

which effected self- and close-pollinations (including forced pollination of first-period flowers) far in excess of what flowers of any orchard tree is likely ever to receive. If these varieties readily set fruit without cross-pollination the tented trees should have set fruit more abundantly.

The flower behavior of adjacent trees of Taft and Trapp was studied during the season (see Figs. 10 and 11). For each there was a rather complete daily alternation with chances for self-pollination or for close-pollination of first-period flowers only through the forcing of flowers by the bees. The results obtained with the tented trees show that almost no fruit was set to enforced self- and close-pollinations and that proper cross-pollinations were necessary for adequate fruit production.

THE POLLINATION AND THE FRUITING OF THE COLLINSON AVOCADO

The fruiting of the Collinson avocado is of special significance in regard to the amount of cross-pollination which may occur under orchard conditions. This clonal variety is completely pollen-sterile(15, 18 and 19) and it furnishes no pollen for any sort of pollination. Tests under tents(6) show that trees of Collinson are unable to produce fruits without cross-pollination. This variety has been rather widely planted in Florida where it is usually highly fruitful. In fact, it received first place by vote in a questionnaire sent out to growers in 1931 as being very uniformly fruitful and highly desirable for general culture. Robinson and Savage(8, page 8) state that "The fact that this excellent variety fruits well in mixed plantings is convincing evidence that cross-pollination is the regular method of fruiting with avocados generally, and in this case it is the only possible explanation of fruitfulness."

The fruiting of the Collinson may be confidently viewed as the result of cross-pollinations with some other variety or varieties and as evidence that when conditions are favorable cross-pollination may rather readily be accomplished.

ON INTERPLANTING AVOCADOS

The advantage to be gained by interplanting avocados lies in the chance that there will be cross-pollinations which increase the yields of fruit over that obtained in solid-block plantings of one variety.