

Avocado Breeding Program Results

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President Bob, I do want to get a copy of that (introduction) and then Xerox a few hundred to send out to my relatives and friends. Also, I acknowledge our First Lady, Marge (Platt), Secretary Thelma (Piercy), and good afternoon, Ladies and Gentlemen.

I would like to add my greetings to all of you—a warm welcome to you for being here this afternoon. Each of you, you know, adds to the festivities, and each of you makes it a better and a bigger, finer gathering. A warm welcome to each of you. I'm especially glad to see so many of you here, this year, as we are in the midst of our economic discouragement and plight. For that very reason, each of you is a symbol of hope for the future of the industry, I believe.

I happen to believe that our basic problem is not too many avocados. I think it is that over the past years of very rapid expansion of the industry, production increased more rapidly than this different, unique, wholesome, wonderful fruit could be introduced to all those unlucky people out there across America who don't know about it yet. It is different. It's a little harder to introduce the avocado to new people than some of the other fruits; and we have a real selling job to do there, of course. Without the very good work of the California Avocado Commission, we'd obviously be in a lot worse trouble.

But look at the future. I'm thinking not only of continued, adequate funding for the CAC, but what we can do as individuals working together to build a stronger industry in general, and specifically to increase grower returns. There are many things. I think a good example of that is the in-store ripe fruit demonstrations by Kathy Wild and her cohorts. There are many other things we can do, also; but I don't have the time to go into them now, and I certainly don't have the mandate from the program committee to go into them. I would just say that a good place to start is to support the California Avocado Society and to encourage other people to do the same.

Last night, at the annual meeting of the Nurserymen's Section, we talked about the distribution of budwood of these new varieties. And it certainly is a happy time for me that finally, after these twenty-seven years that I've devoted my main job to breeding avocados, that finally, it appears, apparently I will be making a significant help to the avocado industry. I say finally — it's been a long haul. I suppose, in breeding tree fruits like avocado, the consensus of opinion amongst the experts is that you can't really expect success in twenty to twenty-seven years. As someone told me when I started out on the job, it's sort of like breeding elephants. The generation time for seedlings at that time was ten years, and almost nothing was known about the best parents or the best procedures; and just learning these things can take the entire career span, I suppose. But, thank goodness, we appear already, then, to be reaching significant payback.

And I want to publicly thank some of the people who have made this possible. First and foremost is the California Avocado Society. You people. Through your elected leaders who in that capacity had stuck with me and protected me and the university breeding program at critical times; and at the risk first, with my poor memory, of omitting some people I should name, and secondly not knowing just where to draw the line, I do have to name a few. I want to call a roll of honor, and the names that come to me first are Oliver Atkins, Hank Brokaw, Bob Platt, Mike Shore, and Crawford Teague. And there are others, also, who have been equally supportive. In fact, there have been a great many who have been supportive. I think now of people who have been a special inspiration to me down through all these years; and, again, I'm frightened because I know that I will omit names that I should mention, but I want to mention Jim Bacon and Jack Shepherd and Frank Koch — and there are so many more, farm advisors and others of you. I see you out there, and I'm so indebted to so many people that I can't name.

And now I want to name three people who passed on to their rewards; and, you know, I don't think that I ever thanked them. And that would be Eliot Coit and Marvin Rounds and Elwood Trask. I know some of you will remember those.

And I want to acknowledge the people with the university who made this job possible. First the two men who hired me, Dean Al Boyce and Chairman Walter Reuther. They're both retired now, but I'm sure some of you remember them. They were two men who understood California agriculture and agricultural research, and were dedicated to California agriculture, including the well being of our California avocado industry. And then the subsequent chairmen — people like Bob Soost and Charlie Coggins. Bill Storey, who sort of helped me get started on this whole thing. And, of course, my right hand man, Bob Whitsell. And, again, there are a number of other people that I could and probably should name.

And then this one and only time, I want to publicly thank my wife Gwennie, who all down through these twenty-seven years has watched dinner get cold and has uncomplainingly washed my filthy clothes when I came in from the groves. And, these past few years, she has started working with me in the groves. Some of you may not know that. So now she's putting in sometimes 15, 16 hours herself, out there; and comes in dragging wearily just as filthy certain times of the year, you know.

So to these people I've named, and to others of you who I haven't named, but would like to, my sincere and grateful "thank you."

Now...How about these three new varieties: Esther, Whitsell, and Gwen? What can we say about them? They are green-skinned; the Esther is perhaps a little less cold-hardy than the Hass; and the Whitsell and Gwen perhaps a little more hardy than Hass — but they're all in the same category. However, what are the significant things, how can these three make a contribution to the industry? In the September 13th issue of *The Avocado Market Weekly*, the editor stated that, in order to deal with the present problem of inadequate grower return, we have to attack the problem — he said — three different ways. First, higher production; and, secondly, lower cost; and then, thirdly, higher grower return. And then he went on to discuss very ably, as he does week after week, this third point. But it's my conviction that these new varieties can help on the first two

points. First of all with regard to higher production: The Esther and Gwen especially have very high production — we still are estimating on the basis of a few trees perhaps twice as much yield per acre as the Hass. Now, because of your high fixed costs per acre, if you can increase your number of fruits, you obviously will reduce the production cost per pound of fruit. Which, therefore, will mean that the profit margin at the same level of grower returns will be larger. Or your losses will be lower, whichever. But hopefully, the profit margin will be larger.

On the second point — that is, lower production cost — all three of these have smaller trees, and smaller trees should have lower picking costs. And, in addition, higher production means that picking costs per pound also will go down. So here again, at the same level of grower returns, you can have higher profit to the grower. These, I think are the two major ways, perhaps, in which these varieties will be of benefit to the industry. I'm asked a lot a question, "how about topworking?" Well—and here we can't go into all the possibilities, but just a couple of quick examples — say you have a Hass grove, 15- by 20-foot spacing (and I should mention that under conditions of climate and soil and care and so forth, where the Hass would spread about twenty feet the Gwen, at mature *size*, would be expected to spread about eleven to twelve feet, the Whitsell thirteen to fourteen, and Esther fifteen to sixteen). If you have this Hass grove, fifteen by twenty, starting to crowd, you could topwork, say to the Esther, and you could expect permanently to have a suitable spacing without crowding. Or, you could topwork every other row to Whitsell or Gwen. To Whitsell, you would get the benefit of cross-pollination; it's a B-type, and Hass is A. With the Gwen, you would have more of a cushion against crowding. So, if you are in a condition of spacing and climate and soil and so forth, where crowding of Hass becomes the real problem, the Gwen would be the safer one.

And just one more example: In cases where you have, say, Zutano or Bacon at closer spacing, there you could, again, graft every other row to either Whitsell or Gwen. Here, you would get the cross-pollination benefit from the Gwen, since now that's the contrasted flower type. Or you could, of course, topwork the whole grove. These are just two examples; it will depend on your own situation what will be the suggested approach.

These avocado varieties are described rather thoroughly in the last *Yearbook*, so I certainly won't go into a detailed description of them again. What is probably of more interest to you is how our thinking may have changed since we published that article — Bob Whitsell's and mine — and our thinking has changed. As some of you know, I was a little reluctant to plunge into the patenting right at this point. I thought, well, let's give them another year or two with the larger propagation numbers to get more evidence on it. Of course, you can "see another year or two" for a couple of lifetimes; you have to fish or cut bait sooner or later. Whether we started to patent prematurely remains to be seen; but with two of these varieties, we now evaluate them not quite as highly as we did a year ago. First, with regard to the Whitsell, we thought it was the best of the three. But this past year, it failed to set well on nearly all of these relatively few trees. The Whitsell often is like the Hass, and next spring we expect the Whitsell will set very heavily. It certainly should, from our previous ten or twelve years experience; but we're worried, we're disturbed by it. In the *Yearbook* article we stated that the Whitsell, we thought, would outyield Hass. Now, we have to correct that to say that, to be on the safe

side, we think they will bear about the same per acre. If they do bear about the same per acre — even if Whitsell does not bear more than Hass — it should have several rather important advantages. First of all, it's a larger fruit and at least as early; and therefore during the first part of the season, when the big fruit is bringing the higher price per pound, it should sell for more. Secondly, it's a smaller tree and therefore it has lower picking costs. The third advantage of the Whitsell is the fact that it's a B-flower-type so it cross-pollinates Hass and Pinkerton and Reed and, also, Esther and Gwen.

Also, Esther has gone downhill somewhat in our thinking. I'll write that up in more detail; I won't go into that now.

The third one, Gwen, actually looks better now that it did then. Its quality remains very high, its seed appears to be just as small as Hass this year, and its production is tremendous. It does look even better than it did a year ago. However, the Gwen, of course, like the Whitsell (and I haven't given up on the Esther yet, either), needs widespread testing in different locations, and then long range shipping and consumer tests.

And one more final warning. About twenty years ago, at an avocado meeting like this, I heard a fellow sounding forth about a particular problem at that time; and that problem was that too many varieties were being dumped in too huge quantities upon the poor handlers. That's a problem, by the way, that's been largely solved by the very good work of your variety committee of your Society. But this fellow kept saying why it was a problem, why there were so many varieties. And he said, it's like this: if a man names an avocado, he is unfortunately prejudiced in its favor. If he names it after his wife, the very heart of chivalry is at stake. Well, the verbose "turkey" who made those comments some twenty years ago is one, B.O. "Bob" Bergh, who has, of course, now named a variety after his wife; and I certainly wish that twenty years ago, I had worded that just a little differently, Honey.

One final thing. We've been working in Ventura County on Thursday, and up in San Luis Obispo on Friday, we stayed overnight in Goleta these last two nights; yesterday morning after breakfast I was sitting looking out the window thinking about the meeting and my talk, and especially about the economic problems of the industry, and I saw a beautiful rainbow against these lovely green hills — it was even double for a bit — a beautiful thing, but very small, no bigger than a man's hand. And that led me to this thought: how often hopeful new signs have such a small beginning. Which led me to *this* final thought: if we, as an industry, work together — all aspects of the industry — and if we do the things that we can and *should* do together to help ourselves, the future looks great! I believe that there's a rainbow — a bright rainbow — in *your* avocado future.