

Observations of Avocado Culture on the Ridge

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Growers on the Ridge have watched with considerable interest the planting of avocados in that section. During the past two years there has been much more interest shown in agricultural development and many have seen the avocado as a big future possibility. The low prices received for citrus fruit this season has also added to the number of inquiries. These factors have had much encouragement from the avocado growers as their groves have come into production.

The excellent manner in which the groves came through the cold spells during the winter's one and two years ago has more clearly shown the value of a grove location on the southeast side of a lake. The benefits of air drainage were ably demonstrated. A grower now wants a location on the southeast side of a deep lake if possible; a piece of land with a gentle slope and good air drainage, but above all, one that does not have any low cold pockets or dips.

There has been a change in space of planting and now some growers are planting trees in the center of the checks between the tree rows. Observation indicates that the avocado tree stands close planting very well and in many cases bears fruit more heavily. It is certain that if the yield per tree remains the same, that with a larger number of trees, the net profit per acre will be higher, a point which is very interesting to all growers. The spacing of 20 by 20 seems popular, but very many prefer 15 by 25. This gives more space in the middle to grow cover crops and handle the fruit when the trees get big. The alternating of varieties down the row 15 feet apart should place the trees close together for pollination.

If one can mix several bushels of good stable manure with soil in the spot where the tree will be set and allow this to season or mellow a few months before planting, he will be well repaid for his efforts.

In setting out the trees many growers have reported considerable loss during the first year. Mr. W. F. Ward of Avon Park has only a small loss of trees the first year after setting since he has been using sphagnum moss on the surface of the ground around the tree. After the tree has been set and properly watered he places about a gallon of sphagnum on the ground around the tree and pours water on this. Sphagnum or "deer moss" as it is commonly called is the moss we generally find growing in our bay heads or around lakes. The moss is not disturbed, and each time when watering the tree, the water is poured directly upon it. This moss keeps the ground cool and seems to keep it much damper than any other method he has used. Certainly the reduction in the percentage of trees lost during the first year, speaks for the efficiency of this method.

The writer has used this method with other types of trees and also when transplanting

shrubs, with very good success.

The avocado trees are protected from sun and winds the first year by driving laths several inches in the ground in each of the four directions and about a foot from the tree and then stretching burlap or fertilizer bags around these stakes.

Many have not understood that most of the pruning of avocado trees can be done simply by breaking, off the dead limbs. These limbs which are very brittle snap easily and little work is done with the pruning shears. Citrus growers are also beginning to use this method of pruning.

Past experience has shown the growers on the Ridge that it is poor policy to prune trees immediately after being injured by the cold. Even though the trees may seem to have been frozen down to the banks they should be left alone and no pruning done until a couple months later when the new growth has all come out and the full damage can be determined.

Several people who are familiar with avocado culture in the various parts of the state have reported that trees on the Ridge come back quicker after a frost and make a more vigorous growth the first year than is done in most other sections.

There has been a change in ideas regarding the time of fertilization. Formerly the trees were fertilized about the same time as citrus fruit. Now many growers are applying the spring fertilizer in April instead of February. They claim that by this method they are able to get more fruit to stay on the tree and not fall off a few weeks after blooming. The fertilizers used so far have usually been about the same as citrus except at least one per cent higher in ammonia and perhaps less potash. Growers state that they prefer to have half of the ammonia from organic sources. Much more study should be done in fertilization as the results so far have often been contradictory as reported by growers. This is one of the biggest problems we have to work on.

Cover-crops are becoming more popular each year. The results secured from the use of legumes in this manner have been very gratifying. Crotalaria seems to be the most popular as it yields a much higher tonnage per acre than either cowpeas, beggar weed, or velvet beans. When crotalaria is used the seed is sown from March to June inclusive at the rate of ten pounds per acre. If one is afraid of pumpkin bugs he can mow the crop when the bloom appears in August or September and then perhaps, again in November. The writer has not heard of any pumpkin bugs injuring avocados. The crotalaria is disced down in November and by spring is brittle and can easily be incorporated with the soil if so desired. With the present low price of crotalaria seed and the high price of cowpeas and other legumes the former is much more economical. Indications point to a good supply of crotalaria seed at a low price again next year.

The use of irrigation has proven beneficial and fully justifies the expense if the grove is located near a lake. The system of concrete pipe and risers as recommended by E. F. DeBusk for a citrus grove should prove very satisfactory. Several growers are planning to install systems of this type.

One criticism of avocado culture on the Ridge has been that the trees have not fruited as heavily as desired. Groves planted in the past, until the last few years had very little attention paid them as to selection of varieties which would pollinate each other. Then

too, we have taken the word of parties who had other varieties under conditions much different from ours and based the selection of varieties upon their recommendations. We need to find the proper varieties for the Ridge.

The Fuerte which does so well in California has been a very poor fruiter in Highlands County. The Eagle Rock however, has been one of the best fruiters. The tree bear very young, have good crops of fruit, stand the cold fairly well, and matures the fruit during late February and March. The fruit of this type in the Ivey grove at Lake Placid sold at from nine to twelve dollars a dozen a year ago and commanded a very good price again this year. The Eagle Rock has been, by far, their most profitable variety because of good yields and good prices for the fruit. This variety is very difficult to make survive the first 18 months after setting out in the grove.

The Lula is another variety of the Guatemalan type which has proven good on the Ridge. The fruit is also green in color when ripe and weighs around a pound or about half as much as the Eagle Rock. The Lula matures during November and December and commands a good price in the markets.

The Collinson has fruited well. It is a Guatemalan Hybrid and matures fruit during January and February. The Winslowson is another hybrid type which gives promise on the Ridge. The fruit weighs about two pounds and matures during November and December and is very similar to the Trapp which latter variety has not proven as successful on the Ridge as it has on the East Coast.

Some growers place the varieties as follows according to the adaptability to the Ridge: Collinson, Lula, Winslowson, Eagle Rock, Trapp, Waldin, and Pollock. The Collinson, Lula and Waldin are of the A type with reference to bloom, while the others are of the B type. The A and B types should be planted in adjoining rows to secure proper cross-pollination.

The selection of root stock has not received the proper attention by some growers. A type which is compatible with the scion should be chosen.

There are opportunities for the planting of more avocado trees on the Ridge as this wonderful fruit has a big potential market. With proper care to produce the fruit at a fairly low price the chances of success should be good.