

PRESERVATION OF THE FUERTE VARIETY

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The importance of this variety to the California avocado industry was stressed in an article in the 1968 Yearbook, p. 35. It was pointed out that, while in the past, the Fuerte has served as the "backbone" of the development of the California industry, almost no new Fuerte orchards are being planted today. This is due to the fact that there is such great variation in yield between individual trees in any given orchard and that profit, on a per acre basis, is too discouraging.

One line of research, looking toward solution of this problem is, in the opinion of the writer, well worth while and is submitted here for consideration.

Rootstock Investigations

Because of the necessity of using heterozygous Mexican race seeds, with such variable heredity, there results, among other things, wide variations in time of blooming of Fuerte trees in the same orchard. Aside from weather and environmental variations, the trees which bloom heavily and very early, have no bloom left by the time night temperatures reach the point high enough to be conducive to flower set. This results chiefly from the different influences of diverse rootstocks. Those trees which bloom scantily and late set the most fruit. Of course there are many gradations between these two classifications.

As I see it, the problem is to learn how to reproduce nursery trees by vegetative propagation from tile rootstocks of the best bearing late blooming trees. This will involve budding the Fuerte on rooted cuttings grown from the rootstocks of the best bearing trees to be found after an industry wide search. As pointed out in the article previously referred to, there is much variation in the "rootability" of seedlings of the Mexican race. Therefore, the rootstocks of many of these best bearing trees should be tested to find one or several which have good enough rootability to appeal to commercial nurserymen.

When an avocado tree, old enough to have a good crop record, is wounded at or below the bud union, it will usually send up one or more shoots from the root. If the top of the tree is opened up enough to allow the shoots to grow up and branch out in full light, they should soon produce twigs mature enough for rootability tests. Such treatment need not permanently damage the usefulness of trees so treated. Those whose cuttings show lack of commercial rootability should quickly recover.

Many years ago Eggers, Halma and Frolich experimented and found difficulty in rooting some kinds of Mexican avocado cuttings. But with cuttings from Mexican seedlings Eggers and Halma got as high as 85 per cent success in one type of test.

While such tests, made 35 years ago, were indicative they were by no means exhaustive. Since that time, great progress has been made in the technique of inducing root formation on cuttings of many kinds of plants. It is high time this problem should receive additional research. When the rootstocks of a few record bearing Fuerte trees with commercially acceptable rootability are located, the best method of procedure should not be difficult to work out. Such a program need not be unduly expensive where many growers cooperate in locating trees worthy of testing. A greenhouse would be needed with all necessary supplies and equipment, together with qualified personnel. The element of time need not be great compared with the time spent on the avocado root-rot problem. In three or four years some indication of success or failure should be apparent. If successful, two more years for the practice of budding Fuerte on uniform stocks to be commercialized.

The rush to top-work to Hass, root-rot losses and encroaching subdivisions are reducing the number of Fuerte trees still in bearing. Granted that nursery trees grown in this proposed way would be more expensive than conventional style trees grown from seeds. But, looking to the future, what variety will the avocado market turn to, in sufficient volume, for the important season January to May when the Fuerte is but a fading memory? Is it not high time to test any plausible method of producing Fuerte nursery trees which will bear profitable crops more uniformly?