Methods of Handling Groves on Terraceia Island

T. Ralph Robinson

In the absence of the chairman of the Committee on Methods of Handling Citrus Groves, I have set down not any rules, but merely a few observations on this subject.

As a newcomer to Florida, my observations will necessarily be limited to and perhaps apply to a rather small section of this large State. The grove practices on Terraceia Island, in Manatee county, have been alluded to and discussed at some length in the “Florida Grower,” especially the methods followed by Mr. C. S. Blood—called by the editor of the Grower, “The Blood Method.”

The groves of the Terraceia Estates, now under my care, were set out under Mr. Blood’s direction, and his methods used in most of the setting.

First of all, the method or system consists in close planting, the spacing being 14 feet 9 inches in squares, giving 200 trees to the acre. The trees are set on mounds eight to ten inches above the level. They are headed low and grown in bush form.

For the first four or five years the trees are hoed around and the open ground cultivated with the cutaway and Acme harrows, keeping the harrows from running close to the trees. After that the only implement used is the hoe. The stock generally used is the rough lemon, budded to grapefruit. Few oranges are now grown on Terraceia. Fertilizer is used rather liberally—it is simply broadcasted, no especial effort being made to work it into the soil other than the occasional hoeing the grove receives. Irrigation by means of flowing artesian wells is rendered very easy, and water is plentifully supplied when needed, so that the soil at all times readily takes up the soluble part of the fertilizer applied.

After six to eight years of normal growth trees so planted should shade the whole area so that very little hoeing is required. The feeding roots are very near the surface, and the aim now is to disturb them as little as possible.

The dense shade in such a grove reduces rust mite attack to a minimum—it might on the other hand favor such fungous troubles as melanose. The shade also protects the ground in summer, like a mulch, from the fierce heat of the sun, so that the surface feeding roots are uninjured. The thickly planted grove also furnishes its own protection, in a large measure, against wind and cold.

As to results—the production of fruit and profit—as soon as the roots of the trees meet across the middles, and they are thus competing for ground, the growth of new wood becomes somewhat restricted, but they take up the business
of bearing fruit—nature’s first effort at reproduction in the struggle for existence. They are thus producing some fruit at three years, and a considerable crop at four years from setting. At eight to ten years they are practically in full bearing. Of course, this assumes that they have been set out on ground suited to the production of a grove, and have been given at least ordinary good care in the matter of cultivating, fertilizing, pruning, etc. Drainage is also an important factor in the steady growth of a grove, especially on our low hammock soils.

The method briefly outlined is practiced with some exceptions and variations, quite generally over the island. Most of the plantings will give 100 to 150 trees to the acre, though there are a few acres that will exceed Mr. Blood’s standard of 200 to the acre by a hundred or more. Instead of setting in squares, the hedge-row method is followed by many, spacing the trees twenty-five or twenty feet by ten or twelve feet. In one grove there are two rows on the edge of the grove, spaced 20 feet by 5 feet—90 trees in all—that yielded this year a car load of fruit from one-fifth of an acre. These trees were set by Mr. W. L. Halsey more especially to act as a wind-break, but they are certainly serving a double purpose.

There are obvious drawbacks to such methods of close planting, chief of which to us is the difficulty of picking and hauling fruit out of the grove. This is overcome in some degree by omitting occasional rows, and using sleds or hand carts out to these roads.

It will also be objected that the normal or wide spaced grove, say seventy-five to the acre, will be at twenty-five or thirty years the best money maker after all—perhaps so. If, however, the owner of a close planted grove finds after a term of years that his trees are really suffering from over-crowding, it would not be an impossible thing to take out every other row. He would still have left as many trees to the acre as the average grove.

Some of the close planted groves of Terraceia are now fifteen years old or older, and are showing no signs of going back as yet. They have already paid for themselves several times over, and have well satisfied their owners with the method of close planting, at least for Terraceia.

DISCUSSION.

Mr. Hume: The question has been asked, Mr. Robinson, as to whether it is necessary to prune the trees on Terra Ceia Island.

Mr. Robinson: The only pruning we do is to take out all the dead limbs, leaving a roadway under which a mule can travel.

Mr. Marks: I would like to ask if the trees in the Platt grove are on ridges, and what the capacity of those 15-year-old trees is.

Mr. Robinson: The trees are set on mounds, which practically places them on ridges. We irrigate the surface, running water down the middles, and capillary attraction takes it up to the tree.

Mr. Blood’s grove this year, ten acres, turned out over 8,000 boxes. Mr. Painter says one year, 11,000.
Mr. Marks: That means he gets about three to five boxes to the tree. Mr. L—— has a grapefruit grove, trees set about 22 feet apart, where thirty-five trees produced between 1,200 and 1,300 boxes; that makes about thirty-five boxes to his trees, as against five boxes. His trees are set about eight to ten feet apart.

Mr. Hume: Same age?

Mr. Marks: Fifteen years old.

Mr. ———: I recently picked grapefruit from budded trees not over seven years old. I sprayed my trees with Bordeaux Mixture, making them drop one, two or three boxes. There were about ninety-odd of these trees, but from the most of these trees we picked, week before last, from eight to thirteen boxes. They are either six or seven-year-old trees, planted twenty-five feet apart.

Mr. Prouty: Some time ago I decided that it was not the best plan to spread fertilizer over the surface, so I decided to make a soil for my grove. The old growers laughed at me, but I had decided I would not put my fertilizer on top of the ground to feed the weeds. I set my plow so as to regulate the depth I wanted my roots to go, and attached a distributor to follow the plow and broadcast the fertilizer in the bottom of the furrow. ‘‘Now,” I said, “the roots are going after the feed; I want them down under the ground, and not coming to the surface to dry out.”

We plowed and fertilized in the same way for cantaloupes and for watermelons, and you ought to see the cantaloupes where I tried this plan, and where I didn’t put any fertilizer at all, and where I put it on the surface. It certainly furnishes a striking comparison.

In my grove I am trying it out this year, and next year I will tell you how it pans out. I put 400 pounds to the acre in my own grove, where other people said I should put 1,000 pounds. Some of the fertilizer men said “You will put us out of business.” I said, “No, not if you can show the people that they get the good out of every pound of fertilizer they use.”

I have one grove that was run down, and I bought it for $60.00 an acre, and the man who sold it to me would like to get it back for $1,000.00 an acre. In that ten-acre grove I have put the great amount of two tons of fertilizer on this plan.

Now, I am giving you this for what it is worth. I am the best person to “fall down” you ever saw, and pick myself up again. I can run backward as well as forward. I just want to call your attention to my theory that it is best to make a good, solid, universal soil, instead of a special soil, so that all the ground is good, instead of a little layer of it. It is working well, so far. The demonstration has worked out all right, to my own satisfaction.

I made this machine for my own use—it is not on the market.