Name of Project: Avocado Improvement

1. Fertilization. A test plot for the demonstration of the value of phosphates and potash in addition to nitrates and organic matter was established on the Captain L. L. Bucklew Ranch at Encinitas. A map showing plots and applications is attached. Test plots on Roy Kepner's and Geo. Pratt Smith's ranches at Escondido and Vista were discontinued after five years of trial in the use of phosphates and potash in addition to the use of nitrates and organic matter, because of no significant results except the conclusion that phosphates and potash did not increase yields of avocados under conditions existing on those ranches. Both ranches have a record of comparatively high yields. Kepner's 7,000 pounds per acre in 1956-57.

2. Avocado Varieties. A committee consisting of R. Track, A. Hazard, R. Kepner, Dr. E. Colt, J. Shepherd, Dean Palmer and Jean Miller cooperates with the variety committee of the California Avocado Association. All new and promising varieties or seedlings are checked for characteristics and if of sufficient promise are studied over a period of time to determine their likely commercial value. A large number of seedlings are now under observation in San Diego County.

3. Pruning demonstrations have been conducted. Pruning does not lend itself to test plots as it is not a matter of method but one of individual tree training or adjustment to certain cultural requirements.

4. Orchard heating was demonstrated at three field meetings and one county group discussion. Three survey records were taken from growers doing orchard heating. Observations on orchard heating for orchard frost protection will be reported in further detail under the subject of 1937 freezes.

5. Root stocks and tree records are activities cooperated in by B. M. McDonald, Fallbrook; A. G. Hazard, Vista; R. Kepner, Escondido; John Hathaway, El Cajon; A. DeBerd, Vista and D. W. Wilt, Fallbrook.

6. Irrigation is discussed under County Project No. 92.

7. Pest Control. Natural enemies of Latania scale and soft brown scale have largely eliminated these two pests. The work done by the Agricultural Extension Service in cooperation with Dean Palmer at Carlsbad and Encinitas in the control of Dothiorella rot has resulted in meeting that problem through careful elimination of dead wood and more careful irrigation practice in the elimination of tip burn, both of which were sources of infection for the fruit. This together with the tendency of topworking FUertes in the coastal area where Dothiorella was a problem to varieties not subject to its damage has just about eliminated that problem. Sprays were found which would control Dothiorella rot but were found to be prohibitive because of cost.

8. Tree replacement, orchard thinning, and topworking represent activities about which information is developing and in which there are many problems yet unsolved.

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Frank C. Miller
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