Avocado Men Go A-Visiting

Jack Shepherd

Three tons of avocado growers—38 men from the southern avocado counties—toured by bus through the northern districts on April 28-29. This was the second such bus tour to be made; the event bids fair to become an annual custom, subject to availability of transportation facilities.

Purpose of the jaunt was again to observe grove conditions and practices in various avocado districts, and to foster exchange of viewpoints among the men visiting and visited, as well as to enjoy an unusual outing.

First stop was made at the Irvine Ranch, in Tustin. New Calavo Director Owen Murray boarded the bus, and pointed out interesting features of the ranch, with particular stress on the avocado plantings. Unfortunately, rain prevented the party from leaving the bus to look more closely at the trees —the only time, as it happened, that bad weather was encountered.

The journey continued onward to La Habra, via the scenic drive over Peters Canyon road. En route, it was possible to see many of the conditions existing in Orange County. Large, vigorous trees were glimpsed, on flat, deep loamy soil; other trees were noted, on the hillsides, ranging from excellent groves to those showing extreme decline.

In La Habra, the group was met by Orville Espolt, who conducted the men through his six-acre orchard of twelve-year-old Fuertes. These trees have an excellent bearing record, having shown an increased yield over the previous crop every year since 1935, with the exception of the 1940 season. The current crop yield per tree will average approximately 175 pounds of Fuertes. Particularly interesting was the observation of the amount of fruit on relatively small trees on fairly heavy soil, and the uniformity of the trees.

Proceeding to the H. C. Smith grove in Rivera, the party saw an excellent 1940 planting of Fuerte, Hass, and Henry Select. This planting of 1300 trees is on Hanford fine sandy loam, and has shown splendid growth. Unfortunately, an early freeze this year caught the trees in a flush of growth; and caused rather severe damage, from which recovery is just beginning.



Avocado tourists in the gardens of the John J. Mitchell estate, Santa Barbara.

Following lunch, a visit was paid to the subtropical gardens at the University of California at Los Angeles. Two hours were profitably spent here under the guidance of Prof. Robert Hodgson and Dr. Walter Lammerts. So extensive is the work being done at the university, that it was possible only to highlight a few phases of the studies, with emphasis on the project whose goal is the improvement in the yield of present good varieties, or the origination of other varieties to replace or supplement varieties now produced. Prof. Hodgson conducted the group through an experimental plot devoted to the study of Fuerte strains. Pairs of trees of recognized strains have been propagated, and records are being kept of their growth and productivity. Additional data are being accumulated from trees of the various strains located in commercial plantings. The university planting is still too young to permit definite conclusions to be drawn, but the project should prove of inestimable value, eventually. Observations so far made indicate a possibility that two general strains exist, tracing back through the original importations to the parent tree.

A second approach to the goal of greater yield of good varieties is through the propagation of promising new varieties. Located on the grounds is one of the experimental plots of the California Avocado Society. Known only by number, these varieties, which are considered to show promise, are being carefully watched for their commercial possibilities.

The third device employed is hybridization. Dr. Lammerts, who is a plant-breeder of high repute, is carrying on a project to "manufacture" new varieties. "Canned" trees, planted in metal drums, are moved into cages completely surrounding a tree in the orchard. Bees are introduced into the cage, and cross-pollination of pure-bred trees of different varieties occurs. Pollination by hand is practiced, also. Literally thousands of blossoms are pollinated individually, and from them may develop a handful of fruit. From the

second generation of these hybrids, may come a variety which will be an improvement over existing varieties. There is at least an equal chance that the offspring will offer no advantage. Nature is being aided at the university, but it is obvious that the whole project is one which will require years of arduous, painstaking effort.

Indicative evidence of the improvement in yield from the better strains of Fuerte was seen in the orchard of Agnes Hardaway Reeves, in West Los Angeles. The Fuertes in this 700-tree grove produced poor crops on the original trees, but have shown an important improvement since being top-worked to the Cole strain. Whether this is the result of the heavy-producing strain used as scions, or whether it is due to other factors is a matter of conjecture, as is the problem of whether one strain will do equally well in any district. Edranol and MacArthur trees were seen here, also. Both varieties were carrying heavy crops on young grafts. The soil on Mrs. Reeves' property is a rich, gravelly loam of great depth, unlike the soils in most avocado-producing areas. The orchard is thrifty and vigorous, despite the fact that no fertilizer has been applied for years.

After journeying along the scenic Coast Route, the party arrived at the property of the Utt Development Co., in Oxnard. Manager John V. Newman discussed the reclamation of the soil on which the company's large lemon orchard is planted. The land was agriculturally valueless, because of the great salt content, until an extensive program of flushing and leaching was undertaken. Miles of tile drain have carried thousands of tons of salt from the soil out to the sea, a few miles away. Lemons were planted on the reclaimed land, and have done exceptionally well. So vigorously have they grown, in fact, that intersets have already had to be removed from the still young planting. Interesting to the avocado group was the obvious response of remaining trees where intersets were pulled. In two years, the trees have filled the open spaces, and the yield from the remaining trees is over double that of the original interset planting.

Last call of the day was at the Oxnard grove of Andrew Borchard. In a district where Fuertes have yielded poorly, Mr. Borchard is experimenting with some eleven strains of the variety. Young grafts, some of these strains hold promise of better yields than have been realized before. Nabals and Dickinsons—good producers in this area—averaged 300 to 400 pounds each, last year, and are maturing a good, though smaller crop this year. Here, these varieties often reach peak harvest as late as September-October, in contrast to June-July peak in the southern counties.

From the overnight stop in Montecito, the tour proceeded to the John J. Mitchell estate in Santa Barbara. Here were seen fifty acres of breathtaking beauty. The entire estate is a garden paradise—in perfect harmony with the surrounding country. Heavily wooded, the grounds have been laid out artistically in a Japanese informal garden, and an Italian formal garden. So much time was consumed in the gardens, that no time was left to see the old avocado orchard, planted in 1913—principally to the Taft.

The next stops were at the J. H. and Stanley Shepard properties in Carpinteria, where another of the California Avocado Society variety plots is located. Many little-known varieties were studied by the group, and comparisons were made of the appearance and condition of the test varieties to those on other plots in other areas. Stanley Shepard has a personal Fuerte seedling project, from which he has obtained some promising fruits. Some of these were taste-tested by members of the party, and pronounced excellent in flavor.

A repeat call was made at the Carpenteria grove of T. C. Abbott. Still another of the Society test plots is located here, and further comparisons were made. A planting of two-year-old grafts of Edranol was inspected, and estimated to be carrying an average of 25 pounds of excellent looking fruit. Mr. Abbott demonstrated some home-devised, home-made orchard equipment, including a brush remover of considerable merit. This device, patterned after an ensilage cutter, chops the brush into small pieces, and returns it to the soil, where it can be incorporated as organic material. Analysis of the brush revealed its nitrogen content to be about *1%*. The double result obtained is that brush and weeds are disposed of, and their valuable content returned to the soil.



Calavo Packing-House at Vista as recently enlarged.

Then a call was paid on E. E. Everett, in Ventura. Home-made orchard tools, designed by the grower, were demonstrated here, also—a special carrier for discs, converted from an automobile frame and wheels, and a fertilizer distributor. Considerable grafting had just been done, and the group was enabled to observe the results of the unusual methods employed in that work. Mr. Everett illustrated his remarks with various charts of the grove.

Final event in the program was a visit to the adjoining avocado orchards of L. G. Phay and Gerald Brady. Friendly neighbors, they disagree on cultural practices. Mr. Brady cultivates—Mr. Phay does not. Interesting, but not conclusive, comparisons were made of the results of the two practices. The principal disadvantage of non-cultivation, as far as this writer is concerned, is that he became the victim of a beautiful attack of hayfever in walking through the grove. Latania scale seriously attacked the Kearney and Sheldon varieties, but seems to have been brought under control by the two-stabbed lady-bird beetle.

And so home. No disappointments, and no mishaps—well, one mishap. Tour member James Laursen was inadvertently left behind, and missed a couple of stops before he caught up with the bus—much to the chagrin of the writer, whose error it was. However, good fellow that he is, Jim forgave and forgot. And so ended tour number two.