Report from Australia



Ross Richards

Director, Australian Avocado Growers Federation; President, South Australian Avocado Growers Association; Director at Large, California Avocado Society

In the past, everyone was a long range weather forecaster, and they were all equally good. Then, there was *Chaos*, and he was randomly good. Now, there is a young lad, *El Nino*, who is quite good. Just by dipping his toe in the waters off Peru, he tells us that about a third of our continent will have its fourth year of drought, and this is so. Most of our avocado growers are on the east coast (on a good day, you

can see Cliff Ranney's house in California) and have reasonable topographical rains from the southeast trade winds, but not enough to prevent radiation frosts in very dry conditions. The Society's Len Francis will be surprised to hear that parts of the Toowoomba area have no crop this year, nor any for next. This is just to let you know that we appreciate the problems that California and South Africa have had in the last decade.

Our production nationwide is smallest in the summer and is augmented with imports from New Zealand (Hass, from their cooler climate). The early Shepard variety in the Cairns area (Lat. 16°S) are now marketed by the Shepard Growers Association through a skilful agent in the Brisbane market. These are finding a good niche in the late summer market. Additional plantings of Hass 100 miles south of Perth (Lat. 32°S) are filling the summer market. Between these two and new plantings of Gwen in colder areas, a continuous availability of quality avocados will prevail year round.

Production Research

- *Biological Control of Anthracnose.* Our joint project with New Zealand has had promising results in the laboratory. As with all research, the information obtained uncovers a bigger field for additional research; hence, in this case, the requirement for more funding. The Australian Avocado Growers Federation, because of this project and others, has decided to double their total research levy from \$65,000 to \$130,000 per annum.
- AVOMAN Avocado Farm Management. This system based on a vast pool of accumulated technology and understanding of tree phenology will guide the grower in making decisions to optimize production and quality. Full benefit will be obtained from

grower input of selected data, so that the model is adapted to their particular growing conditions. To this end, Regional Productivity Groups have been formed to encourage local discussion and comparison of results with achieved "norms." AVOMAN will be released at our biennial Conference in Fremantle, Western Australia (April 30-May 3, 1995), where there will be a bank of computers on which growers may experience the new system. Considerable interest has already been shown by State Departments of Agriculture who foresee AVOMAN'S use in other crops.

- **Salt and Lime Tolerant Rootstocks.** Several potential rootstocks from Israel, California, and local will be planted this year with Hass as scion. This will be followed with interest by growers who irrigate from the Murray Darling River as well as others using supplementary water from saline aquifers.
- New Varieties. Several thousand Gwen have been planted, mostly in colder climates, to take advantage of the late season. Fruit is about 8% larger than Hass. Crops are as plentiful as predicted by Bob Bergh; however, there is some drop of the large fruit at about the time of maturity (25% DM). Cross-pollination trees are recommended, and it would appear from flowering times that pollinators should be both Bacon and Ryan. These overlap Gwen.

Market Research

Postharvest investigations by Queensland Department of Primary Industries have quantified the problems of anthracnose, stem end rot, and bruising at the consumer level. The magnitude of the problems is greatest with Hass, probably because the color and skin texture disguise the skin imperfections. Laboratory studies of ethylene-ripened fruit indicate softness to be a more reliable guide to ripeness than color. For fruit held at 20°C: (1) all fruit were eating ripe after five days; (2) skin color rating was 60% black, (3) only after nine days were all fruit 75-100% black, (4) stem end/anthracnose started at six days and increased to 60% of the test fruit in ten days.

To complement our AVOMAN program for growers, we have committed to an educational program for wholesalers, transporters, and retailers. As this progresses, it will provide the basis for a "RIPE" program which in fact will be self-instigating as soon as the education and facilities are available in appropriate areas.

Our promotion program is biased toward tastings in stores and also local agricultural and horticultural shows. The largest of those are in state capital cities. Several years ago, our Victorian Association won the prime award at the Royal Melbourne Show. This year, the South Australian Association took the Blue Ribbon at the Adelaide Show. (A ton of avocado pieces and guacamole were given away for on-the-spot sampling in nine days.)

Baby pamphlets (a cheaper version of the California Avocado Commission's) are being distributed through antenatal clinics nationwide. Now that we have the HEART 3 (nationally accredited as a "good thing"), the timing is better than in the old cholesterol days. We are aiming at each of the 240,000 babies who will be weaned this year (and their mothers!).

Notes

Visitors: We have had, or will be having, Mike Browne (California), who entertained us at a board meeting; Prof. Nigel Wolstenholme (University of Natal); and Prof. Bruce Schaffer (University of Florida).

Retirement: The first commercial avocado grower in my state (South Australia) and mentor to us all has retired. Farewell and best wishes to John Gordon, former president (1966) of the California Avocado Society.