

## Avocado Clonal Rootstock Trial

M. L. Arpaia,  
Cooperative Extension,  
Department of Botany and Plant Sciences  
G. S. Bender,  
Cooperative Extension,  
San Diego County

There has been extensive research conducted by the University of California to identify rootstocks which are resistant to Phytophthora cinnamomi, but little evaluation of the horticultural attributes of these selections have been made. A production trial at the South Coast Field Station has been established in order to evaluate the performance of the 'Hass' and 'Gwen' avocado on selected clonal rootstocks. The 'Hass' trial, with the exception of two rootstocks, was planted in May 1986. The missing rootstocks were planted in May 1987. The 'Gwen' trial was planted in September 1987, with the exception of two rootstocks. The missing trees will be planted this spring. The rootstocks which are included in the trial are: Martin Grande A, Martin Grande B, Martin Grande C, Toro Canyon, Borchard, Duke 7, D9, Thomas, G1033 (Bass only), and Barr Duke (Gwen only). Topa Topa, a seedling rootstock, is also included in both trials. We have been periodically collecting data pertaining to tree performance. In February 1988, we collected the first yield data from the 'Hass' planting.

At this point in time, we have very little information to share with the industry pertaining to this project. All trees which have been planted are well established except for a small number which have succumbed to either wind damage or frost. These trees will be replaced this spring. We anticipate being able to provide the avocado industry with annual updates on tree growth and yield. Once the trees are bearing regularly, we plan to also collect data pertaining to the relative rate of fruit maturity and fruit size distribution. We also hope to follow the nutritional status of both trials by the use of leaf analysis to see if the fertilizer needs of the trees are possibly influenced by rootstock.

We anticipate that this project will continue for another 12 - 18 years. Although new and better root-stocks will undoubtedly be available by this time, the results from this trial will provide useful information to the avocado industry concerning the possible influence of clonal rootstocks on overall tree performance.