

Report on Trip to Mexico

Professor Wm. T. Horne

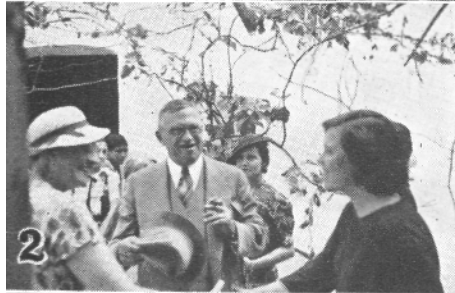
University of California Citrus Experiment Station, Riverside, Calif.

I am submitting herewith a brief report on my recent trip to Mexico, April 8 to 24 inclusive. Purposes of this trip were: (a) to attend the celebration marking the original Fuerte avocado tree at Atlixco on which our California industry is based, and to make the presentation addresses in presenting medals to Sr. Alejandro Le Blanc, owner of the original Fuerte tree, and to Mr. Carl Schmidt, who discovered the variety and sent scions to California, and (b) a preliminary inspection of subtropical fruits in Mexico with regard to plant diseases.

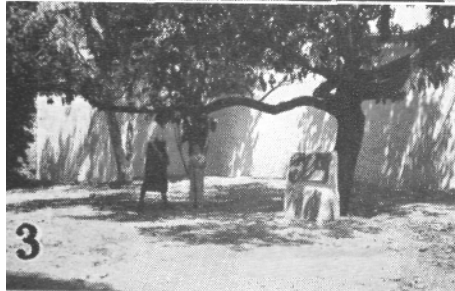
The conducted tour proved fortunate for the purposes of the trip. The arrangements had been carefully worked out and were executed by Judge P. D. Halm with tact and vigor, while the people of Atlixco and officials gave us a very splendid reception. The ceremonies of unveiling the monument and of presenting the medals were marked with dignity, sincerity, and good taste worthy of the occasion. One of the principal Mexican speakers specifically recognized the "fine spiritual quality" in the project of the California Avocado Association. A detail will illustrate the sentiment shown by the Avocado Association: when the medal was given to Sr. Le Blanc, it was not given to him by us but was handed to Governor Camacho of Puebla State for him to deliver to Sr. Le Blanc. It might appear that too much credit was given Sr. Le Blanc for his generosity in merely permitting scions to be taken, but it should be remembered that the oriental flavor is not wanting in Spanish-American culture, and the story is told of persons in oriental countries who refused to permit the propagation of a fruit tree so that they might be owners of the best fruit while that tree should live.



1. Dr. H. J. Webber, Alejandro LeBlanc and son, Alejandro LeBlanc IV, in LeBlanc garden.



2. A. D. Shamel conversing with Senora LeBlanc.



3. Senora LeBlanc, and son Alejandro IV, admire plaque under parent tree. Note long horizontal limb. This shows that the strong arm limbs so prominent in Fuerte budded trees is a hereditary trait.

THE MEXICAN PEOPLE'S GESTURES OF FRIENDSHIP

Whatever the permanent results may be in international relations, those of us who saw the people of Atlixco in holiday attire meet us at their city gate and present us the key of their city will not soon forget that bright Easter morning, and we who walked to the City Hall between files of little school children, all in uniform, believed their sentiment of goodwill toward us would not be entirely evanescent. During the luncheon which the people of Atlixco served us after the ceremonies, various young men of the locality introduced themselves individually and asked the privilege of conversing with us in the English which they were studying. This happened at other times and places, also.

I had the opportunity to talk with Sr. Parres, Secretary of Agriculture, and to explain that the President of our great University had signed my credential with his own hand, and that while I was a modest member of our faculty I had been permitted to come on this trip under the same conditions as our great scientists go to important meetings of leading scholars.

My own part in the program was read in Spanish. I can only say that the people heard what I had to say, they understood it, and they accepted the good will of the effort. It should not be supposed that as a finished address in Spanish it was comparable with some of the others given on the occasion.

OBSERVATIONS ON TEMPERATURES, DISEASES AND INSECTS

The preliminary inspection for plant diseases was well made on our numerous and long trips with occasional views in patios and fields, and the visiting of town markets. Specimens were not taken nor detailed formal notes made because the prearranged program was too full and moved too swiftly. Sun-blotch disease of avocados was not observed. At Queretaro, in the Canon above the aqueduct, are many avocado trees growing in a more or less natural condition though many are actually in patios. Considerable tree injury is seen here and might be due to an excessive rainfall a few seasons back, to drought, to winter cold, or to some unknown cause. We understood that winter temperatures of -9°C ($+15.8^{\circ}\text{F}$) had been experienced winter before last and this would seem to offer a plausible explanation, having in mind the variable cold resistance of seedlings and of temperatures in a Canon. Also, the avocados here have thin skins (*Persea drymifolia*) and cold injury would be expected to appear at about the temperature indicated. However, cherimoyas were not entirely killed, where as at the Citrus Experiment Station cherimoyas were either killed or seriously injured at about 26°F .

Wormy avocado fruits were observed on the tree, having about the appearance of wormy apples. The offending insect was not identified but this phenomenon does not occur in California, and existing quarantines against avocado fruits from Mexico would appear to be justified.

Mangoes, chicos (sapidillas) and black sapotes were observed at elevations of about 5,000 feet, where winter cold is just a little less severe than in California. Quality of these fruits would justify search and study of cold-resistant varieties for introduction to this state. A powdery mildew, apparently serious, was observed at one point on mango. This had not been seen before and is not listed in Seymour's Host Index of the Fungi of North America. Anthracnose (?) was observed but this is a widespread enemy of the mango, especially on the fruit.

The parent Fuerte tree shows many dead twigs and some cankered limbs but this is presumably due to drought.

In the markets, some spots were observed on avocado fruits which were not recognized. The avocados served to us in hotels usually showed darkened fibers in the flesh and somewhat imperfect softening—characteristics of fruits left too long on the tree.

NEED TO DEVELOP GRAFTING METHODS

Expansion of avocado plantings for local use in Mexico would seem to be justified but development of the art of graftage is essential so that varieties may be stabilized, and irrigation is probably needed. For wealthy persons for their private grounds, California nurseries can furnish trees, but this is probably not feasible for general planting. Some of the varieties available in California might be highly serviceable in Mexico.

Fruits of the tuna (opuntia) were not in season and none was seen, but plants were in bloom, nopalitos (young joints of opuntias) were seen in the market and the process of removing the spines observed. The tuna blanca was said to be most prized for nopalitos

but it was not possible to identify this opuntia. One basket of pitayas (cactus of the cereus type) was seen at Guadalajara but they were not very desirable fruits.

A single leaf of fig was seen with mosaic, but the abnormal coloration was not extensive. Leaf puckering of mulberry indicating mosaic was seen on one tree. Quinces are apparently more important than with us and a paste is made which is served in slices. Guavas also are used in this way and plants are seen frequently, often spontaneous in patios, but not in orchard form. Some of our superior varieties might be of value to them. Feijoas were not seen but Wilson Popenoe says they should succeed at high elevations. Evidence of delayed foliation was striking in orchards of apple, pear, and plum. Oranges were not abundant, they were large, of loose texture, and low acid—owing no doubt to lateness of season. We were told that some of our nurseries have a considerable trade among wealthy families.

UNIVERSITY OF CALIFORNIA BERKELEY: OFFICE OF THE PRESIDENT

July 16, 1938

Professor William T. Horne Citrus Experiment Station Riverside, California Dear Professor Horne:

Professor H. S. Fawcett has referred to the President's Office your most interesting report of the recent trip of the California Avocado Association, and in the absence of President Sproul and Dr. Deutsch, I am taking to myself the pleasure of acknowledging appreciation for the service you have rendered.

There can be no question that such friendly gestures as this one will have a salutary effect on the rather strained relations that exist between Mexico and this country, as well as other major powers. More pertinently still, from our own point of view, they cannot help but further the cooperative spirit which the University of California is so desirous of developing between the educational and scientific institutions of this country and those of Latin American republics.

We are fortunate in having such a discerning group of men in the leadership of the California Avocado Association, and even more fortunate in the privilege of cooperating with them. I hope that you will convey to those responsible our felicitations over the successful completion of this significant program.

Very sincerely yours,

E. R. HEDRICK

Acting President ERH:L