## AVOCADOS IN RIVERSIDE COUNTY

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What are the possibilities of growing avocados in interior areas such as Riverside County? Information is available from commercial plantings most of which are just starting to produce and from small variety plots established on an experimental basis with the cooperation of growers. New varieties are constantly being tried and additional information is added each year on already established varieties.

In most agricultural areas of Riverside County locations are available which appear to have satisfactory soil and water conditions. There is, however, considerable difference in the climate. It will vary from an intermediate area with a definite coastal influence such as found at Corona, to the hot dry climate of desert areas such as Coachella Valley. Avocados are on trial under this full range of climatic variation.

In considering varieties for recommendation there are two factors which are of greatest importance—production and fruit quality. Varieties must meet these two requirements before they can be successful. Successful commercial plantings require a good average record of production. They may vary from year to year or the trees in a planting may vary the same year but the grower must have production to remain in business. It is equally important that the fruit be of acceptable quality. It needs to be of such quality that the consumer will buy the fruit as repeat purchases. The actual quality should be as much better than this minimum, as it is possible to obtain. Additional factors may be of importance such as tenderness to frost, season of fruit maturity, color of fruit, and others. Their importance will depend upon the individual situation.

The performance of varieties will be considered separately in each district.

The Corona district is located in the western part of Riverside County. It is on the western slope of the Santa Ana Mountains and extends south from the Santa Ana Canyon. The climate is that of an intermediate valley with the maximum summer temperatures reduced by coastal breezes.

#### Corona Area

Fuerte— Production, on the average, has been only fair. In a few favored locations it has been good. The irregular setting of fruit has been the factor which limits the recommendation for its use. Fruit maturity has been early, starting in November. Fruit quality has been excellent although fruit held late in the season tends to develop russeting or corkiness of the skin.

Hass—Young trees of this variety have a good record of production in this area. Trees

tend to be alternate bearers but the average production is good. It is tender to frost. Fruit quality is excellent. Fruit is mature in April. It is the recommended variety for locations with a low frost hazard.

Zutano—Fruit production by this variety has been one of the best. It is hardy to frost. Fruit quality is fair to good and appears to be acceptable to most consumers. An end spot or small round corky area usually develops on the skin of most fruit. While not serious early in the season, fruit held later than January tends to develop cracks through the skin and fruit should not be held later than that time. Fruit is mature starting in November and December. It is one of the varieties recommended for trial in colder locations.

Bacon—Production has been good from the few young trees growing in this area. Fruit quality has been good. A small end spot has developed but is not a serious skin problem. Trees have been producing for such a short time that good information is lacking.

Nowels—The few young plantings of this variety have been good producers. While production from each tree in a planting may vary considerably in different years, the average production has been good. Trees setting a very heavy crop tend to produce small size fruit. So far sizes have had a good average. The fruit quality is very good. Fruit is mature in October.

Ryan—Production from a limited acreage of young trees has been somewhat erratic but averages fairly good. Fruit quality good but some reports indicate that fruit held later than July does not soften evenly when picked. Fruit begins to mature in May.

*Emerald—This* variety is a good producer. Fruit is smooth, green, attractive and of good quality. In a limited testing it has not held well on the tree after maturity but must be picked soon, perhaps within a month of maturity. Fruit is mature about the first of January.

Puebla— Production has been good on a few old trees. Returns have been good because of earliness of maturity. In most years it can be harvested before the Fuerte picks are heavy. Quality has been good. The skin of this variety is dark at maturity.

# **Riverside-Arlington Area**

The Riverside-Arlington area is 8 to 12 miles farther inland than Corona. Coastal breezes do not affect the climate as much as at Corona. Maximum day temperatures will average one or two degrees higher than Corona, although the high temperature may be reached for a longer time.

*Fuerte*—Observations of production have been about the same as those made in the Corona area. The fruit, however, tends to show more russeting or corkiness.

Hass—This is the preferred variety in locations with a low frost hazard. Because of length of time the fruit is on the tree, it is not recommended for locations where wind is a problem. Production is about the same as in Corona.

Zutano—Performance is about the same as at Corona. There is more of a tendency to

develop end spot and corkiness than in Corona.

*Emerald*— Observations of this variety are similar to those in Corona. It holds on the tree better, however, than in Corona.

Bacon—Performance is about the same as in Corona. There is, however, a greater tendency to form end spot and to develop cracks in the skin. This tendency may vary in different years.

Ryan—While production has been rather alternating, the trees in the Citrus Experiment Station variety plot have been good producers. Quality of fruit has been reported good.

Nowels — The two trees in the variety plot at the Citrus Experiment Station have been almost completely alternating. This has resulted in either just a few fruit on a tree or such a heavy crop that the fruit does not size properly. Fruit quality is good.

Duke—Production from this variety is fair. Fruit maturity is in September. Fruit quality is only fair. Because of thin skin the fruit is not suitable for shipping but must be sold locally. This variety is resistant to frost.

### Hemet Area

The Hemet area has a climate similar to that at Riverside, although it has somewhat more of a desert influence.

There are only a few varieties in production there at the present time.

Duke—Several young trees of this variety have produced fairly well. The fruit is mature in September. The skin is thin and does not ship well. This fruit has been used only for local sales.

Zutano— First fruit harvested from top-worked trees suggests this variety will be productive in this area. Fruit had a much smaller end spot than developed at Riverside. The russeting or corkiness was almost completely absent. More observations over several years are needed to determine if this fruit quality and production is typical.

Bacon—First production from top-worked trees is about the same as in other areas where this variety is productive. The cracking of the fruit which was noticed in the Riverside area was almost completely absent. Fruit was smooth and showed practically no end spot. Fruit maturity was two or three weeks later than Riverside. With this limited experience of only one year more observations are necessary before accurate conclusions can be drawn.

## The Coachella Valley

The Coachella Valley climate is typical of desert areas. Humidity is low, summer maximum temperature areas high and winter minimum at or below freezing.

Most plantings have been made in the shade of date palms. This also gives some protection against frost. Avocados have grown well but where the palm leaves are close, the shade appears to be too dense. Trials are planned for locations with more sunshine.

Duke— One Duke tree planted in full sunshine has produced about 30 fruit each year for the last 3 years during which observations were made. It is reported to be about 10 years old but rather small because of having been severely frozen. Fruit is mature in August or September .

*Zutano* —Growing under dates. The last season when 3 years old, it produced 9 fruit. Quality of fruit reported good.

*Irving—One* tree is growing under dates. The last year when 5 years old, it produced 2 fruit. Quality of fruit reported excellent.