

VACUUM FUMIGATION OF AVOCADO NURSERY TREES

*Office of County Horticultural Commissioner, Santa Ana, California, June 7, 1926.
Dr. J. Eliot Coit, 1880 Linda Vista, Pasadena, California.*

Dear Dr. Coit:

In response to an inquiry made by you some time ago regarding vacuum, fumigation of avocado trees, I wish to say that we have had an opportunity to make some tests, and feeling that this information might prove of interest to you, I decided to give you the results on our work.

Up to date we have fumigated only a few budded avocados, and in some cases the results have been disastrous; the vendor has had to replace the trees owing to the fact that the purchaser complained of the severe injury caused by the fumigation. These were, of course, balled trees.

We have had a little different experience in handling potted seedling avocados. We have fumigated now, I should say, roughly, several thousand and thus far no serious complaints have been made by the nurserymen or purchasers of such trees. In fact, about the only injury caused has been a little tip-burning, and this is considered of no importance because the trees send out new growth in a very short time.

All of the trees that have been vacuum fumigated have been given the 110 percent schedule or 20 cubic centimeters of liquid hydro-cyanic acid gas for each 100 cubic feet of air space and they have all been fumigated under a 15 inch vacuum with an exposure of one hour.

So, it would seem from the results obtained thus far that it is possible to vacuum fumigate seedling avocados where the roots are well protected in the small balls of earth surrounded by tar-paper or in cans, in which they are ordinarily moved, without any serious damage. This may apply, however, to only certain seasons of the year; later, the damage may be increased. This is true in handling citrus. We are able to fumigate through the Winter and early Spring months with little damage to balled citrus trees but through June and July, occasionally, we get some serious burning regardless of the precautions and care exercised. Therefore, the season and the condition of the trees at the time of fumigation do have a great deal to do with injury to citrus trees and I believe we can reasonably assume that the same conditions prevail in the growth, development, and season in handling avocados.

Very truly yours, A. A. BROCK,
Horticultural Commissioner.