

THE GROWER'S PROBLEMS

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Ladies and gentlemen, avocado growers and friends. The subject that has been assigned to me is "The Avocado Grower's Problems". I am reminded of a story—Farmer Brown had lots of problems. More than he thought possible to bear. A devastating flood had descended on him—washed away his entire wheat crop—carried his barn with all his livestock, cows, pigs, and chickens with it. Yes. Farmer Brown had had lots of hard luck—lots of problems—he'd come to the end of his rope. He was sitting on an old tree stump—surveying the damage, and feeling very sorry for himself, when a neighbor, Farmer Jones, stopped by. It seems that Farmer Jones had suffered similar damage from the flood—lost his crop—his barn, and his live stock. On hearing this, the only comment that Farmer Brown made was "well, it ain't so bad after all".

Yes, I'm sure that each and every one of you avocado growers here today have your share of problems in connection with your avocado venture. The fact that your neighbor also has his problems does not make yours any the less real and unimportant to you.

I believe that this subject should be discussed first, from that point of view of the problems of the avocado grower himself, and, secondly, those problems that affect not only himself, but the industry as well.

So, if I may, I will first relay on to you some of the avocado grower's problems, as I have found them in *my* field work. These problems are found in varying degrees in almost every avocado grove. Some are naturally more critical than others. There are solutions to some of them—others are being studied, investigated, and in time will be solved.

So, to begin. Let's consider the marginal avocado grower. He has a set of problems all his own that are of a more serious nature. Take for instance the example of Grower A in La Habra Heights. His 8 acre grove was planted some 20-odd years ago. He received excellent production until the late 30's when one of the outstanding "problems" of a whole avocado industry hit him. I refer to "avocado decline". Since that time his trees have consistently produced less and less—that is—the ones that have not died out. This story could be repeated over and over about other avocado growers—some areas have been more severely affected than others. To these growers it is a very real problem as you can well appreciate. What is being done about it? As far as the grower who has this condition in his grove—there isn't much that can be done other than to try to control its spread. Some growers have tried a program of heavy pruning with some success. Others have found that an application of bean straw around the base of the

tree helps. I would like to mention that something is being done about "avocado decline". The Citrus Experiment Station at Riverside is devoting a great deal of time and effort to the study of this problem. Many of you have heard Dr. Zentmyer tell of his work in this regard —experimenting with different seeds and rootstocks, with the hopes that some might prove to be resistant to this disease. But this isn't going to help the grower that has this condition in his grove now. What about him? I have a friend in Yorba Linda who was confronted with this problem. When he bought his grove 5 years ago, two-thirds of his trees were affected in varying degrees with avocado decline. First he tried pruning them heavily. He was very encouraged when new, lush growth began to make an appearance. Unfortunately, as soon as the top-structure, or the new growth, counterbalanced the few remaining roots that were alive, the trees reverted to the old condition. He tried bean-straw. No apparent benefit. He tried applying less water at more frequent intervals—to try and get the roots up into the lighter soils. No luck—the trees were too far gone. What was there left to do? He'd tried everything practical with no beneficial results. So, Bill went in with a bulldozer, pulled his trees, and now has a beautiful, healthy, vigorous lemon grove.

Yes, the avocado decline is probably the major problem of the avocado grower. There are certain external characteristics to look for in a tree to determine if this condition exists. If a grower suspects this in his grove, I would most whole-heartedly recommend that he send root samples into the Citrus Experiment Station where positive determination can be made. Should the test be positive, the most accepted method of controlling the decline is to make every effort to control the amount of water that reaches trees so affected.

Then there is the problem of the marginal avocado grower who has a frost hazard. These growers can be classified into two groups: first, those who must, of necessity, make provision for ways of combating cold by heaters, wind-machines, or both, due to the probability of having cold temperatures consistently—year after year. And, secondly, those growers who can pretty well count on being burned-out only when major freezes make their appearance—about every ten years (it says here). The grower in the first category must make provision for frost protection. It is an added cultural expense that cuts down on his net, but it must be accepted as such. The grower in the second group probably can absorb the loss of one or two crops every ten years or so, provided, of course, his production is good enough so that a satisfactory average is obtained rather than go to the expense and inconvenience of providing protection.

I might illustrate this by mentioning another grower in this area—with three acres of Hass who has been badly frosted out three times—major freezes only, who has maintained an average production of 10,000 pounds per acre in spite of these bad years. He does not provide any protection. Another grower friend of mine has a frost problem. He asked for it, however. He planted Hass, which is definitely a warm-area fruit, in a spot that he knew was cold. That was his first mistake. He then invested in an expensive wind machine and smudge pots. In spite of his protective measures, he has suffered frost damage every year since the trees were planted—5 years ago. I mention this merely to bring out the fact that some growers, fortunately not many, create their own problems.

To continue on with additional grower's problems—there is the almost universal

condition of tree crowding. When many groves were planted 20 years or more ago, little was known concerning the growing habits of the trees. An 18 or 20 foot spacing was considered satisfactory. What happened? Just this. In deeper soils, especially, the trees began crowding each other in a matter of 9 to 10 years. From then on, the only place they could grow was up. The limbs that were completely shaded out soon died and dropped off, resulting in trees with a bare trunk 10 to 15 feet from the ground and a little patch of foliage on top—all that was left to bear fruit. It has been proved conclusively that trees grown under these circumstances are producing only a fourth to a third of their potential. This is a problem, however, that something can be done about. Thinning out is the answer. I'm not going to get involved in this subject except to say that here is where the importance of keeping individual tree production records comes in mighty handy. Another true story to illustrate my point. A grower located not far from here—on an acre and three-fourths— took off 36,000 pounds of Fuertes last year. Were his trees crowding? Not on your life. They are approximately 90 feet apart. We are frequently asked what we consider a correct spacing for an original avocado planting. I'll get lots of disagreement on this, but I personally advocate planting fairly close 20 to 22 feet, with the plan definitely in mind to thin out when necessary. Those who disagree with me on this say, "Well, you never do thin out when the time comes". The answer to this, as far as I am concerned, is that it is an individual responsibility that must be assumed by the grower. Another story that possibly could be true. An avocado grower, having this crowding condition, had resolved year after year to take the bull by the horns and thin out his grove. When it actually came to the cutting operation he couldn't go through with it. Finally, in desperation, he marked the trees to come, hired a man with a saw, and then went out and got drunk.

Then, there is the problem of getting maximum production per acre. There are many avocado groves that are marginal in this respect—not groves that are necessarily declined out, or in an otherwise unhealthy condition. But healthy, vigorous trees that are not producing as much fruit as they should. (Another plug for keeping individual tree records). In some instances it could be caused by poor producing bud-wood or root stock to begin with. Or, perhaps, a poor selection of varieties for a particular location. The answers to these problems are to determine what varieties are adapted to that location, and then get to work with a saw and do some extensive top-working. What if you do have to go to a variety that sells for a lesser amount per pound. If Fuertes were a dollar a pound and you didn't have any, you wouldn't do so good. But if you had scallions of "X" variety at 5c a pound, you'd come out o.k.

What about fertilizers? It is a problem with many avocado growers to know what kind to use. He asks the neighbor on one side and is told to use organic only. The neighbor on the other side says to use commercial. This is one that I am not going to attempt to give you an answer on. Except to say that soil conditions are determining factors. I know of many good producing groves using one or the other, and a combination of both, and I will be honest with you and admit that I do not know which is best. One thing for sure—our soils here in California are almost universally deficient in nitrogen—so, they have to get it in one form or another.

Then, there is the problem of irrigation—which is the best method. The under-the-tree sprinkler is considered the best by many. Probably due to the fact that it makes

irrigation so much easier just to be able to turn on a faucet and go back to the rocking chair. Furrow irrigation requires more work and is considered just as satisfactory in getting good distribution of the water. A word of caution about switching from furrows to sprinklers on mature trees. I've seen several instances where this has resulted in an unfavorable reaction to the trees. The roots had been adapted to the furrows and when the sprinklers were installed, the same amount of water was distributed over a larger area with the result that the roots did not get their usual quota.

I've found that picking is considered a problem with many avocado growers. When to pick? How much to pick? Whether to pick to size or not? These are real problems, and let's consider them for a minute. Many growers are lured into picking at the beginning of the Fuerte season by the high returns usually available. Selective picking, at best, is the most difficult picking imaginable. Size is usually the determining factor, but not necessarily so, during this early period. What appears to be a 9 oz. Fuerte at 8 feet often turns out to be a 5-ouncer when taken from the picking pole sack. To do a correct job of selective picking, when only a few avocados are over the hump on the 8% oil requirement, means looking over every avocado before picking—feeling it, examining it closely, before using the clipper. Unless a man has lots of time on his hands and has a fisherman's patience, I do not advocate too much of this sort of thing. Hiring this type of picking would be prohibitive in cost. Now, let's say that it's around the first of January, and we can be fairly safe in assuming that all Fuertes are at least "legally" mature—i.e., over the 8% oil requirement. Should the fruit be cleaned as you go, or would a pick to size be better? I'll be definite on this one. By all means pick to size if possible. Give the smaller fruit a chance to size up—you'd be surprised how much additional weight they will put on over a several months' period. What about trying to hit the high markets? All I can say regarding this point is that experts have tried it and failed. It is considered a much better and safer practice to get some fruit in every month during the season—then the average return will be good.

These problems that I've mentioned up to now are the more common ones. Certainly there are others. I couldn't attempt to cover them all. Now, if I may, I would like to say a few words about the second *type* of problem—the problem that concerns not only the avocado grower as an individual, but the avocado industry as well.

I am sure that you are all aware of the fact that the California avocado is the best that is grown. We know that, but unfortunately the rest of the country does not know it. The liking of avocados, in many instances, is an acquired taste. Advertising has played a very important part in educating the public concerning the health giving, nutritional qualities of the California avocados. Advertising must play an even more important part in the future to spread this word. Why? For the very obvious reason that we are going to have lots of competition. We've had competition in the past, but that is nothing compared to what is in store for us in the future. Florida is producing only about 35% of its potential. Cuban imports are increasing. And lately we've been hearing rumors to the effect that North Africa will be importing avocados into New York before too many years. These avocados are going to have to find markets. They are not of the quality of your California Fuerte, but, at a price, they will steal the potential Fuerte market. What is the answer to this problem? Yes, there is an answer. Wouldn't a national advertising campaign stressing the superior quality, etc., etc., of the California Fuerte do the trick?

Certainly it would be expensive. It would cost more than any one marketing organization could handle. Perhaps if every marketing organization contributed an amount based on the poundage handled it could be done. National advertising has paid off in other products. Why couldn't it be done for the California avocado? And that brings up another point about which I am very much concerned. That is the importation of Florida avocados into California to compete with our superior fruit. Florida has been importing for several years in the past, but did not reach sizeable proportions, at least to the extent of seriously affecting our price structure, until this past season. It is bad enough to have to compete with Florida avocados in the eastern markets, without having them right here at our doorstep. This is a serious problem for you, ladies and gentlemen, who are engaged in the business of growing avocados. It is a very serious problem for your California avocado industry, of which you are a very important factor. Whether this importation of Florida fruit into California will be augmented in seasons to come is anybody's guess at present. But I for one, would like to go on record as being opposed to it.

So, in conclusion, I would like to state that even though we have these problems, be they trite, serious, or critical in nature, you, as an avocado grower are fortunate to be in such an intriguing, challenging business—one that offers so much in the future. When your problems begin to overwhelm you, as they did Farmer Brown, perhaps you can adopt his philosophy and say "maybe it ain't so bad after all".