# Stargazing: Some Thoughts On The Future Of The California Avocado Industry 

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At another time, in other columns, my associates and I did a piece looking out at what kind of prices avocados would have to bring in order to justify current market prices for avocado groves. We made no attempt to decide what the real estate values should or should not be, but just looked at the economics of the industry. At that time, we concluded that the price needed to be something around 43 cents per pound in order to make a reasonable return. In fact, that wasn't even enough to make a reasonable return, but simply returned the costs. We did not take into consideration any of the tax ramifications of grove ownership at high prices, but just looked at the economics of being an avocado farmer.

This time, due to a question asked by a good friend of ours, we got to thinking about the demand side of the equation. He asked us to think about what prices avocados will sell for in five years; but, in doing so, staying away from what current costs are or what the costs might be five years down the road.

What follows is some of the thoughts that we have on the subject, rather than any kind of real conclusions we reached. It is presented here under the rubric of stargazing.

The opening question is, of course, what will the character of demand be like in five years? Today, it appears as though basic or residual demand for avocados is on the order of 150 million pounds. If reasonably spread over the year, the market will accept such a volume of California avocados at prices which everybody who desires them will pay. I suppose that number today is around 59 cents a piece; or, in field price terms, about 55 cents per pound. Such a pricing would not seriously discourage the new user; but, on the other hand, it probably isn't a pricing at which new users would experiment without a lot of encouragement.

If we assume that this basic residual demand is growing at the rate of 7 per cent per year, we would then have a new basic demand in five years of 210 million pounds.
Looking at new demand areas and what volume they might be providing in five years, we can probably project that export demand might be on the order of 20 million pounds to Europe and Japan. New domestic demand in markets not adequately served by the California avocado, particularly in the heavily populated northeast, might easily be expected to take 30 million pounds, if we undertook a major effort to open these markets. In addition, our development markets might be assumed to take an additional 30 million pounds.

So in summary, then, we have the following scenario:

| 1985-86 Basic Residual Demand | $210,000,000 \mathrm{lbs}$ |
| :--- | :--- |
| Export, Europe and Japan | $20,000,000 \mathrm{lbs}$. |
| New Domestic Market | $30,000,000 \mathrm{lbs}$. |
| Increase in Development Markets | $30,000,000 \mathrm{lbs}$. |
| Total 1985-86 Basic Markets | $290,000,000 \mathrm{lbs}$. |

Is this a reasonable demand figure? Yes, it probably is. Our population by 1985 will approach 250 million people, and it is not unreasonable to assume that we can sell 1.16 pounds per capita. It isn't terribly far-fetched to presume that we might be able to sell 2.0 pounds per capita in five years at 40 cents per pound, and thereby get rid of a onehalf billion pound crop. It is, however, unrealistic to assume that we would have basic demand for one-half billion pounds of avocados at that point. The next question is, of course, can we produce between 290 million and one-half billion pounds of avocados from the plantings that are now in being, or in prospect of being productive, five years from now. We probably can if California has 55,000 acres planted at the moment and we assume that we are going to lose 20 per cent of this acreage to root rot and oldgrove removal and that this is replaced by new plantings. Then we are assuming that we are able to produce between 4,500 pounds and 8,500 pounds per acre as an average. This, too, seems within the realm of possibility. As a matter of fact, the better growers, the larger growers, and those who have most recently come into the industry will be pushing to improve productivity; and we may, indeed, be able to increase the average production per acre somewhat.
These notions may be considered somewhat on the high side, since we have some steep hillside groves that may never be picked efficiently; and there are similar groves where we may find that productivity will be short of average because tree sizes will have to be kept somewhat smaller than normal. In any case, we conclude that 500 million pounds looks like pretty much the top of California's capacity to produce in a good year, five years from now.

But what about costs? Here the chief imponderable will be water. Water from wells will have to face whatever the energy costs are for pumping. These probably won't rise much faster than inflation, if we assume that the Arab nations are now at the practical limit of pushing their prices up. This is probably a good assumption, since a lot of soft technologies will be economic at current levels and will give us alternatives for pumping that were not available a few years ago. However, in the water provided by the Water Districts, coming from the Colorado, or from northern California, we have another problem; and here it may very well be that water costs will rise, not by the rate of inflation, but by two times the inflation rate. This will be mostly due to energy and high construction costs. As a result, water that we are relying on for the most part will cost somewhere between a minimum of $\$ 200$ per acre foot to, perhaps, as much as $\$ 400$ per acre foot. The other major costs-labor, fertilizer, equipment and equipment operation, taxes, and interest rates - probably won't move up at levels much different
than the cost of living. But that is not an insignificant number. For example, a 12 per cent inflation rate would, in five years, increase prices by 76 per cent.

|  | Per Acre |  |  |
| :--- | ---: | ---: | ---: |
| Water | $\$ 800-$ | $\$ 1,200$ |  |
| Labor | $500-$ | 700 |  |
| Fertilizer, Pesticides, and Herbicides | $170-$ | 280 |  |
| Equipment Operation and Maintenance | $300-$ | 400 |  |
| Taxes | $200-$ | 250 |  |
| Supervision, Management, and Accounting | $300-$ | 310 |  |
|  | $\$ 2,270$ | - | $\$ 3,140$ |
|  |  | - | - |
| Interest | - | - |  |
| Depreciation | $\$ 3,972$ | $\$ 5,526$ |  |

At 10,000 pounds per acre, you can see that $40-55$ cents per pound is what is needed. If you aren't producing at 10,000 pounds, you have a serious problem, since interest and depreciation are not considered in this exercise.

While we are stargazing, we may as well look at what could happen along the line to the marginal producer. This is the grove that may be too steep to pick, with inadequate irrigation systems and roads - in a word the grove installed by the speculator without due consideration to the long-term consequences of his decisions. Here the expense of modernization and bringing facilities up to standard may be just too great to be economically justified by returning the costs over a reasonable period of time.
I don't know what percentage of the total this group represents, but I can't feel that it is less than 20 per cent of the total. Should this amount of production be removed, then supply could drop back enough to move prices up and make the remaining groves profitable.

But such events happen quite slowly, and any really basic adjustments will take five years. In the meantime, the market will probably be characterized by relatively large supplies and prices will not be able to be kept in lock step with increasing costs.

