridge," which is a peculiarity of the Pollock and there isn't anything we can do to overcome it with spraying or otherwise. Aside from that the Pollock and the Simmons are practically even up. The Simmons is better than the Pollock in the sense of being slightly smaller and smoother.

The next would be the Trapp. Some of our people are still sticking to the Trapp but more of us prefer the Waldin. If we get tariff protection, as we hope, we must have avocados which will completely cover the season. There would be a gap between the Pollock and Waldin, and the Trapp bridges that gap, so the Trapp should be planted to make a complete cycle of the seasons. The Trapp bears very young, but has a tendency to overbear, is a very gross feeder, is fine in shape to ship and good to eat.

The Waldin is similar, but more pointed, of the same general shape. It is slightly lighter green. So far as the season is concerned you will have to begin to "spot pick" you're Trapps two weeks to a month earlier than the Waldin.

Following the Waldin would come the Winslowson. That was originally called the Rolfs. It was renamed the Winslowson. It is large, dark green, fairly smooth, nearly round, slightly flattened at the "poles," very fine eating quality, but has developed a serious defect—how serious that is going to be as time passes, we don't know. For the moment, however, we find that the Winslowson in shipping under refrigeration to distant points as you have to, cuts black as it matures after having been iced. Many people think or have reason to believe, as the tree gets older, we can fertilize for fruit rather than for tree growth and that this will be overcome but as to its cutting black, there is no question.

The President of the Avocado Exchange saw the fruit in New York City after it arrived. We kept fruit in cold storage in Miami and it cut black, and I think there is no question as to that being a defect in the Winslowson. However, if it were not used for anything but local consumption here in Florida and the South during the month of November and December when the Winslowson seems to mature, it would be worth planting in considerable number.

We have had Winslowson as late as February. I don't claim that is its season. I will drop a remark here—I think a great many of us in our endeavor to hold our fruits to a late season and thus get a better price, have had a tendency to more or less starve our trees in so doing. That has a tendency to make your tree let up on what should be continuous growth. The avocados and the citrus I believe will grow almost continuously if you feed almost continuously. Your great purpose in rising avocados, and I believe in citrus, is to raise quantity but you should couple it with quality. You can do that at the same time if you will tend to let your avocados ripen just a little earlier than any particular variety is supposed to, and in the later season there is another complimentary variety which will always ripen at the season you want. So I believe we are going to come to the idea of fertilizing our avocados to make them grow and bear crops, but at the expense of not holding those varieties so late as we have been inclined to do. That is one of the greatest troubles with the Trapp, I think. People try to hold it, and don't fertilize. The fruit holds, but it is at the expense of the crop next year.

The Collinson is primarily a December and January fruit. We have many people who succeed in holding the Collinson as late as April sometimes. I don't think that's a fair criterion of this season. The Collinson is the son of Collins. It does not have the objection that the Winslowson is open to—cutting black when shipping under refrigeration. The Collinson, as you probably know, is more pear shaped; it's a good fruit in every way, comes in at a splendid season, but it is, for the moment, considered a little too large. With reference to that, and the Winslowson we believe that, as the trees increase in age there will be a natural diminution in the size of the individual fruit. There will be a corresponding increase in the number and a diminution in the size that will perhaps overcome one of the objections to which the Winslowson and Collinson are now open.

After the Collinson, there is a wide variety of opinion. The Taylor is considered to be very fine as regards shape, color, quality, rapid growth, heavy bearing, but last year we had a very heavy droppage following autumn rains. It was worse than any other variety in dropping except possibly the Lulu. We did notice, however, something that probably has a bearing, and therefore doesn't discourage us as much as it might seem from my first statement. The point to which I refer is the fact that we had, as you know, a severe hurricane in September, 1926, and the Taylors being a tree of very tall, up-right growth, was badly damaged by the storm. The fruit that set from the new growth, dropped worse than fruit from the older branches. How significant that is, it will take a few years to develop. In addition to the hurricane, we had the second abnormally dry season last year. There were some people who thought irrigation during the continued dry season would do away with the droppage of avocados, which is always noticeable following a heavy rain. However, those who irrigated, found their avocados dropped as badly as any body elses following the starting of the rains.

The Wagner is a rather hardy, good variety. It is smaller, not quite so oblong, a heavy bearer, a prolific grower, I think a heavier bearer than the Taylor. It bears young, very heavily. The Wagner has no objection of which I am aware except what we first considered its small size.

The season of the Taylor is primarily January, although we had to pick last year in November and December.

Following that is the Lula. The Lula, as you know, was developed by George B. Cellon. He named it after his wife. The Lula had a great many advantages. It is a rapid grower, good fruit, and color green. It seems to thrive splendidly on about half the fertilizer the Trapp requires. If you fertilize heavily, it seems to scab worse. Some people contend the fruit does not show a true scab, but it responds to Bordeaux Spray. I am inclined to believe it is a true scab that attacks the Lula, and attacks it more than any other variety, also it is susceptible to prevention by spray. The Lula has a late season, along in February and March.

Beyond the Lula, there are many experimental varieties—Iltamna, Panchoy, and Schmidt, all of which are fairly late. Our original plan in South Florida was to get a season which would take us not only from early summer, say along late June or July, but carry us through until April or May. However, the rapid increase of the development of the industry in California has changed that situation. California pears come into the market in November, so our prices last December were not so good as October and November. The California pears being small, the Californians with their usual methods of selling what they have to sell, have made the public think they want a small pear, and have sold the public on the idea of eating them on the half shell. This probably does two things—makes the public consume the small pear, and eat more than in a salad.

Our Exchange found that while heretofore size 60 was not wanted, it was one of our popular sizes last season. I think the most popular was 48. Heretofore it has been 36 to 40. This year 42, 48 and 60 were popular sizes, the reason being due to California's advertising them. Those facts are the ones I told you I would refer to with reference to sizes. Whereas at one time we thought the Taylor and Wagner were too small, we now find, because California has made those sizes popular that they are going to be good for us, and we shall plant them very heavily. There has been that change in the past two or three years in the marketing end of the game.

With reference to the California situation, just a little here. It costs the Californians, I don't know how much, but several times as much, I believe, to raise avocados as it does us here in South Florida. There are many men who will tell you they would be very glad to grow avocados if they could be assured of a price of \$5 per crate, and that they would consider them far more profitable than the orange or grapefruit. Now that, of course is only a part of the story. Some varieties cost more than others, but the main point is that the Cuban competition has made it very difficult for us during the summer and early fall when we have the Pollock, Trapp and Waldin. Cuba came in along in May and they stayed with us last year until November. Last year they had a 10,000 box shipment come into New York from San Lucie in the Bahama group, on one steamer. There has been so much done to upset our little play house here that the movement to secure a tariff has been very strong. I was requested by our growers to go to

Washington and appear before the Ways and Means Committee, to urge avocado tariff. The tariff we have asked for is 15c per pound. That may seem high, but remember that 95% to 98% of all our imports come from Cuba, and Cuba takes a 20% differential. There would thus only be 12c per pound applying to 95% and 98% of the imports.

We found the attitude of the members of the Ways and Means very favorable, but we found that there would be, possibly, some opposition in the Senate. That is what we are up against. We believe we are justified in asking a 15c tariff, and we want you to help us. In Cuba there are trees known to be around two and three hundred years old. The trees in Cuba, so far as I have been able to learn, are never fertilized. I heard of one exception—a grove of Trapps—but the Cuban merely throws his seed in the ground; it comes up and those trees bear two or three hundred years, bearing an increased crop every year, without an ounce of fertilizer. When the Cuban gathers his fruit, he goes out with a bamboo pole, knocks off the fruit and ships it, and when it gets here it is in competition with yours. It costs nothing to raise, it is knocked off the trees, and when it gets into the New York market you will see in one crate pears of different sizes, some round, some pear shaped, bottle necked, some pink, green, red. You know it is quantity which largely makes the prices, and while quality will have some effect, quality never has the effect on price it should have when in competition with quantity.

There is more than one place where they grow coffee where the avocado is grown for shade only in the coffee plantation. Don't you see if those men can get even one cent a piece for those fruit, what it means to them? They don't bother to "raise" avocados as we do; they have a yard of trees, and it comes in competition with ours. The tariff is one of the most serious and critical things confronting the avocado industry during its entire life.

Member: What about organic fertilizer?

Mr. Brooks: It is impossible to use organic entirely; we run strongly to that, but during the dry season it is necessary to use nitrates. If you give an avocado tree a large dose of nitrates all at once it is not good for it. You can give an avocado a little nitrate, but too much at one time injures. We run more strongly to organics in the summer.

Member: How often do we give it?

Mr. Brooks: That's a question of opinion.

Member: Don't you consider the main problems before the avocado grower today, are (1) to study the fertilization of the trees; (2) The root stocks which should be used, because up to the present time Florida has used almost entirely West Indian, and (3) The marketing of our fruits?

Mr. Brooks: Yes, I think, though in our section we consider the fertilization pretty well settled. I don't mean we are not studying it, the opinions of any two men are different, but in general I think we have this pretty well settled. Fertilize early and often; use some nitrates in dry weather. We can make a success with avocados without any better root stocks. With reference to the marketing that is the biggest factor.

With reference to planting, our method is to plant closer and closer, until I think most of us plant in squares of about 25 feet with one in the center, leaving every fifth or sixth row open for a roadway, not counting the check. Your tree will pay for itself when five or

six years old, including the land. If you have to cut out the check trees, at 12 or 15 years old, the tree has paid for itself. Plant your trees close together. By close planting we not only get less damage from wind in a heavy storm, but the constant dropping of leaves forms a heavy mulch thus preventing evaporation of moisture as well as enriching the soil.

Varieties selected by a committee of the Florida Avocado Growers Association for future planting.

Primary—Pollock, Trapp, Waldin, Winslowson, Collinson.

Secondary—Simmonds, Pinelli, Taylor, Wagner, Lula, Schmidt, Peterson.

Experimental—Fuchs, Kay, Caves, Colla Seedling, Wagner Seedling, Taylor Seedling, Panchey, Taft.