

HOW TO SELECT AN AVOCADO ORCHARD

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Your success and satisfaction as an avocado grower will depend to a large extent on the care and thought you give to the selection of an orchard. Take time to read, study, and ask about the industry, whether you are purchasing the orchard as an investment, for supplemental income, or as a desirable way of life.

LOCATION OF ORCHARD. Check varieties which are suitable to the area and their ability to produce good crops of desirable fruit. The site should be relatively frost free. Any site that is low in relation to the surrounding terrain may have frost hazard. Check the lower portions of the grove or nearby groves for stunting or sunburn resulting from repeated frost damage.

Ask about the crop history of the land. If the grove is young, find out what crop, if any, preceded the present planting. Avocados cannot be grown successfully where a previous avocado planting failed due to root rot. Avocados do well following other tree crops.

SOIL AND DRAINAGE. Avocados will grow on a wide range of soil types, but do best and are easiest to manage on a sandy loam. Check the drainage characteristics of the soil. A hillside soil is not necessarily well-drained, even though it has a good slope. It is especially important to locate the problem soils. Dig holes with an auger, soil tube, or shovel throughout the orchard, especially in the low spots. There is less chance of avocado root rot (a serious fungus disease) on soils with good internal drainage. These are soils in which water moving through the soil is not stopped within five feet of the surface. Clay layers in the subsoil, a dense substratum, a hardpan, or clay texture from the surface to three or more feet will cause a soil to be poorly drained.

WATER SUPPLY. Double-check with the appropriate agency or person. Find out the amount of water represented by shares of water stock, or the flow of wells and water storage available in terms of requirements in the summer months. If the water is from a well, check the quality of the water by insisting on a water analysis and a competent interpretation. Be sure the irrigation system is satisfactory and in good condition. An old system may require repairs and replacements. An inadequate system may require extensive modification of the entire system.

PRODUCTION. Avocado production is variable. Orchards tend to produce heavy crops one year and light the next, but there can be several light to medium crops in succession. The same variety bears differently in different locations. The age to which avocado trees will live and bear profitable crops is not known.

Ask to see pack-out records. In good orchards, the production of proven varieties ranges between 6,000 and 10,000 pounds per acre. An average productive mature

Fuerte grove in a good Fuerte district averages 6,000 to 7,000 pounds of fruit per acre. Some average up to 9,000 pounds annually. Hass orchards can produce upward of 12,000 pounds per acre, and more in good years.

COSTS OF PRODUCTION. Total production cost figures in studies from avocado producing Counties range from \$1,100 to \$1,600 per acre. Cash costs range from \$500 to \$750 per acre, including labor cost which is the operator's own labor in many cases.

EXPECTED RETURNS. Prices received by growers in recent years ranged from 5 to 54 cents per pound, depending on variety, quality, market conditions, and total crop. See Table 1 for average returns for the past seven years. Profit from good groves ranges between \$250 and \$1,000 per acre annually. Some orchards show a loss despite favorable prices, possibly due to frost damage, low production, or disease conditions. A few orchards never produce enough to return a profit, even though they are in excellent health. Fuerte, the main winter variety, averages \$750 to \$900 net in a good Fuerte area. The Hass orchard in many cases returned more money to the grower because of early bearing, higher yields, and better market conditions. In rare instances the returns to the grower are exceedingly high (such as the 74 cents/lb. some growers received in 1971-72 season). This may occur in years when the overall supply of avocados is relatively small and the price per pound to the grower is high. The records for such an orchard might show low production the following year, with income of only a few hundred dollars. This variation in production and income is typical in the avocado industry. The following table points up this situation.

TABLE 1. California Avocado Acreage, production Yields and Returns to Growers (Industry Averages)

<i>Crop Year</i>	<i>Acreage (Bearing) Acres</i>	<i>Production (lbs.)</i>	<i>(cents/lbs.) Growers' Return</i>
1965-66	18,810	118,000,000	13.1
1966-67	18,615	149,000,000	10.1
1967-68	18,733	74,800,000	23.0
1968-69	19,199	122,200,000	15.0
1969-70	18,040	65,830,000	33.0
1970-71	18,380	129,200,000	19.0
1971-72	18,470	59,000,000 (est.)	35.0 (est.)

CAPITAL AND RESERVES. As in any business, the avocado grower should have sufficient reserve to carry him through an emergency-something unexpected can happen to the next crop or to the market. It may take five years to develop an orchard so that the returns are sufficient to cover current cash operating costs. Recent studies show the total cost to be \$3,000-6,000 per acre for a five-year orchard development, excluding cost of land and irrigation facilities.

WORK INVOLVED. Records of experienced avocado growers show that they put in 50 to 120 man-hours per acre per year, excluding harvest labor. In most areas, there are commercial orchard operators who will contract to do all or part of the cultural work. Harvest labor often amounts to 25 to 75 hours per acre per season, depending on the size of crop and trees. You may arrange with the field representative of your packing and shipping organization (cooperative or independent) to have them harvest your crop

at your expense.

THE "NEGLECTED" GROVE. A good avocado orchard is rarely neglected by the owner. In most instances, a "neglected" grove cannot be brought into good production. Look for signs of repeated frost damage: root rot disease, sunblotch disease, severe stunting, or poor soil. Trees with virus disease have twisted growth, very rough bark, and blotched fruit and twigs.

If an orchard is too crowded, the ground is completely shaded and fruit production is restricted by a canopy of growth. To increase fruit production, you may have to enlarge the bearing surface by a program of tree removal, topping, or grafting. Any one or a combination of these conditions would make an orchard a poor investment.

Check to see if the orchard is well laid out, accessible for harvesting, hauling fruit, and fertilizing. Has the orchard chan¹*Contribution from the Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel. 1972 Series, No. 2215-E.*

ged hands frequently? Poorer groves reappear on the real estate markets more frequently than good ones.

FUTURE OF THE AVOCADO INDUSTRY. The future market for California avocados seems favorable, especially if growers continue to support a sound market development program. The demand is good and appears expandable with the help of the industry's present advertising and promotional program.

New plantings are being made, and production can be expected to increase. The grower may receive lower returns per pound as larger crops are marketed. Unless your production increases, it might be difficult to realize a profit on your investment. During periods of high returns, there is a tendency toward smaller units, which may be too small to provide sufficient income to maintain families, operate the ranch, and pay the debts.

REMEMBER. Hasty buying may result in regret and losses. Take time to evaluate and compare—an avocado orchard represents a large investment. If you are unfamiliar with soils and trees, get professional advice. Talk with your University of California farm advisor, growers, marketing people, farm managers, and real estate agents. Get the whole picture.