

Effect of Vacuum Fumigation on Avocado Scions

The prevalence of Latania scale in important sections of the avocado growing areas of California, and the county quarantines which have been established to prevent its further spread, have hindered the free distribution of scions of new varieties. It is important that some of the newer varieties be tested out in Ventura and Santa Barbara counties. Nursery stock or scions are not admitted into these counties from further south without vacuum fumigation. Little or no experience is available as to the effect of such treatment on the viability of * avocado scions.

The writer tested the matter as follows: Scions of the Edranol variety were cut Feb. 20, 1935 and the ends dipped in bitutect and dried. The scions were then sent to Commissioner Tubbs of Orange County who subjected them to vacuum fumigation on February 28 as follows:

18 c. c. per cu. ft. Hydrocyanic acid gas.

27 degree vacuum

Temperature: 53 at start and 60 at finish

Time 9 A. M.

Exposure one hour

Humidity 80%.

These scions were returned to the writer by parcels post and used for grafting at Vista on March 9th and for budding on March 16th. In each case grafts freshly cut from the same mother tree were intersset on the same stumps as a check.

The results showed that the fumigated buds and scions of this variety grew approximately as well as the fresh scions. It is believed that the dipping of the ends of the scions in bitutect was of value in preventing the Hydrocyanic acid gas used from being drawn into the tissue of the scions and causing injury. This test, while indicative, should be repeated, using many varieties both dipped and undipped.

J. ELIOT COIT.