## AVOCADO PROSPECTS IN NEW AREAS OF RIVERSIDE COUNTY

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This title suggests that there are "new" and "old" avocado areas of Riverside County. This is partly true. The present avocado acreage is located principally in the Corona area, with some plantings extending eastward for 20 miles into the more interior areas of Arlington Heights, Riverside, and Highgrove. The total acreage is a little less than 500 acres, with most of this classed as non-bearing or young plantings.

How much farther inland can avocados be successfully grown? The only way to find out is to try. The area around Hemet offers promise for experimental variety plots.

Hemet is located about 30 miles southeast of Riverside in an interior district. It has somewhat more of a desert influence than Riverside, as indicated by higher summer temperatures, although the night temperatures in the summer are similar.

In the Hemet area, there are several seedling and duke avocado which have been producing for several years. A few seedlings in more frost free locations have been topworked to varieties which appear to be most promising. Nursery trees, supplied by the California Avocado Society and the Agricultural Extension Service, with the cooperation of interested growers, have been used to establish variety plantings in areas of low frost hazard. These trees are under careful observation to add to the information on avocado production in that area.

What do we know about the performance of avocados in this area as judged from these past observations? Perhaps it would be best to list the information on each variety.

*Duke* — Four producing trees from which production records are available indicate an average yield of 200 pounds per tree per year for the last 4 years. In 1955, the fruit was picked on October 15th. Production, reported from a few other trees of this variety, has been good except when frozen. The fruit is typical of the variety, except that the fruit may be a little larger than average size. The fruit was sold in local California markets.

*Zutano* — Information about this variety comes from 3 top worked seedling trees. Production has been good except from one tree damaged by frost. A 10 oz. fruit, picked on December 1st, tested 14.8% oil. The end spot on most of the fruit was about the size of a dime or smaller. Practically no corkiness or russeting developed on the fruit. During February, skin cracks started to develop so that fruit should not be held for commercial production after that date.

*Bacon* — Two top worked trees have started to produce. The fruit is a darker green than usual and without skin blemishes. It has the appearance of immaturity, but an average fruit of 9½ oz. picked December 1st tested 11.7% oil. By the first part of March, about 25% of the fruit remaining on one of the trees developed skin checks.

Yama — The one young top worked tree set a crop of 25 fruit. Fruit was typical of that variety. No oil tests were made.

*Fuerte* — Production has been erratic to poor. One tree had a very heavy crop. Several others had very little. An average size fruit picked December 1st tested 10.2% oil. It had a dark green immature color. Fruit held until May showed little to no corkiness or other skin blemishes.

*Emerald* — The two fruit set on a graft were still holding well on the tree the first of May.

Included in the variety test plots as grafts or young trees are the following varieties: Hass, Irving, Nowels, Clifton, Arturo, Gardner, Bonita, Boley, Mayo, Ryan, Rincon, and Oreo.

In the Coachella Valley, the climate is typical of desert areas. Summer temperatures can be expected to be above 110 degrees F. at several times, with the humidity low. Minimum winter temperatures will be dependent upon the particular location, but are at, or below, freezing in most locations.

In the Coachella Valley, variety plantings were established in 1950 under date palms as a protection against the sun. The palm leaf covering also reduces the frost hazard. While the Zutano and the Irving varieties have produced a few fruit, the growth of the trees tends to be tall and weak, indicating a need for more sunlight than is found under vigorous date palm plantings. Later plantings or grafted trees have been in full sunlight.

*Zutano* — Grafted on a small seedling in 1952, growing in full sunlight, produced 25 fruit in 1955-56. A fruit picked December 1, 1955, tested 14.9% oil. There was very little corkiness but a small to large end spot developed on the fruit by this time. At this time, deep cracks had developed in the end spot of some of the fruit.

*Duke* — A single tree, growing in full sunlight, produced about 25 fruit which were picked in August and September.

*Mexicola* — A tree, planted in 1951, produced about 45 fruit last year, and in May, 1956, had about 90 fruit set which were about the size of a small egg. This tree is growing in full sunlight.

*Indio or Desert Avocado* — This old seedling tree (12" to 14" trunk diameter) produces an alternately heavy crop of perhaps 200 pounds and then almost nothing the following year.

*Irving* — One tree, planted in 1951 growing under dates, produced a few fruit the last two years.

Several additional varieties are on trial with the cooperation of interested growers at various locations in the Coachella Valley. These varieties include Bacon, Rincon, Yama, Hass, Nowels, Fuerte, Emerald, Clifton and Arturo.