



The Australian Newslines

Talking Avocados



Vol 6 Number 1

February 1995



Mt. Tamborine Avocado & Rhubarb Festival

- A slap in the face for Rural R&D
- Why it pays to be different
- Office Management - Administration Software
- Report - Development of Marketing Group in South East Queensland

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Talking Avocados is the official magazine of the Australian Avocado Growers' Federation and in conjunction with the Australian Horticultural Corporation is published four times a year (February, May, August and November).

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Calendar of Events

February

- 7 **Avocado Growers Association of WA** – meeting Conference Room, Market City commencing 5.30 p.m.
- 8 **Richmond Branch of the NSW Avocado Association** – meeting Alstonville Tropical Research Station commencing 5.00 p.m.
- 16 **Coffs Harbour Branch of the NSW Avocado Association** – meeting Coffs Harbour Catholic Club commencing 7.30 p.m.
- 20 **Brunswick Branch of the NSW Avocado Association** – meeting at Mullumbimby Ex Servicemen's Club commencing 4.00 p.m.
- 23 **Tweed Branch of the NSW Avocado Association** – meeting Murwillumbah Services Memorial Club commencing 6.00 p.m.
- 27 **NSW Avocado Association** – Committee meeting Ballina RSL commencing 9.00 a.m.

March

- 6-8 **Australian Avocado Growers' Federation** – meeting QF&VG Rocklea, Brisbane commencing 1.00 p.m.
- 7 **Avocado Growers Association of WA** – meeting Conference Room, Market City commencing 5.30 p.m.
- 9 **Varieties Committee** – meeting QF&VG Rocklea, Brisbane.
- 29 **NSW Avocado Association** – Annual General Meeting Alstonville Tropical Fruit Research Station commencing 10.00 a.m.

April

- 4 **Avocado Growers Association of WA** – meeting Conference Room, Market City commencing 5.30 p.m.
- 30 **Conference '95** – Esplanade Hotel, Fremantle WA. Registration opens 3.00 p.m.

Front cover: Three girls at the Avocado and Rhubarb Festival held at Mt Tamborine Queensland. (see article page 6.)

Back cover top: Street scene at Mt Tamborine Avocado and Rhubarb Festival.

Back cover bottom: Three entrants in the World Rhubarb Pie eating contest.

Conference '95

Have you booked your place at Conference '95?

Time is running out. Many people have expressed an interest in attending. Now is the time to confirm your booking by using the enclosed insert.

Program Change - Conference '95

- Monday 1st May - 9.30 a.m. - Official Opening
- 10.00 a.m. - AHC Report
- 10.30 a.m. - HRDC Report
- 11.00 a.m. - AAGF Report
- 11.30 a.m. - Exports into Asia

On Monday 1 May, the official opening of Conference '95 will start 30 minutes earlier than indicated on the yellow insert.

The change has been made to include an address by Mr John Landos, formerly Director of AQIS and currently Senior Advisor (Crops Division) Commonwealth Department of Primary Industries and Energy. His address in outline is:

- Why the thrust into Asia?
- What non tariff (technical) barriers remain in the horticultural area and what is being done to eliminate these?
- What is the future in terms of Asian access and technical barriers to trade?

A NEW VARIETY FOR AUSTRALIA EXCLUSIVE TO ANFIC MEMBERS

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From Your Federation

By Astrid Kennedy, Executive Officer

Since the last meeting of the Board of Directors in September, your Federation has been busy monitoring or responding to a wide range of matters. The four issues reported in this update could have a detrimental affect on the industry but as yet, they have not yet reached a conclusion.

Meeting with the AHC

Representatives from your Federation met with the AHC Board of Directors on 28 November to discuss matters of concern with continuing membership of the AHC.

In his presentation to the AHC the President of the AAGF, Mr John Bolton, focused on the future directions of the avocado industry and highlighted some of its problems. In particular, he emphasised the need for total quality management, the need to establish export markets and enhancement of the domestic market.

The meeting gave the AHC Directors, and in particular the four new Directors, an opportunity to discuss the needs of the industry first hand. The issue of the AHC's accountability was discussed and remains unresolved to your Federations satisfaction. The AAGF Board will discuss this matter further when it meets on 6 March.

R&D Funding Cut-backs

The Industry Commission has been conducting an inquiry into R&D generally in Australia, including the effectiveness of the rural R&D Corporations.

The Commission has recently issued a draft report and some recommendations contained therein are likely to have serious and detrimental effects on future R&D programs. Of great concern is the recommendation that the funding formula for R&D be altered so that the Government's contribution would be \$1 for every \$4 contributed by industry instead of the current dollar for dollar basis. Should the recommendation be adopted by Government, the R&D funds available through the HRDC will be reduced by approximately 40%.

Your Federation is currently formulating

its arguments against this proposal and plans to present a verbal and written submission to the commission.

Californian Avocados

In November an American film crew, through the American Embassy in Canberra, approached the Australian Quarantine and Inspection Service (AQIS) seeking permission to make an avocado commercial on the Queensland Gold Coast. The commercial is for an American audience and their truth in advertising laws required that American fruit be used.

AQIS have responded to the request by providing the quarantine requirements and conditions that must be observed before the foreign fruit is allowed on Australian soil. The conditions include fumigation of the fruit, quarantine requirements and destruction by incineration supervised by an AQIS officer. In addition AQIS requested additional information about the proposed location of the "shoot", number of avocados involved and if the fruit would be cut on site.

The American Embassy has referred the conditions and questions to the American Health and Inspection Service and is awaiting a reply.

Your Federation is concerned about this matter and will monitor developments.

Codex Standards for Avocados

The Codex Alimentarius Commission (CAC) is a body under the joint control of the World Health Organisation and the

Food And Agricultural Organisation of the United Nations. It is based in Rome and holds meeting throughout the world.

The CAC is presently engaged in setting up international standards of quality for fruit and vegetable. These standards include packaging, transport, inspection, pesticides, hygiene etc. apart from the actual fruit itself. Among the list of fruits are litchi, banana, avocado, oranges, limes, mangosteen and pummelo.

In Australia, the CAC is represented by the Department of Primary Industries and Energy through AQIS. The CAC has sought input and comments from fresh fruit and vegetable industries throughout the world, including the avocado industry.

With the recent acceptance of the General Agreement on Tariffs and Trade by the Congress of the U.S.A., the standards set down by CAC will become the recognised international standards of quality.

AAGF Director Allan Campbell has undertaken the task of responding to the CAC on behalf of the Federation. He has submitted suggested amendments with a view to achieving an acceptable description and standard that will be clear and simple and thus preventing any possible misunderstanding or misinterpretation.

Our thanks go to Director Campbell for his efforts.



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New Desk Hours

During the first half of 1995, Astrid Kennedy will be at the AAGF desk at the following times.

Mondays 8.30 a.m. - 2.30 p.m.

Thursdays 8.30 a.m. - 10.30 a.m.

Phone 07 213 2444

Direct 07 213 2477

Fax 07 213 2438 A/H 07 273 8144



TALKING AVOCADOS - HAVE YOUR SAY

Dear Sir
A Happy and Prosperous
New Year!

With Christmas over and the harvest complete we can take the opportunity to look over last years problems and successes and make plans for 1995. But how much thought are we going to give to the major decision for 1995?—the FUTURE of the Australian Avocado Industry. What is this future? Where are we headed? Will 1995, and future years, be Happy and Prosperous? Will it be yet another year of "work like hell" for even leaner returns than last year.

Let US have a frank discussion and invite contributions to find a formula which will bring ALL AUSTRALIAN AVOCADO GROWERS TOGETHER IN AN ACTIVE, INTERESTED AND UNITED BODY. Our present situation contains all the ingredients for a disaster. Our Association is supported by barely one in three grower and this minority is itself generally disillusioned and indifferent—instanced by minimal attendances at meetings and disinterest in most matters of Association Policy. There is still suspicion and dissension as to levy payments and their usage. The necessity of money to fund the administration and promotion of the industry's welfare is not recognised.

We must recognise that we are a very small industry spread over thousands of kilometres in relatively small areas. That even with such an excellent medium as Talking Avocados, Fax machines and other electronic marvels there is little communication between growers on a local level, let alone on State or Interstate levels. How many of us really know the problems of a fellow grower, say 150 km away? So, we must recognise and overcome the twin problems of distance and communication.

How can any individual possibly look after all the interests of the Industry? Who, speaking on his own, can have any real effect on Government and their many instrumentalities? Who, singly, can take on the marketing sectors, promotion, research, customs, quality standards, etc.

We must agree that to run an industry, even of our small size requires a corporate body with necessary backup administration to safeguard and promote growers' interests. For this body to be effective AND have the full confidence of growers, it must provide them with up to date information on all matters and industry problems. It must give them the opportunity to discuss these problems and recognise their points of view.

This governing body would be composed of grower delegates from localities of approximate equal area, number of growers and production. The delegate's duties would include accountability to the growers in their locality. To be the courier from the organising body to them and report back the growers' decisions. To be aware of, and prepared to spend much time, energy, and absence from his work in the interests of the industry. This is no social club or knitting circle. This is an highly responsible position dealing with hundreds of thousands of dollars of other peoples' money. Such an arrangement would do much to reduce the present parochial rivalry between the States and the various petty differences and jealousies between the localities.

This constant supply of information and discussion would ensure grower interest. It follows, there would then be positive advantages in being a member and better meetings would result reducing ignorance, suspicion and indifference. Delegates, being independent of State control and only directed by their growers, would be open-minded in debate and vote solely on the merits of a motion to the industry as whole.

We have a magnificent product—we have a great wealth of much needed talent amongst the growers—we already have the framework of a truly national forum.

The purpose of this letter is to open discussion and combine our efforts to tackle the problem of uniting the Australian growers into a forceful body. I am confident that we can tackle this problem and with determination succeed in making 1995 and the years to come "happy and prosperous".

Allan Campbell
Alstonville

HRDC Levies

As mentioned in the last edition of Talking Avocados, the AAGF had requested the Federal Minister for Primary Industries and Energy to authorise an increase in the HRDC levy and export charges from 3¢ to 6¢ per tray.

The Minister has written to the AAGF giving approval for the increase. However, to increase the levy requires a change to the appropriate Regulations and he hopes that the amended Regulation will be in place by 1 April 1995.

The Minister congratulated the AAGF for its decision to increase its commitment to research.

Dear Sir,

As mentioned on the 'phone I am a third year student studying horticulture at the University of Western Sydney at Hawkesbury and have been assigned to carry out a detailed study of the avocado industry as part of one of my subjects.

Therefore I would be extremely grateful if you could supply me with any additional reports or relevant information or possibly suggest useful references regarding the avocado industry. Basically I require anything affecting the industry excluding production.

For your information I list the categories on which I have to report:

- a. Dominant Economic Characteristics of the Industry Environment such as market size, market growth rate, capacity surpluses or shortages, industry profitability, entry/exit barriers, capital requirements etc.
- b. Driving Forces - including changes in long-term industry growth rate, increasing globalisation of the industry, changes in cost and efficiency, regulatory influences and government policy changes.
- c. Competition Analysis - which includes rivalry among competing sellers, power of suppliers/power of customers
- d. Competitive position of major companies
- e. Competitor Analysis - who to watch and why - perhaps U.S.A.
- f. Key Success Factor - things that spell the difference between profit and loss between competitive success and market failure, e.g. marketing, distribution, skill or a talent, organisation resources, technological know-how.

Industry Prospects and Overall Attractiveness (attractiveness is determined when rivalry is not strong, entry barriers are relatively high and when customers are in a weak bargaining position. Special industry issues and problems and profit outlook.

I fully realise that this is a daunting list and therefore anything that you can supply would be greatly appreciated. Of course any costs of printing, postage, etc. will be borne by me. It would also be very much appreciated if any information could be forwarded to me as soon as possible

Thanking you in anticipation.

Stephen O'Donovan
Sydney

Spiralling World Prices Push Fertilisers Up: Incitec

From Queensland Fruit & Vegetable News, December 1, 1994

Spiralling world prices for the base commodities, ammonia, urea and ammonium phosphates are forcing Australia's fertiliser suppliers to increase prices for their key products.

In the latest move, Incitec Ltd has announced that it can no longer continue to absorb the impact of escalating prices.

In the past 16 months, international ammonia prices have more than doubled while urea has increased by around 50 per cent.

Australian farmers have been shielded by the strengthening of the Australian dollar, but the closing gap between the cost of imports and domestic selling prices can no longer be carried by suppliers.

As a result, price increases in the order of five per cent are likely for a range of Incitec products including ammonia, urea, ammonium phosphates and some blended fertilisers.

The increases are expected to take effect from early December 1994.

Warwick Newland, General Manager - Fertilisers and Industrial Chemicals, said Incitec had absorbed the cost increases for as long as possible, recognising the tough seasonal conditions facing so many primary producers in eastern Australia.

"We understand the devastating impact of the drought on our farmer customers, so

we have held off price increases for as long as possible. But world ammonia prices have risen at such an alarming rate in the past six months that current fertiliser prices can no longer be sustained by suppliers like ourselves who have a long term commitment to the industry," Mr Newland said.

The escalation in world prices is largely explained by the fall off in production by the Former Soviet Union coupled with increased demand by the United States.

Mr Newland explained that Australia was unable to escape the effects of escalating world prices because of the level of imports of ammonia-derived products.

In a related development, prices for Incitec's granulated ammonium sulphate fertiliser, Granam, will rise by 10 to 12 per cent from 1 December because of a shortfall in local supplies of sulphuric acid.

The shortage has forced the company to import higher priced sulphuric acid to feed its Brisbane granulation plant where Granam is produced.

"With the likely closure of our current supplier of sulphuric acid, Southern Copper in Port Kembla, we have no alternative but to locate other suppliers," said Mr Newland.

Avocado To New Zealand

AQIS Bulletin - October 1994

Australia is about to start exporting avocados to New Zealand.

The Ministry of Agriculture and Fisheries (MAF) in New Zealand has approved treatment conditions and quality systems which AQIS had provided on behalf of the Australian avocado industry.

The approval relates only to the "Hass" variety, and all fruit must be sourced from growers who have registered properties/blocks under the Australian Avocado Growers Federation's Avocado Nursery Voluntary Accreditation Scheme (ANVAS).

This scheme certifies that trees are free of Sun Blotch Viroid—a disease which occurs in Australia and is declared a quarantine disease in New Zealand.

For fruit fly disinfestation, all avocados being exported to New Zealand are required to be subjected to a hot benomyl dip followed by cold storage at 1°C (± 0.2°C) for a minimum of 16 days.

The grower and packing house responsibilities and requirements are detailed in the AQIS Systems Operations Manual

Further information is available from Senior Inspectors (Exports) in all State/Territory Departments of Agriculture or from Brian Tucker (06) 272 5792.

Avocado Festival Draws A Mountain Of Visitors

Original Avocado owner and Tamborine Mountain Avocado Growers' member Mr Gary Rosser, has been dubbed the new 'Mr Avocado' of Tamborine Mountain, after the highly successful Avocado and Rhubarb Festival. Back with a vengeance after three years, the 'new look, new venue' Avocado And Rhubarb Festival '94 certainly drew the crowds. Thousands of visitors travelled to 'Gallery Walk' on Tamborine Mountain for a day packed with fun filled entertainment (see cover).

The festival was centred around the Original Avocado tourist complex, a fully operational avocado orchard that dates back to 1944, and in its day a pioneer in the development of new avocado varieties in Australia.

The Avocado Barn was humming with fruit tastings and abundant displays of avocados and rhubarb in guises you never thought possible. Bustling with people, the Gallery Walk section of Long Road was closed to traffic for the festival, allowing visitors time to stop and sample goodies at the many restaurants, craft shops and community stalls.

"It was a fantastic fund raising effort by local and community groups" said Mr Rosser. The Zonta ladies raised nearly \$2000 for drought relief. 'Junk For Life' were able to raise over \$1000 for a recovery capsule for the neo-natal intensive care unit at Royal Womens' Hospital and local community groups were pleased with their money raising efforts for the day.

Entertainment started early with a fun run and continued on with displays from local organisations. Theme park characters Kenny Koala, Belinda and Cooe from Dreamworld, Pirate Pete from Wet'n'Wild, and 'The Magical Mine Characters' from the Queensland Mining Council, all added to the colourful festivities.

Fun events kept the crown on their toes, with events such as egg throwing and the world rhubarb-pie eating championships.

The 'never been beaten by an all-male side' Australian ladies tug-o-war champions met their match with a lean, mean team of rhubarb farmers. Disappointed by their defeat, team member Connie Sutherland said "it was a good battle, we lost, but we will be back next year".

Australian Round-up



SUNSHINE COAST Establishment of SE Queensland Avocado Marketing Group (SEQAMG)

The Sunshine Coast Avocado Growers Association (SCAGA) held a Special General Meeting on 7 Sep 94 to consider a new approach to marketing in this region. The concept would be to establish a marketing group of a size which would allow growers to become price setters rather than price takers.

The outcome of the Special Meeting was the establishment of a working party of independent growers/packers to evaluate the concept. The working party has recently produced an Interim Report.

The report has listed four options:

1. A joint marketing group combining SEQAMG with Sunshine Coast Fruit Marketing Co-operative (SCFMC), sometimes known as Nambour Packhouse.
2. The establishment of a formal SEQAMG (Company) consisting of independent growers/packers of avocados and other suitable fruits.
3. Independent growers/packers establish an informal group with common brand and a QA system trading through market brokers.
4. Retain the status quo—stay as we are without SEQAMG.

These are early days and therefore the interim report makes no recommendations. Nevertheless, the working party seems to favour the above 4 options in descending order of desirability. The addition of a potential 100,000 SEQAMG trays to the existing 250,000 SCFMC trays obviously carries much clout in terms of market influence.

The organisation-in-being, the Packhouse, is well placed to dictate terms to newcomers like SEQAMG. It may well be that these terms may be found too onerous by the prospective newcomers. Combination can only be in the interest of both parties and patient negotiation may be necessary to achieve acceptable compromise.

Such a compromise will require SEQAMG members to accept changes that at first sight may appear unreasonable. And SCFMC may have to do rather better than "...(we) cannot guarantee anything better than 'general average market returns'".

This sort of statement is unacceptable to growers of premium quality fruit who already pack to a higher standard than Packhouse's premium grade (Nature's Reserve). The working party has obviously concentrated its initial efforts on its apparently preferred option 1. It will need to flesh out the outlines of the lower options. In particular, there is a need to seek quotations from competitive transporters and packing material suppliers, and there are at least two other market brokers who could market SEQAMG product. Competitive quotes should be obtained from these parties because they might be able to do rather better than SCFMC's 45¢/tray.

Big things have small beginnings. Therefore it is perhaps understandable that the working party has so far limited itself to the Sunshine Coast.

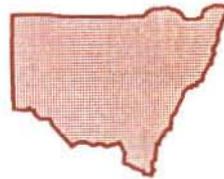
But the original concept addressed South East Queensland and this encompasses growers south, west, and north west of Brisbane, not merely those operating in the area which used to be known as the Near North Coast. There is an urgent need for the working party to look further than the Packhouse if we are to have a true south-east Queensland outfit rather than just a parochial Sunshine Coast affair.

In its report, the working party reviews its work to date and many of the statements made are of the obvious. However Review Point No. 9 may ring alarm bells. "Growers" (presumably SEQAMG members) "must oppose levies for promotion on an industry basis so we can use funds for our own brand. We cannot afford to prop up unco-ordinated and poorly managed segments of our industry". If this view prevailed, it would destroy AAGF's promotion philosophy and its \$150,000 national promotion budget currently managed by QFVG. At the promotion levy rate discussed by the working party of 10¢/tray, SEQAMG would produce \$10,000 and SEQAMG/SCFMC combined would produce \$35,000 per annum for promotion.

Promotion of own brand implies the knocking of competitive brands. Do we really need "Holden versus Ford" avocado advertising? The only beneficiary of this sort of thing is the advertising industry. One must doubt the sanity of those who propose it. Lack of commercial returns will cause the inefficient to stop production and there is no need for efficient growers to cut

off their noses to spite their face in this foolish and divisive way.

Future reports of the Working Party are awaited with interest. Much work remains to be done before a viable SEQAMG tackles the market place. It would be easy for Australian growers to dismiss the matter as a little local problem for SE Queenslanders. But it is difficult to fault the philosophy and potential advantages of Group Marketing and there will be plenty of growers in other Regions who may wish to take up the challenge.



Spring and summer avocado production in NSW for most producers was mediocre. This was due partially to extreme hot dry conditions in

January/February 1994 which caused a heavy fruit drop.

The dry, and in many areas drought conditions, for the bulk of the year left many growers with insufficient water for efficient and essential irrigation. Thus a large percentage of fruit, especially Hass, were picked small so limiting grower returns.

Some growers have been fortunate enough to benefit from the higher prices over the December/January period.

The extreme dry and in some cases, drought conditions have resulted in a mixed fruit set. Generally, Hass are doing better than Fuerte. However, the showery conditions in December/January 1994/95 already have resulted in good growth of young Fuerte fruit to a stage where they are currently near marketable size in the Duranbah area.

As the annual subscription is the only source of revenue for the Association, this has been raised to \$120. Unlike Associations in other States, NSW does not impose an additional levy on growers to pay for State commitments.

Late last year, Orf Bartrop resigned as Secretary to the NSW Association. After nearly 10 years in the job he felt that it was time to step down and let someone else have a go. Orf has given considerable expertise, time and energy to the position. His dedication has been outstanding and is to be applauded. We wish him and his family all the very best for the future.

Alison Atkinson has been employed as the new Association Secretary.

World News



Extracts from USA Packer and Fruit & Vegetable Markets - compiled by the AHC.

California Crop Outlook

California avocado shippers say cool weather and weak sales of off-season varieties should allow the popular Hass crop to maintain prices near US\$45 (AUS\$60) per carton through January 1995. The Hass variety is expected to reach peak production from mid-February through to May when they expect prices to drop into the

US\$20s before stabilising near US\$30 mid year. Despite early freezes in some growing regions, good quality and a profitable year are anticipated from California's estimated 11 million carton crop. (*The standard US carton is double layer and holds approximately twice the number of fruit of an Australian tray. Ed*)

TV Added To Avocado Promotions

The California Avocado Commission will blanket the USA with five promotional campaigns this season, including the industry's first TV commercial in 13 years. The commission will buy US\$3.5 million (AUS\$4.5 million) of prime advertising time on cable and network TV stations in major metropolitan markets across the country.

Industry representatives made the long awaited return to TV this year because they consider it is essential to moving a crop expected to average nearly US\$35 (AUS\$45) this season.

The commercial is planned to complement the commission's retail and food

service programs, as well as its Ripe Merchandising Program. The Ripe Merchandising Program educates the trade on how to ripen and handle avocados and teaches the retailers how to sell more ready-to-use avocados by teaching them how to order and merchandise the fruit. The ripe program is supported by displays and point of sale materials. Other innovative promotional activities include National Avocado month, in-store displays and cooking demonstrations, joint "Summer salad" promotions with the California Tomato Board and a major crouton production company and Guacamole food service promotions.

Modified Atmosphere Packaging Extends Ripe Shelf-life

Mission Produce from California has expanded its ability to precondition fruit through a modified atmosphere program. The program allows avocados to remain in storage an additional two weeks. The process requires an extra refrigeration step after

fruit is hydrocooled and ripened with ethylene gas. The remaining vapours are removed from an air-tight carton, it is then kept at a constant temperature of 40 degrees. The company has also started a deal with a fresh cut salad processor.

Record Chilean Harvest

A record harvest of more than three million cases of avocados—a 38% rise over 1993s volumes—is forcing Chile's avocado industry to launch new promotion efforts in the US to sell its fruit. This includes a US\$80,000 direct marketing promotion and subsidies to US receivers. Promotions will also be directed at neighbouring Argentina where avocado consumption is a low 100g per year, compared with Chile's 2 kg and Mexico's 8 kg.

Chile's Hass avocado harvest, which runs from September through November is expected to produce a record 1.8m boxes for export with more than 1.6m boxes destined for the US market. Projections are for 9000 hectares of avocado production by 1998 and a total harvest of 6.5m boxes. About half of that production or more than three million boxes will have to be exported.

South African Avocado Industry

An extract from the AHC's report on the South African Horticultural Industry following a meeting of the Southern Hemisphere Exporters Association in November 1994.

With the decline in citrus plantings (as a result of losses caused by citrus greening west of Nelspruit), avocados along with pecans have become major alternative crops.

Fuerte is the main variety planted as most of the area is too hot for Hass production. Recent plantings of Pinkerton have also been made. Because of the varietal mix, the UK and Germany have been the main markets.

The industry exports around 9m trays annually to Europe, utilising 20 foot containers (mostly port hole) out of Cape Town. The industry has developed a system of transporting sufficient palletised fruit on each truck to fill two containers plus supply two pallets to the domestic market to maximise transport efficiencies.

In transit, fruit temperatures are monitored on a daily basis by the industry and advice provided direct to ships on temperature requirements.

A proportion of fruit unsuitable for the fresh market is processed for oil for pharmaceutical and cosmetic products.

Food Importers Directory

Austrade Singapore has published a directory titled "Importers/Distributors of Food and Beverages in Singapore".

The directory contains information on 64 local companies giving details of contacts etc. The directory also contains statistics of Singapore's food and beverage imports for 1990 and 1993.

The directory should be of interest to suppliers seeking representation in Singapore.

The directory costs \$350 and can be purchased by Faxing Austrade Singapore on 0011 65 734 4265. Buyers will be invoiced.

Years Behind In Dockside Reform

From Successful Horticulture August 1994

Growers located more than 300 km from a port should not pack containers on their farms, export consultant Clive Thorn told the Expo 13 conference in Gatton Queensland.

"Send produce on pallets in a refrigerated truck to a portside facility for container loading," he told the Expo.

"You're only paying for transport of fruit, not four tonnes of container."

This was one of several tips Mr Thorn gave to farmers at the expo.

"Growers should investigate potential markets in person to discover their requirements, including size and colour preferences and packaging requirements," he said.

"Exporters will often have to redesign packaging to meet these requirements.

"European and North American buyers generally do not like to have to de-stuff and palletise our hand stowed containers.

"Hand stowing also increases fruit damage. If you can afford it, give the buyer fruit on pallets—four way entry if possible."

Mr Thorn said Australia was many years behind the rest of the world in dockside reform.

**Some growers
already export
avocados. In the
future, more and
more will enter this
area of marketing.
Are you ready to join
the push for more
exports?**

"Everyone else exports on pallets in refrigerated ships. They are ideal for large markets and there are potential savings of \$1-2 per case," he said.

"To achieve this, regional groups must develop joint marketing programs and work through a co-ordinator to put a charter together."

Mr Thorn said considerable development had been achieved in controlled atmosphere packaging, which was very effective for certain commodities.

However, he said, this form of packaging was still very expensive and rare.

"All carton sizes should be pallet and container friendly and, ideally, Chep and Euro pallet compatible.

Mr Thorn said growers could also gain significant cost benefits by using 40 foot containers rather than 20 foot containers.

"Until now, not many 40 foot containers have been available but their numbers are increasing."

A Hot Potato

From Bundaberg Region Horticultural Magazine - December 1994

In response to a request for help from the Atherton Tablelands Potato Growers Association, SUPER FOIL AUSTRALIA undertook some research and development on sea container insulation, at Frigemobiles headquarters in Townsville.

Atherton Tablelands Growers were experiencing some problems with the heat load generated inside a general purpose container during export to South East Asia. A phone call to the CSIRO Transport Group confirmed that temperatures can reach 80 degrees C inside a general purpose container if left exposed to the equatorial sun.

Storing the container below deck was not the answer. Below deck can reach temperatures of 40 degrees C if the general purpose containers are in company with reefer containers. This is because they are constantly pumping out heat while cooling their loads.

Initial trials with Super Foil Radiant Barrier applied to the inside of the container experienced problems. The fixing mechanism kept coming loose after installation. It was found that the container walls were

too hot for the glue on the 'quick fit' fixing pins.

After a few failed attempts and the rejection of some slow and expensive remedies, a solution was found which amazed all, with its simplicity and effectiveness.

Instead of trying to repel the heat once it had passed through the walls of the container, it was decided to stop the heat from the outside. A silver tarp, the shape and size of a 20 ft container, was sewn of industrial strength SUPER FOIL. The tarp was thrown over the outside of the container around 11.00 am, within minutes the inside temperature dropped from 42 degrees C to a cool 29 degrees C (local ambient temperature).

ATPGA then decided to run a 3 day trial, with data loggers, to compare an insulated with an uninsulated general purpose container, to gauge effectiveness.

The data loggers were placed in the centre of the containers and one door on each container was left open. This is how ATPGA send their potatoes. The results showed a sharp drop in temperature in the insulated container.

SUPER FOIL AUSTRALIA believe the results would have been even more spectacular, if the days had been hotter. They would also like to check the necessity of one door open, now that the heat load has been reduced.

As the trial progressed it became apparent that an 'outside' application had some further benefits:

1. No possibility of damage from rough loading.
2. Quick installation, approximately 2 minutes, as opposed to 40 minutes on the internal method.

The super cover tarp is made with cut-aways to allow top loading. A cellophane pouch is sewn into the side to allow insertion of the container Serial Number.

Some operators are interested in the covers even if they are guaranteed a cool position on the ship deck. They claim there is often a long waiting period on the wharves in some foreign countries.

SUPER FOIL works by the reflection of radiant heat and is a spin-off from the NASA Space Program.

Computer Software - The Next Step

By Orf Bartrop

In the last issue of this magazine, the series on Office Management dealt with handling farm accounting using a computer program called "Quicken". The next step is to produce documentation for use on the farm and in managing farm resources.

A Three Step Approach

There are three main types of documents that can be of use to the farmer and there are three types of computer programs needed to produce these documents.

Firstly, there is the *Word Processor*. This is a writing tool much like a typewriter used to create normally written documents such as letters to clients or business associates, memos to farm hands, reports for a business partner or notes for future reference.

Secondly, there is a *Spreadsheet*. This is a calculating tool used for financial planning, analysing information, making and printing charts and invoicing. Information is entered and displayed in rows and columns.

Thirdly, there is a *Database*. This can be used to organise agents or packing house records, create mailing lists, or keep track of information on any subject. Information in a database is grouped into records and fields.

There are other office requirements such as communications where a computer can be used to dial a telephone number or send a Fax, or a drawing program to produce graphics. These types of software programs are not essential, especially to those new to using a computer, and hence will not be dealt with in this series of articles.

What Software is Required?

It is possible to buy three software separate computer programs to do the three tasks mentioned above. However, by doing that, each program will work independently which could make moving information from one program to another difficult. A better approach is to use an integrated package consisting of a word processor, spreadsheet and database. Being integrated, information can be easily shared between the different elements. This requirement will be discussed later in the article. In addition, an integrated package of programs is usually much cheaper to buy than three individual programs.

Having decided to use an integrated package, the question is which one?

There are several commercial packages available, some expensive, some inexpensive. In the main, the expensive packages will do far more than is required for small business use. They are more difficult to learn because they have far more features and facilities than the cheaper programs.

The choice between the inexpensive packages is one of personal preference. All the better known brands are suitable. The producing companies vie for customers by making their product better than the opposition. Of course the opposition update their software every so often to make theirs the best—and so the cycle goes on as each tries to outdo the other. What that means is at some stage during the cycle, each producer has the best software.

Therefore, having decided that any of these programs are suitable to do the task, we need to examine other criteria to determine the best buy. Ease of use and ease of learning are probably the most important aspects that should be considered. Another is compatibility with the other software that already exists in your computer. After considering these criteria the choice becomes easy—"Microsoft Works Version 3 for Windows".

Microsoft Works is compatible with "MS-DOS" and "Windows", all three programs being produced by the one company—Microsoft. It is easy to learn because it has 16 tutorials that demonstrate the various parts of the program. It has WorksWizards that give step-by-step assistance in creating specialised Works documents.

Also there are Cue Cards that provide step-by-step instructions for completing common Works tasks. They remain on your screen as you work, giving precise instructions on how to complete your Works document. If you're new to Works, Cue Cards can make it easy for you to jump right in. If not required, Cue Cards can be turned off so as not to obscure part of the display.

Microsoft Works has:

- A Word Processor for writing and editing memos, reports, catalogues, form letters, mailing labels, and other documents.
- A Spreadsheet with Charting for computing financial status, projected revenues,

year-to-date sales, budget forecasts, and other reports requiring calculations. The results of calculations can be presented as a graph or chart.

- A Database with Reporting for collecting, organising, and printing information on customers, inventory, invoices, payrolls, or other subjects where reports or data collect is required.
- A Communications feature for connecting to on-line information services and exchanging information with other computers that have a modem. This feature is of use only if your computer is connected to a telephone line via a modem.

In addition to these four tools, Works comes with "Microsoft Draw" for adding impact to your Word Processor documents with clip art or drawings you create.

The Word Processor

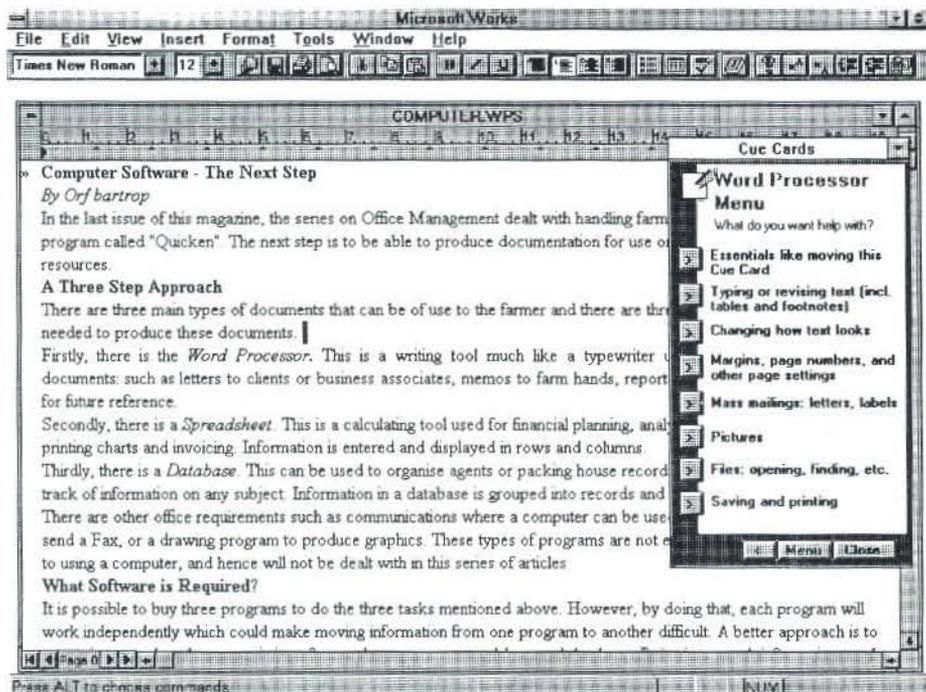
A Word Processor is just like a typewriter except that it gives the typist much more control over the style and format of the finished product. Templates can be created of your letterheads and other documents. To type a letter it is only a matter of selecting the template you want, let us say a letterhead, and the start of a letter will appear complete with Business name, today's date, business logo and senders address.

Next, you type in what you want to say in your letter. If you want to say something that has already been said in another letter, then that text can be copied automatically, in part or in full, into the new letter, thus saving considerable typing effort.

Having completed the letter, the style of the typeface can be changed. For instance, *a different font can be selected, the type can be made bold or italic, or both*, and the size of the type can be altered, all with a few clicks of the "mouse".

Addressing a letter can be very easy to do if a list of people to whom you write letters is kept in the database section of Works. A Wizard exists to create an "address book" and once the names and addresses etc. are entered, they can easily be transferred to your letter.

Works has a built-in spelling checker that uses the Australian Macquarie Dictionary (many other word processing packages use foreign dictionaries). The spell checker will examine each word to see if it is spelt



A snapshot of this article being written using the Microsoft Works word processor. Note the Cue Card on the right hand side—by selecting an arrowhead, instructions are given on how to perform the desired task.

correctly and suggest alternatives if it finds an incorrect word.

Works also has a Thesaurus that allows the meaning of a word to be examined to see if it has been used correctly. It suggests alternative words that have a similar meaning, one of which may better suit the situation than the original word.

Works allow borders to be put around your letter, various size paragraph indents to be set, similar to the first line indent of this paragraph. Line spacing can be changed as in this paragraph and charts or drawings added to illustrate a point.

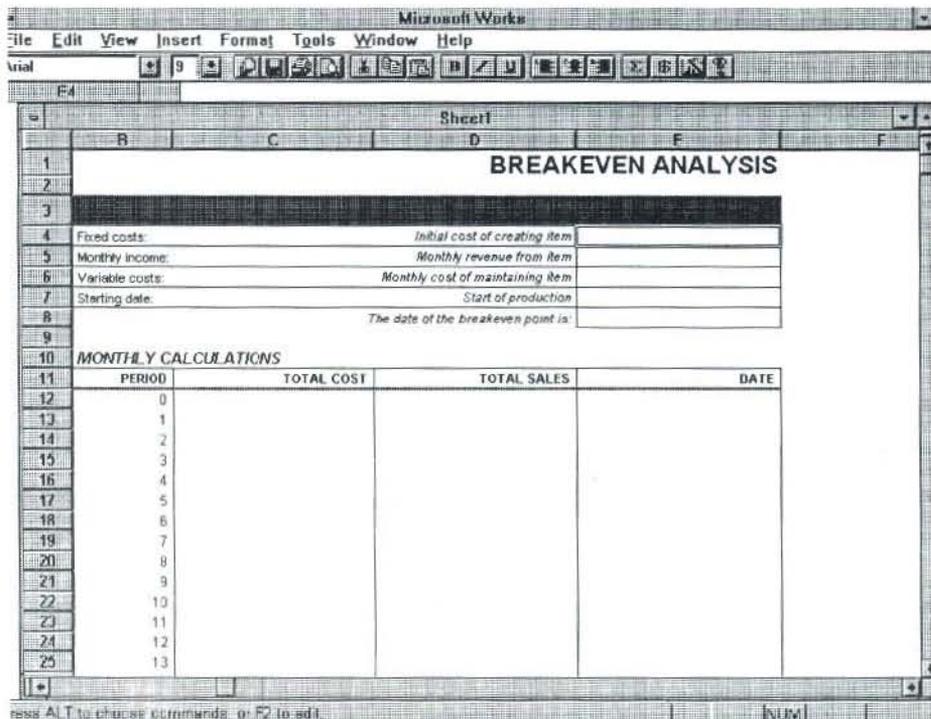
To write a letter using a computer you will need to do some typing. However, typing is minimized by the various functions within the program wherever this is possible. Unlike a typewriter, there is no rubbing out or using "white-out" to correct a mistake, just overwrite the error.

Finally, when you are happy with the result, the letter can be printed on paper using your printer. The letter remains in the computer as a record of your correspondence. It can be retrieved at some later date and used again to someone else or parts extracted for use in another letter.

An envelope can be printed using data from the address book. Again, it is a matter of transferring the name and address to an

envelope document and printing it on the envelope.

There are many more features available in the word processor that have not been



A Microsoft Works spreadsheet template of a Breakeven Analysis sheet. The picture shows the Works facilities at the top and neither these or the hatched surround will be seen when the document is printed on paper.

mentioned here. Sufficient to say that the facilities provided in the computer program are capable of performing most tasks likely to arise in a small business like farming.

The Spreadsheet

As mentioned earlier, a spreadsheet allow calculations to be made. For instance, let say you want to know how the returns on avocados has been during the year and how it compares with last year.

You begin by creating a spreadsheet. Data such as number of trays, quality, size, etc. is typed into a table. The information can be text, numbers, dates, or times. Formulas can be added to:

1. multiply the number of trays by the price received for each, by grade and size;
2. totals can be added to give a weekly return; and
3. weekly totals added to give monthly and yearly returns.

A chart can then be created to show in graphical form:

1. quantities shipped by day, week, month, or year;
2. prices received for each grade and size by day, week, month or year;
3. price differential between the various grades and sizes.

Such information allows you to make a thorough analysis of when you get the best

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prices for your fruit and what type of fruit produces the best results.

By adding other parts of Works to the spreadsheet, an invoice, or Consignment Note, can be produced. By this means, information on consignments can be added automatically to the spreadsheet as well as allowing consignment notes to be printed ready for dispatch.

A spreadsheet also can be used for research. By entering actual figures then modifying those figures, the results of calculations can determine if changes would benefit the business.

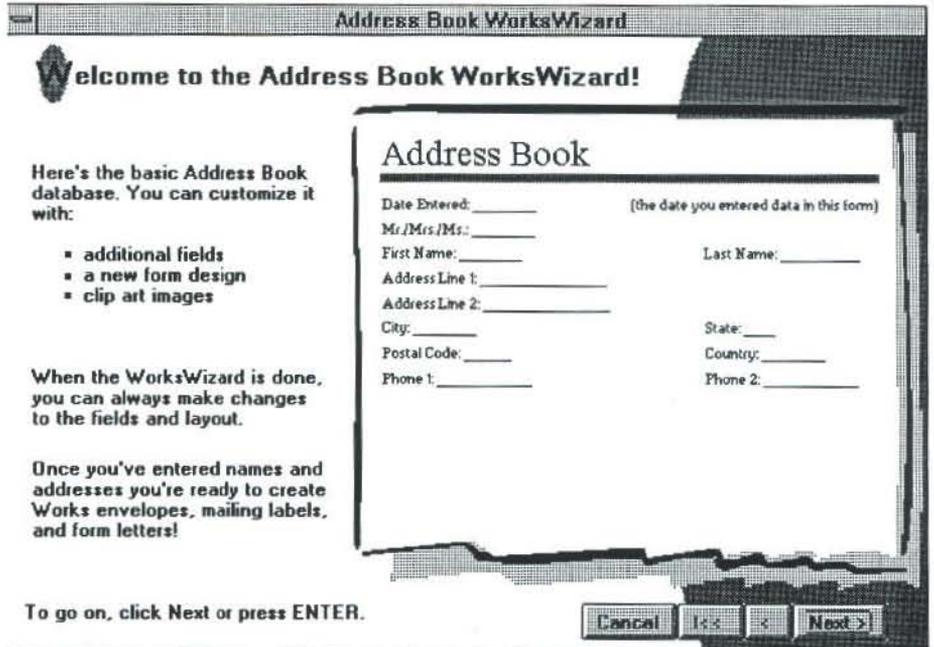
For example: Is it worth replacing your Fuerte trees with Hass? If the annual return increases when the prices received for Hass are substituted for those in a Fuerte column, then the answer may be, "Yes".

The Database

A database allows various pieces of information to be stored so it is easy to view in a predetermined way.

One good example of a database is an address book. Data on individuals, such as name, address and telephone number, are stored in the database and can be displayed in alphabetical order, in postcode order or any other order. Names and addresses can be automatically extracted and added to letters, memos etc.

Another example would be an inventory of farm assets. This list could be added to



A snapshot of the WorksWizard used to create the Address Book shown below.

as new assets are acquired or the value of each asset altered in line with the cost of living.

Works Facilities

Works **tutorials** have already received a mention. They show the various facilities available in Works and allow you to actually perform various tasks under the supervision of the computer. There are

eighteen tutorials altogether.

With **WorksWizards**, you get step-by-step assistance in creating specialised Works documents. There are WorksWizards for creating address books, letterheads, personalised form letters and databases, business and home inventories, and for formatting footnotes and finding files—twelve in total.

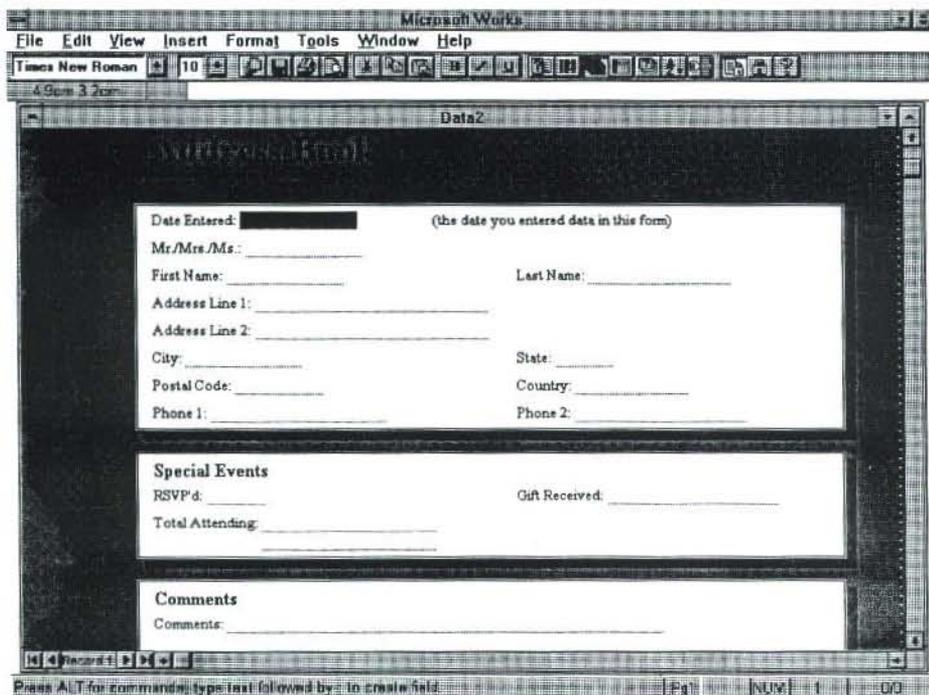
Works **templates** allow predefined documents to be used. Templates exist for an account statement, an invoice, a budget, break-even analysis, a newsletter, a purchase order, inventories, employee management, a weekly time sheet, an order form and monthly goals, to name a few. Altogether there are forty different templates. These templates can be altered to suit particular circumstances or new ones created and stored for future use.

In Summary

Microsoft works for Windows is a computer program that is easy to learn, easy to use and provides most of the facilities needed in administering a small business.

If at some later date the word processor, spreadsheet or database are found to be inadequate, a much more powerful product can be purchased as a separate item and added to your computer.

For those readers who are already using a package of programs produced by a different manufacturer, stay with what you know rather than change to Microsoft. If what you have is inadequate, change by all means.



This Address Book was created in less than one minute using the database WorksWizard illustrated above. Shown are three sections—more can be added or any existing ones omitted.

Buying A Computer

By Orf Bartrop

Buying your first computer is quite a daunting task. So daunting in fact that it makes one want to forget the whole business. The author experienced a similar situation when he changed occupations to enter the avocado industry and was faced with the prospects of buying his first tractor. Not easy when you have not even driven one before!

From the series of articles on computers it has become quite clear what is required. Now all we need is to decide the best method of buying our requirements.

Those growers who already have a computer, by now should know if it is suitable for the task. If it is, hang onto it. If it is not, you know what you need and should have sufficient knowledge to make the correct purchase.

For those growers who do not own a computer or have never used one before, the following should assist with buying your first computer.

Where Do I Buy?

There are many different types of outlets from which to buy a computer.

There are mail order companies, department stores, second hand markets, paper and magazine advertisements, general shops and computer stores, to name a few.

For those that are computer literate, or have a fair knowledge of computers, any of these outlets can be selected. For those that have a limited knowledge of computers or this is going to be your first computer, the suggestion is that you select a computer shop—a shop or business that specialises in computers.

In this way, you can be assured that those in the store have had experience with computers and should be able to help you if you have any difficulties.

How To Buy?

There are several things to consider when buying a computer. Not only does the hardware (the bits of tin, wire and glass) have to be bought but also the software, training and support. Therefore, it pays to get to know your computer dealer and be prepared to spend quite some time in his shop.

Hardware

The hardware requirements have been spelt out and the suggested pieces of equipment listed in the box to the left. Several people have questioned the need for a 486DX33 Central Processor Unit (CPU) rather than the cheaper 486SX33 CPU. The SX will satisfy current requirements and will make little difference to the operation of the computer. However, looking further down the track, future software may work better (more quickly) on a computer with a DX CPU. It's a bit like insurance, it's there if you need it but is not essential.

As to what brand to buy—it would be unwise to buy the cheapest nor the most expensive brand. Preferably buy a well known brand in the middle price range.

Software

As explained in the November 1994 issue of this magazine, Microsoft is replacing both MS-DOS and "Windows" with a new operating system called "Windows

95". Not only will this make learning to use a computer easier, it also will add new features and make maintaining a computer system easier (see box: Plug and Play).

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Plug and Play

In the article in the August 1994 issue, mention was made of the need to buy all the hardware you need at the one time because fitting additional components at a later date could lead to incompatibility problems. The computer industry is now addressing this problem and both hardware and software are changing to eliminate incompatibilities.

A computer consists of what is known as a mother board. This is a large board containing the Central Processor Unit, the Random Access Memory and other minor components. It also has several rows of connectors into which all other components plug, either within the computer or externally on the back of the case.

Currently, when plugging in a device such as a printer, a hard disk drive or keyboard (called peripheral devices), the computer has to be programmed to accept these devices or they will not operate correctly. This is where the problem lies. In fact, some devices will not operate at all if plugged in with certain other devices and may disable the computer entirely.

To overcome this problem, Microsoft with their Windows 95 has devised a system whereby a computer can be made so that any device can be plugged in and the computer will do the programming to ensure correct operation. The system is called "Plug and Play".

The system requires that the hardware, both computer and peripheral devices, adhere to a set of international standards. This hardware is now becoming available but will not work fully until Windows 95 is loaded into the computer.

However, the suggestion is that those growers who intend to buy a computer, consider buying one that meets the international standard, that is, all components are Plug and Play.

Hardware And Software Requirements

To summarise the series, the suggestion is that those wishing to buy a computer to run the office management software should look for an IBM compatible computer with a minimum of:

Hardware

- 486SX33 CPU, preferable a 486DX33;
- ISA bus with Vesa Local bus system;
- 8 Mb of RAM memory;
- 200 Mb disk drive;
- IDE interface card;
- 3.5" floppy disk drive;
- 14" 70 Hz VGA colour monitor;
- "windows accelerator card" with at least 512 Kb of memory;
- MS compatible mouse; and
- bubblejet or inkjet printer.

Software

- MS-DOS;
- Windows™;
- Quicken for Windows version 3; and
- Microsoft Works Version 3 for Windows.

Consider buying Plug and Play hardware when buying a computer system. If required, it will be easier to add components at a later date.

For those not in a hurry to buy a computer system, waiting until Windows 95 comes along makes good sense.

The accounting package "Quicken" has proved to be such a success that Microsoft have now bought the company that produces it. Microsoft, being one of, if not the, most successful computer company, got to where it is today by not backing losers.

Microsoft Works, covered in the previous article, complete the series of reviews on essential pieces of commercially available software.

AVOMAN, the other essential software program, is not available on the open market and must be bought from the Queensland Department of Primary industries. In fact, at this time it is not available at all but will become available later this year.

AVOMAN will come with instructions on how to load it into the computer but if you are not sure how to go about this task and need assistance, your friendly computer store will help you. You supply the program, they will load it into your computer and make sure it is operating correctly.

There are literally thousands of other software programs to do almost anything from keeping track of your stamp or wine collection to designing houses. You may have heard of one that takes your fancy, it can be included without detracting from the computer's main task—to assist with growing avocados.

Multimedia

Multimedia is the facility to be able to run Compact Disks (CD's) on your computer. Yes, ordinary sound disks as well as disks with data can be run. Multimedia consists of both hardware and software and in the future will prove to be a very good learning tool for kids. However, be warned, kids and business computers do not mix. Kids tend to experiment and could easily corrupt your business data if it is not protected. Discuss data protection with your computer dealer if you intend to let the youngsters loose on your computer, multimedia or not.

The System

When you buy the computer make sure that your dealer has loaded all programs and that you are now buying a computer system. Have him demonstrate that all programs work and that all the pieces of hardware are operating correctly, this includes the printer.

Make sure that when the computer is turned on that your dealer has set up the system so that Windows automatically

loads and is displayed without any further action on your behalf.

Having demonstrated that all is well, next comes the training.

Training

Training is an essential element of buying your first computer system. Without some guidance, it will be difficult for you to use your computer. Take along a note book and be prepared for a good deal of writing. Write down any actions that you find complicated or difficult to understand. Note any procedures that you will have to perform. You will find that you often have to refer to these notes.

Make sure that you know how to turn your system on and how to exit from Windows and turn your system off.

Get your dealer to teach you how to find your way around Windows and how to open each of the applications programs (Works, Quicken etc.).

Finding your way around Windows means being able to alter the size of individual Windows, changing their position, operating the mouse and using the drop-down menu lists.

Have him teach you how to open each application and to show you how each facility within the application works. A few hours spent here may save many more

later on if you have to work it out yourself.

The dealer may increase the overall cost of the computer system to cover his time in teaching you how it all works, however, it will be worth it in the long term.

The Finale

Finally, if all this is done in the shop and your dealer will not bring the computer to your property, make sure you know how it all fits together. Have the dealer label each cable and socket so that it is an easy matter to assemble the hardware once at home.

Once home and assembled, spend as much time as possible in the first two or three weeks learning your new system. In this way, operations will become second nature and computing easier. As they say in the classics, practise makes perfect.

Don't worry if at first you cannot do everything that you would like, it takes time and practice to fully understand your system. Remember, your dealer is only a telephone call away. Write down any problems you have and get all the answers at once. This way you will not be pestering him every five minutes. It pays to keep your dealer on-side.

Do not forget those tutorials. Go through each and if you still have difficulty or do not understand an operation, run it again.

To those growers who buy a computer—good luck and happy computing.



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- *Records cheque and cash Expenditure and Income.
- *Offers a Budgeting Tool to plan for future developments.
- *Has a financial Calculator for Loan Rates and Repayments.
- *Records Weather - rainfall, temperature and other information.
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- *Includes a library of information relating to miticides, fumigants, herbicides, codling moth, etc.
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Bringing the Country to the city

The AHC represented the NSW Avocado Growers Association at Sydney's Agview '94. Agview has been held for the last three years "bringing the country to the city" and in 1994 was visited by a record attendance of more than 45,000 people over three days in October, including 8,000 schoolchildren on the first day.

A team of professional food demonstrators along with AHC Industry Manager, Bart Gannon, helped to promote avocados. They publicise them as not only the most nutritious fruits but also as a great snack for all ages. Avocados were sampled in two ways: simply slicing fresh avocados onto crackers and taste testing a low calorie guacamole.

Provided free of charge to accompany the demonstrations were "Scoops" a new style cornchip from Smiths Snackfoods and tomatoes from the Queensland tomato industry.

The avocados were preordered from Sydney markets and preripened for the Agview display. The two lines of Northern Rivers Hass attracted much attention from the visitors with people asking where they could buy such delicious avocados. When they were told their local shops, Agview visitors just didn't agree that the same quality was available to them at retail outlets in Sydney's southwest. Bart Gannon said selling avocados would have been very easy as a lot of show goers asked if they could purchase some.

AHC Industry Manager - Avocados, Bart Gannon with demonstrators at Agview.

Photo courtesy of The Land



Marketing Forum

An important part of the industry planning process is the marketing forum where industry experts meet by invitation to discuss and decide the direction of avocado domestic marketing activity for the next season.

Chaired by the AHC, the forum held in Brisbane last November analysed currently available market research data, reviewed past and present promotions, and looked at 1995 crop predictions. Participants included market wholesalers from Brisbane and Sydney, growers from three

states, the QFVG promotions team and the AAGF executive. Consultants involved in the "Avocado Quality During Marketing" project shared their wholesale and retail findings with the group as an essential element in the situation analysis.

The forum agreed to formulate and implement a three year strategy rather than continuing a season to season approach, the primary target being existing consumers, as it is five times more cost effective to sell to existing customers.

However production trends indicate a real need to expand the customer base by perhaps up to 30% in the planned period, therefore further penetration of the "baby" market is imperative.

As the Quality project training proceeds, the "Ready To Eat Tonight" strategy will also be integrated into the program, local and overseas evidence is that sales increase by up to four times when quality ripened fruit is readily available.

AHC Talks with Avocado Industry

Communication and consultation is an important part of the AHC's partnership with the Avocado Industry.

Bart Gannon as AHC Industry Manager for the avocado industry spearheads this activity and as a result was busy during the last quarter of 1994. He visited NSW regional Avocado association meetings in Coffs Harbour, Alstonville and Upper Burdighbar as well as Mount Tambourine.

Bart was invited to attend the meetings to speak about AHC activities and use of levy funds as well as discuss activities with growers. The visits allowed face to face discussions between the AHC Industry Manager and growers on topics of interest or concern.

Direct two way communication gives both sides the chance to understand each other, growers can realise the scope of activities their levy funds are directed to,

AHC can hear first hand the expectations of the industry. Bart will also be in Fremantle for the Avocado conference in May.

The new AHC Board appointed in July 1994 was also keen to familiarise themselves with the avocado industry.

While in Brisbane in November 1994, they took the opportunity to meet with the executive of the AAGF and discuss key issues and industry priorities.



Market Research Survey Bears First Fruit

In April 1994 the AHC on behalf of its member industries, committed to an innovative market research study surveying over 45,000 households each year across Australia in both rural and metropolitan areas. The study collects data weekly, which is reported monthly allowing researchers to follow trends.

The huge database of respondents allows the AHC to pull out information vital for developing and tracking marketing plans and promotional strategies. It provides feedback on fruit, nut and honey purchases, consumption, advertising and media strategies as well as an insight into the profiles of purchasers, image and attitudinal issues and marketing opportunities.

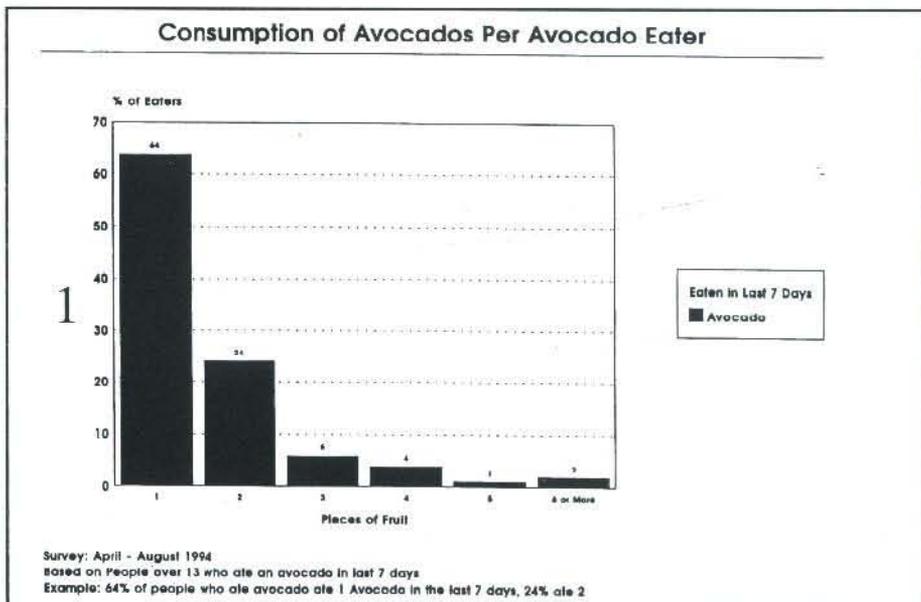
The participation in the survey highlights a major benefit—the opportunity for each AHC participating industry to access large projects and important information by combining funds and resources

This same concept is used by the market research study which collects data for a range of food and other organisations. The result is significant time and cost savings for marketing organisations like the AHC.

Six months of data has already been collected and examples of the information available is charted to the right. Bart Gannon, AHC Industry Manager -Avocados will be presenting more information at the Avocado Conference in May.

Chart 1. Consumption of Avocados per Avocado Eater.

This chart illustrates a key feature of our market—avocado consumers eat one piece per week. The strategy to increase consumption amongst existing avocado purchasers seeks to change this chart over time.



2

Reason for Not Buying Fruit

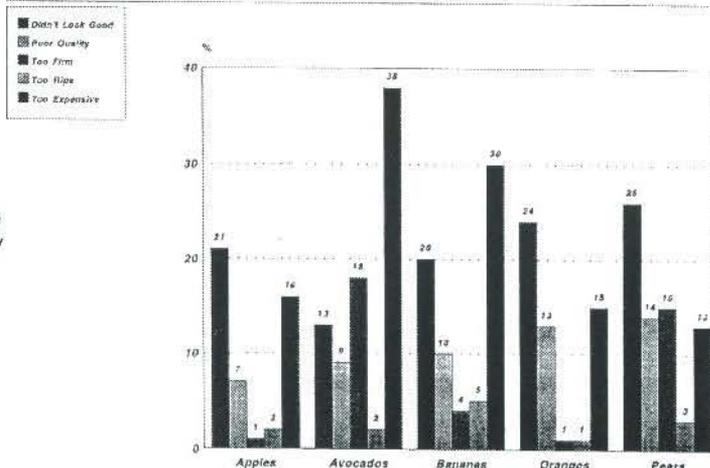


Chart 2. Reason for not buying fruit.

More than any other fruit, price is still a real barrier for avocados.

Chart 3. Penetration - fruit bought last 7 days.

The avocado industry's market share is reasonable, but the industry needs existing customers to eat more. There are also significant differences in sales activity between different regions which could be a target for future activity.

3

Penetration - Fruit Bought Last 7 Days

Percent of Grocery Buyers in Region who Bought Fruit Variety

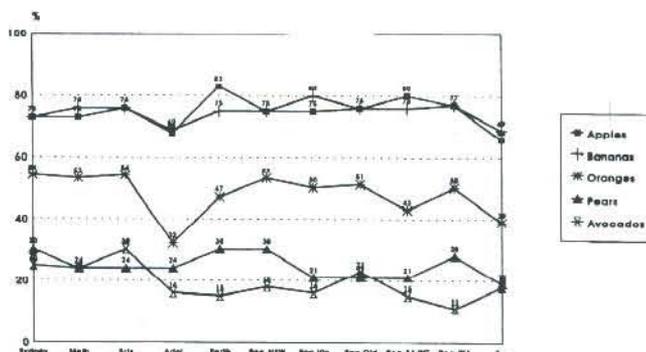
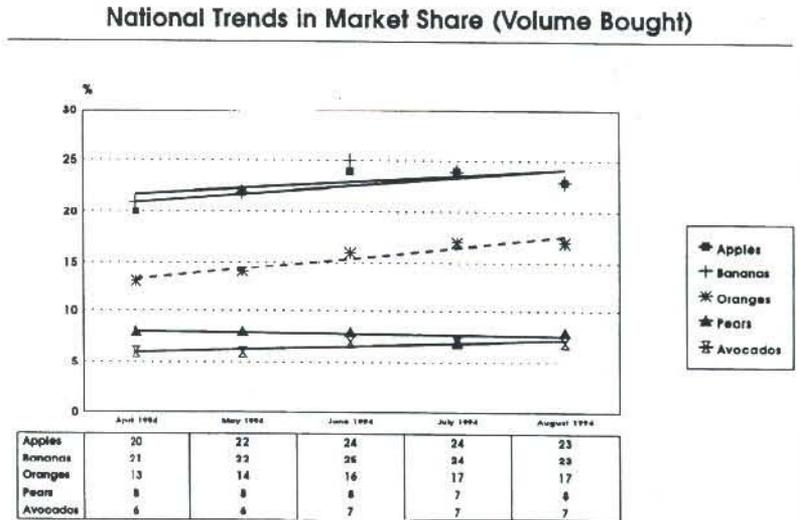




Chart 4. National trends in market share (volume bought).

This latest information shows the avocado industry is making steady gains in market share.

4

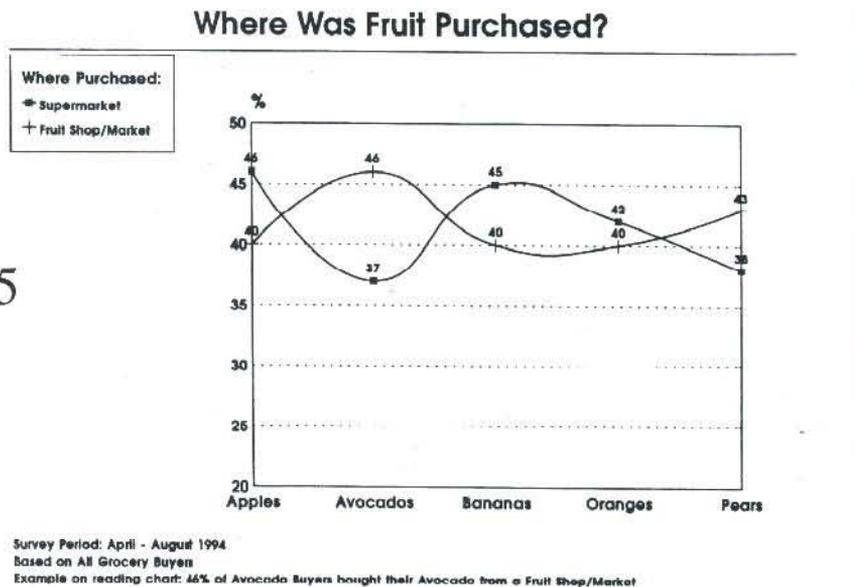


Survey: April - August 1994
Based on number of pieces of fruit bought in last 7 days by Grocery Buyers

Chart 5. Where was fruit purchased.

Unlike the staple fruit i.e. apples, bananas and oranges, most avocados are still bought in fruit and vegetable shops. This could reflect a consumer perception of the avocado as a specialty item or the consumers uncertainty about their ability to select ripe avocados.

5



Survey Period: April - August 1994
Based on All Grocery Buyers
Example on reading chart: 46% of Avocado Buyers bought their Avocado from a Fruit Shop/Market

Quality Survey Identifies Need For Training

The results from the Quality Survey "Improving the management of avocado quality during marketing" are to be released at the Avocado Conference in Fremantle in May.

The survey indicated that the best opportunity to improve avocados is through more control of the ripening process. Controlled ripening offers the opportunity for retailers to present fruit to consumers at the optimal stage of ripeness.

Ironically, retailer demand for ripened fruit is currently less than it should be. Many retailers tend to buy unripened fruit because they lack confidence in ripening practices.

These findings represent the first stage of a three year, \$173,000 initiative to educate people at the marketing and retail level on how best to store, handle and ripen avocados.

Having identified gaps between what is being done and what should be, the next step is to develop suitable training programs.

The successful submission to the Agribusiness Board was put together by the AHC with input from industry, QDPI and close co-operation of the AAGF. The majority of the cost was covered by earmarking funds from AHC marketing levies which secured threefold matching funding

from the Commonwealth Agribusiness Programs section of DPIE. The balance will be recovered from sales of training materials later in the program. The AHC will be continuing its involvement in this marketing project as part of the project's management committee.

Unless otherwise indicated, all articles in the AHC section were prepared by Suzanne Conley, Australian Horticultural Corporation, Level 14, 100 Williams Street, Sydney 2001. Telephone (02) 357 7000, Fax (02) 356 3661.

Quality For Wholesalers

From Bundaberg Region Horticultural Magazine - December 1994

Quality Management is not only building momentum in the growing and packing sector of the Horticultural Industry, it has now spread to horticultural services business such as wholesaling, horticultural suppliers, shipping and airfreight.

Since citrus packer, Yandilla Park from South Australia, was first certificated under the AHC's Australian Horticulture Quality Certification Scheme (AHQCS) in June 1993, another four companies from the Macadamia and Dried Fruit Industries have received ISO 9002 certification in 1994.

Also, the horticultural industry has almost 90 growing/packing operations working towards ISO 9002.

Now quality management has spread to the wholesale service sector. Three wholesale operations have achieved ISO 9002

certification in August and September this year.

The first was Perth based Homestyle Vegetable Processors. They are fruit and vegetable wholesalers as well as providers and processors of fresh cut salads.

Quality is essential to maximise returns

The second was Melbourne's T. Costa & Company for their wholesale and distribution businesses based in Sunshine. Major customers are Coles and Bi-Lo Supermarkets located throughout metropolitan and country Victoria.

The third wholesaler to be certificated but the first to have operations located in

the central markets is Brescia Wholesalers. Director, Joe Amalfi, was put on the QA trail by AHC publicity over a year ago. He also heard about the benefits of QA from one of his principal suppliers.

These wholesalers are the first but not the last! The AHC is aware of several other market wholesalers committed to ISO 9002 certification.

Other service operations to reach ISO 9002 in 1994 have included Qantas Airfreight, Chemical reseller and IHD member, Robert Linton Pty Ltd and shipping company Australia-New Zealand Direct Line.

Businesses wanting more information or useful advice on how to get started should contact AHC, Quality Operations Manager, Richard Bennett on (058) 313 919 or AHC Quality Manager, Graeme Munro on (02) 357 7000.

Food Quality Program Benefits Horticulture

From Bundaberg Region Horticultural Magazine - December 1994

Development of quality management in Australian Horticulture will be further boosted by access to the Federal Government's Food Quality Program which will inject \$6 million over three years to upgrade the quality of Australian fresh and processed foods.

Under the Program, groups of Australian companies involved in all aspects of the industry including packaging, growing and transport, can apply to have projects funded that develop and implement strategies to meet world class quality standards.

The leading role played by the Australian Horticultural Corporation (AHC) in encouraging businesses in Horticulture to adopt quality assurance, was acknowledged by the appointment of the AHC's Managing Director, Mr John Baker to the Program's advisory committee to review funding applications.

Mr Baker said that the AHC has taken a leadership role over the last three years in encouraging the Horticultural Industry to implement quality management systems as a marketing tool and a means of improving competitiveness.

In many ways, the Horticultural Industry is providing a role model to other agricultural commodities regarding the adoption of quality management. However while the Horticultural Industry has over 80 companies working towards international quality management systems, those that ignore the quality challenge will be severely disadvantaged.

"This Food Quality Program will provide valuable assistance to those organisations that need support to take the steps along the quality path," he said.

The Minister for Industry, Science and Technology, Senator Peter Cook, announced Mr John Kerin, Chairman of the Australian Meat and Livestock Corporation, as head of the advisory committee overseeing the Food Quality Program—a "Working Nation" initiative. In addition, the advisory committee includes John Brunton (Woolworths), Rick Farley (National Farmers Federation) and Dr Stephen Carroll (Meat and Allied Trades Federation).

Quality Training Consultants

From Bundaberg Region Horticultural Magazine - December 1994

The AHC is seeking expressions of interest from suitably qualified and experienced consultants to be contracted for the development of training materials specifically tailored to assist the horticultural industry adopt quality management.

Consultants wishing to be considered will need to be able to demonstrate training development experience, experience in distance education and self directed learning will be highly regarded.

Applicants should have experience in the implementation of quality management systems particularly in non manufacturing industries and knowledge of the specific nature and challenges facing the horticultural industry, including experience in horticulture, agriculture or related field.

Guidelines for consultants and further information can be obtained from Jillian Wills - Quality Training Coordinator, Australian Horticultural Corporation.

Quality Management Workshops

The NSW Avocado Growers Association has organised a series of workshops for its members to be conducted by NSW Agriculture at Alstonville and possibly Coffs Harbour (if enough interest is shown from growers in that area). The workshops will be held monthly during 1995.

The aim of the workshops is to work with growers to improve skills in technical and business management. The workshops will be "hands on", e.g. growers doing the soils workshop will be getting their hands dirty, while in the computer workshops, each participant will have a computer on which to practise their skills and have a look at software suited to their particular enterprise. The workshops will also emphasise production and management factors that go to make up total quality management systems.

As well as NSW Agriculture, other trainers in the workshop series will include Soil Conservation Service, TAFE and North Coast Chamber of Manufactures.

A sample list of workshops is included to the right. If growers feel there are other issues that need to be dealt with then these will be added as well. Participants can choose to attend all of the workshops, or

select those that are relevant to their situation.

The workshop fee includes morning and afternoon teas, lunches, use of computers, and notes. The fee is "per family" so that a maximum of two family members can attend for the fee quoted. **Growers who derive the major portion of their income from agriculture will probably be eligible for a training grant through the Rural Assistance Authority.** This grant covers workshop fees and purchase of software. In other words, its all for free!

If you are interested in attending any of the workshops or require more information about the training grant, ring Anne Currey, NSW Agriculture on 066 240352.

These workshops should enable you to significantly increase farm productivity as well as farm income.

These workshops will be open to avocado growers who are not members of the NSW Avocado Association, however, priority will be given to members.

One way to make sure of a place at the workshops and benefit to the tune of \$1869 is to join the Association. Those growers interested should contact the Association's Secretary on 066 803014.

Course Duration/Cost

Technical skills

Farm Chemical Users Course	2 days - \$165
Soil Sense	1 day - \$80
AVOMAN	1 day - \$80
Irrigation management	1 day - \$80

Business management

Quality management	1 day - \$95
Staff management	1 day - \$95
Time management	5 days - \$50
Workplace management	5 days - \$50
Farming with computers	2 days - \$120

Personal management

Retirement and estate planning	1 day - \$80
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TOTAL **\$895**

Cost of Software

AVOMAN	\$200
Rainman	\$250
Quicken	\$69
Payroll	\$296
MS Works	\$159
TOTAL	\$974

GRAND TOTAL **\$1869**

Total Quality Management - A Farmer's Story

By Graham Anderson, Durambah NSW

Total Quality Management is a way farmers can increase profits and improve life-style without further over supplying an already crowded market. The idea is to make more profit out of what we have rather than the 'Catch 22' situation of putting more product on the market to increase returns only to find that it inevitably leads to a fall in prices and thus a decrease in returns.

My story begins when I attended a course on rural leadership with NSW Agriculture in Orange. I found the course very interesting and it convinced me that I should look into Total Quality Management more deeply.

Consequently, I attended several workshops organised by my accountant. Those workshops gave me a further insight into what could be achieved.

Having now started to understand some of the total quality management ideas, the

next step was to gradually introduced them into my business (after all farming is only a business even though we enjoy the life-style).

Recently, the results of my efforts were drawn to my attention when my wage records were audited by an investigator from my insurance company. Everything was in order but the insurance company wanted an explanation why, in the last couple of returns, wages were down dramatically.

I explained that I was introducing Total Quality Management. The inspector who has processed thousands of farmers' records said that of the people that have introduced this system all had not only decreased costs and increased productivity, they also found that they had more leisure time to spend with their family and other purists.

Even with the few concepts of Total Quality Management that I have so far

introduced into my farming practices, I have found this to be true. My costs are down, especially wage costs, and my profitability is up and that is what we are all looking for.

The benefits I have experience so far in Total Quality Management have encouraged me to continue to study this aspect of farming and to introduce more and more Total Quality Management practices.

To this end, I will be attending the workshops being offered by the NSW Avocado Association and NSW Agriculture as indicated above. I now realise that I cannot afford not to explore every possibility to improve my farm by utilising Total Quality Management techniques and these workshops offer a means of doing just that.

5 + 5 + 5 = 61.75!!

From The Holmes & Partners¹ Report December 1993

When you read a headline like this on a newsletter from an accountant, two thoughts spring to mind:

1. My accountant needs a new calculator, or
2. I need a new accountant!

But let us explain the logic of this equation. We are talking about what the Japanese call "Kaizen" (roughly translated it means "the search for constant, never-ending improvement").

Every-business person is looking for an edge, a way to be better than the competitors. But we are realistic enough to accept that the edge won't appear as a 50% improvement overnight....BUT...

Did you know that the average business can increase its net profit by a staggering 61.75%!

By doing just three things:

1. increasing sales by 5%,
 2. reducing product cost by 5%, and
 3. reducing overhead expenses by 5%,
- net profit will increase by a staggering 61.75% as demonstrated in the Table below.

Likewise the reverse is also true:

1. sales fell by 5%,
 2. product cost increased by 5%, and
 3. overheads increased by 5%,
- net profit will **fall** by a dramatic 58.25%.

¹ *Holmes & Partners is a Chartered Accountancy firm operating in the Tweed/Coolangatta area. Each quarter, they issue a quarterly report to their clients. These reports are intended to draw to their attention matter of financial interest.*

	NOW	5% BETTER	5% WORSE
Sales	1 000 000	1 050 000	950 000
Cost of Sales	<u>700 000</u>	<u>**698 250</u>	<u>***698 250</u>
= Gross Profit	300 000	351 750	251 750
- Overheads	<u>200 000</u>	<u>190 000</u>	<u>210 000</u>
= Net Profit	100 000	****161 750	41 750

* The Cost of Sales is calculated as being 70% of actual Sales. This is a common figure found in business.

** This figure is calculated by taking 95% (5% better) of 70% of 1 050 000.

*** This figure is calculated by taking 105% (5% worse) of 70% of 950 000.

**** By subtracting the Net Profit in the Now column from the Net Profit in the 5% Better column gives an increase in Net Profit of 61 750, or a 61.75% increase in net profit.

Please read these numbers carefully, and make sure you understand both their integrity and their impact.

Essentially we're making improvements in three distinct areas: Sales, Purchasing and Overheads. So let's take a brief look at each area.

Accountancy Newsletters are a valuable source of information

Increase Sales By 5%

There are only three ways to increase our sales:

1. Get more customers Nearly every business focuses only on this way. Even though it costs up to ten times more to get a new customer than it does to keep a current one from leaving. Remember, 68% of dissatisfied customers give 'perceived indifference' as their reason for going elsewhere. Putting it bluntly, they felt you didn't care about them.

2. Get our existing customers to come back more often Special offers to regular shoppers, frequent flier discounts, closed door sales, even seemingly "corny" ideas like sending birthday cards (American Airlines have calculated that the retention of an extra 5% of customers can result in up to 125% increase in profits).

Research reveals that of those home buyers who said they would list their home with the same real estate agent who sold them their current home, a staggering 52% couldn't remember the agent's name or contact phone number. How difficult do you make it for people to do more business with you?

3. Get our existing customers to spend more each time they come in The power of this simple technique almost shouts at you each time you drive past McDonalds. Why do McDonalds ask 'would you like any fries or drinks with your order?' every time? Because 30% of the people they ask increase their order (Do the numbers. If 30% of your customers ordered an extra item...)

Reduce Cost Of Sales By 5%

- Do you ensure your current supplier is truly competitively priced?
- Are you aware of all the discounts or specials offered?
- Do you take advantage of the best trading terms (less than 30% of Australian businesses take advantage of "prompt payment discounts")?
- Delivery, storage and the cost of capital tied up in excess/obsolete stock can account for 15 to 30% of a product's real cost. How good is your stock control system?
- Keep a "Price Comparison Register" on all the products used in your business.

Trim Overheads By 5%

- Make sure your advertising is producing results.
- Check bank charges, phone bills, credit card statements etc., (computers are not infallible).
- Limit calls on mobile phones (every one is at STD rates).
- Ask yourself these three questions:
 - (1) If I had to reduce each overhead expense by 10%, what would I cut and would any real value be lost?
 - (2) If I had to reduce total expenses by 10%, where would I start first?
 - (3) If I reduced just one expense each month by 5%, how much would my bottom line improve?

PS If you think 5 + 5 + 5 is unachievable, remember that 1+1+1 = 12.07%!

Although this article was written for general business, it applies equally to the farmer who sends produce to market. Its all part of Total Quality Management. Where the article talks about increasing sales, readers will have to put their own interpretation on how this can best be done in the fruit growing industry. Ed.

Development And Support Of Marketing In South East Queensland Avocado Industry Project - AV128

Final Report - by Alex Banks

Establishment And Development Of Marketing Groups

The objective of the project was to establish and develop marketing groups within the south east Queensland avocado industry. This reflected the Australian Avocado Growers' Federation's goal of developing 20 grower marketing groups within the industry by 1995.

The project sought to achieve this objective in two ways. Firstly by establishing grower groups in each of the growing regions in south east Queensland (Sunshine Coast, Tamborine, Bundaberg/Childers, Lockyer/Toowoomba) based around a technical support program and secondly by developing extension techniques through working with an existing marketing group on the Sunshine Coast, the Sunshine Coast Fruit Marketing Co-operative (SCFMC).

The project also had as secondary goals the development of two decision aid management packages. The first part of the program was achieved. Grower groups were established either as completely new groups as in the case of the West Moreton group, or specific avocado groups were established from within existing Local Producers' Associations (LPA's) which usually consist of a range of commodity groups.

A technical program was successfully conducted for each group. The aim of further developing these groups into marketing groups was generally not achieved although a small marketing group did form at Tamborine.

The failure of the project to achieve this aim of establishing and developing marketing groups can be explained by examining the work with the SCFMC. The program with the Co-operative provided support in growing the crop efficiently and also development of the group's organisation and membership.

The assistance of Ms Jill Jordan, executive officer for the Australian Association of Cooperatives was enlisted. The membership was broken into four regional sub-

groups and a composite program of meetings initiated. Meetings consisted of a technical component presented by the project leader, and a membership component presented by Ms Jordan.

Less than 50% of members attended meetings. Participation was better when meetings concentrated on field technology topics. Limited interest was shown in topics on commitment and participation of members in the organisation of the co-operative.

This reflects the attitude that the co-operative exists only to pack and market fruit and that this is the responsibility of the manager and the board of directors. Members do not perceive their role as participating in these processes except where they affect returns to growers.

These attitudes are representative of the avocado industry. The development of marketing groups requires a change in the way growers approach their membership of such groups. At present growers are familiar only with the LPA or local association structure which is dominated by political issues. Most growers prefer to concentrate on field technology issues. Hence there is a reluctance to become involved in the organisation of grower groups.

However for marketing groups to work successfully, it is necessary that growers form a group and accept responsibility for its activities, rather than the group being based around a Departmental extension or research officer.

The establishment of a marketing group at Tamborine shows the basis on which such groups should be set up. Following informal talks with a grower from a marketing group in northern NSW, three growers identified their need to gain more control over their marketing and formed a marketing group to meet that need. Thus this new group is needs driven and is formed by and for growers.

Development Of Decision Aid Management Packages

A decision aid package to assist with the setting up of an airblast sprayer was

developed in association with a local pest management consultant. The package uses a computer spreadsheet to record data and calculated settings and nozzle sizes. Assessment of the package indicated that it was too complex for most growers to use personally and hence it is being used by the consultant in association with growers.

The second decision aid package on nutrition was not proceeded with as a new project commencing in the next financial year will develop this technology.

Extension Of Funds To October 1992

An application was made to have unspent project funds carried over till October 1992. This request was made to cover costs of activities which due to time constraints fell into the following financial year. Funds were also used in the planning and conduct of the AAGF's national conference in September.

Although the funds were originally provided by specific groups from within the industry, it was decided that these groups would benefit from the program developed for the Conference which concentrated on basic growing topics.

Summary

The development of stable marketing groups within the avocado industry is a very slow process. Many growers recognise the benefits of such groups but only one new marketing group emerged during this project.

The level of participation and commitment of growers to an existing marketing group at Nambour (the Sunshine Coast Fruit Marketing Co-operative) is low and new methods need to be tried to improve these attitudes which are representative of the whole industry.

All regional grower groups were serviced with technical information. The technical support program was a platform that brought growers together and for that reason offers the potential for marketing groups to emerge as has happened in the Tamborine group.

Achievements

Establishment Of New Grower Group

A new grower group was established to service growers in the Lockyer valley, Toowoomba, Hampton/Ravensbourne and Blackbutt areas. This group has called itself the West Moreton Avocado Group.

Attendance at field days and discussion nights averaged 20 to 30 growers. This new group joins established grower groups at Tamborine, the Sunshine Coast and Bundaberg/Childers.

Establishment Of Tamborine Marketing Group

A small grower marketing group emerged from within the Tamborine avocado grower group. This occurred following a field day held at Tamborine at which a spokesman for an existing grower marketing group from northern New South Wales spoke and answered questions.

The group markets under a common brand name to a common pool of agents. Co-ordination of consignments, payments and documentation is provided by one of the group members. At present there are three members of this marketing group but other growers are showing interest in joining.

Technical Service Program

A series of meetings to service the field technical needs of each regional avocado group was initiated. Thirty-three planning meetings, field days and farm walks were conducted attended by a total of over 800 growers.

One farm walk was conducted on the Atherton Tableland for the grower association up there. In the case of Tamborine and West Moreton grower groups, this was the first expert support they had received from the Department in over 5 years.

A regular section was written for the Sunshine Coast Fruit Marketing Co-operative newsletter which alerted growers to tree needs. Reports and articles were written for the Sunshine Coast Avocado Growers Association newsletter.

AAGF National Conference

This conference became part of the project through the project leaders involvement with the co-ordinating committee. Special features were the segment "Back to Basics" which highlighted basic understanding and management of trees for efficient production and field tours which allowed growers to discuss two important management areas in actual commercial orchards. These activities were arranged by the project leader.

Over 250 avocado growers from around Australia attended the conference with 150 growers going on the field tour.

Airblast Sprayer Set Up And Calibration Decision Aid

A computer based program was developed in association with a local pest consultant. This program allows him to set up grower's airblast sprayers taking account of parameters such as tree size and foliage density, equipment type and performance, and groundspeed. The program also allows selection of nozzles and recommends mixing rates for chemicals depending on the volume of application.

Activities

In keeping with the methodology of the project, a technical support program was conducted based on strategic planning meetings with each of the grower groups.

In the case of the SCFMC, four regional groups were created. The support program concentrated on field technology issues related to growing trees and producing a crop.

At the strategic planning meetings, groups identified similar lists of topics but the relative importance of those topics varied. For example Sunshine Coast groups identified root rot as a high priority area whereas West Moreton growers did not rate it very highly due to the orchards being in a lower rainfall area. Root rot incidence is favoured by water-logged conditions.

Improving The Marketability Of 'Hass' Avocado Through Manipulation Of Production Practices

By Surachat Vuthapanich¹, Peter Hofman², Andreas Klieber¹ and Tony Whiley³

There is considerable evidence that post-harvest quality of avocado (and therefore marketability) can be improved by manipulating production practices (nutrition, irrigation, rootstock, etc.). The University of Queensland Gatton College and the Queensland Department of Primary Industries (QDPI) are currently examining this through a three year postgraduate project funded by QDPI. In preliminary studies, Surachat is looking at locality effects and is working with Queensland growers at

Childers, Palmwoods, Maleny, the Lockyer Valley and Toowoomba.

Fruit were harvested from these locations over 3 harvesting dates corresponding to 24, 29 and 34% dry matter, from June to December 1993. They were then dipped in fungicide (Sportax®) at a concentration of 0.55 mL/L for ½ min. From each location some fruit were kept at 22°C to evaluate shelf life and the rest were stored at 7°C for 3 weeks and then ripened at 22°C.

Table 1 indicates that shelf life (as measured by days to eating ripe) of fruit varies between locations or orchards, ranging from 13-21 days in fruit held at 22°C and 8-12 days after 3 weeks storage at 7°C. There was no clear evidence that shelf life declined over the harvesting season. Fruit quality in terms of disease infection, flesh firmness and colour development, also varied markedly. Shelf life was lower in orchards with sub-standard management and this was normally associated with a high incidence of fungal diseases. Post-harvest disease incidence ranged from none to very severe (unmarketable). Anthracnose and stem end rot infection found in early

¹ Dept of Plant Production, The University of Queensland Gatton College, Lawes, Qld 4343

² Horticulture Postharvest Group, QDPI, 19 Hercules St., Hamilton, Qld 4007

³ QDPI Horticulture Branch, P.O. Box 5083 SCMC, Nambour, Qld 4560

TECHNICAL REPORT

Table 1 Summarised results of 'Hass' avocados harvested from different locations in South East Queensland during the 92/93 season (data presented were averaged from 3 harvests).

Parameter	Location							
	Lockyer Valley 1a (6 yr. tree)	Lockyer Valley 1b (12 yr. tree)	Lockyer Valley 2	Childers	Maleny	Palmwoods	Toowoomba 1a (less water)	Toowoomba 1b (more water)
Held at 22°C								
Days to eating ripe	13.1	17.3	18.1	14.8	19.6	20.8	17.9	18.5
Days to detectable softness	9.2	12.8	9.2	5.9	14.0	15.1	13.0	14.3
Severity of anthracnose*	3.1	2.7	2.3	2.3	1.6	2.0	1.2	1.2
Severity of stem end rot*	2.0	3.3	3.2	1.7	1.9	2.4	1.8	1.4
% fruit failed to develop full dark (at the end of shelf life)	56.6	30.8	55.8	8.6	27.7	18.0	46.4	43.5
Storage at 7°C for 3 weeks								
Days to eating ripe	8.0	7.6	10.0	9.7	10.5	12.0	8.9	8.6
Days to detectable softening	1.4	1.8	1.4	1.6	3.2	2.7	1.6	1.5
Severity of anthracnose*	3.8	3.5	3.3	2.7	1.9	2.8	1.5	1.6
Severity of stem end rot*	1.6	1.7	1.7	1.5	1.7	1.7	1.3	1.2
% fruit failed to develop full dark (at the end of shelf life)	25.8	33.3	20.3	38.8	0.0	3.3	0.0	13.3

* Rating scale for anthracnose/stem end rot: 1 = none, 2 =<5 % infection, 3 =<10 % infection, 4 =<25% infection and 5 > 25% infection. Where fruit attained a rating scale of 4 or 5 is was not commercially acceptable.

and mid-harvest were low. However this was high at late harvest when fruit were over mature, particularly in those harvested from warmer regions (Fig 1). Post-harvest dips with fungicide may not be effective in combating the pathogen if fruit had been exposed to high level of inoculum in the field.

Internal disorders or chilling injury in fruit stored at 7°C was minimal. This suggests that fruit can withstand this storage temperature for 3 weeks without subsequently affecting quality. However, some fruit will ripen during storage, especially those harvested late. Fruit held at 7°C ripened rapidly after removal from storage and produced a high level of ethylene gas. It appeared that stored fruit developed a full dark skin colour better than fruit held at 22°C.

Late harvest fruit normally have a very high dry matter and oil content. Fruit harvested from warmer regions were found to have germinated seed while still hanging on the trees, which may cause a split in the flesh. Also, the flesh around the seed becomes dark and hard, resulting in poor eating quality. This did not occur in fruit harvested from cooler regions. Anthracnose and stem end rot infection found in late season fruit was severe as shown in Fig. 1. Therefore, late hanging fruit should be avoided in warm districts as quality is adversely effected. Fruit from Toowoomba and Maleny appeared to hang on trees quite well up to Christmas. This may

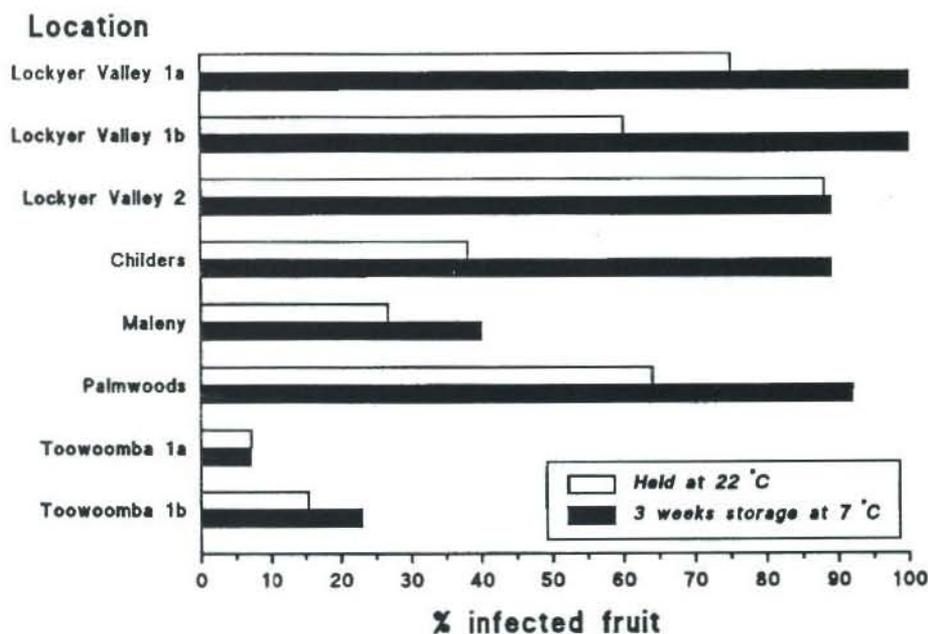


Figure 1. Incidence of anthracnose and stem end rot found in the late harvest 'Hass' avocado fruit (Oct-Dec 1993)

benefit growers who want to supply out-of-season fruit to the market. However, one needs to balance the benefit of financial gain against possible effects of late hanging on the forthcoming crop. Careful management strategies need to be in place such as adjustment of crop load and spraying and fertiliser programs if fruit are allowed to hang for longer periods.

The level of mineral content, mainly K, Ca, Mg and B are yet to be analysed to determine how they may affect the post-harvest quality of fruit. More results from this study will be presented later along with results from the variability of postharvest quality of fruit harvested from different positions within trees, the effects of irrigation regimes and Cultar® application.



HRDC Draft Strategic Plan Released

Improved industry collaboration, the continued development of national markets, focused R&D programs and an increased emphasis on strategic research are key elements of the draft Strategic Plan released for industry comment by the Horticultural Research and Development Corporation (HRDC).

The draft plan has involved a total review of the current operating environment, taking into account the increased coverage of horticultural industries by the HRDC, a significant growth in expenditure from \$500 000 in 1988/89 to over \$20 million in 1994/95, and the changing needs of both the domestic and world markets for horticultural products.

The plan details strategies directed toward achieving five key objectives set down by the Corporation:

1. To assist industry to identify and meet the needs of consumers for a range of fresh and processed horticultural products; to improve linkages between all industry sectors in order to add value to horticultural products.
2. To establish environmentally sustainable management practices that make

efficient use of the natural resource base and reduce industry reliance on chemical inputs.

3. To improve the leadership skills and resources of the horticultural industries in order to bring about a greater understanding of the benefits of R&D thereby increasing the competitiveness, profitability and sustainability of Australian horticulture.
4. To ensure that the R&D program is well co-ordinated, industry responsive, and effectively managed to the highest professional standards.
5. To ensure the Corporation is well managed.

HRDC Chairman, David Minnis said the Corporation was all about working with industry and researchers to ensure the best possible outcomes for horticulture and the Australian community.

"The draft plan reflects the challenges facing the industry. It reflects the need for industry to work together; to identify and meet the needs of consumers and key markets; to increase efficiency and profitability; and to do so in an environmentally sustainable manner.

"To a large degree Australian horticulture is already moving in this direction. This plan provides a solid foundation for the Corporation to play its role in ensuring the continued development of the industry through well focused, adequately resourced R&D programs."

Mr Minnis said the HRDC had looked closely at ways in which its activities could be fine tuned to meet the needs of industry and government as well as further developing opportunities presented in the wider market-place.

The Corporation has presented industry with the draft plan to allow further discussion and consultation. Following input from industry and the research community the Corporation intends to present the plan to the Federal Minister for Primary Industries and Energy, Senator Bob Collins for formal approval early next year.

Anyone wishing to obtain a copy of the plan can do so by contacting the Corporation on (02) 418 2200 or by writing to Level 6, 7 Merriwa Street, Gordon NSW 2072.

Horticulture Funding Ready To Meet Export Challenge

Industry focused, innovative R&D proposals are being sought by the Horticultural Research and Development Corporation in order to lift the competitiveness and value of Australian horticulture.

Currently valued at \$3.5 billion, Australian horticulture will this year spend some \$21 million on R&D projects funded through the HRDC, with a further increase in funding expected for the 1995/96 year. HRDC Chairman, David Minnis said R&D will play a significant role in lifting industry toward the \$2 billion export challenge posed by the Federal Government's Horticultural Task Force.

"Australian horticulture needs to maximise its 'clean and green' image, clearly define the ongoing needs of its export markets and work towards ensuring it can competitively deliver a top quality product.

"What we are now seeking in the overall R&D program is the most effective mix that can deliver benefits throughout the whole marketing chain from the paddock to the plate."

Mr Minnis said the Corporation was now inviting submissions for research in 1995/96 into market needs, processing, packaging and quality management as well as sustainable crop management systems, the development of improved varieties and all other aspects of horticulture aimed at improving the industry's international competitiveness.

"The horticulture industry is becoming increasingly aware of the value of research in learning more about what the consumer requires and in finding ways to meet those requirements. Increasingly, it is prepared to pay for that research with the government lending support through matching of industry dollars.

"In return the industry, through the Corporation, expects results that offer practical solutions to their most pressing needs."

To achieve this, the Corporation requires all applicants to develop strong links with industry in order to ensure the relevance of the research and assist in rapid adoption of the results. The Corporation fulfils a co-ordinating role, both in helping to establish these links and in ensuring that proposed research is not "reinventing the wheel", by repeating earlier work.

Industry funds may be available from growers through crop levies, or from processors, transport companies, retailers or any other party involved in the horticulture industry. The Australian horticulture industry includes fruits, vegetables, nursery products, nuts, cut flowers turf and alternative horticultural crops.



Investment In Horticultural R&D Pays Dividends

Taxpayer investment in horticultural R&D is reaping substantial returns, with an internal survey showing millions of dollars in benefits being returned to the wider community annually.

The survey, conducted on R&D projects funded jointly by the Horticultural Research and Development Corporation and industry partners, indicates that a very large percentage of the benefits provided through research, are gained by the Australian community.

HRDC Chairman David Minnis said the findings provided a strong argument against a proposal put forward by the Industry Commission (IC) to reduce government R&D funding to 25c for each dollar contributed by industry.

The IC in its Draft Report on R&D indicated that the current dollar for dollar R&D funding did not provide the necessary spillover benefits to justify its continuation. Part of its argument is that the R&D Corporations focus their programs on industry outcomes with limited benefits provided to the rest of the community.

It also argued that"those who benefit from the research, should, in principal, pay for it."

Mr Minnis said the HRDC study had clearly shown that these arguments could not be substantiated.

"Major benefits can and do accrue to the community and consumers through the R&D direction adopted by industry through the HRDC.

"Australian consumers directly benefit through access to a wide range of high quality fresh product, which is both affordable and produced in an environmentally sustainable manner.

"Improved efficiency and productivity also assist the continued economic development of rural Australia, providing employment opportunities, earning valuable export dollars and reducing our dependence on imported foodstuffs."

Mr Minnis said the Corporation intended to make a further submission to the IC on behalf of the horticultural industry.

"Rural R&D is an important investment in our future. It is important that this message is made clear to the IC to allow industry to get on with the job of providing a better way of life for all Australians.

Linking Up The Information Chain

By Jonathan Cutting, Avocado Scene - October 1994

What is research, what is technology transfer and what is consulting? Who is responsible and who (if applicable) is accountable? These questions often come up but are seldom answered in a way that is understood by growers.

First, defining research is difficult and subject to differing interpretation. I propose that from an industry-funded perspective it is research aimed at ultimately improving grower returns. Implicit in this is that the research should have a payback.

However, the "science" must be sound. The research should be pro-active rather than reactive, well thought out, statistically valid and with as little confounding as possible, that is, with simple, clear objectives.

Research that is production-driven is generally empirical in nature due to the vast number of factors that affect whole tree performance. Such factors could include climate, soil, genetic make-up, tree and orchard management and disease pressure, as well as less easily defined factors such as precocity and vigour. As such the research result is specific to a given set of circumstances. The information arising from the research that is potentially most useful is integrated in a general "production

guideline" which is commonly referred to as technology.

Guideline For Growers

The transfer of this technology is often carried out on an industry-wide basis. The technology is then generally collected by people who are, due to a combination of experience and training, able to take such technology and integrate and refine it to the point where it becomes a recommendation specific to a given set of circumstances, say a particular orchard. This is the area of consultants or very experienced growers who take the risks implicit with such recommendations as well as the potential rewards.

There must be a logical sequence that enables the flow of information. To start with, the technology transfer specialists must have confidence in the research data, as they have to develop technology suitable for a whole industry. The consultants must have faith in the technology as they will be called upon to give recommendations based on that technology, and will be accountable for the consequences of these recommendations. The flow of information must therefore be fast, clear and

applicable, if growers are to get a return on their research dollar.

Growers Are Confused

Generally, and in New Zealand it is no different, the average grower is technology poor and confused. There is no single, absolutely right way to grow avocados and it would be foolish and irresponsible to suggest that there is. The grower relies heavily on information from his/her neighbour, paid consultant and/or grower association disseminated technology. One of the consultant's functions is to visit regularly and encourage the grower as he/she embarks on an approach that is sometimes not clearly understood, particularly when immediate results are not forthcoming.

It should be obvious that an industry needs all its technology supports: scientific researchers conducting industry-directed and funded research which generates knowledge and principles, technology transfer experts and consultants. With time, and as an industry matures, market forces determine the importance of each and, consequently, what portion of the cake each gets.



Hass Skin Colour Deceives Buyers

Scoff Ledger and Leigh Barker, Department of Primary Industries Queensland AVOMAN Project

A common belief held by wholesalers, retailers and consumers is that the Hass avocado is ripe when the skin colour has changed from green to completely black. Our trials have found that skin colour is not a good indicator of ripeness.

The rate of skin colour change varies considerably between fruit. Some fruit are eating ripe when only slightly coloured. Fruit firmness is a better indicator of ripeness but it is difficult to detect overripeness by squeezing the fruit.

The implication is that Hass avocados with completely black skin colour can appear sound but may be overripe and infected with unacceptable levels of disease.

What we did

Ten cartons of freshly packed, Class 1 Hass were obtained from a Sunshine Coast grower and transported to our Brisbane laboratory. The fruit were held continuously at 20°C for 10 days. During the first 2 days, the fruit were treated with ethylene (100 ppm).

A sample of 20 fruit was measured each day for firmness, skin colour, flesh texture and disease incidence. Fruit firmness was measured as the force (newtons) required to depress a probe 2 mm into the fruit with the skin intact.

What we found

The changes in fruit firmness and skin colour with time are presented in Figure 1. All fruit were eating ripe after 5 days but skin colour varied considerably.

After 5 days, average skin colour was approximately 75 percent black with the range being from 25 to 100 percent. Even after 10 days, average skin colour had not reached 100 percent black with 6 of the 20 fruit not completely black.

The incidence of disease is presented in Figure 2. The first sign of disease occurred after 6 days and then rapidly increased. After 10 days, 13 of the 20 fruit were infected with anthracnose and 5 fruit had stem end rot.

What the results mean

The results confirmed the observations from the Sydney retail surveys in 1993. Skin colouring and softening were not well synchronised. Softening rate was relatively consistent between fruit but skin colouring varied considerably.

Fruit firmness was a better indicator of ripeness than skin colour. The fruit firmness measurements indicated that the fruit were eating ripe after 5 days. But if a 100 percent black skin colour was used as the indicator, then only 4 of the 20 fruit would have been judged as eating ripe.

Even after 10 days, 6 fruit had still not reached a 100% black skin colour. By this time all fruit were very ripe and close to overripe. The consequences of leaving a fruit until it is completely black are not only that it may be overripe but also disease problems are accentuated.

The results clearly show that if the fruit were consumed when they first reached eating ripe, no disease problems would have been encountered. But for each following day, the incidence of disease increased. After another 5 days, most of the fruit were infected with anthracnose or stem end rot or both.

The slight decrease in fruit firmness from days 5 to 10 suggests that detecting when a Hass avocado is overripe by squeezing the fruit may be difficult. The thick skin of Hass masks the change in flesh texture from eating ripe to overripe.

The implication of these results is that judging the ripeness of Hass avocados is difficult for wholesalers, retailers and consumers. Skin colour which is the traditional method is unreliable. If Hass avocados are sold at the completely black stage, the fruit may be overripe and infected with disease. Squeezing fruit will not necessarily detect overripeness. The result is that consumers can purchase Hass avocados that appear sound but have unacceptable internal quality.

Figure 1: Fruit firmness and skin colour of Hass avocados held at 20°C (points represent average of 20 fruit)

Fruit Firmness

- Hard - more than 20N
- Sprung - 15 to 20N
- Soft - 7 to 15N
- Ripe - 5 to 7N

Skin Colour Rating

- 1 green
- 2 less than 25% black
- 3 25 to 50% black
- 4 50 to 75% black
- 5 75 to 99% black
- 6 100% black

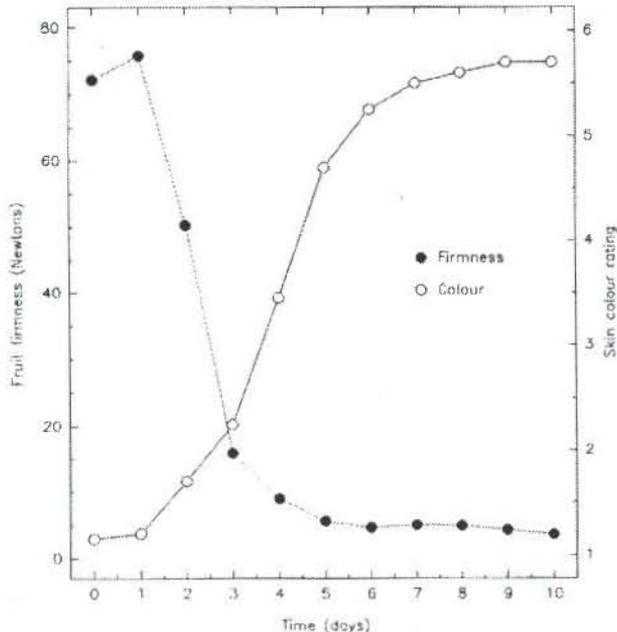
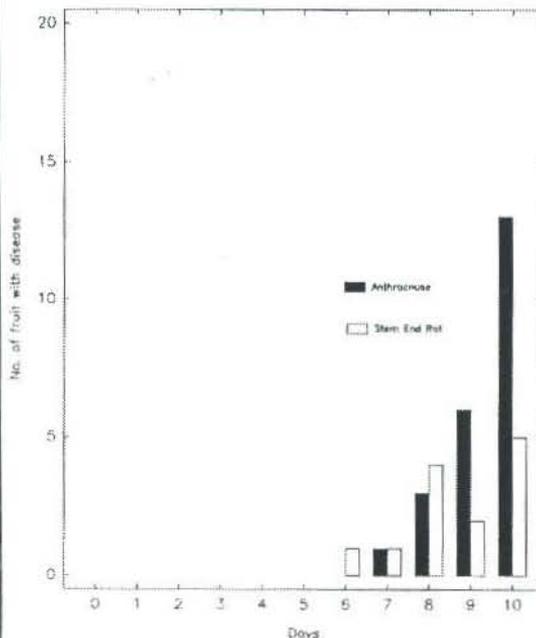


Figure 2: Disease incidence in Hass avocados held at 20°C





Shelf Life Varies With Variety

Scott Ledger and Leigh Barker Department of Primary Industries Queensland AVOMAN Project

The early season variety Shepard has increased in supply in recent years. The feedback from retailers is that Shepard has good eating quality but softens quickly from ripe to overripe. Our trials have found

the shelf life of ripe fruit as judged by fruit firmness to be shorter for both Shepard and Fuerte than for Sharwil and Hass.

To assess shelf life of the 4 varieties, fruit were treated with ethylene (100 ppm) for 2 days at 20°C and then held for another 6 days at 20°C.

A sample of 10 fruit was assessed each day for fruit firmness by measuring the force (newtons) required to depress a probe 2 mm into the fruit with the skin intact.

Presented in Table 1 are the average fruit firmness levels for each variety after ethylene

treatment. Avocados are typically sprung at 15 to 20 newtons and eating ripe at 5 to 7 newtons.

All varieties were sprung 1 day after ethylene treatment. Both Shepard and Fuerte continued to soften each day and firmness was almost 2 newtons after 6 days.

In contrast Sharwil softened to 5 newtons and Hass to 6 newtons after 4 days but neither softened any further.

The results agreed with the observations of retailers. The thin skinned varieties Shepard and Fuerte, have a short shelf life when ripe as judged by firmness.

Hass and Sharwil have thick skins and appear to have longer shelf life. However, as the Sydney retail surveys found, the thick skins can mask over ripeness. Hass can appear sound but be overripe inside.

Table 1 Softening of 4 avocado varieties at 20°C following ethylene treatment for 48 hours

Days after ethylene	Average fruit firmness (newtons)			
	Shepard	Fuerte	Sharwil	Hass
0	27.0	17.1	54.2	28.8
1	13.2	8.3	19.0	13.8
2	8.4	5.6	11.4	7.7
3	6.9	5.1	6.4	7.2
4	5.1	3.9	5.0	5.8
5	3.0	2.9	5.1	6.6
6	2.3	2.5	5.1	6.3

Storage Instructions On Sides Of Boxes

From Queensland Fruit & Vegetable News, 12 August 1993

Printing handling instructions for tropical fruits on the sides of each box is a certain way to make sure wholesalers and retailers "get it right", according to Yepoon grower Lew Fitchen.

Mr Fitchen, a delegate on the Mango Subcommittee, sends his mangoes to market in a box printed with the minimum holding temperature and ideal ripening temperatures for the fruit.

The information is printed on the end of the box, with his grower details on the opposite end.

Mr Fitchen said other growers were starting to use the system, which he believed would be of benefit for many tropical and exotic fruits.

"Printing instructions on each box is really the only way to ensure the information is available to the wholesaler or retailer when they need it," he said.

"Often an agent gets fruit and he won't know what to do with it, especially in regard to some little known tropical fruits like carambola or sapotes. Some, especially in southern markets, even get confused between papaws and mangoes.

"I used to send out cards to wholesalers and retailers, but they would get lost or the

people who had them would leave.

"Having handling and storage information on each box is also a means of getting more information to the individual retailer, where a lot of problems are though to occur, and to the consumer.

"The system provides growers with peace of mind that the fruit will be correctly looked after and acts as a 'safeguard' as well.

"Wholesalers can't complain to us if fruit is damaged through incorrect storage or ripening, because precise instructions are

printed on the product.

"It is an example of ways we will have to co-ordinate with other links in the tropical fruits marketing chain to provide consumers with better quality produce."

Mr Fitchen is also trialling the inclusion of recipe and general information leaflets in his cases of carambola. He said the leaflets provided wholesalers, retailers and consumers with otherwise unattainable information about the product and helped with overall presentation of the fruit.



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