

REPORT ON THE COMMITTEE ON FOREIGN EXPLORATIONS

HARLAN GRISWOLD, Chairman

Activities of the committee during the past year have been mostly confined to watching the growth and development of our importations of previous years. (See 1947 and 1948 Yearbooks). Most of these introductions are now well established either on the campus of the University of California at Los Angeles, under Dr. C. A. Schroeder's direction, or on the Griswold ranch at Fallbrook.

We have yet to produce fruits on any of these Mexican importations in California, although some bloom appeared this spring on the larger grafts at U.C.L.A. Wilson Popenoe reports that at the Pan American School of Agriculture in Honduras, where an identical group of selections have been established, there is progress on fruit testing. (See 1949 Yearbook page 36). We are dependent on Wilson Popenoe for preliminary study as in Honduras optimum growing conditions prevail the year around putting them well ahead of us.

PRYOR AVOCADO FROM UVALDE, TEXAS, FRUITS

The Pryor avocado seedling introduced by the committee from Uvalde, Texas has now fruited in California. This tree is believed to be a Mexican x West Indian hybrid and has been of much interest to the committee. This tree under California conditions has been precocious and very frost resistant favoring the pure Mexican in this latter respect. Unfortunately in California this fruit is too small for the commercial market.

We are now testing this Pryor seedling as a root stock particularly as to possible resistance to salt. Elwood Trask is undertaking this experiment. It has been observed in the Lower Rio Grande Valley of Texas that the West Indian race of avocados are more tolerant to salt than other avocado races. If the Pryor seedling retains this tolerance together with its exceptional hardiness to cold it would be of value to growers having a salt problem.

NEW EXPLORATION PLANNED FOR 1951

Carl Crawford has been back to Mexico several times since last year's report. He has located other spots where wild avocados may be found in the mountains of Mexico. He personally investigated the area near Jalapa in the state of Vera Cruz. Northwest of Jalapa near a village called Tecitlan he found wild specimens of the same type found at Aquila (*Persea Floccosa*). As we already have this type established in California no attempt was made to introduce additional specimens.

Carl has also turned up evidence of wild avocados of several types to be found in the

mountains above Tamazunchale. Tamazunchale, Mexico is located on the Panamerican highway between Monterrey and Mexico City. An expedition is planned for next summer to explore this region for additional material on both wild and cultivated forms.

THE WILD AVOCADO AS A ROOT ROT RESISTANT STOCK

The principal reason for introducing wild forms of the avocado into California is to test them as possible root rot resistant stocks. Although wild forms are found in abundance in Central America the ones found in Mexico have proved more adapted to our growing conditions.

The wild avocado of Aquila (*Persea Floccosa*) has proved the most interesting to date. It is hardy to cold being possibly more so than the cultivated Mexican avocado. It is a very close relative of the cultivated avocado. Its main distinguishing characteristic is the fine fuzz that covers the stems and flower parts.

Limited propagating material made only one field plot possible at this time and the writer established this on one of his properties. The procedure was as follows:

A declined tree in the orchard was removed and *Phytophthora Cinnamomi* identified by submitting root samples to Dr. Zentmyer at the Citrus Experiment Station. At this selected location three test plants were planted in the form of a triangle approximately one foot apart. The three consisted of the wild avocado of Aquila, Mexico, the wild avocado of Atculzingo, Mexico and a Mexicola seedling provided as a check tree by Dr. Zentmyer.

The planting was made in the spring of 1948. Within the year the Mexicola and the Atculzingo (*Persea Americana*) died showing the usual visible symptoms of root rot but the Aquila has continued a healthy growth to date. This growth has not been as great as a similar plant on virgin soil.

On the basis of this experiment it would seem that the Aquila avocado has at least resistance to root rot. However too much significance should not be given to this single experiment but this approach to root rot control seems promising.

Wilson Popenoe has not been successful in establishing the Aquila avocado in Honduras so cannot add to our information on this type. His tests on numerous other types have been discouraging with the exception of the Coyo (*Persea Schiedeana*) (See 1949 Yearbook page 27). Unfortunately we have not been successful in establishing the Coyo in California and doubt that it is adapted to our climatic conditions.

A quantity of budded Aquila trees have been set out with the object of raising seed for large scale tests. We are looking forward with much interest for the day when these tests can be made.



Carl Crawford, Harlan Griswold, Dr. C. A. Schroeder, and Dr. Louis Williams (Honduras) examine wild avocado from Aquila thriving in California root-rot plot.

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