



The Australian Newsline

Talking Avocados



Vol 8 Number 3

September 1997



- AVOMAN 1997 prototype
- HRDC - Working for you
- Imports and quarantine

AUSTRALIAN AVOCADO GROWERS' FEDERATION

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From The President

Calendar of Events

September

- 17 **Bundaberg & District Orchardists Association** - meeting Fruit & Vegetable Growers' Office, Barolin St. Bundaberg commencing 7.30 p.m.
- 23-25 **Australian Avocado Growers Federation and New Zealand Avocado Growers' Association joint Conference** - Millennium Hotel Rotorua, New Zealand.
- 26 **Australian Avocado Growers Federation** - Annual general Meeting, Millennium Hotel Rotorua New Zealand.
- 28 **Australasian Postharvest Horticulture Conference** - Richmond Campus at the University of Western Sydney, Hawksbury, NSW. Contact 02 4570 1455. Conference continues until 3 October.

October

- 7 **Avocado Growers Association of WA** - meeting Conference Room, Market City commencing 5.30 p.m.
- 15 **Bundaberg & District Orchardists Association** - meeting Fruit & Vegetable Growers' Office, Barolin St. Bundaberg commencing 7.30 p.m.

November

- 4 **Avocado Growers Association of WA** - meeting Conference Room, Market City commencing 5.30 p.m.
- 19 **Bundaberg & District Orchardists Association** - meeting Fruit & Vegetable Growers' Office, Barolin St. Bundaberg commencing 7.30 p.m.

December

- 2 **Avocado Growers Association of WA** - meeting Conference Room, Market City commencing 5.30 p.m.
- 3 **Sunshine Coast Avocado Growers Association** - General Meeting. Contact Barry Back 07 5478 9135.

It was with considerable concern that I read a report recently in the popular press (Sunday Mail 17/8/97) that "a Sunshine Coast avocado farmer has been fined for using an unregistered fungicide on his fruit". A fine of \$1137 was imposed for using the chemical Mancozeb. As Mancozeb is not registered for use in avocados no maximum residue level (MRL) has been set so any residue is unacceptable.

Reports of this type are potentially very damaging to the fruit and vegetable industry and in particular, the avocado industry. The court, or more particularly the press, would not consider relevant the fact that Mancozeb is registered for use in an extensive range of fruit and vegetable crops and is one of the most widely utilised fungicides in horticulture.

There is a very clear message for any grower who is, or is considering, using an unregistered chemical on his crop—Don't. It is no longer a case of if, but when, you will get caught. Then it will not just be the fines you have to pay but of greater concern, the damage you will do to the avocado industry in the eyes of the consumer.

If there are insect or disease problems in your orchard which you believe cannot be effectively controlled with the current range of chemicals registered for use in avocados, then raise your concerns with your local AAGF Director or myself. There are options available for the AAGF to progress these issues.

This case should also serve as a reminder to growers to apply chemicals at label rates and adhere to withholding periods. Failure to do so may result in residue levels above the MRL.

Rod Dalton

President AAGF

Avocado Pioneer Passes On

It was with great sorrow and regret that the avocado industry learned that one of its pioneers, Mr John Anderson AM, passed away on the 5 May 1997 (see cover).

John established his first commercial avocado orchard in 1952 and the property is still producing well today. He was one of the instigators of what is known as the New South Wales Avocado Association, which was the culmination of a meeting of some NSW growers in 1969.

Until John semi-retired in 1981 he was always willing to co-operate with other farmers and government bodies, in particular the agricultural departments in NSW and Queensland, in the development of the avocado industry. It was probably in the initial stages of the industry's development that John became so well known and respected. He helped many new growers to develop their properties into viable enterprises and was always willing to participate in all areas of research and marketing.

One of John's major goals in life was to leave the land he worked in better condition than when he started. This was one of the reasons for growing avocados. He knew they would be a sustainable form of horticulture, that when managed properly would prevent soil erosion, rebuild the humus content and maintain friable and fertile conditions for future generations.

For his dedication to the land and his contribution to his chosen industry, John was appointed a Member in the General Division of the Order of Australia (AM) on 26 January 1985. He was also given an award of merit from the Avocado Federation in 1986.

John was a second-generation farmer on his property at Duranbah, initially started by his father in 1907. He contributed to the development of many crops in the Tweed district, though none so important to this type of environment and the economy of Australia, as the avocado.

He was a keen sportsman and a leading amateur golfer well into his seventies. The stories that are told by his friends of fishing the beaches of the North coast of Australia are in themselves a portrait of his character. His great love of the outdoors never left him, and in later years he gained much pleasure being with his family visiting his favourite fishing spots.

John was successful in life, achieving his goals. He is survived by his wife and partner of 60 years, Lorna Alwyn May Anderson, and two sons John and Graham.

Front Cover:

The Late Mr John Anderson, avocado pioneer (see box this page).

From Your Federation

By Astrid Kennedy, Executive Officer

Two would-be exporters of fresh avocado fruit have contacted the Federation recently requesting lists of growers with registered trees. The exporters were attempting to establish a chain of supply of fruit from registered trees for export. A limited number of export/potential export markets, for example New Caledonia and New Zealand, require that fruit must be sourced from registered sunblotch viroid free trees.

The ANVAS Registrar has a list of all registered block holders; however a list of registered block holders who want to export and who produce fruit suitable for export does not exist. Now seems an appropriate time to establish such a list.

What is ANVAS and how do I know if my trees are registered?

Background

In 1974 the newly formed AAGF was concerned about the spread of root rot and about the unsupervised importation of seed and scion material from overseas. By 1978 the Avocado Nursery Voluntary Accreditation Scheme (ANVAS) was established to supply the avocado industry with pathogen tested, true to type planting material. A Varieties Committee was formed at the same time and given the task of improving the quality of propagation material for ANVAS whilst using pathogen tested material.

The Varieties Committee indexed Foundation Trees from which Multiplication Trees were produced and used by ANVAS nurseries to produce viroid free, true-to-type trees.

ANVAS nurseries are required to adhere to strict guidelines and are accredited each year. This involves a nursery inspection by a recognised inspector and soil and root testing by a plant pathologist. Accreditation is granted only when the guideline standards are met.

The Committee then established the Virus Tested Tree Register and trees from Foundation or Multiplication stock were eligible to be registered by growers if planted and maintained according to the rules of the scheme. Foundation and Multiplication stock are re-indexed on a regular basis.

Benefits of the Scheme

The owner of registered trees can be sure that in the nursery the plants were raised under conditions that minimise the incidence of pythium and phytophthora root

rot. The planting material was taken from trees which have been virus tested and the method of propagation ensures both rootstock and scion are true to type to give the desired characteristics for disease resistance, fruit quality etc. Only fruit from registered trees can be exported to New Zealand.

New Zealand has a sunblotch free status and the Bilateral Quarantine Agreement between New Zealand and Australia allows only fruit from ANVAS registered blocks to be exported to New Zealand.

Are Your Trees Registered?

If you are the holder of a current Certificate of Registration and have maintained your block in accordance with the following criteria then your trees are registered.

- Cutting tools restricted to use on registered trees or cleaned with sodium hypochlorite.
- Advice to Registrar of top working, additions or replacements.
- Maintenance of a 15 metre distance between registered and non-registered tree.
- Newly planted trees must have been inspected within 3 months of planting.
- General block maintenance.

Provided these procedures have been followed, older registered orchards can be used for export fruit. If you are unsure as to whether your trees are registered or not and/or want a copy of the scheme guidelines please contact Astrid Kennedy, the ANVAS Registrar, on (07) 3213 2477.

If you know that your trees are registered and you want your details placed on an "export list" please supply the Registrar with the following details:

Name of Block holder.

Address of block (postal and location).

Variety.

Season (when fruit available).

Quantity (best guesstimate should do).

Post or Fax the information to The ANVAS Registrar, Australian Avocado Growers Federation P.O. Box 19, Brisbane Market, Qld 4106. (Fax 07 3213 2480). A list containing your details will be compiled and provided to any "would-be" exporters who request the information.

ANVAS Accreditation Applications Due

Applications for ANVAS accreditation for 1998 are now being called. Nurserymen interested in supplying registered trees should read the box on the next page.



The Conference

By the time this edition of TA is published the Conference will be underway. The Conference theme "Searching for Quality" is wide ranging and will be addressed from both a marketing and research perspective.

Delegates to the Avocado Conference will hear presentations from an impressive lineup of speakers and receive a copy of the Proceedings as part of their conference kit. The majority of the presentations will be published in the Conference Proceedings and they will be available for purchase after the event. The purchase price will be \$45 + \$5 for postage and handling within Australia and \$65 + \$10 postage and handling for overseas purchasers.

You can secure your copy now by sending your cheque made payable to the Australian Avocado Growers Federation Inc., together with your name, postal address and the quantity required to the Australian Avocado Growers Federation, P.O. Box 19, Brisbane Market, Qld. 4106.

The following is a list of Conference speakers and the subjects they will be addressing:

Mr Ian Inster, Auckland Institute of Technology. What is marketing - let us all talk the same language.

Mr Tom Bellamore, California Avocado Commission. Where to now - adapting to changing markets.

Mr Rob Robson, Interharvest. The Shepard program.

Mr Bill Blandon, South African Avocado Growers Association. Marketing to distant markets - the road ahead.

Mr Richard Ivess, New Zealand MAFF. Phytosanitary barriers - an international perspective.

Mr Lindsay Milne, Merensky Technological Services. Quality Assurance - Who? Where? When? How?

Dr Allan Woolf, Hort+Research NZ. Maturity, shipping and ripening - a quality nightmare.

Prof Nigel Banks, Massey University NZ. Optimisation of wax treatments for avocados.

Dr Kerry Everett, Hort+Research NZ. Progress in managing latent infections.

Dr Alan Woolf, Hort+Research NZ. The electronic firmometer.

Dr Peter Hofman, Queensland DPI. Fruit sampling procedures affect the accuracy of the dry matter maturity test.

Dr Tony Whitley, Queensland DPI. From Seed to Tray - some practices to improve consumer confidence in avocados.

Prof Carol Lovatt, University of California. Pollination biology and fruit set persistence.

Dr Samuel Salazar-Garcis, Mexico. Using flowering biology to manage alternate bearing.

ANVAS Accreditation Applications Due

Applications for ANVAS accreditation for 1998 are now being called.

If you are in a position to supply the industry with trees that are free from Phytophthora and other fungal root pathogens and that have been propagated from registered true-to-type virus indexed scion material, you are invited to become an ANVAS nursery. Please apply for accreditation to the Registrar, Astrid Kennedy, ANVAS, c/- QFVG, P.O. Box 19, Brisbane Markets, Qld 4106 (Telephone 07 3213 2477, Fax 07 3213 2480), and supply the following information:

Name of nursery

Postal address

Location of nursery (if different from postal address) ...

Estimated nursery production of avocado trees for the calendar year 1997 ... (This estimate is confidential and is for administrative purposes only)

You should also sign and date the statement - I hereby apply for accreditation in the Avocado Nursery Voluntary Accreditation Scheme and agree to abide by its guidelines.

An inspection of your nursery will be arranged by a Departmental Officer.

Fees remain the same as they were for 1997, that is a levy of 10¢ for every avocado tree in the nursery at the time of inspection. Departmental fees apply and will be invoiced direct to the nursery.

Applications must be received by 15 October 1997.

Ms Philipa Stevens, Hort+Research NZ. Avo-green - how to reduce pesticide use in the orchard.

Prof Nigel Wolstenholme, University of Natal. Mulch dynamics - research over the last 5 years.

Mr Tim Smith, Overcoming boron deficiency results in improved Hass fruit size and quality.

Mr Graham Thomas, Australian horticultural consultant. The influence of seedling rootstock on yield.

Mr Colin Partridge, Avo Systems Ltd. Irrigation - practical observations in determining water needs, irrigation design and frequency scheduling.

Dr Clive Kaiser, Queensland DPI. Varying tolerance to phosphorous acid by different strains of Phytophthora Cinnamomi.

Mr John Palmer, Hort+Research NZ. Apples - light and orchard design for enhancement of yield and fruit quality.

Dr Mary-Lu Arpaia, University of California. The Californian avocado breeding program - what does it mean to New Zealand and Australian growers.

Mr Simon Newett, Queensland DPI. The AVOMAN project.

Dr Emi Lahav, The Valcani Centre, Israel. Some practical ideas on Hass nutrition.

ANVAS ACCREDITED NURSERIES

ANVAS accredited trees can be purchased from these nurseries:

Rainforest Nursery

Ron and Joan Knowlton
25 Reynolds Street
Mareeba Qld 070 921018

Batsons Nursery

Merv and Pat Batson
Schulz Road
Woombye Qld 074 421657

Andersons Nursery

Graham and Vivienne Anderson
Duranbah Road
Duranbah NSW 066 777229



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Strong Links The Key To Avocado R&D

By Gerard McEvilly, HRDC

The past 12 months have been a time of change and development for the avocado R&D program as a number of major projects have been planned and established. It really is an integrated program now; not just a handful of projects addressing isolated issues.

There are strong links between the various projects and that's important because it starts to mirror the farm operation itself. When managing a complex set of interacting events and circumstances, it is important to look at other things that may be affected when considering what R&D projects should be attempted.

As the diagram below indicates, projects are now underway on Fruitspotting Bug (FSB) and Anthracnose. This follows detailed reviews of both these problems during the past year.

Both projects are designed to improve our understanding of the basic biology and ecology of the organisms, while also carrying out some screening of possible alternative treatments as a shorter-term solution. The FSB project is being co-funded by the macadamia levy and, in future years, by the custard apple levy, with additional support from Sunshine Coast and Yepoon fruit growers. The Anthracnose work benefits from parallel work on postharvest diseases of mango, funded by ACIAR and by HRDC through the QFVG

mango levy. This approach helps the avocado dollar stretch further.

Spray application techniques play an important role in optimising the current control practices with these problems. Recent work funded by HRDC and the apple levy has achieved substantial improvements in spray use efficiency through hands on workshops to improve sprayer setup. It is hoped to adapt this work for avocado growers to maximise the safe and effective use of sprays.

Controlling the Tree

Spray deposition can be greatly affected by canopy configuration.

Previous work has indicated that the incidence of FSB and diseases such as Anthracnose can be affected by light and air penetration as well as the effectiveness of spray applications.

The canopy management project will, therefore, have strong links with these projects. It contains several sub-projects, including work on the use of phosphonate for phytophthora control (and monitoring any possible effects on fruit rots) and a long-term study on rootstocks and their interactions with both canopy size and phytophthora incidence.

Although based in WA, the project on irrigation is relevant to all growing areas and involves researchers based in the

Eastern States, with close links to the work on canopy management. It aims to answer the question "what are the critical times for irrigation?" and will be building on scheduling techniques developed for other crops and on the previous research on phenological cycles for the avocado.

Related to all these strands of research is the AVOMAN project, designed to bring together all the best current information and assist with putting it into action.

The avocado levy also funds, from this issue on, the costs of printing technical information in *Talking Avocados*—there will be regular updates of progress in these projects and other technical information of interest.

Avocado R,D&E Committee

The avocado levy funds the travel costs of R,D&E Committee members as they meet with each other and with researchers to develop the program.

While all research is by nature risky, it is the job of HRDC and the R,D&E Committee to manage and minimise that risk.

The industry benefits from the efforts of an active R,D&E Committee, that under George Green's chairmanship, has critically assessed the R&D program and developed briefs for the types of R&D they felt was needed. These proposals were then discussed and developed with researchers.

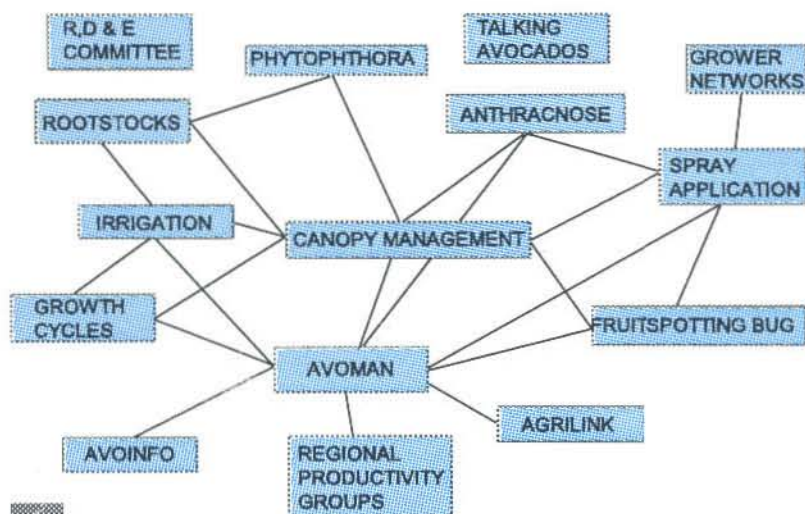
The links described here are also the result of the avocado industry being served by a remarkable strength of talent in the research area. The researchers interact well and have been working together for a long time. The "whole of tree" approach taken by Tony Whitley and his team have helped to foster these links.

The overall research program is well-integrated but that does not mean it is perfect. The apparent links have to be firmly cemented in place and projects have to stay on track—so regular review with the research teams will be required. More importantly, it is making sure that there are no missing links. This will need planning and funding.

Spreading the Knowledge

One of the most glaring gaps is technology transfer, or perhaps better called information transfer because it's about information coming into the R&D program as well as information going out to industry.

1997/98 AVOCADO R&D PROGRAM



Horticultural Research & Development Corporation



HORTICULTURAL RESEARCH & DEVELOPMENT CORPORATION

For examples, the Fruitspotting bug program will not deliver in full unless it receives information on farming conditions from industry.

The industry's strategy for information transfer is built on two pillars at the

moment—Talking Avocados and AVOMAN—widely regarded as high quality and innovative. The QDPI Agrilink manual adds a third element. There are many other models that could also be considered.

Determining what projects are right

for the avocado industry and budgeting for them is no easy task. The challenge is to ensure that in future every grower will know how to access appropriate information from any sources, including other growers, marketers, researchers and suppliers.

1997/98 Avocado R&D Projects

Project no	Title	97/98	98/99	99/2000	2000/01
AV95006	AVOMAN Stage 2	\$64,220	-	-	-
AV96004	Avocado canopy health and management	\$91,270	\$96,036	\$48,228	-
AV96005	Managing avocado irrigation for yield and fruit quality	\$34,250	\$35,000	\$17,500	-
HG97010	Ecology and behaviour of Fruitspotting bugs	\$45,000	\$52,000	\$52,400	-
HG97011	Spray application project (tba)	\$40,000	-	-	-
AV97001	Field management of avocado postharvest diseases	\$74,144	\$93,194	\$96,382	\$40,462
AV97002	Costs of second R&D Committee meeting, 97/98	\$5,000	\$5,000	\$5,000	-
AV97003	Technology Transfer through Talking Avocados	\$13,250	\$13,250	\$14,500	-
	Exotic incursions (tba)	-	-	-	-
TOTAL		\$367,134	\$294,480	\$234,010	\$40,462

Australia's First Horticultural Peak Industry Leaders' Forum

Partnership in Horticulture was the theme of Australia's first peak industry leaders' forum organised and hosted by the Horticultural Research and Development Corporation (HRDC).

Sixty-five representatives from the nation's peak horticultural organisations attended the day long forum which aimed to strengthen working relations between the HRDC and industry groups and ensure the future direction of the Corporation's R&D program meets both industry and marketplace needs.

The forum was held in Sydney on 30 July and had as guest speakers Senator the Hon. David Brownhill, Parliamentary Secretary to the Minister for Trade and Minister for Primary Industries and Energy; David Minnis, Chairman, HRDC; Lindy Hyam, Executive Director, HRDC; Mr Peter Hayes, Executive Director of the Grape and Wine R&D Corporation; and Dr Alan Stuart, BHP's Senior Principal Research Scientist.

Mr David Minnis said the event provided a significant opportunity for various sectors of the horticultural industry to work together and formulate a strategic approach to sustaining Australia's horticultural industry.

"The forum provided an opportunity for key players to share ideas, consider future directions and priorities for R&D management and discuss issues relevant to the Australian industry in a global competitive market," he said.

"The discussions also assisted the HRDC Board in determining the most appropriate policy directions for future horticultural R&D management and funding?"

The Forum also included a series of best practice workshops focused on reviewing the R&D application process, R&D Committees, communications and technology transfer, the role of Industry Development Officers (IDOs) and research opportunities across industries.

Forum participants included chairpersons and executive officers from the Australian Avocado Growers Federation, Australian Apple and Pear Growers Association, Australian Citrus Growers Incorporated, the Nursery Industry Association of Australia, the Australian Fresh Stonefruit Growers, the Australian Vegetable and Potato Growers Federation, the Australian Processing Tomato Industry Council, Strawberries Australia and the Australian Custard Apple Growers Association, to name a few.

Workshop Outcomes

Key outcomes of the four workshops included:

- The application process for 1998-99 should consist of a preliminary application being submitted by the end of September 1997 with a full proposal due at the end of December 1997. This supported the research agencies preferred position and has been adopted by the HRDC Board.
- The R&D Committees are by and large working well in identifying priorities for R&D. However, seconding specialists in specific fields to advise R&D Committees was seen as a way of improving Committee effectiveness.
- Industry saw cross industry research as a major issue and agreed that mechanisms for its funding needed to be developed across industries. It was suggested that a peak industry body, where representatives of each industry would have an opportunity to determine the areas of research, might provide opportunities for cross industry research.
- Industry identified the need for much closer linkages between R&D and technology transfer especially at the planning stage. The need for training, identification of barriers to adoption and detailed demographic information were also highlighted at the Forum.



The articles on this page are sponsored by HRDC and the avocado industry.

Australian Round-up



Atherton Tableland

As usual for this time of the year many orchards on the tablelands are in full bloom and despite the miserable, cloudy weather, some have a reasonable early fruit set.

For the past two years North Queensland growers have been aware of the increasing concern their customers have shown about food safety. A few dedicated growers who believed that this would become a big issue in the future sought the assistance of staff from the local DPI and started a round of night meetings to put in place a Quality Plan.

The plan required the maintenance of a Spray Diary. That was the easy part because it also called for the introduction of the Hazard Analysis Critical Control Points (HACCP) scheme and that saw total confusion among the group. Nevertheless, Shepard Australia had a basic manual in place for the 1996 season.

Shortly after, Shepard Australia was invited to participate in the Food Quality Program 'Nearer to the grower - closer to the customer'. The program was to be a network quality management project which had been observed by DPI's Chris Hubbert in Great Britain. He believed the project would be of immense value to an Australian network of Horticultural businesses.

The appointment of a Program Manager saw a renewed interest in quality management. After much discussion, arrangements were made for a Shepard Australia member and the Program Manager to visit West Australia to evaluate their new quality system known as SQF2000; a system developed by the West Australian Department of Agriculture. They were impressed with what they saw and invited a representative to visit North Queensland to explain the program to Tableland growers.

Having struggled for some 18 months to understand ISO 9002, this SQF2000 made sense to growers persevering with quality management. SQF2000 was now their aim.

With the guide lines of SQF2000 for reference and the assistance of the Program Manager, things began to fall into place—everybody was feeling very confident about the whole project.

A two-day HACCP course was arranged followed a couple of weeks later by a two-day Internal Audit course. Participants

found that a lot of what was said at group meetings now made a lot more sense.

In due course the businesses involved were audited and after an anxious wait, it was announced that all four had been successful—some very proud farmers indeed.

A presentation of certificates will take place at the Homestead at noon on 12 September. All Shepard Australia members are invited to attend.

Tamborine

Members of Tamborine Mountain Local Producers Association were recently privileged to be given an address by Mr Graeme Thomas who is a well known consultant agronomist and also a fellow grower of avocados.

The subject of his address was "The influence of rootstock on Hass avocado yields" and was a preview of his paper he will be presenting at the AAGF Conference in New Zealand in September.

Graeme's paper is based on historical records of yields over the past 20 years and measurements he has taken on his own trees over recent years.

It would not be right to steal his thunder and no doubt we will all be able to see copies of his paper in the Conference publication—or be lucky enough to hear him in NZ!

It can be said that while other areas of agriculture and farming have been showing good productivity gains, avocados have been standing still. There is huge room for improvement.

Graeme's paper pinpoints where the failings lie and points the way to achieve the sorts of theoretical (yet achievable) yields per hectare that we are capable of. Twenty-five tonnes is not out of the question!

As the title of the paper suggests, serious consideration must be given to breeding. Just as flock and herd culling based on productivity are essential means of improvement in animal husbandry, so must the grower of avocados approach his orchard.

The production of each tree must be recorded over a period of three or four years and decisions made, based on these results.

Graeme's talk struck home particularly this year on the Mountain. The Hass crop is very poor overall due to a failure of fruit set last spring. However, what fruit there is, is maturing early and picking is underway.

Trees are budding well and hopes are high for better pollination this year. However, we all know we need to do more

if we are to stay in business in the face of ever increasing costs and competition.

Sunshine Coast Round-up

The June Quarterly Meeting of SCAGA provided a bonus for those few members who were able to make it. Geoff Waite provided some encouraging advice on the progress being made toward formally studying the Fruit Spotting Bug with a view to finding an Endosulfan free control. He explained that although research into the identification of a pheromone attractant was not entirely promising, it would be continued by QDPI separately from the new joint project.

Tim Smith provided an encouraging report on his progress with defining appropriate application rates and timings for Boron and Simon Newett announced the imminent release of the final AVOMAN prototype. He also briefed the members on the preparation of a CD-ROM form of AVOINFO soon to be released.

On Saturday 12 July, Ken and Muriel Webb's "Hebron Grove" was the venue for one of the best supported field days for many years. Peter Young talked on the latest developments in Canopy Management and then took to the orchard accompanied by machinery representatives to demonstrate the practical aspects of the newly developed technology. In the evening a large group of growers conducted a workshop wash-up at Clio's Restaurant.

Congratulations to Henry Kwaczynski for pulling it all together. A layman's perception of the evolution of Canopy Management appears on page 22.

EKKA has come and gone and once again the industry in Queensland was well represented by SCAGA. An endless string of volunteers from the association with the help of Tamborine Mountain growers fielded endless questions on avocados from an eager and interested public. This year fruit was available for purchase during the Show for the first time and Show goers snapped it up.

With quite significant changes being proposed by QFVG for the EKKA Horticultural Pavilion displays commencing in 1998, the opportunity for broader industry involvement in the display preparation arises. As all growers stand to gain from this major promotion of their product it is only appropriate that all representative bodies (LPA's) have some input and contribute to the way in which their fruit is presented.

LPA's interested in participating in this important project should contact The Secretary, SCAGA, P.O. Box 235 Palmwoods Qld 4555 or phone (07)5478 9135.



Most growers in NSW by now will have started picking their Hass crop. Hopefully, returns will be better than the below average

ones received for the "green skins" (Fuerte, Sharwill and Pinkerton). With market needs leaning more heavily towards Hass each year, let's hope growers will reap benefits in the later part of the season.

On 10 July, the Coffs Harbour Branch held a Field Day hosted by Geoff and Shirley Betts at their Halfway Creek property. Peter Young from Birdwood Nursery was the guest speaker and as we have previously experienced, Peter was very well received.

With many new orchards being planted in our region, Peter's "from the beginning" approach was easy for growers to relate to and was much appreciated by those 90-100 growers in attendance.

Peter talked on canopy management, high density planting, manipulating tree growth patterns with pruning techniques while maintaining high production, and tree establishment.

David McPheat of NSW Agriculture spoke on property management planning and farming for the future. Greg Ireland completed the day with a demonstration of AVOMAN.

I'd like to congratulate Coffs Harbour Branch President, Andrew Wright, and

Greg Ireland from NSW Agriculture, for their excellent work in organising the day.

Growers should continue to support these functions because it motivates the organisers into putting on bigger and better events.

The recent release of figures by the Australian Bureau of Statistics show that the avocado industry in NSW has increased from 20% of national production in 1995 to 28% in 1996, a significant increase of 8%.

While production in Australia continues to rise, be assured that your levies are being used wisely to increase national



Peter Young demonstrating a point in the orchard.

consumption through promotional activities and advertising by the AHC.

Finally, the NSW Avocado Association's "End of Year Dinner" for 1997 will be held on 12 December at the Ballina Beach Resort. There will be two guest speakers. All NSW growers will receive an invitation, so please keep this date in mind



Avocado Promotion at the KDA Kitchen Show

The avocado demonstrations at this three-day event coincided with the WA season for the Fuerte variety. The demonstrator capitalised on the chance

to offer information on the selection, ripening, storage and usage of early season fruit.

An attractive display of whole avocados, posters, recipe pamphlets and various props and floral accessories was set up around the demonstration location. In addition small baskets of avocados were displayed in kitchens around the pavilion as a subtle but effective reminder of avocados.

The demonstrator prepared two dips based on avocados. A simple Guacamole served with fresh vegetable sticks and an Avocado and Banana Dip served with apple and pear slices were offered as samples to the public.

This demonstration reached a group of potentially regular avocado consumers. Those attending the Kitchen Show are generally there to investigate kitchen designs and equipment and are very interested in food preparation and recipe ideas. It is an excellent environment where people are very receptive to learning.

Avocados in Secondary Schools

WA home economics classes have been invited to participate in a pilot project aimed to increase exposure to avocados to a target group with unlimited potential as future consumers.

Fresh Finesse (Fresh Food Promotions), on behalf of avocado growers, will co-ordinate the promotion, arranging the delivery of avocados for recipe testing and an information kit to classes.

In-store Demonstrations

In-store demonstrations will commence in early October. At least fifty demonstrations will be held to coincide with the peak of the Hass season.

SQF2000

The Quality Assurance Committee is working on the formulation of the production and packing manual for growers. This document is expected to be ready for trials by June 1998.



Peter Young speaking at the Coffs Harbour Field Day.



AVOMAN Tips

Options/Preferences in AVOMAN Software

Many of the features in AVOMAN can be customised by the user? The AVOMAN "preferences" section allows the selection of settings for many of AVOMAN's standard features. Future versions of AVOMAN software will allow many more "preferences" so it is worthwhile looking into how to access and use them.

The preferences section may be found by selecting the "Options" menu item from the main tool bar of AVOMAN and then selecting "Preferences". The standard features of AVOMAN, which can be customised, include:

- changing colours for the growth cycles.
- showing or hiding a legend for the growth cycles.
- auto arranging the windows of the AVOMAN program.
- system sounds.
- program hints.
- laboratory warnings for soil and leaf analyses.

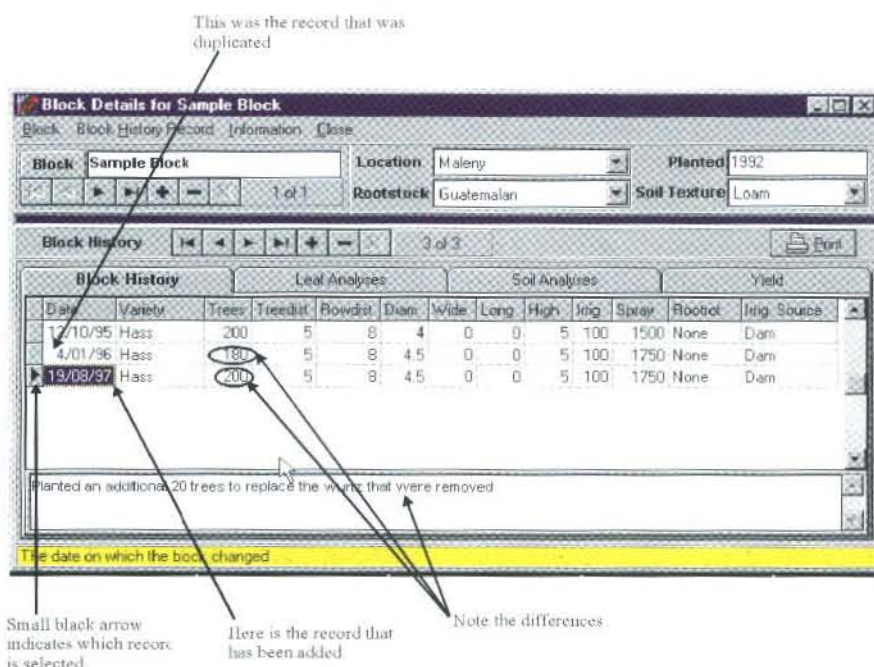


Figure 1. The easy way to update your Block History records within AVOMAN.

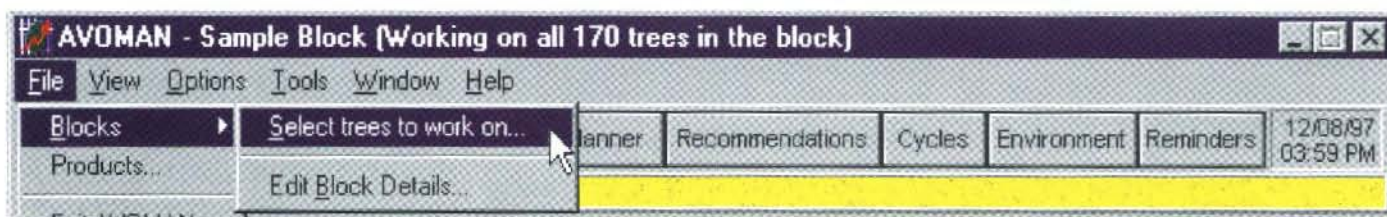


Figure 2. Selecting the number of trees to work on in AVOMAN.

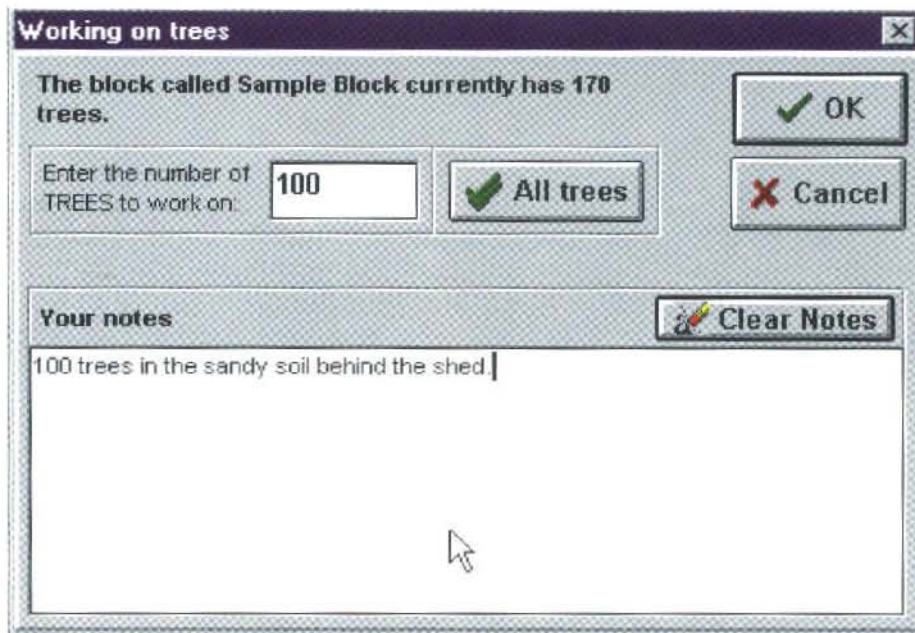
For more information on the setting of program preferences refer to page 19 of the "AVOMAN Prototype II User's Manual".

The next prototype release has all of these options plus more to give greater choice in how the AVOMAN software is used.

Block History Records

Most users will be familiar with the block history table/grid and the large amount of data that may be recorded in it. However, some users may not be aware that there is a very quick way of entering an update.

Figure 3. Screen displayed when selecting the number of trees you wish to work on.



*AVOMAN Tips are provided by the AVOMAN team*

To do this:

❶ Ensure that the most recent record is selected (this is indicated by the small black arrow on the extreme left of the table).

❷ Click the + or insert button, the data for that row will be duplicated with today's date in the date column.

❸ Modify the column that needs updating.

In the above example the data of the record added is a duplicate of the record chosen at the time of insertion (13/08/97), only what has changed since the last record (here the tree number and accompanying note) needs to be updated.

Figure 1 on the previous page shows exactly what happens when the insert button is pressed when a record is selected within the block history table.

This feature was added to simplify data entry. For more information on this refer to pages 11 and 29-31 of the "AVOMAN Prototype II User's Manual".

Recording Jobs Done to Only Part of a Block

Occasionally work carried out in part of a block needs to be recorded. How is this done in the AVOMAN software?

Besides numerous areas for notes scattered throughout the program there is also the option of selecting the number of trees that need updating.

To do this:

❶ Select the "File" menu item from the main tool bar.

❷ Select the "Block" and "Select trees to work on" options (Figure 2).

Once you have done this a new, smaller window will appear (Figure 3).

❸ In this window enter the number of trees worked on and write a small note in the "Your notes" area as a reminder for future reference

❹ Click the OK button.

Any subsequent operation or data entry will only be recorded as having been

applied to this number of trees. Therefore, it is important to change the setting back to the whole block when you have finished recording the part block operations.

This is made easy by the provision of an "All trees" button (Figure 3). If you are unsure of the number of trees the program is currently set to, refer to the caption at the top of the main tool bar (Figure 2).

Again if you have any problems refer to pages 54 and 55 of the "AVOMAN Prototype II User's Manual".



All AVOMAN and other technical articles and reports published in this magazine are sponsored by the HRDC and the avocado industry.



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New Features In The AVOMAN 1997 Prototype:

Part I

Reports and Charts by Christine Bezzina, Shane Mulo and Simon Newett

In response to user surveys and other feedback received by the AVOMAN development team, many new features have been added to the 1997 prototype of the AVOMAN software. This is the first in a series of articles which describe in detail the new features in the '97 prototype.

New Reports

Among the many improvements and additions to the '97 prototype are several new reports which will allow users to summarise and print information. These are generally presented as either graphs or tables, depending on the type of information they contain.

Reports are now available of most parts of AVOMAN where records are stored. For example while viewing your leaf analysis records a report can be produced summarising this data in a table. Various graphs are also available to view trends in leaf element levels and compare them with optimums.

When you choose a tabular report, AVOMAN produces a preview which you can either view on your screen or send to a printer. In most cases you can limit the amount of information produced in a report by selecting a suitable date range. Where appropriate, this date range is displayed on the report, as is the time and date the report was produced.

As well as printing reports, information can be saved to disk for future reference. This is particularly handy for those who may not have a printer. While previewing any report, any previous reports saved to disk can be viewed. There is a choice of three viewing scales including *page width* (the default), *100%* (actual size) and *fit to window* (the complete report fits on the screen, no scrolling needed). Figure 1 shows the tool bar that appears at the top of all report previews.

The following are some of the new tabular reports that will be included in the '97 prototype:

- fertiliser application summary.
- spray diary.
- leaf and soil analyses summary.

- reminders.
 - weather summary.
 - block measurements and observations.
- Some of the new graphs in the '97 prototype include leaf analyses and yearly weather comparisons. It is now possible to graph many important leaf elements on a block basis. For example:
- a comparison of N, P, K, Ca levels recorded for the current block on a maximum of 5 different dates at any one time.
 - a similar graph for B and Zn.
 - a graph showing all historical readings for any single element.

Each of the leaf analysis graphs also displays optimum leaf levels for each element. The yearly weather comparison graph allows users to graph a maximum of 10 years of weather data. Weather readings such as evaporation, minimum temperature, maximum temperature and rainfall may be graphed on a weekly or monthly basis.

As with other types of report in AVOMAN, the appearance of graphs can be customised. The option of viewing all charts in three dimensions is included to increase the clarity of results under certain situations and the colour of all AVOMAN graphs can be configured to suit individual tastes or printer requirements.

Some other reports which are yet to be added at the time of writing this article include:

- a soil analyses graph.
- a water quality graph.
- a report from the planner.
- an inventory report (chemicals used).

Dynamic Growth Cycle

Most AVOMAN users will know of and appreciate the effort made by a small number of growers who have recorded growth events on their farms. The results of this work have been built into the program as growth cycles for specific regions.

It has become apparent however that it won't be possible to cater for every variety in every region over the life of the project.

Without growth cycle information AVOMAN cannot make accurate recommendations as the timing of many recommendations is closely linked to the growth cycle. To complicate things further, timing of growth cycle events can also vary from season to season.

The solution to this problem is a new dynamic growth cycle which has been built into the '97 prototype.

When you first receive your AVOMAN '97 prototype and add details about your blocks, AVOMAN will attempt to find an appropriate growth cycle based on your location and variety. Where this is not possible you will be asked to pick the closest existing cycle. Once this is done the cycle will be displayed on the *growth cycle* page in the new block information section (see figure 3).

With all of the relevant curves and associated logic already built into each growth cycle, all that is required is to drag points on the curves (these points appear as small squares) to match when the event happened. The new cycle will be saved and used by AVOMAN to calculate appropriate timing when making recommendations. Next year's cycle will be based on

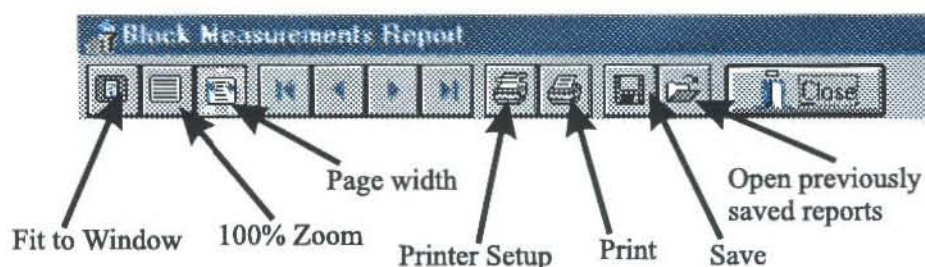


Figure 1. The Tool Bar when previewing reports in AVOMAN



AVOMAN

AVOMAN Leaf Analyses Report

Created by the AVOMAN Farm Management System
Copyright 1995,96,97 DPI Queensland

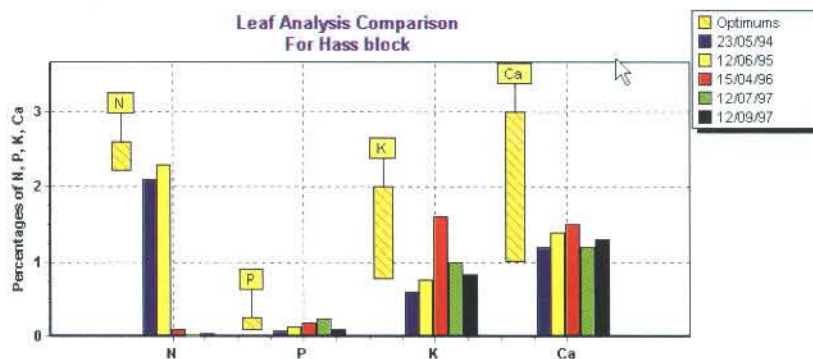


this year's, so all that is required is a few minor adjustments to the curves as they occur. Since each year's cycle is stored by the computer you will be able to compare the timing of growth cycle events (such as flowering) across several seasons.

The AVOMAN team will be providing training following the launch of the 1997 prototype in October/November. Discussion of the new reports and the new dynamic growth cycle will be an important part of these training sessions and RPG meetings.

The AVOMAN recommendation system has been modified to utilise this new dynamic growth cycle and to integrate more closely with farm records. The next article in this series will highlight the new way in which recommendations are given in the '97 prototype.

Block: Hass block
Location: Palmwoods
Soil Texture: Clay
Rootstock: Mexican
Year Planted: 1990



Date	N	S	P	K	Ca	Mg	Na	Cl	Cu	Zn	Mn	Fe	B	Al
	%									mg/kg				
23/05/94	2.1	0.3	0.07	0.6	1.2	0.3	0.1	0.1	15	21	34	55	19	
12/06/95	2.3	0.36	0.12	0.75	1.4	0.4	0.15	0.2	2.15	25	35	54	26	
15/04/96	0.09	0.4	0.18	1.6	1.5	0.5	0.12	0.14	2.4	35	32	65	10	

Notes: Sue took this sample from the main area of healthy trees.

We had 20" of rain one month before sampling. No fertiliser was applied between the rain and sampling.

Figure 2. An example of a leaf analysis report generated from AVOMAN showing actual levels compared with optimums.

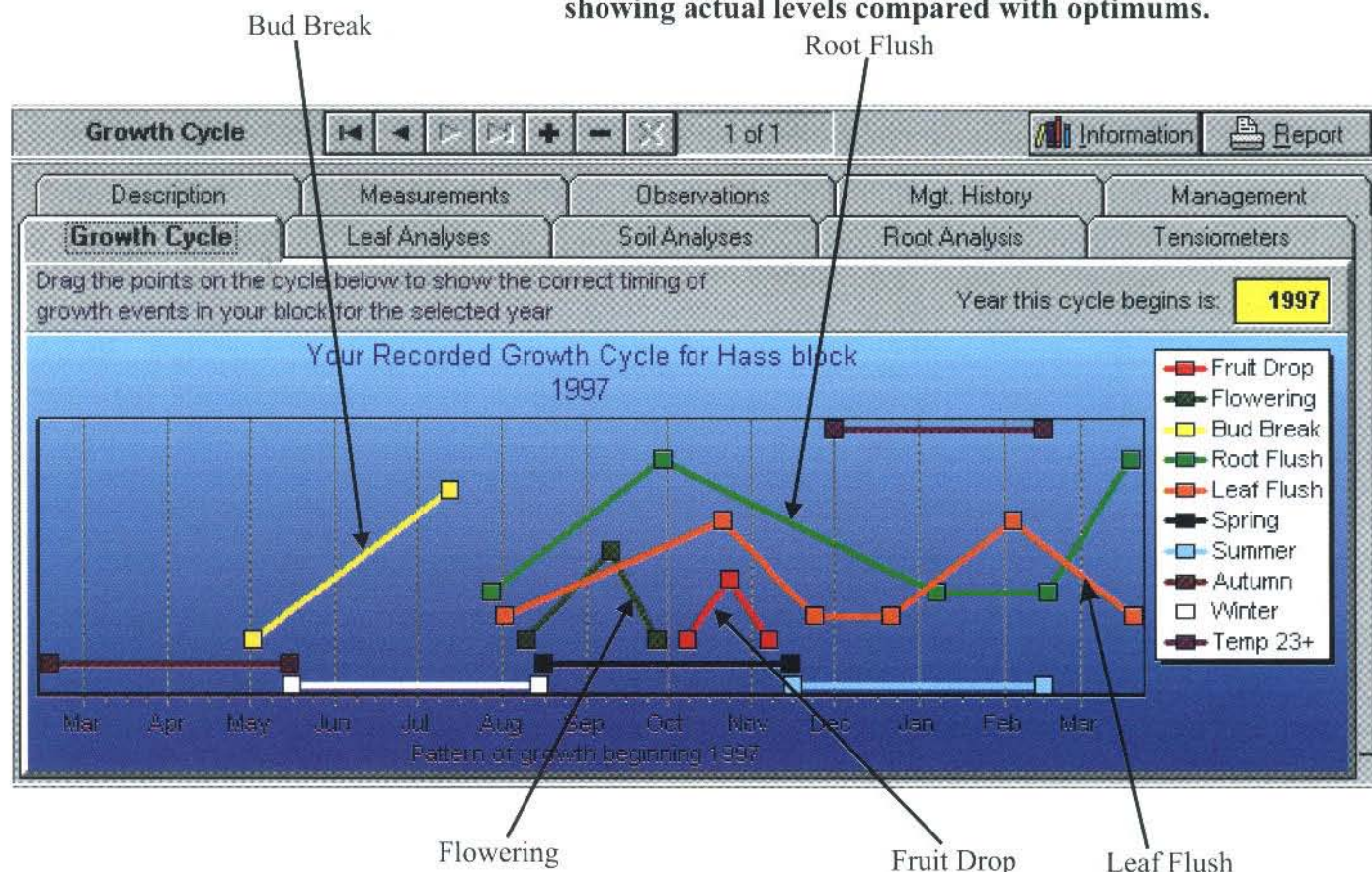


Figure 3. Dynamic Growth Cycle, a new feature of AVOMAN

AAGF Helps The Trade Deliver The Goods

By Terry Rudge, Rudge Produce Systems Pty Ltd, Melbourne

With an eye to the future, the AAGF has developed training programs for wholesale and retail handlers of avocados. This initiative was supported by funds from the DPI&E's Agribusiness Program.

Workshops for wholesalers and retailers have been run in Brisbane, Sydney, Melbourne, Adelaide and Perth.

Wholesalers and retailers have a major influence on the quality of avocados delivered to consumers, and the workshops focus on ways of improving handling.

The skill of ripening receives a lot of attention. The ripening process is not well understood and the trade needs to respond to the growing demand for ripened fruit.

Once ripened, fruit has a different set of handling problems and handling systems need to recognise how easy it is for fruit to bruise.

The workshops are an opportunity for handlers to develop more depth of expertise in their business and to provide a better product to their customers.

AAGF/DPIE Avocado Workshop Attendees

Brisbane

Gary Poole	Murray Bros
Neville Munroe	Chiquita Brands - Bris
Robin Batty	Chiquita Brands - Bris
Yvonne Ryan	5 Star Promotions
Fran Ward	5 Star Promotions
Yolla Gaunt	5 Star Promotions
Sandra Kirkman	5 Star Promotions
Tim Jordan	W Arkell & Sons
Darren Frame	Shamrock Marketing
Damian Caught	Country Fresh
Gene Stevens	Country Fresh
Barry Ross	Woolworths
Terry Mainey	Woolworths
Paul Costanzo	Woolworths
Joe Cannavo	Woolworths
Greg Dhnaram	Woolworths
Kosta Conomos	Woolworths
Wendy Johnstone	Woolworths
Gary O'Donnell	Woolworths
Gary O'Hara	Woolworths
Des Kingsman	Woolworths
Norm Townsend	Woolworths
Wally Collins	Woolworths
Chris Allen	Woolworths
Laurie Beier	Woolworths
Tony Oostveen	Woolworths
Justin Shields	Franklins
Jose Gamero Lombain	Franklins
Bob Bell	Franklins
Sharna Day	Franklins
Ricky Xynias	Franklins
Paul Mitchell	Franklins
Alister McDonald	Franklins
Terry Cunningham	Franklins
Colin Crane	Franklins
Ian Murphy	Franklins

Sydney

Joe Cotrona	Fruitlink
Joe Brunetta	Fruitlink
Les Pappas	E F Cooke
Gary Parker	E F Cooke
Pam O'Byrne	QFVG Promotions
Kaye Baker	QFVG Promotions
Roslyn McConnell	QFVG Promotions
Carmen Santulli	QFVG Promotions
Lisa Dolores	QFVG Promotions
Steven Burgess	Tilbrooke Marketing
John Cassone	Woolworths
Tony Dorria	Woolworths
Craig Moriarty	Woolworths

John Barilla	Woolworths
Steve Mounsey	Woolworths
Mario Saad	Woolworths
Bruce Redding	Woolworths
Scott Dunk	Woolworths
Peter Kitchen	Woolworths
Ben Cotroneo	Woolworths
Shane Chapman	Woolworths
Luigi Vella	Woolworths
Pat O'Hehir	Woolworths
George Kubitzky	Woolworths
Gary Brown	Woolworths
Gus Stellino	Woolworths
Jarrold Bow	Woolworths
Elizabeth Helenpach	Woolworths
Joe Buono	Franklins
Fred Palazzolo	Franklins
Phil Rando	Franklins
John Crino	Franklins
Yeteen Yalda	Franklins
Adrian Jeffkins	Franklins
Norm Smith	Franklins
David Johnson	Franklins

Melbourne

Steve Grillo	T Costa & Sons
Joe Tullio	T Costa & Sons
Vince Brancatisano	VB Fruits
Chris Brancatisano	VB Fruits
Richard Nugent	Sculli & Co
Peter Mirco	Dimattina & Co
Dale Aitken	Danzante
Dianne Sammut	QFVG Promotions
Lyn Jerram	QFVG Promotions
Allison Hallpenny	QFVG Promotions
Michelle Godsell	QFVG Promotions
Jack Verbeek	Safeway
Ron Hee	Safeway
Ian Pavey	Safeway
Robert Bolge	Safeway
Tony Scott	Safeway
John Argiropoulos	Safeway
Robert Watson	Safeway
Cameron Webb	Safeway
Bill Papoutsakis	Safeway
Bart Saltalamacchia	Safeway
Les Miles	Safeway
Andrew Mackus	Safeway
Paul Burich	Safeway
Scott Thompson	Safeway

Adelaide

Jason Chartres	Chiquita Brands - Adel
----------------	------------------------

Hilary Cosgrove	Chiquita Brands - Adel
Jan Byerlee	Chiquita Brands - Adel
Bronwyn Hills	Chiquita Brands - Adel
Kelly Neindorf	Chiquita Brands - Adel
Carmela Caruso	Chiquita Brands - Adel
Diane Smith	Chiquita Brands - Adel
Sandy Murphy	Chiquita Brands - Adel
Diana Tucker	Chiquita Brands - Adel
Mark Reichert	Woolworths
Andrew Visser	Woolworths
Mark Holscher	Woolworths
Michael Foti	Woolworths
John Marconi	Woolworths
John Holmes	Woolworths
Adrian Consalvo	Woolworths
Kym Lewis	Woolworths
Armando Catalano	Woolworths
Gary Provan	Woolworths
Rino Spagnuolo	Woolworths
Vince Della Foresta	Woolworths
Matt Johnston	Woolworths
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Heather Cunningham	Woolworths
Andrea Hill	Woolworths
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Graham Heath	Busselton Fresh
Christine Simpson	Fresh Finesse
Jane Aitken	Fresh Finesse
Gillian Watts	Fresh Finesse
John Terriaca	Woolworths
John Simpson	Woolworths
Les Lazarakis	Woolworths
Carey McLachlan	Woolworths
Chris Hyde	Woolworths
Chris Woonings	Woolworths
Murray Priest	Woolworths
Tony Popic	Woolworths
Laurie Femia	Woolworths
Jim Durer	Woolworths
Gio Panaiia	Woolworths
Steven Gallagher	Woolworths
Bob Poore	Woolworths
Alf Woonings	Woolworths
Rob Cavallaro	Woolworths
Michael Batychi	Woolworths

Support Call For Climate Research

Linking long range weather and climate prediction to agricultural and resource management through an integrated research program could help reduce losses caused by drought and allow farmers to take advantage of favourable climatic conditions.

In a keynote address to the Climate Prediction for Agricultural And Resource Management Conference in Canberra in May, Bureau of Resource Sciences (BRS) scientist, Dr Robert Munro proposed that the Government support such a research program.

"This would tie in with the Government's policy of encouraging the rural sector to be self-reliant in managing for climate variability," he said.

Dr Munro said an integrated research proposal developed by himself and Mr Murray Lembit of DPIE's Rural Division would involve developing systems to:

- improve climate predictions and weather forecasts;
- apply weather and climate predictions to agricultural and natural resource management; and
- apply climate variability management techniques to achieve self-reliant agricultural and natural resource management.

"Developing these systems in a user friendly form would contribute to best practice farm management systems, improve self-reliance and contribute to sustainable resource use," Dr Munro said.

The conference, organised by BRS and the University of New South Wales, was opened by Senator Brownhill, the Parliamentary Secretary to the Minister for Primary Industries.

Senator Brownhill highlighted Government programs and commitment to empowering the agricultural community to

achieve self-reliance in response to drought and climate variability.

The conference received sponsorship and support from the Australian Academy of Science, Bureau of Meteorology, Land and Water Resources Research and Development Corporation, Rural Industries Research and Development Corporation and the National Farmers' Federation.

The aim of the conference was to demonstrate the response of the scientific community to the recent, and in some places continuing, drought.

"It provided an opportunity for scientists to present their work in a high level science forum, to highlight recent advances and demonstrate their relevance to community problems," said Dr Munro.

Speakers addressed issues of immediate impact in weather prediction and management responses, and longer term issues such as global warming and atmospheric ozone-layer depletion.

Gene Technology - Future Prospects For Agriculture

Australia's future agricultural competitiveness will be strongly influenced by the early development of a suitable framework for the assessment and release of genetically manipulated organisms (GMOs), according to Commonwealth and State Agriculture Ministers who recently met to discuss agricultural matters.

The Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) meeting said there was a clear and urgent need to establish a regulatory and information system to enhance the development of GMOs.

The Commonwealth Minister for Primary Industries and Energy, John Anderson, said gene technology offers great potential to increase agricultural productivity.

"In a whole range of animal and plant products, gene technology will introduce beneficial characteristics which are not currently available," Mr Anderson said.

"As well, it will significantly change production systems and markets by

reducing farmers' input costs, increasing the sustainability of agricultural enterprises and improving safety, quality and variety," he said.

"Gene technology also has many non-agricultural applications which must be considered.

"The ARMCANZ meeting agreed on the urgent requirement for a responsive and co-ordinated national system to address the notification, assessment and approval of GMO activities and products.

"The system agreed on, in principle, will be put to the Commonwealth and State governments for their early consideration.

"Such a framework must provide assurance to the community regarding the use of this technology, while ensuring reasonable certainty to investors and researchers to enable them to proceed with their activities under an effective, but not overbearing, regulatory arrangement."

Mr Anderson expressed concern that Australia is lagging behind many other countries in the formation of a suitable framework for GMO innovation and product development which he said is essential to provide for future international


competitiveness in a critical area of technology.

"Australia cannot afford to fall behind in the global gene technology field if we are to maintain our competitive position as an agricultural producer and exporter," Mr Anderson said.

"Our standards and labelling requirements must ensure that GMOs are acceptable to consumers while at the same time encouraging international trade and not impeding competitiveness.

"The new system must include an effective and transparent regulatory pathway for innovation, product development and release which provides for timely assessments of research and commercial initiatives and a consistent approach across governments with low compliance and administration costs.

"It will be developed in close consultation with State ministers and industry to ensure an acceptable and cohesive national approach utilising existing agency mechanisms as far as possible but with provision for consistency at the national and State levels."

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Quality Trays for the Pick of the Crop

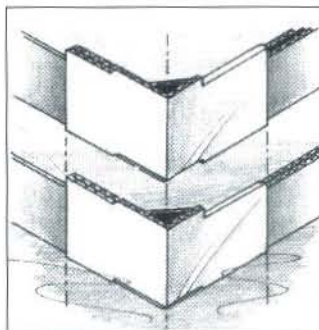
Amcor Fibre Packaging's new P84 packaging trays have started a revolution in the fresh fruit and produce packaging world.

After taking European and New Zealand markets by storm, more than 6 million trays were sold in Australia last season.

The P84's credentials are impressive. Because of its triangular-profile corners, it has high stacking strength.

As well, the P84 (pictured above) has a laminated corrugated cardboard and bonded waterproof membrane which prevents moisture damage and makes it ideal for coolroom storage.

Also, its ventilation holes allow the even distribution of refrigerated air to ensure maintenance of the highest quality out-turn.



Great Stackability

In the stackability stakes, P84 is a real winner. Trays are designed to interlock so that weight is carried by the triangulated corners.

In terms of stacking performance, the P84 can be stacked two pallets high if packed according to the manufacturer's recommendations.

But there are still other benefits of the P84. With Amcor Fibre Packaging's graphic design and printing technology, we can ensure that your P84 trays are printed with quality and colour to stand your produce apart from the competition.

100 per cent biodegradable & recyclable

The P84 is 100 per cent biodegradable and recyclable. So by using this tray, you will help Australia's environment.

It's another example of Amcor Fibre Packaging's commitment to packaging technology for the fresh produce industry. Ask your local Amcor Fibre Packaging representative for further details on the P84 tray.

In summary, P84's performance means that...

Other produce trays simply don't stack up!



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Western Australia - Spearwood (09) 434 0434 Northern Territory - Darwin (08) 8984 3566
Tasmania - Launceston (03) 6326 0666



Industry Manager's Say ...

By Wayne Prowse



It is great to see the number of high quality avocados available around the retail outlets these days. Of all the avocados coming into our household in the last few months I have not had a serious problem apart from minor signs of chilling injury. This either indicates better handling through the chain, or a consumer like me can be educated to select a quality avocado and consume it in excellent condition. I hope it is both.

This quarter we have continued the push for avocados as a "perfect package" for mother and baby with another feature in the issue of August Family Circle (a special "baby" issue) and of course the Baby-care books. In-store demonstrations have commenced with maximum activity in August to October.

Another small but highly significant activity this month was our presence at the Cardiologists Conference in Hobart. Dr David Colquhoun addressed the conference about the benefits of monounsaturated fats and outside the auditorium was nutritionist Sally James promoting avocados (and macadamias).

In this issue I have devoted the "closer look" segment to market statistics. The 30% production growth is exceptional and keeping demand in line with this growth is a key indicator in maintaining industry viability. Looking at a graph of 4 week moving average price and volumes throughout the year there is no prize for noting prices had fallen compared with the previous year. However industry value still increased 11% and a look over 4 years reveals a more positive picture.

Your Levy at Work (July - September 1997)

In-Store Demonstrations (8 hr each except as noted)

NSW	16
Victoria	5 - majority start in October
QLD	15
SA	Nil - start October after Adelaide show.
WA	Nil - start October

Special Events

- Stand at Cardiologists Conference - Hobart.
- Stand at Harvest Fiesta - Murwillumbah.
- Heart Week Baby Expo promotion - Newcastle.

Public Relations

- Avocado Pack competition in Woman's Day and New Weekly.
- Articles flowing through from April luncheon.

Advertorials

- Family Circle - mass magazine special baby edition - August 97.
- Bounty Magazines - to Maternity Hospitals - on going until May 98.
- HeartHealth Magazine - to HeartHealth Australia cholesterol testing clinics - ongoing.

A Closer look at Market Statistics

Good market statistics are essential for effective industry planning as they show up trends and issues that need to be addressed as well as providing a measure of how the industry performs against those plans. Our marketing activity is based around early periods of high volumes and falling prices with the aim to stimulate more demand and thereby influence better prices and overall industry viability.

Many a cynic has remarked how statistics can be made to achieve the result you need. That all depends on the credibility of the data and how you interpret it. If the data is credible and the interpretation is accurate then statistics do not lie.

Unfortunately the source of data for many horticultural industries often relies on estimates and extrapolations to achieve a result that at best is rubbery compared with what a large company could do with the press of a few buttons on the mainframe.

Flemington Market Reporting Service has provided the market statistics that I have used to monitor the avocado market movements that I have published in TA and discussed at grower meetings. It is not perfect; however it is a good measure and should be treated that way.

As it is not possible to print all the tables that I produce I do want to discuss some of the charts that should give us a feel for the

way the industry is going. Another term sometimes used is Key Performance Indicators.

Volumes - by week

A simple chart measuring weekly volumes indicates whether there is more or less avocados in the market compared with other weeks. When compared with data of previous years one notes any abnormal instances that can be explained by a particular event.

Average Prices - compare with volumes

Average prices are most useful when compared with volumes. Simple economics explains that if volumes are high, prices will be lower. Of course quality and variety also impacts on prices within a range and the price received by a grower may be different from the average. Consumer demand at certain times of the season such as summer will also impact on the average price. A four week moving average is a better method to measure seasonal trends and allows volumes and prices to be plotted together to unveil a clear picture of the year's performance.

Cumulative Volume.

This chart simply adds the weekly volumes and makes comparison with previous years. I have used this most in TA and readers will be aware of the increase this has shown over last year.

Cumulative Value.

To measure industry value I have multiplied the average price by the volume for each week, extrapolated up from 40% (estimated Flemington share of national throughput) then cumulated. This is a good indicator of the overall health of the industry and last year the industry value did increase a healthy 11%.

Even though the volume through the market grew an impressive 30% industry marketing activity, of which the levy funded portion was less than 1% of industry value, could not influence demand to an extent to maintain unit prices. It did however help to keep prices higher than if no activity was undertaken and the industry value increased by \$4.9m.

Chart 1.

AVOCADOS - 4 WEEK MOVING AVERAGE - VOLUME & PRICE Flemington Markets 1996/7 vs 1995/6

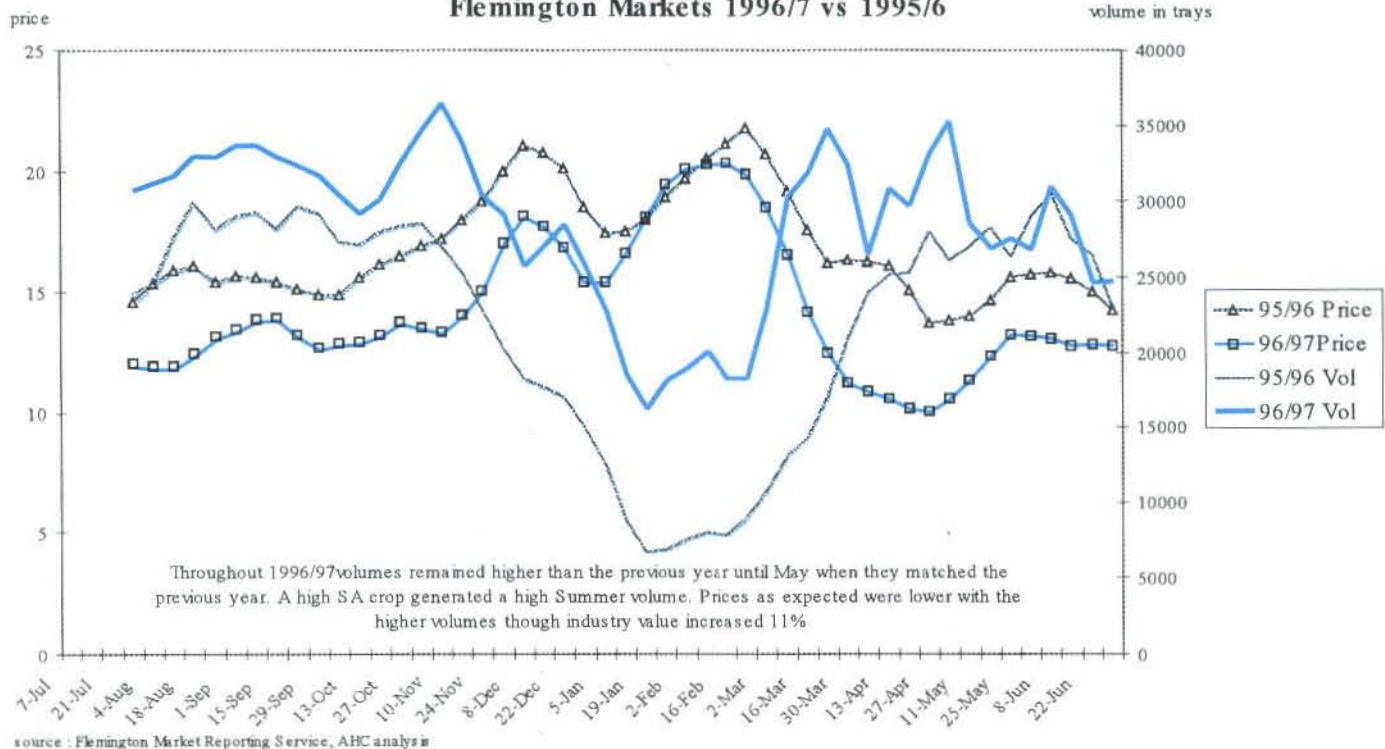
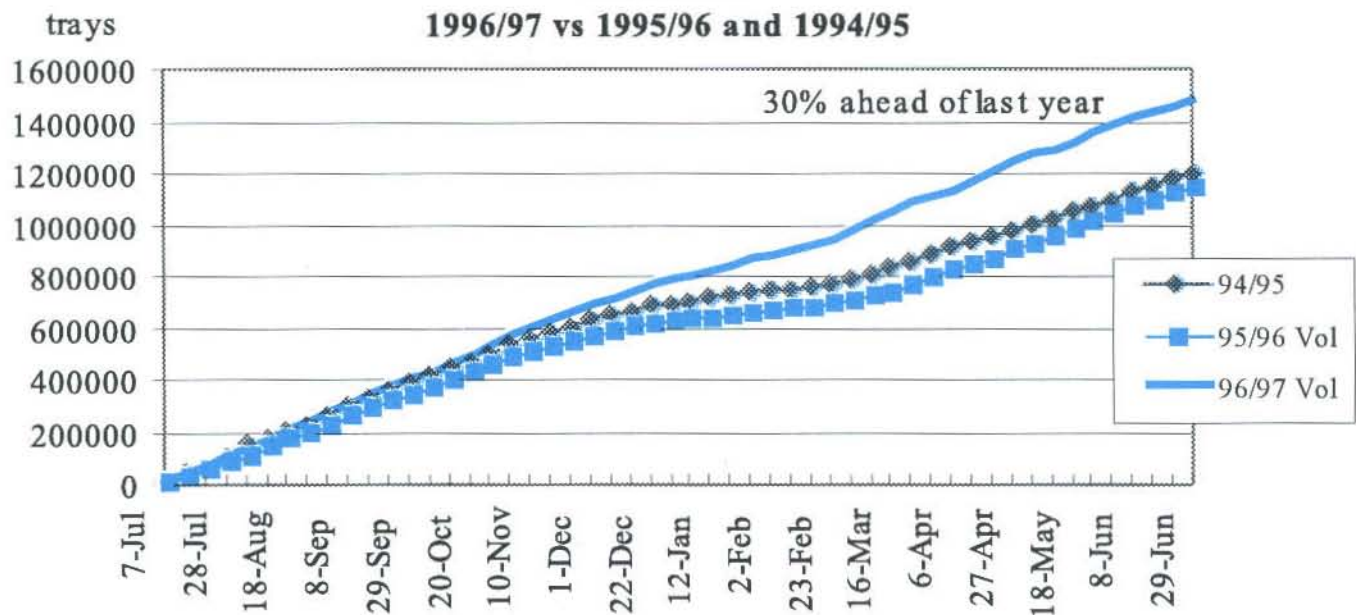


Chart 2.

CUMULATIVE VOLUME OF AVOCADOS THROUGH FLEMINGTON MARKETS

1996/97 vs 1995/96 and 1994/95



17

The Table on the next page gives a 4 year view and shows that since 1993/94 the volume has increased 43.6% and value by 39.7% whilst the actual unit price average dropped 2.7%. Our target should be to

increase industry value in the long term at a greater rate than the rate of volume increase and this will mean increasing average unit prices to growers and contribute to increased industry viability.

The more accurate the data we can obtain the more accurately we can measure our performance and plan tactical and strategic activity to continually improve performance.



AVOCADOS - 4 Years Volume and Value through Flemington Markets

	1993/94	1994/95	1995/96	1996/97	3 yr Change
Volume (trays)	1,031,118	1,198,483	1,139,284	1,480,593	
% Change		16.2%	-4.9%	30.0%	43.6%
Value*	\$14,577,277	\$18,096,886	\$18,387,983	\$20,362,946	
% Change		24.1%	1.6%	10.7%	39.7%
Price	\$14.14	\$15.10	\$16.14	\$13.75	
% Change		6.8%	6.9%	-14.8%	-2.7%
Unit Change		0.96%	1.04%	-2.39%	-0.38%

* Value: Flemington Market only, for national estimate multiply by 2.5

Source: Flemington Market Reporting Service, AHC analysis

Avocados at Cardiologists Conference

Hobart - 12 August

While avocado growers were preparing to go EAST to New Zealand for a conference, Australia's Cardiologists went SOUTH to Hobart's Wrest Point Casino for their conference.

Our strategy to target doctors with the health message for avocados could not have been more successfully delivered than to have a booth where over 1,500 cardiologists were attending a conference. Nutritionist Sally James, formerly of the National Heart Foundation, established a stand "Food For Thought" and promoted four healthy products only, one being avocados.

"I was amazed at the number of cardiologists coming to me surprised to see avocados on my stand," Sally said. She said that many doctors told her that they had been advising their patients to avoid avocados but were genuinely pleased to learn that they do not need to. Dr David Colquhoun, a great supporter of avocados and noted for his studies of monounsaturated fats benefits, attended and addressed the conference, reinforcing that avocados were an important part of a healthy diet.

Avocado Exposure

As part of an ongoing exposure of the health benefits of avocados, the advertisement to the right was placed in the Babycare Book from Bounty. The book is distributed to 95% of new mothers each year.

In addition to the ad, avocados were also featured in the Daily Meal Plan for babies from six months old. Avocados are recommended mashed or blended.

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A variety of healthy foods is important to ensure the development of sound nutritional practices, so, at around 4 to 6 months when babies begin to experiment with semi-solid food, avocados fit perfectly into the list of recommended first foods.

Natural and unprocessed, they require minimal preparation and no cooking so are perfect for today's busy mum.

Once you have introduced avocado on its own try some more of these great food ideas for baby using avocados:

- Mash an avocado with banana - it is quick, easy and very healthy.
- Combine mashed avocado with cooked apple or pureed pear.
- Blend avocado with cooked vegetables such as pureed pumpkin, carrot or potato.
- Spread avocado on toast instead of butter - tastes great with vegemite.
- Blend mashed avocado with pureed rice or pasta or even rice cereal.

Hint: An avocado is ripe when the stem end yields to gentle pressure. You can store any uneaten portion in the refrigerator for a day or two with the seed in and covered with plastic wrap.

For more information send a stamped self addressed envelope to:
AUSTRALIAN AVOCADOS
 Level 14, 100 William Street,
 SYDNEY NSW 2011.

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New Board For The Australian Horticultural Corporation

Parliamentary Secretary to the Minister for Primary Industries and Energy, Senator David Brownhill, recently announced the appointment of the Australian Horticultural Corporation's (AHC) new Board.

The new Board Chairman is Mr Arthur Charles, Company Director and former Joint Chief Executive of Schroders Australia Limited.

Other new Board members are: Mr Peter McCamish, Mr Tim Reid and Mr Trevor Watkin.

Mr McCamish is Deputy Chairman of Ardmona Foods Ltd; Mr Reid is an apple grower, Managing Director of S.D. Reid and Sons, and International Development Director for the Tasmanian Apple and Pear Growers Association; and Mr Watkin is Principal and Managing Director, The Dairy Marketing Group Pty Ltd.

Senator Brownhill said he was pleased to maintain continuity on the Corporation's Board by re-appointing current member, Mr John Gibson. Mr Gibson was first appointed to the Board in August 1994 and has served as Deputy Chairman of the AHC.

The four Board members and the Chairman have been appointed for the period 1 August 1997 to 31 July 2000. The Board of the AHC also comprises the Managing Director, Mr John Baker, and a government member, Mr Bernie Wonder. Mr Wonder is Acting Executive Director, Headquarters Group, Department of Primary Industries and Energy in Canberra.

Senator Brownhill said the retiring Chairman, Mr Malcolm Irving, did not seek re-appointment.

"I wish to personally thank Mr Irving for the valuable contribution he has made to the Corporation since his appointment to the inaugural Board in 1988," he said.

"Mr Irving initially served as Deputy Chairman and became Chairman in November 1989. His visionary leadership during the initial growth phase of the Corporation, and his role in overseeing a major restructuring of the Corporation in recent years has been greatly appreciated."

Senator Brownhill said the AHC commenced operations in 1988 to encourage and co-ordinate horticultural marketing and facilitate exports of Australian pro-

duce on behalf of its levy paying members.

"The Corporation's primary objectives are to assist Australian horticultural industries achieve their full potential in overseas markets and to assist the development of Australian horticultural industries generally," he said.

Currently there are eight statutory levy-paying members of the Corporation, representing a value of production of around \$1.5 billion. The industries are apple and pear, citrus, nursery, avocado, macadamia nut, chestnut, stone fruit and dried vine fruit.

Senator Brownhill said the Corporation was facing major challenges, particularly in terms of providing services with a strong commercial focus in a more competitive environment.

"However, the new Board is made up of some very high calibre people who, I believe, have the necessary skills and experience to lead the Corporation through the next three years," he said.

Senator Brownhill also paid tribute to the five retiring members of the AHC: Mr John Meyers, Mr Terry Ward, Mr James McGeoch, Ms Connie Comber and Mr Cam Stafford.

Avocado Marketing Forum Has A New Chair

Mrs Mary Ravello, Vice-President of the AAGF and Director in charge of marketing has been elected Chairman of the Avocado Marketing Forum. The Forum met on 20 June to review the marketing plan developed from discussion at its November meeting.

The meeting identified a number of key issues that need resolution:

- Education on handling and cool chain management—more work to be done.
- Market research is weak—no reliable consumption or trend data available.
- Growers need to know what varieties consumers want—what to grow.
- More industry data is needed for planning purposes.

These issues will be presented to the AAGF strategic planning process scheduled for December 1997.



Standing - Wayne Prowse (AHC), Ron Simpson, Barry Ross, Rod Dalton (AAGF President), Loughlan Mutton, Gary Poole.

Seated L to R - Astrid Kennedy (AAGF Executive Officer), Mary Ravello (Chairperson), Lindsay Tillbrook.



Appointments To The Horticultural R&D Corporation

Parliamentary Secretary to the Minister for Primary Industries and Energy, Senator David Brownhill, recently announced the appointment of six members to the Board of the Horticultural Research and Development Corporation (HRDC).

The new Board members are: Mr James Croll, Dr Ann Hamblin, Mr Dennis Richards, Mr Peter Walker and Mr Paul Ziebarth. Mr Croll is a Company Director and former Managing Director of Ruralco Limited; Dr Hamblin is Director of the Co-operative Research Centre for Soil and Land Management; Mr Richards is Director of the Victorian Institute for Horticultural Development and President of the Australian Society of Horticultural Science; Mr Walker is a citrus grower and Board Member of the Citrus Board of South Australia; and Mr Ziebarth is a vegetable grower and Deputy Chairman of Queensland Fruit and Vegetable Growers.

Senator Brownhill said he was pleased to maintain continuity on the HRDC Board by re-appointing one of the current members, Mr Tony Biggs. Mr Biggs is the Director of Cardinal Horticultural Services and Editor of Good Fruit and Vegetables. He is also the current Deputy Chairman of the HRDC.

Senator Brownhill said he announced on 30 May that Mr James McGeoch, Managing Director of McGeoch's Birkdale Nursery Pty Ltd and also a current member, had been appointed Chairman of the HRDC for the three years from 16 August 1997.

"The six Board members have been appointed for the same period, commencing 16 August 1997 and ending 15 August 2000," he said.

"The Board of the HRDC also comprises the Executive Director, Ms Lindy Hyam and a government member, Mr Andrew Combe." Mr Combe is Director, Horticultural Policy Section, Department of Primary Industries and Energy Crops Division in Canberra.

Senator Brownhill said the HRDC commenced operations in 1988 to assist research and development (R&D) in Australian horticulture.

"The HRDC's primary objective is, through R&D, to improve the efficiency

and effectiveness of Australian horticultural industries," he said.

"The Commonwealth matches, dollar for dollar, funds raised by industry for R&D through the HRDC, up to a threshold of 0.5 per cent of the annual gross value of production of the participating industries.

"The R&D budget of the Corporation has increased from \$185,000 in 1988-89 to an estimated \$30 million in 1997-98."

The thirteen statutory levy paying industries currently participating in the Corporation are: Apple and Pear, Citrus, Nursery, Nashi, Avocado, Potato, Macadamia, Chestnut, Cherry, Custard apples, Stonefruit, vegetables and Strawberries.

Many other industries make voluntary contributions to the HRDC.

Senator Brownhill said he was confident the new Board would continue to build on the success of its predecessors by attracting new statutory levy paying industries and by continuing the rapid growth of Australia's R&D effort in horticulture.

"I see R&D as vital to the process of adding value to Australia's horticultural products and the Corporation's endeavours will help Australian horticulture to be a sustainable, innovative and internationally competitive industry into the next century," he said.

Senator Brownhill also paid tribute to the four retiring members of the HRDC:

- Dr Rip van Velsen
- Mr Michael Keenan
- Mr Malcolm Kentish and
- Dr Donald Plowman.

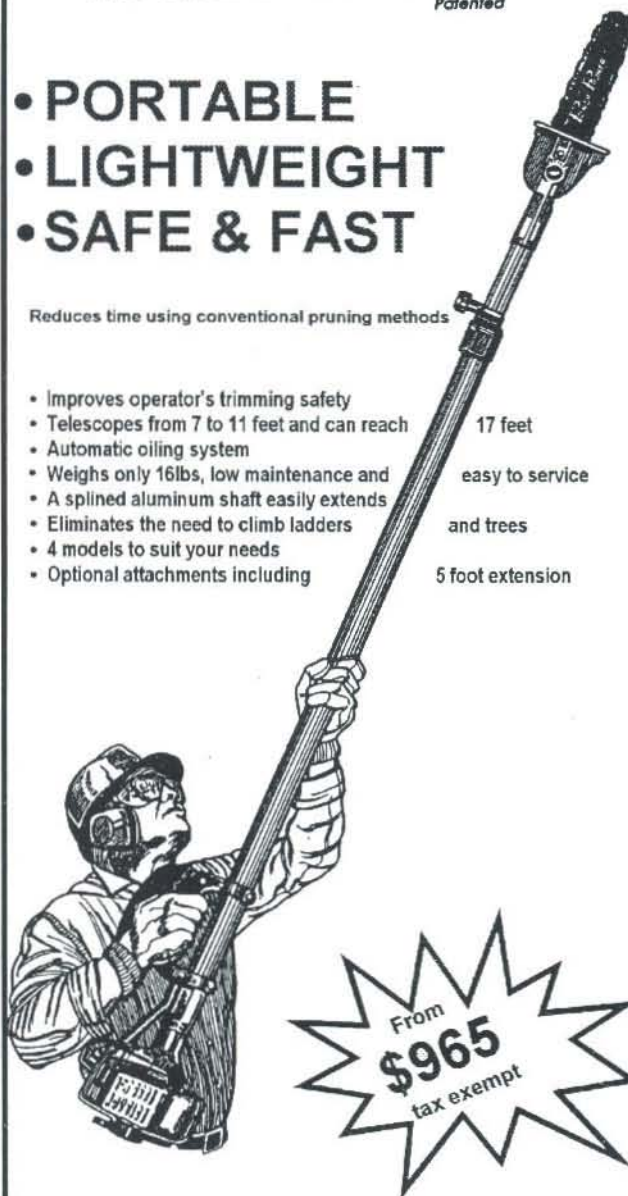
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This article is sponsored by HRDC and the avocado industry.

Top Working to Canopy Management

By Barry Back, Palmwoods Queensland

Impression of growth management as accumulated by a recent devotee to the avocado industry and based on personal observation and anecdotal advice only.

Less than five years ago any grower would tell you that "we don't prune Avocado Trees". If the tree becomes too large, too woody or too high, we top-work it but only in the months of August and September. In other words you took to it with a chain saw and reduced it to "ground zero" and from that point the tree would take two to three seasons to return to cropping with a full crop in perhaps five years. In another thirteen or fifteen years this stag horning would be repeated and so on.

Alternatively, you could await the emergence of new root stock shoots and then graft another more suitable cultivar to those shoots in the hope of protecting a more cost-effective crop. This would quite often prove an exercise in frustration as scion after scion wilted and failed and on some occasions even the rootstock shoot would wilt and fail.

Nil desperandum. If all else failed you simply tore the tree out, roots and all, and replanted with the desired cultivar as supplied from your friendly nursery and waited three to five years to continue normal cropping.

Along Comes Canopy Management

However, we made progress and discovered that we still don't prune avocado trees, but we can canopy manage them. We have realised that the average avocado tree is only marginally removed from the weed and if the dreaded *Phytophthora Cinnamomi* doesn't kill them little else save 'Roundup' will.

An astute orchardist discovered that the more you took to them with an axe the more vigorously they grew. Assuming of course that the basic needs for life were present—light, nutrient and water. We even discovered that severe top working was unlikely to kill a healthy tree whatever time of year it was performed. The vigour of regrowth would still be driven by the trees natural life cycle.

Thus in the middle nineties we see the coining of a new acronym—PPP (Pick,

Pack and Prune). Not only could we now hack away with gay abandon but we could work on different areas of growth for different seasons and if we got it right not only would we not lose much harvest but actually stood to gain in yield.

It seems that the spring flush is the best time for the production of a more diversified branch structure and therefore the removal of unwanted and aged wood should occur immediately following picking so as to take advantage of the tree's cyclic perception of spring. The trick here is not to remove all the old wood in one hit. The removal of half or even a third will ensure a continuum of fruit yield to pay for other things.

We have also noted that the summer leaf flush produces those rapidly growing up-rising shoots which devour nutrient but produce no fruit (that season anyway and next year they will produce fruit that only a helicopter can harvest). So now we can vent our anger and hack away at those shoots all through summer.

Not yet satisfied. Well spend the rest of the year slashing away with a machete to keep the tree skirt at a modest half metre. Any lower and you run the risk of poor spray penetration and inadequate airflow with the bonus of *anthracnose abundii*. Any higher and you risk rapid drying out of the mulch that covers feeders, causing water stress, stunted growth and weedy fruit.

Now What Have You Got

After all that exercise you are left with a tree that is in a constant state of growth rejuvenation with strengthening lateral branches for good canopy spread and fruit support; improved lighting as a result of the removal of the feral vegetation that grows on up-risers; and ample air circulation beneath a respectable skirt.

In two or three years you have a tree yield every bit as impressive as any seven-year-old does. Someone said that a tree is only as old as its current cambium layer and the old wood is the skeleton that holds it in place.

We now need less spray to reach all surfaces, and the cherry picker or ladder can replace the helicopter. *Phytophthora* is becoming totally confused as the vigorous

root regrowth that accompanies vegetative regrowth which is also more diversified and is being constantly replaced.

Finally, all the pruning material takes up the space under the tree that we used to reserve for barley hay.

Cautionary Conclusions

There are many experts in this field and unfortunately the author is not one of them.

If I have stimulated your interest and you missed the Canopy Management Workshop at Ken and Murial Webb's beautiful orchard (see Australian Round-up - Sunshine Coast), then I suggest you get in touch with someone like Peter Young at Birdwood Nursery or QDPI's Dr Clive Kaiser at the Maroochy Horticulture Research Station. They can give you the real "lowdown" on how to go about this fascinating process.

Canopy management has come a long way in five or six years and it is in the grower's best interest to keep up with it.

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Heated Objections, But Mexican Avocados Allowed Into The United States

From The Orchardist, May 1997

The NZ Ministry of Agriculture (MAF) has been examining a protocol to permit imports of fresh Mexican Hass avocados into New Zealand for the first time. The United States Department of Agriculture recently gave the go-ahead on imports of Mexican avocados—a decision that was anything but easy. Karen Charman reports from the US.

Last March in an open letter to President Bill Clinton and full page ads in the Wall Street Journal and the New York Times, the California Avocado Commission implored the leader of the free world to stop a US Department of Agriculture proposal to allow Mexican avocados into the country. The ad, which featured an illustration of a large noose, charged that the USDA was about to "sign the death warrant for a billion dollar American industry", potentially wiping out its 6,000 avocado growers and 21,000 workers.

The debate surrounding Mexican avocado imports is just as emotionally charged as the ad and evokes strong opinions about the motivation of anybody with an opinion on the subject.

The California Avocado Commission vehemently opposes the decision and says the presence of Mexican avocados endangers the US industry—90% of which is in Southern California—because it does not contain adequate safeguards to keep out unwanted pests. These pests include three species of avocado seed weevils, *Conothachelus perseae*, *C. aguacatae* and *Heilipus lauri*, an avocado stem weevil, *Copturus aguacatae*, and an avocado seed moth, *Stenomoma catenifer*.

The commission further charges the imports could threaten the whole of California agriculture because the avocados might carry fruit fly. In particular, the commission is worried about Mexican fruit fly (*Anastrepha ludens*), sapote fruit fly (*A. serpentina*), and guava fruit fly (*A. strata*), all well established in Michoacan, the Mexican State the avocados will come from. Agriculture is California's largest industry, and with annual returns of approximately US\$18 billion per year, California is the country's largest agricultural state.

Proponents for the imports maintain the California avocado industry is merely trying to protect itself against competition in its

domestic market from the much larger Mexican industry, and that its phytosanitary claims are bogus. Mexico currently supplies about 45% of the avocados grown worldwide, and several produce industry insiders agree the domestic industry would likely suffer from the competition.

But, it is also true that many of the commission's concerns are not easily dismissed as pure protectionism. Real questions remain about new post-NAFTA pressures on USDA and its Animal and Plant Health Inspection Service (APHIS) to facilitate trade and whether they create an irreconcilable conflict of interest with the department's original mandate to prevent the introduction and establishment of exotic pests. Those against the imports praise APHIS' previous work on quarantine control, but describe its work on this issue as a careless rush job prompted by political pressure to increase trade.

Both sides vigorously attack each other's science. Commission members and their sympathisers claim APHIS' pest risk assessment was sloppy and based on faulty data that underestimates the infestation of the pests in Mexico. APHIS and its supporters say the independent scientific reviews of the proposal were not, in fact, so independent. Researchers have a financial relationship with the commission and therefore, their work is biased. The researchers deny the allegation.

The Protocol

Fresh avocados from Mexico have been kept out of the US under a quarantine ban since 1914. Under the new rule, providing several criteria are met, Hass avocados from Michoacan, the main area of production in Mexico, will be permitted into 19 states in the north-east quadrant of the country each year from November through February. APHIS says these geographic and seasonal restrictions should help ensure fruit fly and the avocado pests do not find their way to California and Florida, where American avocados are grown.

Only commercially grown avocados are to be allowed in, and they must come from approved orchards in municipalities considered free of the pests. The orchards must be participating members of Sanidad Vegetal's avocado export program, which

has been monitoring Mexican avocado exports for several years to Japan, Europe and elsewhere. Sanidad Vegetal is the plant protection branch of the Mexican Ministry of Agriculture and Water Resources.

For each shipping season, the Mexican avocado industry association is required to set up a trust fund agreement with APHIS to repay all estimated costs for its involvement in the program.

To monitor fruit fly populations, Sanidad Vegetal is to carry out an ongoing program to survey and trap the Mexican, sapote and guava fruit flies. Sanidad Vegetal must also trap for Mediterranean fruit fly, a pest that has been particularly troublesome in California over the last 20 years. Separate surveys of the avocado stem weevil are also mandated.

Fallen fruit, which is more susceptible to pest infestation, must be taken out of the orchards at least every seven days. Dead branches are also required to be pruned and removed. Picked fruit should arrive at an approved packhouse within three hours.

Packinghouses can only accept avocados in the Sanidad Vegetal export program, and the facilities must be covered in screening and have double doors at the outside entrance and packing area entries. Prior to culling, Sanidad Vegetal inspectors are to select and cut 300 avocados per shipment.

Assuming no pests are found, each fruit is to be labelled with a country-of-origin sticker bearing Sanidad Vegetal's registration number of the packinghouse. The fruit is to be packed into new boxes identifying the grower, packer and exporter and carrying a statement saying distribution in the US is restricted to the approved 19 states.

The fruit then must be loaded into a refrigerated truck or container and secured with a Sanidad Vegetal seal that is to be broken only when the container is opened. The boxes are to remain in the refrigerated container until they reach their first destination in the US. A phytosanitary certificate from Sanidad Vegetal stating all required conditions have been met must accompany each shipment.

Only certain US ports of entry are designated to accept Mexican avocados and

once in the country, the trucks or containers are to be limited to specific routes to their destinations, whether by truck, train or aeroplane. A USDA inspector is to sample and cut avocados from each shipment. The fruit is subject to inspection at any point in its journey to the terminal market in the north-eastern states.

If any of the avocado seed pests are found in a Mexican municipality approved for avocado exports to the US, Sanidad Vegetal must immediately notify APHIS, investigate the finding and take measures to isolate and eradicate the pests. All avocado exports from the municipality to the US are to be banned until Sanidad Vegetal and APHIS agree the pests have been eradicated within that municipality and there is no risk of further infestations.

The same procedure is to apply if the avocado stem weevil is found at either an approved orchard or packinghouse. But instead of banning exports from an entire municipality, the orchard or packinghouse would lose its export certification for the entire shipping season.

Enforceability Questioned

Several sources opposing Mexican avocado imports say the final rule is better than what USDA had proposed. They are especially pleased with the requirement to label each fruit and the trust fund agreement stipulating the Mexican industry will pay for all costs APHIS incurs in monitoring the imports. However, many of their main objections remain, and they don't have confidence the procedures will be carried out as written.

Foremost among their complaints is that USDA chose to rely on the existing data on Mexican pest populations. Entomologist Joseph Morse, director of the Centre for Exotic Pest Research (CEPR) at the University of California at Riverside, says it is curious that APHIS admits extensive pest surveying has not been done but claims it isn't important because future surveys will provide the needed data. Morse is the lead author of a highly critical CEPR report that challenged the scientific underpinnings of USDA's proposed rule on Mexican avocado imports. "Until you do the surveys and know what's present in the region," he asks, "how can you know what the potential risks are?"

He points to the California industry's current experience with the *persea* mite (also called the avocado mite), a pest that was unknown in California until recently. *Persea* mite reduces fruit size, yield and

quality and now infests about 90% of avocado acreage in some areas. It is believed to have come up from Mexico, where it is common, about five years ago and is now devastating heavily infested groves.

Morse remains sceptical of the Mexican pest surveys that have been done, since several were counted out in the context of high but poorly documented pesticide use. Twelve treatments a season are common in Mexican orchards, and he says such intensive spraying masks true pest populations. Not knowing what growers are using or how close to the surveys the treatments took place further muddies the data.

He thinks the protocols for the detection of avocado seed pests are okay, but those for the avocado stem weevil are inadequate because the stem weevil is much more common and therefore more of a threat. "It looks like a lot of this is tailored to what is possible for the Mexicans to do," Morse said, "rather than what is safest to prevent potential introductions."

Given the habits of these pests, he says introduction could easily occur. The weevils bore into the fruit from the outside as larvae, leaving small holes that could easily escape detection during inspection. As pupae, most drop out on to the soil, though some remain inside the avocado. If an unsuspecting consumer cut into an infested fruit, a common response would be to chuck it into the garbage. There, as adults, they would mate with their brothers and sisters. "Just one infested avocado could start a new population," Morse said.

Ted Batkin, manager of the Citrus Research Board and a long-time member of a California State taskforce on fruit fly, does not question the sincerity of the Mexican agriculture and industry participants in wanting to implement all the requirements of the protocol. He does, however, doubt they have the resources to carry it out. "They have a huge system to manage in an area with a big and increasing pest problem," he said.

Batkin is specifically concerned about fruit fly because findings usually mean immediate losses in export earnings. In 1994 a finding in Camarillo, a small city in Ventura County just north of Los Angeles, prompted Japanese quarantine authorities to ban citrus and avocados from an 81 square mile area. "First they wanted to slap an immediate quarantine ban on the whole state, then Ventura County," he said. "Then they came here to inspect what we were doing, and they agreed that we could confine the quarantine area to the 81 square miles around Camarillo." The ban lasted six months and cost California

avocado and citrus growers US\$50 million.

Dan Y. Rosenberg, a plant quarantine specialist and consultant to the California Avocado Commission, not only doubts the protocol will be properly implemented in Mexico but says agriculture officials in the US are likely to have problems, too. "Once the shipments arrive at the terminal markets and get into distributors' hands, USDA involvement ends. If there are any violations, the states have to pick them up, and many states don't have the resources or inspection procedures to deal with it," he said.

Other than expressing disappointment with USDA's decision, the California Avocado Commission is not saying much until its scientific team finishes dissecting the protocol. The commission's rhetoric has toned down considerably now that the final rule is out; however, it is not ruling out some sort of legal action.

USDA, meanwhile, staunchly defends its decision on the grounds that the science is solid and there are enough safeguards in the protocol to prevent any new pests coming in and getting established. The department maintains the protocol will be adhered to, and APHIS staff will be involved in each step to guarantee it.

USDA further contends the decision to allow Mexican avocados in will be a boon to consumers. By department estimates, prices will drop between 8 and 41% in the 19 approved states and 1 to 3% in non-approved states, a saving of as much as US\$19 million.

Nagging Questions

APHIS epidemiologist Mike Firko, author of the controversial Mexican pest risk assessment, says the fact that Mexican avocados have been allowed into Japan for years proves the imports won't be a problem here since Japan has some of the strictest quarantine requirements in the world. But Japan doesn't have a domestic avocado industry, so pests specific to avocados would not have much to attack. Mexican avocados also arrive there November through February, and the cold temperatures that time of year remove the risk of exotic fruit fly introductions.

The warmer temperatures that allow more than 250 different fruit, nut and vegetable crops to be grown in California also make the state a culinary delight for fruit fly. Though the first infestations were small and sporadic (one melon fly was found in 1956, and the next one, an Oriental, was not found until 10 years later), exotic fruit fly findings increased in the

1970s and since 1980 have become a major headache. In the last three years, fruit fly prevention and eradication programs, which go almost entirely toward Medfly, averaged nearly US\$35 million a year.

There are no known methods to kill unwanted pests on harvested avocados that won't damage the fruit. While avocados are not a favourite host for fruit fly, Joseph Morse says they will attack ripe fruit. The potential exists because avocado orchards in Michoacan are interspersed among groves of other more desirable hosts such as guavas and mangoes.

Given the problems that fruit fly outbreaks have already caused in California, it is somewhat curious that other commodity groups did not step up and support the California Avocado Commission in its battle with the USDA. Ted Batkin, one of the few outspoken voices outside the avocado industry on this issue, offers a few reasons.

First, he says, nearly all commodity groups have their own set of time and

resource consuming problems, such as legal challenges to marketing levies, so fruit fly does not top their concerns.

Second, the division of the horticulture industry by commodity groups promotes a certain level of rivalry, and he says there's a widespread perception that the commission was using the phytosanitary argument simply to avoid competition from the Mexicans. "They say, 'we have competition ourselves, and if we can deal with it, so can they.'" Californian avocado growers do not, however, have the US market to themselves. Chile, the Dominican Republic, the Bahamas, New Zealand, and Israel all sent avocados to the US last year, and in previous years avocados also came in from Costa Rica, Ecuador and Jamaica.

Several sources offered a third—and probably more pertinent—explanation, though none except Luis Moreno, president of Grupo PM, would talk about it on the record. Grupo PM is a marketing company that represents eight American grower associations as well as the New

Zealand Kiwifruit Marketing Board in Mexico.

Moreno says Mexican agriculture officials have been putting pressure on California peach, nectarine, plum, pear and apple growers to dissuade them from supporting the California Avocado Commission in its concerns over fruit fly. "It is not officially known—nobody can say exactly what they are doing—but it's 'understood' [Mexican authorities] hold up US exports of the above crops citing phytosanitary reasons." In most instances, he says, the phytosanitary complaints are not valid.

With the push toward free markets around the globe, questions of trade certainly are becoming more complicated. APHIS epidemiologist Mike Firko bristles at the suggestion that his department's historical mandate to prevent the introduction and establishment of exotic pests in the US has changed and says anyone who suggests otherwise is spreading a myth.

Donald Husnik, former deputy administrator of APHIS' Plant Protection and Quarantine division, addressed the issue head on in a speech in August 1995. Acknowledging that GATT has brought new trade obligations, he said the challenge for APHIS now is how to balance the need for traditional quarantine protection with new demands for increased trade. The strategy involves moving from a protectionist stance to one that emphasises trade, from a goal of zero or minimal risk to one that considers both risks and benefits, and from a focus on exports to one that includes imports.

USDA's previous approach to quarantine protection is commonly referred to as the "when in doubt, keep it out" policy. Ted Batkin says the shift away from that strategy puts more responsibility on government quarantine authorities throughout the country. At the same time, budgets are shrinking, so their ability to detect pests is decreasing. The result, Batkin says, is an "exponential increase" in the risk of introductions.

Commodity groups in California have not paid much attention to this issue so far, but now that the rule governing Mexican avocado imports is out, he hopes that will change. The Exotic Fruitfly Coalition, which represents a broad spectrum of commodities vulnerable to fruit flies, is pushing hard to improve pest monitoring in Mexico. In the event of any slip ups, Batkin says his group has every intention of holding USDA accountable, not only for pests that may come in with Hass avocados, but for all fresh produce from Mexico.

New Zealand Protocol

Last year the New Zealand avocado industry had discussions with MAF on a proposed protocol for avocado imports from Mexico. At that stage, the industry felt that more work needed to be done to cover all the serious risks.

MAF now has an import protocol covering the greatest concern for the local industry, sunblotch viroid, which is consistent with the protocol, which covers New Zealand exports to its major market Australia.

Ron Bailey, president of the New Zealand Avocado Growers Association, said that if sunblotch viroid was introduced, New Zealand could easily be locked out of its major market, Australia. Australia had made it clear in the 1980s that New Zealand avocado orchards must be clear of the viroid and extensive surveys had been done to ensure that was the case.

The viroid was deceptive, in that it could be brought in via the fruit stone without any signs being evident on the tree or on the fruit as it passed over the grading table. It remains endemic in Mexico and other tropical countries where avocados were first grown.

Ron Bailey said that there was political pressure in terms of the Uruguay GATT agreement to free up trade, including produce from Third World countries. If that importation damaged the local industry, the growers would pay the penalty and if pests or diseases were introduced, it would damage the strenuous local efforts to adopt 'clean and green' spraying practices, with targeted and softer sprays.

In contrast, countries like Mexico did much more spraying to keep control of pest populations, in many cases using 'hard' chemicals not permissible in New Zealand.

There was also the threat that new pests or diseases could lock New Zealand out of markets, with the potential of a devastating impact on the viability of the local industry.

Study Aimed At Removing Quarantine Barriers

Exports of a number of our major horticultural products are restricted by the quarantine barriers imposed by some major importing countries. New threats such as last year's incursion of Papaya Fruit Fly into this country highlight the need for continued and improved co-ordination of a national program to access those markets.

This program ensures existing markets for Australian products are maintained; in the advent of new threats, gain access to new markets such as China and Korea for currently exported crops; and gain access to markets for new products. To be cost effective and worthwhile, programs as diverse as fruit fly disinfestation and postharvest fungal treatment protocols should be developed at a national level.

The Horticultural Research and Development Corporation and Australian Horticultural Exporters Association are jointly funding the production of a business plan to address this issue and develop a framework for market access research to enhance Australian export growth.

This plan will identify and evaluate the available resources that can be directed at disinfestation research. Leading horticultural consultants, Scholefield Robinson Horticultural Services have been awarded the contract to develop the plan in close consultation with the horticultural industry.

Dr Grantley Chaplin, Market Access Manager at HRDC said "the development of a national disinfestation research business plan will be a very important step in

breaking down some of the quarantine barriers facing our horticultural producers. The plan will focus and unite the various agencies involved and investigate options for continuing funding and management.

"The consultants will be looking at what resources, such as research agency staff and funding options, are available and what will be necessary in the future. They will be identifying deficiencies and weaknesses in the national program and proposing strategies to overcome them," Dr Chaplin said.

Horticultural Industries, research agencies, and interested individuals are encouraged to provide input into the business plan by contacting Peter Scholefield on (08) 8373 2488.

Demand In The UK For Organic Produce Far Ahead Of Current Ability

By Tim King, from an Internet Newsgroups

Sainsbury's Cultivates The Organic Market

Demand from UK shoppers for organic food is so far ahead of the ability of supermarkets to provide it that one major chain is trying to persuade its conventional suppliers to go organic.

Sainsbury's has paid for ten of its conventional suppliers of fruit and vegetables to attend a conference organised by the Soil Association. "If we are going to meet demand, we have to have more organic producers in the UK," Bob Hilborn, the head of primary agriculture for Sainsbury's, said.

"At the moment, if supply was to be increased it would be through imports, which were often more expensive," he said. "The worst example was in the supply of organically-grown carrots. Sainsbury's currently imports from Denmark, Holland and Israel, even though all its non-organic carrots are grown in Britain."

Sainsbury's accounts for a quarter of the market in organic produce but Mr Hilborn said the chain had doubled its sales of organic apples in the past year.

Some apple growers were keen to convert to organic because their returns from conventional production methods had declined in the face of overseas competition. Nick Webber, Sainsbury's head of organic

produce buying, said he was often unable to meet orders from individual stores and had particular difficulty providing continuity of supply.

"Organic produce only accounts for 1% of total produce sold in stores but demand for the organic option varied greatly from store to store and was highest in supermarkets serving predominantly middle-class shoppers, particularly in university towns," Mr Webber said.

Patrick Holden, director of the Soil Association, said support for the three-day conference at the Royal Agricultural College, Cirencester, which is being sponsored by Sainsbury's and NatWest, showed that organic farming was now respectable and "becoming a mainstream option".

He said Britain, with 870 organic farms covering 50,000 hectares which represent 0.3% of the total farmed land, was lagging behind other European countries both in government support for organic farming and the proportion of farming that was organic. Austria has 10% of its farming land in organic production.

Safeway said it had been encouraging organic suppliers of fruit and vegetables for years. A spokesman said it had been able to meet the demand for organic

produce only by importing 60% of what it sold.

"We are working with suppliers to try to address that problem and get more from them. The last thing we want to do is import root vegetables that could be grown equally as well in this country. There were," he said, "signs of improvement with producers getting better organised. Safeway regards itself as having one of the highest proportions of vegetarian customers and estimates that up to 2% of its total fruit and vegetable sales are organic."

The spokesman said the organic share of the market was "tiny" but said the company felt demand would increase if supply was improved.

"We started selling organic fruit and vegetables longer ago than anyone else, in 1981. At the same time we started selling fresh cut flowers. If you look at how the market for cut flowers has taken off, it is because the producers have been able to meet demand and expectations. But because producers of organic fruit and vegetables have not been able to do that the customer thinks 'shall I, shan't I?' and there's no customer loyalty built up."

Safeway is supported in this belief by its experience of a big growth in demand for non-produce organic products, particularly dairy items and wine.

Major New Funding Package For Quarantine

Department of Primary Industries and Energy press release

A substantial boost in funding for quarantine in Australia was announced recently by the Minister for Primary Industries and Energy, and Deputy Leader of the National Party, John Anderson.

"This Government has demonstrated its ongoing commitment to quarantine with the announcement in the Budget of a \$76 million, four-year package to substantially enhance the national quarantine effort," Mr Anderson said.

He said details of the package were being finalised and would be released in a matter of weeks.

The package responds to the Nairn Report into quarantine, Australian Quarantine - A Shared Responsibility, and the report of the National Task Force on Imported Fish and Fish Products.

Mr Anderson said the package would provide a comprehensive response to the recommendations of the Nairn Committee and address the key deficiencies in the quarantine system identified in its report.

"The package will help sustain Australia's strong competitive position in international markets by improving our capacity to ensure the nation's highly favourable plant, animal and fish health status is maintained."

The Minister said the Government would adopt the majority of the Committee's recommendations, but had decided against a separate statutory authority with wide-ranging powers, independent of the Government, to determine all quarantine policy and operational issues.

He said the Australian Quarantine and Inspection Service would be retained within the Department of Primary Industries and Energy; however, export meat inspection would be established as a stand-alone unit within AQIS.

Mr Anderson said the import risk analysis (IRA) process would be upgraded to improve consultation and make it more transparent, while decision-making would remain independent by the retention of the Secretary of the Department of Primary Industries and Energy as the Director of Quarantine.

"The Nairn Committee was very strongly of the view that the IRA process should remain scientifically based. This is endorsed by the Government.

"As a nation vitally dependent on export markets and our freedom from a host of

serious pests and diseases, we cannot afford to leave our quarantine decision-making process open to allegations of political interference.

"Suggestions that I or the Government should be the quarantine decision-maker are inappropriate, against our national interests, and if adopted, this approach would seriously undermine our capacity to argue the case that our conservative approach to quarantine is based solely on scientific merit.

"The current arrangements under which I have overall responsibility for ensuring the integrity of the decision-making process and its consistency with the Government's quarantine policies, including what constitutes an acceptably conservative degree of risk, are sensible and will be retained."

Mr Anderson said the Government endorsed the Nairn Committee's theme that quarantine was a shared responsibility and would ensure this was reflected by improved consultation with industry and the wider community.

"I am very conscious of the view that there is a need for cultural change within AQIS, but I am equally conscious of the fact the Nairn Committee found much of the criticism of the Service's effectiveness was misplaced.

"Nonetheless, we have an important task

ahead in fulfilling our pre-election commitment to restore the domestic and international reputation of AQIS as a professional, efficient and competent organisation.

"The Nairn Committee's excellent work has prepared the ground for this important task.

"The Government is now setting about achieving it with this \$76 million injection of resources to enhance operations across what Nairn described as the continuum of quarantine—pre-border, border and post-border activities.

"Additional resources will be put into import risk analysis, quarantine awareness, border activities, monitoring and surveillance, pre-border activities to keep quarantine risks offshore, fish and plant health and quarantine, and improved consultation with industry and the community."

For Internet users, all the Budget material relating to the Primary Industries and Energy portfolio is located at the following address:

<http://www.dpie.gov.au/dpie/pr/budget/budget.htm>

For further information Contact Robert Haynes (06) 277 7520 or 0419 493 511.

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