

The Australian Avocado Industry: A Report From a Director at Large

Allan Campbell

Australian avocado grower and director at large of the California Avocado Society

[Editorial note: The following report reiterates to some extent the immediately preceding paper, also prepared by Mr. Campbell, but includes up-dated and additional information. Each contains information not included in the other.]

The Australian avocado industry is now, having graduated from the pioneering kindergarten stage, progressing vigorously in many areas throughout the Commonwealth. When we evaluate the vast land mass, roughly equivalent in area to the mainland U.S.A., which comprises Australia, and realize that the major portion is situated in the subtropical and temperate zones, do we comprehend the many areas available for successful avocado growing.



The Commonwealth of Australia.

The map shows the widely separated areas presently growing avocados successfully, and demonstrates the wide range of climatic and soil conditions under which avocados thrive. It is not difficult to appreciate the immense potential which exists for future expansion. These areas, with their own individual conditions, range from the Atherton Tablelands in North Queensland at an elevation of 2460 ft. with an annual average

rainfall of 54", through Southern Queensland to Northern N.S.W. with elevations ranging from 200 ft. to 2000 ft. (Mt. Tambourine) and rainfall of from 45" to 70", to the Mildura/Renmark area with its hot dry inland climate and low annual rainfall of 10". Various other areas throughout the Commonwealth are being considered, amongst which is an area south of Perth in Western Australia, which is creating particular interest.

With this vast area and great distance to cover (over 2500 miles across from east to west), I have sought assistance to compile the report and have been most generously assisted by various leaders of the industry with the statistics and thoughts which make up this report. I particularly acknowledge with gratitude the help and contribution given by Mr. Alec Kidd of North Tambourine, Queensland, President of the Australian Avocado Federation, and Mr. Peter Molenaar, President of the N.S.W. Avocado Growers Association.

All these reports demonstrate the splendid growth and enthusiasm which in the past few years have transformed avocado growing from the pioneering efforts of a few, to the vigorous industry of today. An indication of this growth rate is provided in the new plantings in the past few years. In Queensland, tree numbers have risen from 93,000 in 1979 to an estimated 150,000 trees in 1981. New South Wales shows comparable development with 7,500 trees in 1969, 51,000 trees in 1976, and 125,000 trees in 1981. Similarly, New South Wales growers of avocados have increased from 69 in 1969 to 514 in 1981. Production figures for New South Wales show a jump from 36,000 kgs in 1969 to 840,000 kgs in 1981.

By virtue of the very different climatic conditions which exist in these widely spaced producing areas in Eastern Australia, the harvest commences in March/April with produce from the Atherton Tablelands and continues through to December/January. The popular varieties, in order of maturity, are Fuerte, Sharwill, and Hass with 30%, 20%, and 40% respectively of plantings, the balance of 10% being composed of the minor varieties.

Practical production and management techniques are more and more directed to minimizing the toll taken by the dreaded *Phytophthora cinnamomi*. Selection of plantation location, soil types, development of planting sites, selection of trees, management techniques, are all directed, particularly in areas of very high rainfall, to providing an environment which minimizes the incidence and spread of *Phytophthora cinnamomi*. The voluntary Nurserymen's Accreditation Scheme will do much to provide the industry with healthy, disease-free trees.

In areas of high rainfall, excellent results have been achieved by increasing drainage with "hilling" low continuous mounds some 18" high formed up and down the slope to maximize the run off of water from the root area. It is believed raising the pH level to at least 6.0 is of great importance, together with the maintenance of a high organic content in the soil. This is achieved by, preferably bi-annual, applications of mulch to each tree, using coarse dry mature vegetable material. An additional benefit derived from the mulch is that it helps to maintain soil moisture in the upper levels of the soil. Cover crops of a leguminous nature have been widely used in the early years of the tree's life to provide good ground cover, fix nitrogen in the soil, and provide high quality mulch.

Cow peas and tropical legumes and various varieties of lupins have been used successfully.

Other pests and problems of lesser magnitude relate to individual districts. Amongst them are insects which damage the fruit, fresh young growth, and foliage. The major pests are the Monolypta beetle, the fruit spotting bug, Queensland fruit fly, and Latania scale. Of the fungus diseases, Anthracnose, Dothiorella fruit rot, and an as yet unidentified post harvest fruit rot are the main problems affecting the quality and quantity of marketable fruit.

Finally, the economics and marketing situations: With the exception of one or two very small operations, all fruit produced is prepared and packed by the grower himself and consigned for sale to commission agents in the major city municipal markets. Though the larger retail outlets such as chain stores and providers are taking an ever increasing volume, the fruit sales are effected in this manner. Prices this year, as usual, have fluctuated considerably, and range from \$A10.00 to \$A45.00 per carton of approximately 14 lbs. Of quality fruit with an annual average around \$A17.50 per carton. Realizing the dramatic increase in production anticipated in the next few years, the leaders of the industry have already taken positive steps toward a planned program of promotion and marketing.