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## AVOCADO VARIETIES I AM PLANTING NOW-AND WHY

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The title to this paper may raise the question in your minds why I am planting avocados instead of limes or mangos. I will answer this question before I discuss the varieties I prefer.

I believe there is still opportunity to raise all these fruits profitably in South Florida, and there probably will continue to be for a long time. But with limes the present prospect is for overproduction during the next few years, with a poor price structure while we adjust the supply to demand. I believe that the outlook for avocado prices is better. As for mangos, their culture does not dovetail with that of avocados or limes the way the latter two do. Without any prejudice against mangos I prefer not to try to mix them with my present operations, which are mainly limes and avocados.

Continuing to the subject of varieties let me enumerate the qualities which we believe any commercial variety should possess. This has been done many times before but it is well to review them when we discuss this matter.

The tree should be vigorous and prolific. We want crops of at least 250 bushels per acre every year. This means the tree should not only be able to set a good crop when it is in good condition, it should also maintain its condition sufficiently to bear again the following season. Most of our commercial varieties are satisfactory in these respects but there is variation in degree, and heavy bearing tends to outweigh all the other desirable tree characteristics. We would also like it to be low growing like Booth 8, rather than tall like Lula, to facilitate spraying and harvesting and to reduce its susceptibility to damage from wind. The branches should be strong enough to bear a load of fruit without undue breakage; there is considerable variation among different varieties in this quality. Beyond this we would like the tree to be hardy to cold and resistant to damage by disease and insects, although in my area we are prepared to accept weakness in these categories if we can get what we want in the others.

Just as prolificness is the most important quality in the tree, so good shipping quality outweighs most other characteristics in the fruit. Size, shape, appearance and eating quality are factors, to be sure, but the sine qua non is that the fruit arrive at its ultimate destination—the consumer's table—in some kind of decent condition. This means it must stand a moderate amount of refrigeration without turning black, and it must not become mushy too quickly after it starts to soften. Of course we would also like the fruit to have good flavor and a small, tight seed, and to be an attractive dark green color externally, and not too prone to show small scratches and bruises, but we will settle for less than top rank in this characteristics if it is a good shipper.

The foregoing qualities are desirable in all varieties; there are two more characteristics

which are subject to change. Those are size and season. For many years we looked for small fruit; now it has turned out that there is a good demand for large, high quality fruit as well. There has always been a market for big Pollocks in July and August; we find a similar demand for Monroe, Choquette and Hall later in the season. Good table quality is more important in these big fruit, which go to a strictly fancy trade, than it is in the smaller varieties.

Generally speaking, I would like to be able to supply the market over the entire season, July through January, with both large and small fruit. At the same time I would like to keep my variables to a minimum and use the smallest number of varieties possible. Assuming that we use different varieties to furnish the large and the small fruit, this might be accomplished with eight varieties, two each for the periods July to mid-August, mid-August to October, October to December, and December to February. The fact that we actually ship over 40 varieties indicates that we have not yet found varieties that fulfill all our requirements satisfactorily. I will discuss my choice of varieties in terms of the two size groups and the four periods required to extend over the whole season, first emphasizing that my classifications are arbitrary and none of the varieties fits neatly into a given size and season slot.

For large, early fruit I prefer Simmonds. It is not as handsome as Pollock and the tree is a weak grower but its quality is equal to that of Pollock and it bears better.

I do not know any satisfactory small early variety. Nadir bears well and has good market acceptance, but it usually is not mature until mid-July and it has a very short season. The tree is vigorous but it is the tenderest to cold that I know, and the wood is weak and brittle. I am using this variety until a better one is found to supply small fruit from mid-July to mid-August.

From mid-August to October Waldin, a medium-sized fruit, is pre-eminent. I do not expect it to be replaced soon although Ruehle, a seedling of Waldin which is slightly earlier and somewhat larger, may be planted more extensively in the future. Petersen is a small fruit that might be considered a good companion for Waldin or Ruehle. It has good external and internal quality but like Simmonds the tree is hard to grow. It has not been very common in the past but I notice Petersen in several young plantings and I am planting some myself.

Another medium-sized fruit, Tonnage, is one of the earliest of the Guatemalan-West Indian hybrids, maturing in September about three weeks before Booth 8. It is not a particularly good fruit in a number of respects but because of its hybrid characteristics there has been a good demand for it when the market on Waldins was weak, so the acreage to it is being increased. I have some doubts as to the wisdom of depending on this preference to persist sufficiently to absorb a large volume, and am not planting any of this variety myself.

Booth 8 fills our requirements for small fruit in October and November so well that we are not seriously looking for a replacement. I know of no good large fruit for this period, such as Simmonds in July or Monroe in December. Black Prince is used at this time but in my opinion its eating quality is inferior. Choquette, beginning in November, is possibly the earliest of several good large fruit.

The situation with late fruit is reversed. We have three good large varieties in Choquette, Hall and Monroe, but no satisfactory small fruit. I consider Monroe the best of the big ones but the other two are also good if not picked too soon. Lula, intermediate in size, is the most popular variety from Thanksgiving on but it has many faults and I hope to see it replaced by a smaller fruit of better quality.

I have named nine varieties which may be used to supply the demand for both large and small fruit from mid-summer to late winter, leaving only two gaps—one for large fruit in September and October, and one for small late fruit. I would plant any of these which I did not have. It happens that I have Waldins, Booth 8's and Lulas to take care of the later production so I am concentrating on the earlier varieties—Simmonds, Nadir, Petersen and Ruehle. I am also planting some of the DuPuis No. 2 variety, which shows promise as a good quality fruit which may be earlier than Simmonds. It has not been sufficiently tested yet to warrant planting on other than a large-scale experimental basis. I must admit that I am planting one more variety that I cannot recommend. That is Trapp. This obsolete standby of a generation ago has a single qualification besides being of fine eating quality: its flowers are of the B type opening, and all the other summer varieties are A's. I hesitate to plant a solid block of a single flower opening type, so I am mixing a few Trapps with them. If a better B variety, large or small, for the summer months appears I am prepared to topwork all the Trapps to it.

Except for Trapp I believe most of the newer groves in South Florida consist of the varieties I have named. There is more interest in development of new varieties now than there has been for some time, and we may expect several on our present list to be supplanted by better ones before long. It will be interesting to compare this list with a similar one ten years hence. By that time I hope that at least we will have found a replacement for Lula.