

## THE AVOCADO INDUSTRY IN SAN DIEGO COUNTY

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### Introduction

San Diego is the leading county in California in acreage and production of avocados. Total state acreage is estimated between 45-50,000 acres. The 1977 San Diego County acreage of avocados is approximately 22,000 acres. Of that, 5,000 are non-bearing acres. The future trend is to increased plantings. Commercial avocado production is concentrated in an area bounded by the Riverside County line on the north; Bonsall and Vista on the west; Rincon Springs and Pauma Valley on the east; and Poway on the south. The older areas of La Mesa, El Cajon, and the coastal cities still contribute a considerable amount of fruit from the many trees still being grown. Very few orchards in these areas, however, are large acreages. The newest areas planted to avocados are in Lilac, Valley Center, Rainbow, and Bonsall. These are districts either adjoining or located between the older commercial areas of Fallbrook, Pauma Valley, Vista, and Escondido.

### Varieties

Five main varieties are grown in San Diego: Fuerte, Hass, Reed, Zutano, and Bacon. The Fuertes are marketed from November to April. The Hass can be marketed as early as February, but the usual harvesting period is from April to August. The Bacon and Zutano, which are planted primarily in cold areas, are harvested from October to January. The Reed is marketed from July to September. Other varieties still grown but on a very limited scale are Wurtz, Jalna and miscellaneous green and black fruit seedling types. New varieties being tested are Jim, Santana and Pinkerton.

### Production Problems

*Yields.* Fuerte production continues to be erratic. Alternate bearing is marked. Fruit set is influenced by climatic conditions during the months of April and May. Hass crops have been larger than the Fuerte on less acreage. The early production of the Hass, plus the large amount of fruit produced, makes this variety more desirable, and are the reasons for its increased planting. The Reed is a relatively new variety and there are increased plantings because the fruit quality is excellent and production is good. The Reed is a round fruit weighing up to a pound and looks similar to the Nabal fruit. Increased numbers of cross-pollinator varieties are being planted among Fuerte trees to aid in increasing their yields. They are Topa Topa, Zutano, Covocado, and other Mexican varieties. These varieties can also be used to cross-pollinate the Bacon

variety, with the Covocado being the most desirable.

*Diseases.* Avocado root rot (fungus) continues to be the most serious disease affecting the avocado industry. Sunblotch (virus) is being gradually reduced by the fine work of nurserymen in good bud selection and seed selection through a volunteer industry-wide tree registration program. Armillaria root rot disease (fungus) has been identified in a number of orchards and could become a serious problem. A new malady, cause unknown, called black streak is affecting increasing numbers of Hass and Reed trees.

*Pests.* The avocado tree enjoys an excellent biological control of all pests. *No insecticidal sprays are recommended for use.* Stethorus beetle is one of the most effective predators. Brown mite is the most common pest on avocados and causes the greatest concern to growers. In addition to brown mite there will occasionally be flareups of pests such as looper, latania scale, and greenhouse thrips. Ant and dust control is the best pest control.

*Water Quality and Quantity.* Colorado River water is used on most avocado orchards. Water quality is fairly good. The only exception is the relatively high level of chlorides. The avocado tree is sensitive to this specific ion. Less leaf damage would result if the chloride content were lower. With proper irrigation, however, the tipburn of the leaves can be kept to a minimum. Quantity of water should be sufficient for the future with the addition of water from the California Aqueduct, even with the present restriction placed upon growers by water agencies. Water costs range from \$85 to \$200 per acre foot, the highest priced water in the State, if not in all the U.S.A.

*Labor.* Labor supply will become increasingly hard to obtain. If labor is available, the cost will be high. Avocado growers should give considerable attention to labor saving devices, and improved cultural methods in their operation. If a grower does most of the work himself, with a minimum of hired help, the net return should be good, providing production is high.

*Material Costs.* Materials needed for production of avocados will continue to rise in cost. These material include water, fertilizer, weed oil, rodent control baits, etc.

## **Marketing**

There are two types of marketing organizations plus a growers' bargaining association. They are: 1) Cooperative; 2) Cash Buyer; and 3) Bargaining Association. The number of packing houses in the county are: One cooperative and between eight and ten cash buyers or independent houses. Harvesting is done by the grower, or by picking crews supplied by packing houses. Field boxes used in harvesting vary with packer. Field boxes of various shapes and sizes hold 35 to 45 pounds. The trend is away from using field boxes and toward bins. Most packers have switched to using bins that hold from 400 to 900 pounds of fruit. Increased emphasis is being placed upon improved fruit handling so fruit of higher quality reaches the consumer. Advertising and sales promotion is accomplished through a marketing order paid for by the growers.

## **Future Trends**

Acreage in San Diego County will increase. It is estimated that there is a potential for at least 35,000 acres in the county alone, as compared with the present state acreage of between 45-50,000. Production will continue to increase, not only because of more trees coming into bearing, but because of improved cultural practices, use of cross-pollinators and a better understanding of how to handle the crop. Costs will continue to spiral. This means the grower must do much of the work himself. He must become increasingly efficient in irrigation practices, in the use of the various fertilizer and herbicide materials, and pursue an excellent weed and rodent control program. Varieties will be confined to Fuerte, Hass, Reed, Bacon and Zutano.

Problems affecting the grower will be similar to what they are today. Solution to the root rot disease, especially the development of resistant rootstock to this disease, is being diligently worked upon. Production of high quality fruit must be increased. Though there are many problems in the cultural field to be solved, there are just as many in the marketing field. Improved fruit handling, more widespread distribution of fruit, increased promotion of avocados, and utilization of latest marketing techniques should go hand in hand with increased production of higher quality fruit. The industry is relatively small compared to some other commodities, but it is rapidly expanding. Proper promotion and advertising, a cooperative spirit throughout the industry, and a constant search for ways to improve every facet of the industry, can only result in a more viable and profitable industry.