

Climatic Limitations on Avocado Growing in Florida

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When we began to consider the possibilities of avocado growing by the introduction of the hardier Guatemalan and Mexican strains a few years ago, we did so at a most unfortunate time. Just as people throughout the orange belt began to try a few trees as an experiment, along came one of our unusually severe winters, and the little trees just planted were pretty generally killed. Many tried again, and were visited by a second severe winter, and generally became discouraged, and gave the matter up as a bad job. This result is very natural, and it is a misfortune which cannot be helped, and could not have been foreseen and prevented. I will confess that I was caught myself.

After the cold winter of 1917, I believed, according to the law of probabilities, we were entitled to one or two mild or normal winters and planted a few hundred Mexican and Guatemalan trees without protection on Indian river, where I have, an interest in an orange grove. They were set in November, and though my partner made some attempt to save them by banking, I believe he was too late, and at any rate he failed to save, them. Many afterwards sprouted from the grafts, but all finally died, partly perhaps owing to unusually dry weather. I think he was so disgusted by their freezing he neglected to water them, which contributed to their total loss. However, a customer of mine planted a lot at Arch Creek about the same time, encouraged by my example, and had a similar experience, the sprouts from the graft nearly all finally dying out. We gambled on the weather, and failed to realize how much more susceptible a newly planted tree is than one that has become rooted and established, and lost out, like many others.

I have heard of a number of instances in parts of Florida where colder winters are expected, where young, newly planted trees were brought safely through both winters, by giving them adequate protection. I cannot say that a young Guatemalan avocado bud is more tender than a citrus bud of the same age and size, but there cannot be very much difference in either direction, and it is very unfortunate that more of us failed to realize this fact sooner.

When California is able to grow avocados extensively there is no good reason why we cannot do the same. I shipped several thousand trees of the West Indian type (mainly Trapp and Pollock) to that state in the falls of 1912 and 1913. A few years sufficed to prove that the type was too tender for that climate. However, all the avocados, practically speaking, which have ever fruited in Florida or appeared in the eastern market, for that matter, are of this type, and we can point to very large, old trees, as well as hundreds of acres of younger bearing groves, to prove that Florida climate is not too cold for them. If we took anything like the pains to protect our trees from cold that they do in California, there can be no doubt about our ability to establish bearing groves of

the hardier strains that will grow all over the orange belt.

It would be a great mistake to abandon the game now. We should try again, and in each instance protect the young trees sufficiently to save them from such cold as visited our locality in the winters of 1917 and 1918. The cost is relatively small, compared with the value of the grove, when once established, and there can be little doubt about their holding their own, when once safely past the second winter.

We have had very little experience to go by on the Guatemalan strain, but we know how much the West Indian trees gain in hardiness with age. For instance in 1918, south of Miami, young West Indian trees set within the preceding 18 months were generally killed to the ground, while trees 3 years old and up suffered relatively less in proportion to their age and size. Old bearing trees often came off "scott free," and anyhow only lost foliage and small branches, sometimes only reducing the crop, and never jeopardizing the crop for the ensuing year. I did not see any Guatemala type trees either young or old noticeably affected by the cold. Probably they will be as safe from Polk county south, as the West Indian are on the lower East Coast, while in certain protected spots, where West Indian seedling are now growing, budded trees of this type may be safely planted.

The existence of some large Mexican type seedlings, 40 feet or more in height and about 25 years old, near Waldo, Alachua County, and which produce regular crops of fruit, proves conclusively how far north this type may be grown. The fruit of this strain possesses higher food value than that of either of the others, as its proportion of fat averages greater by 5% to 10%. The fruit is usually very small, and the flavors not quite as delicate as the other types, but these defects are being remedied by the introduction of improved varieties. The Gottfried, introduced by the United States Department of Agriculture, fruited at the Miami Experimental Station last summer, and a specimen which I had photographed, weighed 19 ounces. The flavor was good, and superior to any of that type I had tasted, and some people who tried it pronounced it superior to the common fruit of the West Indian type, which at that time was plentiful in the home market. For my own part, because of being already accustomed to the flavor of our common fruit, which runs from 12% to 18% fat, the richer Mexican with 22% to 30% does not appeal to my fancy, but I believe it is merely a matter of education. Given a fruit of as good flavor as the Gottfried, I think, one who had never tasted either, would likely prefer it to a Trapp or Pollock. Anyhow, the question of food value is undeniably in its favor, and it would be well worth planting for home use as well as for local markets, where the other types could not be safely planted.

One of the great features which favor the Guatemalan type for market planting, is that its normal ripening season is half a year later than that of our common West Indian, and I believe our growers will make a grave mistake if they allow themselves to remain discouraged by the losses of the past winters, and fail to plant, and adequately protect some of these trees. We have a milder climate than California, and there is no excuse for us to allow that state to monopolize the winter avocado business because we are too parsimonious to spend a little money in protecting our young trees, as they do, at an expense much greater than ours would be here.