

NEW LOOK IN AVOCADO VARIETIES AND ORCHARDS

James Beutel

Farm Advisor in Los Angeles County, California.

(Talk delivered at the California Avocado Society annual meeting, June 2, 1956)

Do you realize that every tree in your orchard costs you five dollars each year whether it produces or not? This is true of orchards of 80 trees per acre that average \$400 per acre as their cost of production (labor, materials, taxes, interest on investment, depreciation, etc.). Many trees cost more than this to maintain; a few cost less.

It means every tree must produce each year one 40 pound box of fruit that returns 12-1/2 cents per pound to the grower. If this seems low, consider that the La Habra Heights area has averaged only .8 of a box for the last 12 years, with a high of 1-1/3 boxes and a low of less than 1/2 a box. Still you may say, sure my trees averaged one box per tree in 1954-55, but did they in 1953-54, this year, and will they next year? Did every tree pay its way, or did 20 per cent of the trees pay all the orchard expenses? Was all the fruit good enough to bring 12-1/2 cents per pound on the average of both heavy and light years? So let me repeat. Has every tree in your orchard produced enough fruit to return five dollars on the average every year? If not, why, and how come we find now that it costs five dollars to maintain an avocado tree?

First, the cost of production has gone up rapidly the last 15 years. This has been especially true of such costs as interest on investment due to increased land values, depreciation, taxes and labor. Second, total avocado production and production per tree have gone up because new areas have been developed and new higher producing varieties have been planted. As a result of the work of the California Avocado Society Variety Committee, growers, and farm advisors, one or more new profitable varieties have been found for each avocado growing district in California, and good fruit was available in quantity every month of the year during the 1954-55 season. Third, and most important of all, many trees, orchards, and varieties have become unprofitable because production from other orchards is much higher and the cost of production has increased.

What are the possible answers to this question of unprofitable trees?

(1) The owner can continue as before, paying the bills each year on such trees and hope for a big crop in the future. Avocado growers may be optimists, but those who have unprofitable orchards and just hope for a big crop sooner or later usually have to sell or trade these orchards to someone else.

(2) The trees can be cut off or pulled out and the orchard abandoned or planted to another crop. This eliminates spending additional money on the orchard and can be the best solution, if another kind of a crop can be raised profitably, or if the soil and location is unsatisfactory for avocados.

(3) The variety can be changed and the non-productive trees may be eliminated by topworking. This system has taken many healthy orchards out of the "red". Topworking has been successful and is progressing so rapidly in La Habra Heights that it is creating a new look in orchards.

To determine why topworking has been so successful locally, let us see what has happened to production when half of the Fuertes in each of these orchards were topworked to Hass.

Orchard "A" Fuertes produced 53 boxes per acre and Hass 197 boxes per acre. Orchard "B" Fuertes produced 76 boxes per acre and Hass 159 boxes per acre. Orchard "A" is a 10 year average and Orchard "B" is a 4 year average.

I know of other orchards in the county where Fuertes, Elsie, seedlings and miscellaneous varieties were successfully topworked to Bacon and Zutano. Practically any variety or seedling can be topworked to the best variety for that area. Production greater than from the original tree will generally occur 4-6 years after grafting.

Only healthy trees should be topworked. If plenty of light exists between trees, any tree in the orchard can be grafted, but if trees are close together, it is advisable to topwork a block of trees. Alternate trees grafted in a crowded orchard will be shaded out by adjoining trees before they develop to producing size. Cost of topworking averages \$3.00 per tree for grafting, plus \$4.00 to \$7.00 more for cutting the tree down and disposing of the wood and brush. February to the middle of May is the grafting season.

The success of topworking is best indicated by the local trend that once topworking is started by a grower, it is continued from year to year until all poor producers and varieties are grafted. One grower had 2,000 trees topworked this spring, another 1,200 last year, and a planned program of doing 100-200 trees annually has been started by several growers during the last 3 years.

Topworking is progressing, too, in Ventura County, coastal and interior areas of San Diego County, and elsewhere in southern California.

Dr. Reuther today mentioned that our competitive growers in Florida are also topworking their avocado trees to better varieties.

Many of you are wondering if a change of varieties is good for you and the industry. I only recommend changing variety where the existing variety is unprofitable, and then change to the variety recommended for the area. In La Habra Heights the best variety is Hass; in the colder valley areas of Los Angeles County, Bacon and Zutano are often better, and in other counties Fuertes, Rincon, MacArthur, Bacon, Hass or some other variety may be most satisfactory.

Let us consider two other southern California agricultural industries in which a change of varieties and an increase in production has paid off.

In 1943, the new University type strawberry varieties were introduced and their superior production soon was demonstrated. In 10 years strawberry production per acre had doubled and the old varieties had completely disappeared. Today the strawberry industry is more profitable to growers and is growing in size rapidly, thanks to higher producing varieties.

The egg industry in southern California in the last 15 years has grown rapidly and has been profitable, largely because poultrymen have increased the number of eggs per bird by culling out poor producers and raising only the highest producing strains of chickens.

Now you have heard how topworking Fuertes to Hass in La Habra Heights has doubled to quadrupled production, and what high producing varieties or strains did for strawberry growers and poultrymen. What could topworking all poor producing avocado trees and varieties to the best local variety do for the avocado industry?

First, increased and more consistent production would begin to occur in 5 years throughout the industry. Second, increased consumption would follow increased production, since this has always happened every time production has been increased in the past. This increased production and consumption would mean greater returns to avocado growers.

Third, old varieties like Colorado, Challenge, Dutton, Itzamna, Linda, Mayapan, Panchoy, Prince, Princess, Sharpless, Mexican and Guatemalan seedlings and many other old and new varieties of unsatisfactory quality or production would disappear. This would create a new and better look in avocado varieties and would certainly result in greater consumer and produce trade acceptance of California avocados. Fewer varieties to pick, pack, handle and sell separately could mean savings in marketing avocados.

Fourth, the grower who did not eliminate poor quality fruit and low yielding trees would find it increasingly difficult, if not impossible, to compete with other growers.

In conclusion, let me ask you again, does every avocado tree in your orchard make a profit by producing more than \$5.00 worth of fruit every year? If not, now is the time to go through your orchard and mark every healthy tree and variety that doesn't make a profit for topworking next spring. If everyone will do this, we will soon see a new look in avocado varieties and orchards and have a new feel in our wallets of more money coming in than is going out.