California Avocado Society 1948 Yearbook 33:50-53

Observations on the Avocado Industry in Mexico

Elwood E. Trask

For those of us who have had little opportunity to visit the avocado growing regions of Mexico, it is a surprise to find that although the avocado is and has been for many centuries, an important fruit in the diet of the Mexican peoples, there is nothing in Mexico comparable to the avocado industry in California. It is estimated that there are not more than one hundred fifty acres of orchards in all of Mexico, and that of these less than fifty acres are of budded trees. Practically all avocados are grown as trees in door yards or as scattered trees in the gardens or small farms along the streams, or along ditches in some of the irrigated districts.

On the recent California Avocado Society Tour to Mexico few large avocado trees were seen although most gardens in the towns south of Torreon had a tree or two.

At San Miguel de Allende where a stop was made for several hours, avocados were plentiful in the market and many trees were seen throughout the town. Apparently these trees were all of the Mexican race. The fruit was small, mostly black or partly colored. Here most trees were observed to be infested with the leaf gall. These galls are caused by a wasp or fly laying its eggs in the tissue of the leaf where a 'gall develops as a small protuberance about one-quarter inch high with the appearance of a small cork on the surface of the leaf. Although the leaves have unsightly appearance, generally the infestation is not sufficient to cause serious damage to the trees. This leaf gall has been observed in most of the avocado growing sections of Mexico where it seems to prefer the Mexican type trees as a host plant.

At Queretaro it was interesting to note that avocado trees in the gardens of La Canada have apparently recovered from some form of decline which was reported by Jim Prance in 1936 as being serious in that section. Apparently the trouble was caused by a high water table during an exceptionally wet season and not the same as the decline caused by the cinnamon fungus so prevalent in Southern California.

Here was observed ripe fruit, green fruit and blossoms in the same garden. Apparently the Mexican race of avocados is prone to react to weather conditions and have blossoms and fruit at irregular times. All the fruit seen was small and the leaves had the typical anise odor.

At La Canada the gardens are irrigated by a system of small canals, the soil appears to be a deep sandy loam similar to our Hanford stony fine loams. In some of the gardens the trees are crowded in jungle style, are tall, spindly and with light crops, whereas in other gardens the trees are scattered over the cultivated ground that is planted to vegetables and flowers, and the trees are producing heavier crops. It is quite evident the trees are in the best condition where they have room to spread out and get plenty of sunlight.

White sapotes, cherimoyas and guavas were a part of every garden. It seems possible that here might be found some fruits of White Sapote and Cherimoyas that would be a welcome addition to the varieties now growing in California.

Apparently the climate at Mexico City is not well suited to the avocado. Few avocado trees were observed in the gardens of that city. In the markets of Mexico City avocados were plentiful and definitely inferior. The fruits were of the Mexican type, small, generally badly bruised, and in all stages of softness. Apparently even the rotten fruit is sold. The lack of quality was explained by the statement that April is between seasons.

In the tropical mountains near Cordoba, avocado trees were growing in many of the gardens and some trees appeared to be of the West Indian type, although the only fruit observed was apparently small Mexican and not mature.

Here in this semi-tropical climate the Subtropical Fruit Committee could have a Roman holiday. Cherimoyas, annonas, white sapotes, black sapotes, mame, mango, papayas, feijoas, guavas, bananas, and many tropical fruits were growing in abundance. But sad to relate, most of these fruits were too bland in flavor for an American's jaded taste buds.

Near Atlixco, the little Indian village of Trinidad was a point of interest. Bordering the paths between the small irrigated gardens and farmsteads, many of which were surrounded by stone walls, were rows of avocados, mangos, cherimoyas, annonas, and other subtropical fruit and flowering trees. None of the avocado trees were very large but appeared to be rather old. Most of the trees were of the Mexican type, but probably there were some of the pahuas, or Fuerte-like trees among them. Practically all of the trees had been topped at some time or other, apparently to lessen the shading of the coffee and cotton growing in the gardens. This was a typical Indian village of the district with irrigation flumes carrying water to all parts of the village. Southern California farmers could sympathize with them for they were having a water shortage. Very little water was running in the flumes and some of the Indians were digging wells beside their huts.

The Rodiles Grove

The Rodiles grove near Atlixco consists of some 40 acres of 30 year old selected seedlings. This grove is well described in the 1947 Yearbook of the California Avocado Society by Popenoe and Williams. Of interest to avocado growers of California is the bark borer which is a serious pest in this grove. From the best information at hand, this is the grub of a night flying moth, is about 1/2 inch long, white with brown head, bores through the hard outer bark into the cambium layer where it feeds and in time girdles the tree. Apparently the action of the grub is particularly irritating to the tree which exudes sap and dies away from the burrows, leaving patches of dead bark. At first appearance the injury looks very much like that caused by cankers on some of the Guatamalan varieties in California. It is quite possible that this is the insect which destroyed practically all the avocado trees in and around Cuernavaca about thirty years ago.

Evidence of Sunblotch was observed among the Rodiles seedlings, and there is little

doubt that Sunblotch is found throughout Mexico.

Hacienda Xahuentla Grove

Adjoining the Rodiles grove is the beautiful Xahuentla hacienda owned by Henri Gilly. Here with the council of Carl Crawford, the owner is planting about 40 acres of budded avocado trees. He is raising his own nursery stock and planting to Fuerte, interplanted with varieties consisting mostly of the best selections from the Rodiles grove. About 20 acres are three years of age and beginning to bear some fruit. This grove is comparable with any good grove in California. Sr. Gilly is pioneering in the budded nursery tree business in Mexico, and it may be that within a few years there will be many good avocado groves of budded trees in the Valley around Atlixco.

Due to the lack of time other plantings in the vicinity of Atlixco and ' on the slopes of Popocatepetl were not visited by tour members.

In November of 1947 four members of the Committee on Foreign Exploration visited the area from Laredo, Texas south to Ciudad Victoria. Marvin Rounds, Carl Crawford, Harlan Griswold and Elwood Trask made a short visit to this section of Mexico as a side trip while studying the avocado industry in the Lower Rio Grande Valley of Texas.

In the irrigated valley north of Monterrey, avocado trees were a common sight along the irrigation ditches where they seemed to have grown of their own accord, perhaps having grown from seed dropped by Indians having lunch along the ditch banks. Most of these trees had the distinct characteristics of the Mexican race, but some were noted that appeared to be crossed with the West Indian. However, as there were no fruits on the trees at that time, the type of fruit produced was a matter of conjecture as, according to the natives, all the fruit was large and of very fine quality.

South of Monterrey at the little town of Hualahuises most of the streets outside of the town proper were lined with very large old avocado trees. The fruit of these trees was said to resemble the West Indian fruits, and the leaves had the fragrance of nutmeg when crushed. Many of these trees had trunks up to 3 feet in diameter and were seventy-five to eighty feet high. They were healthy and vigorous and had very few leaf galls.

At Victoria the gardens along the stream either side of the town were typically Mexican in that every kind of fruit tree was jumbled together in jungle style. In one garden there were trees Mexican in all characteristics, that were said to have the typical small black thin-skinned fruit, while other trees were distinctly West Indian in characteristics and said to have fruit typical of that race. And there were other trees with the nutmeg odor in the leaves which appeared to be a cross between Mexican and West Indian races. The fruit of these assumed crosses was said to be smaller than the West Indian and to more nearly resemble the fruit of the Fuerte from California.

Largest Avocado Tree Ever Reported Found at Santa Ingracia near Victoria

Twenty-five miles north from Victoria and about nine miles west from the highway, is the Santa Ingracia hacienda of Sr. Jose Martinez where is located the largest avocado tree

ever reported to the California Avocado Society. There are four of these very large and old trees, all much alike. The largest of these measures 21 feet in circumference and stands about eighty feet high. The spread of these trees is not equal to the height, being about fifty feet over-all. Otherwise the habit of these trees is upright spreading, which is the general growth type of the West Indian tree.

Sr. Martinez stated that his family had acquired the Santa Ingracia hacienda over one hundred years ago and that at that time there were large trees growing along the irrigation canal which had been running full of water probably some time before the trees were planted. He estimated the trees to be 150 years old.

On this hacienda, near the main buildings is an orchard of about two acres of trees said to have been budded from the very largest tree, thirty-five years ago. The trees are exactly alike so there is every indication that they were asexually propagated.

At the rancho of Enrique Benitez on the main road about twenty-five miles north from Victoria, is a planting of five acres of budded trees. In this orchard are Fuerte, Queen, Anaheim, Linda and Taft trees imported from California about sixteen years ago. None of these varieties has borne very much fruit, and the quality of the fruit is about the same as when grown in the Lower Rio Grande Valley of Texas. That is, the fruit is generally about 75% larger than in California and with a very low oil content when mature. In this grove several of the importations from California are affected with sunblotch. Sr. Benitez is carrying on tests with several of the better seedlings found in the Victoria area, and has planted several acres to budded trees of these local varieties.

Exploring the avocado industry in Mexico leads one to the conclusion that there are many areas that should be studied with the view of obtaining improved varieties and rootstocks for California. Certainly the area south from Monterrey should be given more attention for it may be found that here are crosses or strains that might be of commercial value to our own industry.