



The Australian Newsline

Vol 5 Number 2

# Talking Avocados



May 1994



## **Growers Should Now Use The New Heart Foundation Tick Stickers On Their Avocados**

- The Sherry Report On Horticulture
- Office Management
- Rootstock Salinity Report
- Biological Control Of Pests

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# Avocado Conference

The next Avocado Conference is to be held in Perth, Western Australia. The Conference will be followed by an optional three day post-conference horticultural orientated tour. This will be the first national conference not to be held on the East Coast.

To avoid school holidays, attract sub-

stantial airfare discounts and minimise the potential for rain interference, the conference is being planned for early May 1995.

The conference content will contain updates on current research and the theme will emphasise the role of fruit quality in promoting product demand.

Indicative costs on a per person share twin basis ex Brisbane, three day conference, airfares, three nights' accommodation and meals is \$1,400. The three day post-conference tour is \$600.

Conference proceedings for growers unable to attend would be available for purchase after the conference.

# Field Day

The Coffs Harbour Branch of the NSW Avocado Association will be holding a Field Day on Thursday 12 May 1994 at the property of Stephen and Tracey Millward, Bruxner Park, just north of the Big Banana at Coffs Harbour. Those attending are asked to meet at the Bruxner Park Fire Station on the right hand side of Bruxner Park Road at 1.00 p.m.

There will not be a formal program but the Field Day will be covering cultural practices, fruit drop, Tilt and avocados, mulching (sugar cane, mushroom compost), pruning, cover crops, irrigation, tree injection and integrated pest management.

## Calendar of Events

### May

- 11 **Richmond Branch of the NSW Avocado Association** - meeting Alstonville Tropical Research Station commencing 3.30 p.m.
- 12 **Coffs Harbour Avocado Field Day** - Stephen Millward's property Bruxner Park near Coffs Harbour - See this page for details.
- 19 **Coffs Harbour Branch of the NSW Avocado Association** - meeting Coffs Harbour Catholic Club commencing 7.30 p.m.
- 25-26 **Expo 13 - Horticultural Field Day, Gattton Qld - Contact - Jan Kanowski (074) 601088 or Fax (074) 601087.**

### June

- 5-8 **International Symposium on Environmental Agriculture—Towards 2000** - Travelodge Resort Hotel, Gold Coast. Contact - Professor Paul Saffigna, Griffith University (07) 875 5332 or Fax (07) 875 5282.
- 7 **Avocado Growers Association of WA** - meeting Conference Room, Market City commencing 5.30 p.m.
- 15 **Tweed Brunswick Field Day** - At Graham Anderson's property, Duranbah Road, Duranbah - see page 15 for details.
- 27 **NSW Avocado Association** - Committee meeting Ballina RSL, Ballina, commencing 9.00 a.m.

### July

- 5 **Avocado Growers Association of WA** - meeting Conference Room, Market City commencing 5.30 p.m.

**Front Cover** - Heart Foundation "Tick" sticker now approved for use on avocado fruit.

**Back Cover** - The process of reducing polystyrene produce boxes to compressed cylinders ready for return to the manufacturer for recycling.

## Fruit Drop

By Alex Banks, from *The Fruit Vine Vol. 2 1994*

Many growers have commented that they have had a larger than usual fruit drop this season. The question is: why has this happened?

Talking it over with Tony Witley, we think the main cause is related to what happened in mid to late spring (mid Oct - end of Nov). A mild start to spring with a heavy flowering and fruit set saw things looking good.

The only factor that cast a shadow on productivity was the slowness and lack of vigour in the spring leaf flush. In many cases, developing fruit were left with little or no leaf cover. The problem this causes is not so much sunburn, undesirable though this may be, but is the lack of healthy leaves to provide resources for trees to set and fill fruit.

What seems to have happened is that old leaves from the previous summer have either fallen off or just plain run out of puff (like most of us). The tree has then had to rely on stored energy to handle this enormous flowering and fruit set. Added to this was the spring leaf growth which also demanded resources until it had turned green and started to contribute to the tree's needs.

The amount of available energy was not enough for the size of the developing crop. The lack of tree resources has meant that although fruit appeared set, it had not received the carbohydrate support it needed for growth. The result has been the heavier than expected drop.

This scenario certainly fits in with Hass where the energy needs of fruit are

twice that of Fuerte. It seems the heavier crop in Sharwil (for a change) was also too much for trees to handle and a lot of fruit has been lost. The hot windy conditions of mid December didn't help and probably were the last nail in the coffin for some fruit which was already struggling to hang on.

If this is in fact the explanation, what does it mean for managing trees? The first thing is that it is too late to do anything special now. All operations listed below relate to setting trees up for next season's flowering and fruit set. What can we learn for next season?

Many are thinking of applying nitrogen during spring to boost tree vigour. There is no doubt that nitrogen does this but what happens to yield or fruit size?

Tony applied urea when flower stalks had emerged but before flowers opened. He found that applications of nitrogen on their own at this stage reduced yield and had no effect on fruit size. He did get positive results when nitrogen was combined with Cultar sprays but until this product is registered my hands are tied and my lips are sealed.

Perhaps all we can say at this time is that we might have a better understanding of what happened but there are no quick answers to fixing the problem.

*An early January fruit drop has been reported as far south as Coffs Harbour and as far west as Kyogle in NSW and as far west as the Lockyer Valley in QLD. Ed.*

# From Your Federation

By Sandy Teagle, Executive Officer

Your Federation held its last general meeting on 16-18 March 1994. Both AHC and HRDC representatives were in attendance. Research projects for 94/95 were presented by HRDC for consideration. The Federation's recommendations on these projects now await approval by the HRDC Board. The promotion campaign for 94/95, including a new instore video concept, was presented and approved by the Federation and AHC.

Renewal of membership of AHC remains to be resolved. Conditions of renewal would be a three year minimum term. A final decision is to be made for the Annual General meeting on 12-15 September 1994.

David Rankine has undertaken negotiations with the AHC to rewrite the Memorandum of Understanding in order to develop a more equitable relationship between AHC and AAGF. Provided the changes are approved, growers can expect

greater accountability from both AHC and the Federation to industry.

A day has been set aside for revision of the avocado industry strategic plan at the September meeting. This will ensure that activities of the Federation relate to current industry priorities and continue to address long term goals. If growers feel there are areas not being addressed by the Federation, please advise your local member to raise these issues at this meeting.

Areas that your Federation has been working hard on include development of Heart Foundation Pick the Tick stickers for fruit, product handling education for wholesalers/retailers and organisation of the next Australian avocado conference. Further details of these projects can be found in this issue of Talking Avocados.

The next meeting of the Federation will see a new President and several new faces. Robert Mosse retires from AAGF at the end of May. Over the last eight years (three as president) Robert has given a

tremendous amount of his time in a successful effort to unite and progress the Australian avocado industry. It is a sad day when the Federation loses such an active and enthusiastic member.

Mr. David Rankine has resigned as the incoming President and Mr. John Bolton has now been elected to this position. Mr. Rod Dalton will be the new Vice President. Just to further confuse you, Mr. John Galatis has recently resigned with Mr. Dave Duncan filling his shoes until WA appoints a new representative. A new representative is also expected from NSW.

I would like to take this opportunity to welcome new members to the Federation and thank both Robert Mosse and John Galatis on behalf of the Federation and industry members for their commitment and dedication to industry over the years.



## Membership

How important is membership of an avocado association? More important than you may think!

Communicating with all avocado growers around Australia is difficult if not impossible. This magazine goes out to over one thousand readers made up of growers, researchers, agricultural department officers and other people interested in the avocado industry. Even so, publishing articles that assist people in the industry is only the start.

Often articles written by researchers are too technical for the average grower to comprehend fully let alone take applicable action. Articles can only express a general situation or one that pertains to a specific area or type, readers are left to interpret the results for themselves and apply the new technology, sometimes using inadequate information. How is this situation remedied?

There are several ways, such as ask the local extension officer but after queries from fifty or so growers his reply may be a bit short. Why not join the local avocado association and insist that these articles be properly interpreted at a meeting or field day. You will find that the same local extension officer or someone who fully

understands the ramifications of an article, is only too willing to help.

Some growers have been doing this for years but unfortunately many others are only too willing to sit back and do nothing, oblivious to what technology has to offer—they know not what they miss!

Surely communicating is one of the prime roles of an avocado association, why not join and participate, why not wise up!

Another reason for joining an avocado association is to ensure that your interests are protected. Look at it like an insurance policy. If the government decided to allow avocado imports from countries which have diseases that are not currently in Australia, who is going to protect the Australian industry from those diseases?

It is only when growers unite that such a threat can be acted upon—individual lobbying will achieve little. A powerful association of growers can bring pressure to bear on politicians and make them take notice. It is only when all growers join an association that the association becomes powerful enough to be heard.

Details of whom to contact in your area are given on page two of this magazine. Where there is not an active association near you, contact other local growers and see what can be arranged. It's up to you.

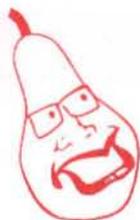
## Tips On Tensiometer Use

A new book on tensiometer use and maintenance, "Water it Right: Irrigation Using Tensiometers" assists irrigators to maximise the benefits from their tensiometers.

With the increasing demands being placed on water reserves, irrigators have to become even more efficient in their water use. They can do that through the use of tensiometers, which when used correctly, avoid over watering, amongst other things.

Not only does this increase efficiency, but it also minimises fertiliser losses due to leaching and runoff, thus protecting the environment and saving fertiliser dollars at the same time.

"Water it Right: Irrigation Using Tensiometers" is published by the Queensland Department Primary Industry. It costs \$10 and is available from DPI selling centres. For more information, write to: The Department of Primary Industries, Publications Section, G.P.O. Box 46, Brisbane 4001 or telephone (07) 239 3100.



## TALKING AVOCADOS - HAVE YOUR SAY

Dear Sir,

I have long thought what a great magazine Talking Avocados is, from when it first

started out as a Newsletter, under the editorship of Marie Piccone, to the stage where it is today. Not only does it keep growers up to speed with their own industry, from R & D to politics (and everything in between) but also covers the world scene—which I believe is a must in this day and age of advancement and competition.

The letter from Don Lavers (Feb 94) was of particular interest as funding is very topical here in NZ at the present time. We have two forms of levy for avocados—a compulsory levy of \$0.60 on export trays—5.5 Kg equivalent (\$0.50 growers and \$0.10 exporters) and a voluntary levy of 3% of gross sale price on local market fruit.

As growers we always think we pay out too much, but no matter how we look at it, research and promotion (and reluctantly, administration) are essential to our well-being. As we put money into machinery, chemicals, labour and the like, so too must we put funding into research and promotion. I am as reluctant as the next grower to 'shell out' for what sometimes appears to be either a tunnel with no light at the end, or worse still, a project which I may believe has no relevance (for me). I come down to earth, however, when I think of just one research project which effectively saved my orchard (and income)—tree injection for phytophthora control.

I digress. Our voluntary levy receipts on local market sales has been diminishing over the last few years to the stage where approximately 65% only is returned to the NZ AGA. Put another way, approximately 35% of growers are free riding. This is happening in other horticultural industries too, not only the avocado industry.

So what do we hope to do about it? Over the last 6 to 8 years, successive Governments have reduced their direct commitment to all (or most) industries, placing more and more onus on self funding. Late last year, the Government amended the 1990 Commodity Levy's Act to make it easier for industries to have a commodity levy placed on it. In essence, a commodity levy, if introduced (by a simple majority of voting growers and area) becomes compulsory on all growers. The avocado industry is presently advertising its intention to call grower meetings and hold a referendum on the introduction of a levy.

We need funds to move the industry forward and while I appreciate we are not in the same league in terms of production as Australia, I am reasonably confident the levy proposal will be accepted by NZ growers. There will always be those who object, for the reason given by Don. Some others of course can argue that an increasing income can mean increasing inefficiency, glass palaces, unwise expenditure etc.—all very valid too. That is why as growers, we need to keep ourselves involved in our industry and make sure our industry leaders are aware of this.

Finally, and why I started to write this letter, I find it incredible that your industry only has a levy of 3 cents per tray. Australia is obviously very lucky to have QDPI and other States funding research to the present levels. I thought we were doing well with the Foundation for Research, Science and Technology funding approximately 70% of our avocado research. Perhaps we should exchange Governments!

Derek Smith  
Tauranga  
New Zealand

Dear Sir,

Prior to the article on the avocado picker in the February issue of Talking Avocados there had been no reports of bag failure. Since that article, I have had several complaints as well as some suggestions.

If anyone has had a bag failure, I will replace it free of charge, just telephone me on (075) 358036. The method of seaming was the main cause of these failures. Bags are now made of a different material, so this failure should be a thing of the past.

One suggestion that users may like to try. To get rid of the looseness in the cord, drill a hole at the bottom of the handle. Pass the cord through this hole and attach it to a spring type hose clamp which can slide along the handle. A Hoover washing machine hose clamp H25411512 is ideal but may be hard to come by.

Anchoring the cord in this fashion allows cutting to be carried out by pulling the cord sideways, as in using a bow and arrow. This should eliminate operators getting sore hands from pulling the cord downwards.

If your cord is not held firmly enough, drill two extra holes in the handle on the opposite side to the pull side. After threading the cord through the original hole, thread it in and out these additional holes before attaching it to the spring clamp. It should now be held firmly in place and not slip.

Later models of my picker have been equipped with a longer and stronger spring and the cord guide has been eliminated. This allows the cord and spring to lie closer to the handle which reduces the likelihood of the spring catching a branch and also being distorted during the freeing operation.

There are probably lots of good ideas around and I hope people will let others know of any they have found useful.

Col Bridges  
Palm Beach

How often do you find after sales service like this! Ed.

## "A TASTE OF THE NORTH COAST"

To help celebrate the Wollongbar Agricultural Institute's Centenary, a special event is being organised for Saturday July 16th, 1994.

The event, "A Taste of the North Coast", will be held on the oval at the Institute and is being jointly staged and promoted by NSW Agriculture and the Northern Star group of newspapers.

It will provide an ideal opportunity for producer organisations to make people aware of their product and the wide range and diversity of produce we grow on the North Coast.

Large tents will house exhibits, where product can be displayed, tastings given and if desired, products sold.

Included in the producers being invited to attend are; avocado, banana, beef, beer, coffee, citrus, custard apples, fish, herbs, honey, hydroponics, kiwifruit, macadamia, organic, passionfruit, pork, prawns, sugar and wine.

The event will also feature a bush camp erected by the "Tickies" from the Board of Tick Control, who will be cooking sausages, billy tea, telling yarns, plaiting whips, giving whip cracking, horse shoeing and wood chopping demonstrations and showing people what it was like to live in a bush camp. There will also be Devonshire teas etc.

An old blacksmith shop will be constructed and there will be a display of working old farm machinery. Hay rides to the rainforest tours will be ongoing, as well as live country and modern music all day. Farm animals, castles etc. will be available for children.

# Industry Turns Its Back On Transport Revolution

*From Market Place News, October 1993*

Delegates to the AUF Combined Industries Conference held in Perth were told that only a few people were taking advantage of the new transport technology available for fruit and vegetables.

Bernie Brady, of Refrigerated Roadways Pty. Ltd. said there were a number of models specially designed to carry fresh produce as well as chill and frozen product.

He said that a major "revolution" was the design of specialised air suspension which took away the deleterious effect of jarring on the product being carried.

He said that there was a lot of work to be done in improving transport between grower and market. This included pre-cooling of loads, further stabilisation of

transport, covered loading docks for temperature control and specialised refrigeration technology for long hauls.

"Refrigerated transport in Australia is far superior to that of the U.S.A.; its use in that country leaves a lot to be desired," he said.

"However we can take advantage of the technology, the models available, and adapt to our own needs. We have always been innovative in this field.

"Transport provides the link in the chain between grower, wholesaler, retailer and consumer and neglect of any one link can cause horrific damage to the product and a loss of confidence by the consumer in the product.

"The chain of quality starts with the grower and he, together with the agent,

must ensure the right type of transport is used to get the crop to the end-user in top condition," he said.

Bernie Brady stressed that major retailers were now paying a premium for produce carried by refrigerated transport to their doors.

"We will never entirely stop the small greengrocer putting perishable fruit and vegetables in the back of a ute where it is subject to sun and wind burn. Education about the need for quality is essential.

"However, the consumer will decide their future as they will buy from the best-quality outlet. This will force retailers to think more carefully about the way the produce is transported and handled," he said.

## Taxation

As all growers should be aware that defrauding the Taxation Office is an offence. However, with the self assessment system of taxation, sometimes it is difficult to know if you are doing the right thing. The trick is to claim all those deductions that are claimable without neglecting to declare all taxable income. For this reason, most business people use an accountant to prepare their taxation return.

This article is designed to help growers to understand some of the quirks of the tax laws. However, accountants, tax agents or the Taxation Office are the only reliable sources of taxation information and growers should not rely on hearsay when determining what to put in a tax return.

### Shortfalls

Did you know that a tax shortfall—the difference between the tax properly payable and the tax that would have been paid on the basis of the tax return—attracts a penalty and that shortfalls can attract different rates of penalty? Each matter that results in a shortfall is examined sepa-

ately to determine which penalty rate should be applied.

One consideration applied by the Tax Office is whether the shortfall is caused by the taxpayer taking reasonable care, recklessness or intentional. Under the reasonable care test, no shortfall penalty will be imposed if the taxpayer is judged to have tried his or her best to lodge a correct return, having regard to the taxpayer's experience, education, skill and other relevant circumstances.

Recklessness is gross carelessness. A taxpayer will have behaved recklessly if his or her conduct shows disregard of, or indifference to, consequences that are foreseeable by a reasonable person as likely to result from the taxpayer's action. For a finding of recklessness, it is not necessary that the taxpayer acted dishonestly or intended the consequences.

Another circumstance that varies the penalty is voluntary disclosure. By disclosing to the Tax Office that a tax return is incorrect, penalties may be reduced by 80% but such disclosure must be made before the taxpayer is informed of an audit. Disclosing a discrepancy after being informed of an audit only warrants a 20% reduction of the penalties.

If the Tax Office finds that a taxpayer consciously decided to disregard clear obligations imposed by the Income Tax Assessment Act or regulations, the taxpayer can be deemed to have acted intentionally.

### Landcare

Any capital expenditure on conveying water, conserving water and some landcare activities or measures taken to prevent land degradation may be tax deductible.

### Trading Stock

Some growers may be unaware that fruit that has been harvested but still unsold on 30 June is regarded by the Tax Office as Trading Stock and has to be accounted for in your income tax return. So, once fruit is picked, it becomes trading stock until the day a sale is made. If the fruit sent to an agent is on the trading floor of a market it is trading stock until the buyer actually buys it.

There are two ways in which trading stock can be valued: either include the cost of production or use the market selling price on the 30 June.

# Federal Government Report Urges Changes To Australia's Horticultural Sector

A Federal Government report on the viability of Australia's horticultural sector says it must quickly reshape itself into an outward-looking, dynamic industry or risk missing out on opportunities developing in the Asian region.

The report, *Strategies for Growth in Australian Horticulture*, was prepared by the Government's Horticultural Task Force under the chairmanship of Senator Nick Sherry.

Senator Sherry, who is Parliamentary Secretary to the Minister for Primary Industries and Energy, said there was an urgent need for the horticultural industry to look to developing Asian markets.

"The evolving windows of opportunity will not last for very long," Senator Sherry said.

"The Task Force believes that the value of Australian exports of fresh and processed horticultural products could be tripled to approximately \$2 billion by the year 2000—but not under the industry's present structure."

Horticulture is currently the second largest agricultural industry after meat. There are approximately 80,000 growers and a further 11,500 employed in fruit and vegetable processing.

The gross value of production is about \$3.5 billion annually, and exports were worth \$646 million in 1991/92.

Senator Sherry pointed out the value of horticulture to regional development—it is an important regional industry employing many thousands of people on a permanent and casual basis, and increased exports will make a significant contribution to Australia's regional development and employment.

The report also recommends the establishment of an appropriate group to oversee the implementation of the report's 61 recommendations for action by governments, the horticultural industry and statutory bodies.

Senator Sherry said the Task Force had identified six major issues that needed to be resolved if Australia is to become a major exporter of horticultural products:

- There is a need for substantially improved export marketing, and improvements in quality, promotion and reliability.

- The industry requires improved leadership across the whole spectrum of horticulture.
- There is a need for increased research and development, together with better technology adoption.
- The industry needs improved access to capital if horticulture is to compete on an equal footing with other sectors.
- The activities of the Australian Quarantine and Inspection Service are in need of reform.
- The industry needs to continually seek lower costs, while increasing production and marketing efficiency.

"The undoubted potential of Australia's horticultural industry will only be achieved through change at all levels," Senator Sherry said.

The Task Force has identified the Australian Horticultural Corporation as the organisation that should be charged with 'driving' the necessary changes.

"These changes aim to improve international competitiveness and export market development," Senator Sherry said.

Senator Sherry said Australia's horticultural industry was in desperate need of improved strategic leadership to steer it into an internationally competitive position.

"The Task Force supports the Horticultural Policy Council's move to pursue the development of nationally representative

peak industry bodies."

Senator Sherry said he had presented the Task Force report to the Minister for Primary Industries and Energy, Senator Collins, earlier this month.

The report is the result of a process begun in May 1993 when the Task Force set out to develop an export growth strategy for the horticultural industry based on the work of the Australian Horticultural Corporation, the Horticultural Research and Development Corporation and the Horticultural Policy Council. The Task Force was also asked to address the recommendations of the 1993 Industry Commission report on horticulture. Its members included high level representatives of growers, processors and exporters, who consulted widely with all sectors of industry throughout Australia to ensure all facets of the industry were examined.

The Task Force also examined the citrus and dried vine industries, and formed two working groups for this purpose. These reports have also been released.

Summaries of the reports are available by Fax—call (06) 272 5120. Copies of the Task Force report are available from Rohan Wilson of the Task Force Secretariat, telephone (06) 272 5677.

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# Australian Round-up



West Australia's 1993 avocado crop was down on the previous year. Some green skin varieties, such as Sharwil and Fuerte were more productive but Hass crops were mostly down. This

year's crop looks better and yields should be back to normal.

Pemberton and other south-west areas are becoming increasingly important as avocado growing areas. Hass avocados grown in this region command good prices being harvested through the late summer/early autumn months. Fruit is generally of excellent quality, with Hass tending to be slightly rounder than that grown further north.

Western Australia is becoming increasingly export orientated with large amounts of fruit being sent to the eastern states or southern Asia.

A feature of this past year has been the ability to fund more promotions and research due to a state levy which is in addition to the national AHC and HRDC levies.

Grade standards are currently being adopted for avocados in this state and these will be enforced over the coming avocado season.

Finally, it has been proposed that Western Australia host the next AAGF Conference. If this goes ahead, it will give many eastern growers a chance to witness some different approaches to growing avocados.



## President's Report 1994

During the last year our Association continued in a very similar way to the

previous year. Our work concerned mainly state issues and of course continued membership of the AAGF.

Generally, avocado production followed an Australia wide trend—production up slightly, prices holding and in parts improving, little or no talk of pulling out trees and indications of widespread new plantings.

The weather in NSW again stripped trees. There was some hail and very hot weather, and some trees felt the effects of drought.

In March 1994, the AAGF met in Brisbane. Bart Gannon from the AHC attended the meeting for the full 3 days. This move, engineered by Rob Mosse, has meant a better understanding of each others organisation.

Two motions will be put to this Annual General Meeting, one to reduce our membership fee to \$15 per year and the other to reduce the AHC levy to 11¢ per tray and increase the HRDC levy to 7¢ per tray. The first motion reduces the value of our State professional grower body to the equivalent of a tray of avocados per member per year. The second if approved would reduce promotion, reduce money flowing back from AHC and impinge on

the viability of the magazine "Talking Avocados".

However we do have trouble funding research and development. Last year Avoman was limited by insufficient funds and this year CSIRO, who have been developing a unique packaging system to protect fruit in transport and lengthen the shelf life, have had to abandon the project for avocados due to a lack of funds.

Since 1984 we have had funding problems caused by the lack of a reliable means of raising money. After much fact finding and discussion in the preceding years, members at the 1988 AGM recommended a Marketing Order to collect industry charges. At the 1989 AGM, after being told of the practical difficulties in getting a Marketing Order, it was resolved that this Association recommend to the AAGF that the Federation join the AHC.

Since those days the kiwifruit industry has shown how hard it is to collect money if you have no collection organisation. In contrast, the Levies Management Unit has shown what can be done if you have a collection organisation with teeth.

We have now reached a stage where members will have to decide what they need in NSW to represent their avocado interests and how it will be financed.

A special mention about Robert Mosse. Robert arrived in Australia in 1980. For most of the intervening fourteen years he has worked tirelessly for first the NSW avocado industry and then for the industry throughout our nation. Few would realise the work, effort and travel time he has put in, mainly behind the scenes. His departure from office is a loss to our industry.

## Avocado Levy Receipts/Payments 1993/94

The Table below shows the amount of avocado levies paid by growers in the first nine months of the 12993/94 financial year. It also gives the number of trays sold in each State equivalent to the levies collected.

The levy is predominantly paid by the "first purchaser" whose business may well be in a different State to the State in which the avocados are grown. For this reason, the figures will not accurately reflect production figures in each States.

State	AHC \$	HRDC \$	Total \$	Trays No
QLD	88,171	17,961	106,132	447,599
NSW	137,458	27,692	165,150	648,536
VIC	69,823	13,991	83,814	318,340
TAS	683	137	820	4,554
SA	18,686	3,737	22,423	128,028
WA	21,295	4,259	25,554	112,474
<b>Total</b>	<b>336,116</b>	<b>67,777</b>	<b>403,898</b>	<b>1,659,531</b>

## Results of Resolutions

The results of the two resolutions put to the Annual General Meeting (AGM) were the annual membership fee remains at \$50 for 1994 and the AAGF will be asked to consider increasing the HRDC levy to 6¢ and reducing the AHC levy to 12¢ per tray.

## Avoman Demonstration

After the AGM, an impressive demonstration was given of the powers of Avoman. Growers were shown how their property could be broken up into blocks for record keeping purposes and how Avoman recommends the application of phytophthora root rot treatment.

## SUNSHINE COAST

Whether we like it or not, we are becoming increasingly involved in Agro-politics—some examples follow.



### Avoman

This Project was never at the top of SCAGA's R&D priority list. But ever since it hit the top of the avocado pops list, we have given it wholehearted support. Eight months ago, we wrote to the Qld Minister for Primary Industries suggesting ways of minimising the effects of the crass idea of transferring the Project officer to a non-avocado area of the State (and we avoided the pitfall of trying to fight Alex's personal struggle with which we fully sympathise). As is inevitable in politics, the reply did not address our topic. The Minister told us that avocados have been generously treated up to now. We were bluntly told that avocado growers were failing significantly to contribute to R&D in this age of user pays. When our contribution matched the Queensland Government's contribution, we might be taken more seriously. We believe we know the identity of the drafter of the Minister's reply.

### Fruit Spotting Bug Project (FSB)

Fruit Spotting Bug is one of the Sunshine Coast's major avocado problems and has been our highest priority research item. Alas, this view has not apparently been shared by the R&D community. Prior to our letter to the Minister (above), we opened negotiations with the Co-operative Research Centre for Tropical Pest Management at Queensland University. We made an offer of a significant financial contribution to a suitable FSB project. We indicated that we would be prepared to repeat the payment later if results justified this. The offer was accepted in principle and an outline project description issued. The Project has also been put to the QFVG Avocado Subcommittee and is being considered by other affected crops. Yet here we are many months later with no detailed Project off the drawing board (or apparently anywhere near it). QDPI seems to have its claws into this one as well and our well-known Ministerial letter drafter does not appear to relish the offer of regional funds. The conclusion is inescapable that growers' wishes come a very bad second in the debate with the R&D community,

whether we put up the money or not.

### Queensland Fruit And Vegetable Growers (QFVG)

COD recently became QFVG in an effort to shed the appalling image achieved by the former by the late eighties. Exhaustive and expensive efforts were made to establish a majority view that the QFVG Board should be elected on a commodity representation basis. Ever since this result was achieved some 2 years ago, the vested interest white ants have attempted to reverse this decision to a Board elected on a regional basis (or at best a mixed commodity and regional representation). That would put us right back into the nineteenth century. SCAGA moved a motion at the recent QFVG Townsville Conference which required the Board to be elected on the previously agreed commodity basis.

In opening the Conference, the self same Minister for Primary Industry indicated that no matter how the debate went, he would require regional representation on the Board. Our motion got up by 245 to 165—a pretty convincing majority you might think. So where do we go now? The cynics are suggesting that QDPI is deliberately setting out to marginalise QFVG into a government puppet organisation rather than a grower representative body. Before saying that is too far fetched, Queensland Horticultural Export Council (a creature of QDPI Agribusiness) does not have QFVG representation. Even QFVG's request to have standing observer status has recently been denied. QFVG is becoming increasingly irrelevant yet the mugs keep on paying the levies!

### Pumicestone Passage

You may not have heard of it. Pumicestone Passage separates Bribie Island from the Queensland mainland about 60 km north of Brisbane. In conservation terms, it has taken a pounding over recent decades. The Bjelke Petersen government started to do something about it in 1982 and the Goss team resumed the struggle in 1992. The problem is people, the hordes of Mexicans (people south of the border) who are settling the catchment area together with the people-pollution problem which is being exported into the Passage from major population centres adjacent to the south. Having commissioned consultants to study the problem, government is only now belatedly consulting the people and is doing so in a most incompetent manner. Thus we find that us growers are castigated as major villains in the drama.

The consultants would have us take some very expensive counter-pollution measures when the detailed supporting study papers suggest that our pollution contribution is pretty modest. So we are being quite vocal to Queensland Department of Environment & Heritage in trying to strike the right balance between people and farm pollution. Just in case you question the relevance of this to the Australian Avocado Industry, we believe this episode could be a bellwether case which could be applied to the whole of Queensland. All state governments love landmark legislation which can be adopted by all states within the Commonwealth.

### Parish Pump Politics?

You may ask why you should be bothered with these local dramas. We would suggest that unless everyone takes considerably more interest in agro-politics at all levels, life will become increasingly hard no matter how highly skilled we may be in horticultural terms.

### WEST MORTON REGION

The West Morton Region is still in drought (early April) although the grass is green. There has been little water-making rain so the dams and aquifers remain empty or very low.

Following a good flowering most orchards in the Lockyer suffered a severe fruit drop in January with some trees losing 100% of their crop. This was a result of the prolonged heat wave plus drought conditions. Orchards up on the range were not as severely affected and most are carrying an average crop.

An interesting field day was held in the area recently with the "Barlow" Tower spray unit marketed by Hardi being demonstrated and compared with a conventional air blast sprayer set up for single sided application. The Tower sprayer gave excellent spray coverage in 8 metre high trees although it was difficult to justify the extra capital expense given the performance of the conventional sprayer. Scott Ledger and Alex Banks also gave presentations at the field day on the Market Surveys, Fruit Quality research and an update on Avoman.

Growers were very disappointed to learn that Alex Banks would be moving to Stanthorpe in April and were concerned that his replacement, yet to be named, would be on a learning curve with avocados for the first 1-2 years. Alex will be missed as he has made a positive contribution in this area both at a group and individual level.

# World News



## Good Prices For Early New Zealand Avocados

*From The Orchardist February 1994*

The avocado export season has made a good start with the Australian market returning good prices for New Zealand Hass.

About 50,000 trays had left NZ by Christmas, with returns varying from \$9-\$16 according to size, with the smaller 28 and 32 count returning \$9-\$12.

Almost 59% of the fruit was in the smaller sizes because of a late season and because many growers are holding back in order to pick when the fruit is in the bigger count sizes.

The export crop from NZ is expected to be about 300,000 trays.

Ron Bailey, President of the Avocado Growers Association, said the good prices for smaller fruit were the result of light volumes and lack of bigger fruit. When more big fruit arrives this would lower prices.

There was no Australian fruit on the market but it was expected to reappear in the third week of February.

When there was competition, some retailers would shift to Australian Shepard but others would stock both green skinned

and black skinned fruit. "That's actually a step forward, as I see it."

In-store demonstrations and good promotions were being done through the link up of exporters and supermarket chains. The Association was working this season with wholesalers as a follow-up to last year's education and promotion programs.

Australia is easily NZ's biggest export market for avocados but the industry is aware of the need to diversify and small volumes are going to a range of Asian countries.

Ron Bailey said exporters were including avocados in air consignments with other fruits such as summerfruit and vegetables such as asparagus. Sea freight was a problem at present because the cool chain in Asia was not always sophisticated and with high temperatures the likelihood of fruit deteriorating was high.

There was competition from the U.S.A. which was shipping in large volumes.

Another problem was postharvest treatment, as many Asian countries (excluding Singapore) did not have a maximum residue limit for Sportak.

Ron Bailey said HortResearch was doing work on alternative postharvest treatments that would guard against fungal conditions. The South Africans use chlorine and that was acceptable in Asia, so research was now evaluating whether this would prevent stem end rots and anthracnose.

It was hoped to trial this treatment early this year.

For Asian markets without MRLs for Sportak, NZ fruit was vulnerable in high temperatures without postharvest treatment.

Coolchains were becoming more sophisticated in Asia and this would make sea freight a feasible option for exporters.

## NZ Statistics

The following statistics on avocados have been extracted from the publication, Fruit Research In New Zealand (1993) published by the Fruit Research Council.

- Number of avocado growers in 1992 - 900.
- Planted area in 1992 - 1400 ha.
- Production - 7,000 tonnes.
- New Zealand exports 40% of their avocado crop, with Australia taking 96% of exports.
- The industry has a strategic plan and a vision for the future.
- The industry is attempting to become quality driven.
- The research budget is \$361,000 against a production of \$15.6 million, 36.8% funded from industry.
- The 40% of avocados exported earn half as much again as those sold on the domestic market.
- The industry is endeavouring to work closer with the Australian industry.
- Considerable progress has been made into solving the major problem of postharvest rots. (*Market surveys in Australia throw some doubt on this statement. Ed*)

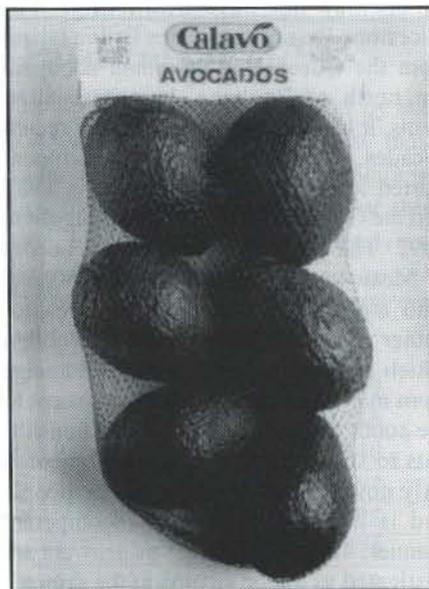
## Mesh Bags

In the U.S.A., Calavo have introduced Mesh Bags, an innovative product packaging that's sure to change the way avocados are sold. Doing for avocados what the six pack did for beer.

The bags are UPC coded, are shipped in cartons or bins and cater for varying fruit sizes.

The bags contain 4, 5 or 6 pieces of fruit and weigh between 680 gm and 1800 gm depending upon fruit size.

Calavo maintain the innovative bags give customers a unique opportunity to buy avocados in multiples, which increases sales and hence profits.



## Heart Foundation Tick

The AAGF recently approved the use of the National Heart Foundation Tick logo on packaging materials and fruit stickers. As there are strict guidelines attached to the design and use of the Heart Tick, the AAGF is organising the design and production of stickers to suit the major applicator guns used in the industry, and will have these available in the near future.

To preserve the integrity of the Heart Tick and the stickers, the stickers should only be used on First Grade fruit. Growers are reminded that the "Tick" is copyright and the right to use the logo belongs to the Federation.

The cholesterol free sticker campaign of a few years back was very success. Why not make this year's Heart Tick campaign just as successful by using the "Tick" stickers whenever possible!

The stickers will be available for:

**METO GUNS** - \$3.20 per roll of 1000 stickers. Contact Debra Oldfield, Qld Sales Representative, Esselte Meto, Phone 015 152276 Fax 07 857 4624.

**SATO GUNS** - \$3.40 per roll of 1000 stickers. Available from Label Press 008 773207.

Any queries please contact the Executive Officer of the AAGF.



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## Bite The Hand That Feeds It

By Tony Cavallaro, Bundaberg Region Horticultural Magazine, September 1993

Once again this district (Bundaberg) has suffered from the effects of oversupply of many lines of produce. Near perfect weather and modern growing technology ensured a plentiful supply of quality produce. Faced with reduced incomes, many growers are likely to reduce plantings while some may cease altogether. As we have a limited market, prices can only rise when supply equals demand.

What a pity Australia doesn't have a few cities the size of New York or Los Angeles to feed. What a greater pity that we find it difficult to export our surplus to high population areas, especially as we have these areas right at our doorstep.

South East Asia is only a stones throw away and has become the worlds fastest growing economic region. Hong Kong, Singapore, Taiwan, South Korea, Thailand, Malaysia and even Indonesia have all recorded good annual growth figures, some as high as eight percent, and are rapidly moving from third world poverty to first world prosperity.

Taiwan has launched a \$436 Billion, six year plan for the construction of highways, railways and power plants. By 1996, Thailand plans to triple the number of telephones in service. Malaysia is building two 25 kilometre monorail routes at a cost of \$1.1 Billion, and Indonesia has spent millions expanding the intra island

air network and modernising the port of Jakarta.

It is interesting to note that these countries have adopted a similar economic philosophy "low personal taxes and incentives to private business". Ours can be best described as a "bite the hand that feeds it" philosophy.

We already have trade relationships with these countries and most of the consumer goods we

have in our homes are made there. They are among the best producers of these goods in the world. We are among the best producers of agricultural products in the world and we need to get our products into South East Asia.

What a pity our politicians are not among the best producers in the world. They may have been able to help us.



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## Office Management - A Part Of Farm Management Often Forgotten

One parts of farm management often overlooked is office management. Growers are used to managing cultivation, fertilisation, pest control and harvesting, just to name a few, but are they good office managers?

Talking Avocados will feature a series of articles on office equipment which will assist with the management of your organisation's paperwork. In this issue facsimile machines will be discussed, their installation, requirements, use, cost, all will be revealed.

Computers will be the subject of the next issue. In particular, what you as a farmer should be buying to run the Avoman program when it is released next year.

This will be followed by articles on computer software, such as operating systems, financial management, using a database and the need for a word processor.

To many, the thought of a computer sends a shudder down the spine. "It's too

hard," or "I'm too old," are often the replies when a computer is suggested.

Not so! The excuse: "I haven't got time to learn to use it," may be accepted, however, when you see how much time it can save, perhaps even this excuse is not valid.

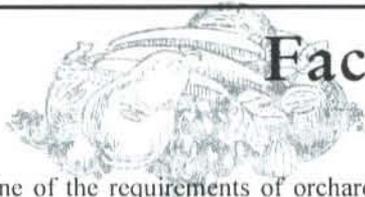
If approached the right way and with the right attitude, a computer system can be easily installed without hassle and used by those who have no knowledge of the technology. Computer companies have realised that to be generally accepted as a tool to assist the user, a computer has to be made as easy to use as any of the white goods found in your house, such as a washing machine.

You would be surprised at how many hours can be saved by having a computer to record and manage your accounts. How about 10 minutes to calculate payrolls for 8 workers, calculate the tax to withhold, calculate the superannuation to deduct,

The AAGE recently approved the use of the National Heart Foundation Tick write their pay slips and pay them by cheque, as well as adjust the balance of your bank account. Yes, all this in just 10 minutes. By the way, the computer can also pay the taxation office and superannuation company by cheque at the end of the month, this only takes 5 minutes. Another plus, you don't even have to address the envelope, it is done automatically. You can't even put the cheque in the wrong envelope!

These articles will be written for the grower who has no knowledge of the subjects concerned, those that do should find them very easy to understand.

These articles will lead up to how to use Avoman as a management tool. You and hopefully by then your computer, will be able to manage your orchard in a better and more professional way. Just goes to show what good office management can achieve!



## Facsimile - The Basic Facts

By Orf Bartrop

One of the requirements of orchardists in this day and age is to be able to communicate speedily and accurately with suppliers and agents with the least amount of fuss as possible. Up until now, the telephone has served this purpose but as requirements change so must the method of communications.

The increasing requirement to be able to send and receive documents quickly grows day by day, and while Australia Post does supply a postal service, its speed and reliability leave much to be desired. A faster service is necessary and the device to do it is a personal facsimile machine.

### Grower Requirements

One of the requirements when selling produce to a merchant is that a price must be agreed between the grower and the merchant, a price that later cannot be disputed. Arranging a transaction over the telephone could lead to a legal argument as to the agreed price—it would be the grower's word against the merchant's. A letter from the agent only reflect his

understanding of the price and anyway, it would be delivered well after the produce had been sold.

Another area where documentation would assist is when a piece of farm machinery breaks down and the only way to identify the part is to remove the old one and take it to town. With luck, a new part will be in stock but usually another trip is required to pick it up when it arrives from the supplier.

Both these events can be simplified and streamlined by the use of a facsimile machine or Fax as it is more commonly called. In the first scenario, a signed document forming a price agreement between grower and agent could be in the grower's hands minutes after the agent receives delivery of the produce. In the second, a diagram could be Faxed to the grower from the manufacturer which showed a breakdown of parts thus aiding in identification of the required part.

There are many other areas where a document transmission capability is of benefit. Receiving crop information from

the District Horticulturist, obtaining a detailed weather report, sending and receiving letters, automatic reception of market price information, and forwarding signed documents are but a few of the uses to which a Fax can be put.

### What is a Fax Machine?

A Fax is a machine which sits on a desk or table and is capable of sending or receiving documents up to A4 size over a telephone line (one page of this Journal is A4 size).

Any written or printed material such as quotes, orders, diagrams can be sent to, or automatically received from, any establishment with a Fax machine. A Fax can handle single or multi-page messages.

Technical developments have been so dramatic over the past two decades that the price of Fax units is now quite reasonable and their capability fits in well with the needs of the man on the land.

Most machines offer a variety of options but this article will concentrate on the so

called "personal" Fax machines in the price range \$1000 to \$2000.

### How does a Fax Work?

A facsimile machine can communicate with another facsimile machine via a telephone line, just as two people communicate using the telephone. While the operating principle is the same, the Fax instead of speaking over the telephone transmits images of printed matter.

The Fax scans the document, converts the image into electronic signals and transmits the result over the telephone line. The receiving Fax converts the electronic signals back into an image and prints it out using a built-in thermal printer.

### For The Innovative Grower

Why be saddled with the same old response from your answering machine? Be innovative and try something new. Here are two examples that may help break the monotony:

"This is the microwave answering. The answering machine is broken but I will take your message after the beep."

"I'm down in the paddock picking fruit. I would prefer that you came over and gave me a hand, but if that is not possible, please leave a message after the beep."

### Installing a Fax

Installation is as simple as plugging the machine into a telephone socket and power point.

There are three options available to connect a Fax to the Telecom Network:

1. an existing line can be used by installing a separate socket;
2. a double adapter plug can be used to share a common outlet; or
3. a new line can be installed.

Options 1 and 2 require a switch so that the Fax machine can be isolated while the telephone is in use. The switch can be either manually operated or an automatic switch which senses the difference between a Fax call and a voice call and switch the line appropriately. Most Fax machines come with a built in automatic switch.

A new line (option 3) will incur an installation fee and an annual rental similar to your current telephone, whereas options 1 and 2 only incur minor costs.

If the Fax does not have an "auto dial" feature or a built-in telephone handset, a telephone will have to be co-located with the Fax to initiate contact with the receiving unit. A double adapter will allow the telephone and the Fax to share the same outlet.

### Operator Training

While a Fax machine represents advanced technology, all the operator has to understand is some very simple instructions such as, how to put a document to be transmitted into the machine, how to dial the receiving unit and how to load paper into the machine. Units with more advanced features like memory, automatic timer transmit and photocopying, require a little more understanding to use.

### Special Stationery

Messages for transmission may be presented on most types of paper but those on thin paper such as airmail weight, business cards or small notes which might jam the machine, should be avoided or put into a transparent plastic envelope (usually supplied with the machine).

Personal Fax machines use thermal paper for incoming messages in 30 or 50 m rolls, a 30 m roll is equivalent to about 100 pages.

One drawback of thermal paper is that the print is not permanent, the paper tends to darken with age. If a permanent copy is required or the message needs to be retained for longer than a year or two, the message should be photocopied onto plain paper.

It is important to correctly store thermal paper in a cool dark area such as in a drawer or filing cabinet; it must be kept out of sunlight and away from heat.

### What are the Running Costs?

The running costs of a Fax machine can be divided into two areas, cost of thermal paper and transmission charges.

While the cost of a roll of thermal paper varies depending on quality and supplier, typical prices are:

30 m = \$6.65

50 m = \$8.45

which is equivalent to approximately 6¢ a page.

The cost of transmitting a Fax message is the same as making a telephone call for

the same duration over the same distance. Table 1. shows typical transmission charges in dollars from the Gold Coast to Sydney. A Local transmission regardless of time or the number of pages is 25¢.

Fax transmission charges will appear as local, STD or ISD charges on a normal telephone account. A record of an outgoing transmission needs to be kept if the cost is to be claimed as a business expense unless all telephone calls on the same line are business calls.

### What Affects Transmission Speed?

As the main operating cost will be transmission charges, the speed at which a machine can send and receive documents will dramatically affect overheads. If a lot of documents are being transmitted long distance, interstate or overseas, speed is important, but if most are local, then transmission speed is irrelevant.

Because of the variety of factors which affect transmission speed, there is no such thing as hard and fast timing, regardless of what claims are made by suppliers. For example, claims that the current range of machines can transmit an A4 page within 10/20 seconds do not take into account, for example, the "advising" time before transmitting, or the "post message" time after receiving. The most realistic timing should take into account this setting up period.

As a facsimile scans literally every mark on a document for transmission, naturally the amount of "copy" whether it is typing, artwork, lines, company logo, even an accidental blob of ink, will take longer to transmit than a document with only a small amount of information on it. Colours cannot be transmitted but are converted into shades of grey which marginally increases transmission time depending on the sophistication of the shading system.

As a rough rule of thumb, allow forty seconds to one minute to transmit one full page.

### What Facilities Does a Fax Have?

Some of the features offered with a Fax machines are:

▶ 14

**Table 1. Typical cost in dollars for sending a 1, 2 or 3 page Fax between 165 km and 745 km (Gold Coast to Sydney).**

	Time	1 Page	2 Pages	3 Pages
Day	8.00 a.m. - 6.00 p.m.	0.37	0.61	0.85
Night	6.00 p.m. - 10.00 p.m.	0.30	0.50	0.75
Economy	10.00 p.m. - 6.00 a.m.	0.25	0.32	0.50

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- on-hook dialing which allows the sender of a Fax message to dial without the need to lift the built-in telephone receiver or use the normal telephone;
- programmable memory dialing which allows preprogrammed telephone numbers to be dialed by pressing one or two buttons;
- music on hold gives the listener a melodious tune while the Fax is attempting to establish communications with a receiving unit;
- built-in answering machine which will automatically answer the normal telephone when the instrument is left unattended;
- memory for storage of documents, usually only available on the more expensive models but it does allow multiple transmissions of a document and can save a received document if the paper runs out;
- paper cutter which cuts the paper into sheets once a document has been printed, thus allowing a more orderly collection of incoming messages; and
- a photocopy facility which allows documents to be reproduced.

### Things to Look for when Buying a Fax

It can be quite confusing to the buyer with such a large number of brands and models on the market, each with its own attributes. How does one decide which

machine to buy?

The following suggestions are made to assist the first time buyer but there is no substitute for personal research to ensure that the machine selected is the most suitable.

**Quality of print** Probably one of the most important aspects in owning a Fax is to be able to easily read its output. Ensure that the quality of output is acceptable.

**Switching** "Personal" Fax Machines are made to use existing telephone lines, therefore consider a machine with an automatic Fax switch, it is the only way to ensure a message comes through on an unattended machine. Beware of the semi-automatic switch, it may not do the job. Separate automatic switches are available for an additional cost of \$100 to \$330.

**Paper Cutter** Having to cut up messages from a long stream of paper is not desirable and an automatic paper cutter is a very worth while feature. Some lower cost models may not have this particular facility.

**Preprogrammed Dialing** Dialing the receiving station can be tedious and time consuming, especially if the telephone number does not come easily to mind. A built-in dialing facility with fast number recall is a facility well worth having.

**Photocopy** Most machines have a photocopy capability. The quality of reproduction is not that good but could be useful under certain circumstances. Don't be conned by a salesman who emphasizes

## Message Stopper

If there is an extension telephone on your line, this device is the essential minimum. It is especially useful where there is a Fax machine with a built-in Fax switch. A Message Stopper lets you pick up the phone on any extension and take control of the call.

Without a Message Stopper the phone may ring only a few times on the extensions and then continue ringing only on the Fax machine. The call has to be picked up on the Fax machine. Calls on other extensions may hear Fax tones during phone conversations.

With a Message Stopper installed, if a Fax tone is heard and the phone is quickly put down, a Fax can still be received. Interfering Fax tones will not be heard while talking on another extension.

The Message Stopper is connected directly into any telephone plug and your Fax into the Message Stopper. It is available from Tamco (02) 905 1370 for \$39.

this photocopying capability.

**Transmission Speed** The speed of transmission is not as important as would be thought. Most machines run at a reasonable speed but because of the variety of factors which affect overall transmission time it is difficult to determine exact timing figures. Have the sales person transmit a page to Sydney and note the time it takes.

**Memory** The requirement for a grower to send multiple documents or automatically transmit late at night really determines the need for a machine with memory. As long as the machine is kept supplied with thermal paper, there is little to be gained from having a machine with memory.

### Buying a Fax

Machines vary in price depending on the facilities offered, however many firms offer good discounts of up to 25-30%. Make inquiries and shop around.

Some communication firms are buying second hand machines from bankrupt small businesses. Although some machines are refurbished before being offered for re-sale, insist on some sort of guarantee that the machine is in good working order before buying.

## Separate Fax Switches

How often do you telephone someone with a Fax or answering machine and hear a recorded voice telling you that: "This is so-and-so's residents and the phone is unattended. If you are sending a Fax, push your start button now. If you wish to leave a message...." The first time you hear it, it is interesting, after that it becomes time wasting and annoying.

These annoyances can be overcome by having a separate Fax switch and not using the one on the machine. Modern technology in stand alone switching devices seems to be more advanced than on Fax machines, although some may now be equipped with advanced switching.

A separate Fax switch shares a line between a Fax and an answering machine or telephone. It needs a telephone plug and a power socket and must be connected to the primary telephone

plug, not an extension outlet.

Easy-Connect Plus is one such product. It costs \$329 and it is an intelligent, transparent device. The caller does not hear anything besides the normal ring of the telephone and the message of the answering machine (if there is one).

If it is a telephone call, all extensions ring; the phone can be answered from any extension as though no device were in use. To receive an old-style manual Fax, once the transmitting station presses the start button the switch automatically transfers it to the Fax machine.

If the call is from an automatic Fax machine, the switch will detect this and transfer the call to your Fax machine.

The Easy-Connect Plus is manufactured in Australia and is available from Tamco (02) 905 1370 or National Communications (075) 945128.

## Avoman Gets A New Leader



*By Simon Newett for the Avoman Project Team*

As many of you will probably be aware Alex Banks has recently been transferred to Stanthorpe. Alex fought long and hard against this transfer but in the end was left with little choice.

I have taken over from Alex as the project leader and through this article would like to take the opportunity to introduce myself and, on behalf of the Avoman team, to acknowledge and pay tribute to Alex's hard work, leadership and enthusiasm for the avocado industry and in particular the Avoman project. Alex's efforts have undoubtedly played a big part in the ongoing success of the Avoman project and we wish him and his family well for their new life in Stanthorpe.

Alex has left big shoes to fill but I am enthusiastic about the challenge and confident about the outcome.

A brief note about my background. After being raised on a farm in Rhodesia,

graduating with a BSc Agric (Hons) from the University of Natal in South Africa and completing my National Service in Rhodesia, I emigrated to Australia in 1980 and joined the staff of CSR Ltd as an agronomist.

I spent a year working in sugar cane and the ensuing ten years with the company's macadamia interests (now owned by Arnotts and operating as "Macfarms"). My responsibilities with Macfarms were as the horticulturist and in orchard and nursery management.

In 1992 I joined the staff of the DPI as an extension horticulturist and have been working mainly with pineapple growers. Shane Mulo (Avoman team) and I have been working closely to develop Avoman's close relative Pineman.

Although I have limited direct experience with avocados, I believe my ten years in the macadamia industry will

stand me in good stead for another tree crop.

I am enthusiastic about the opportunity to get involved with a project as dynamic as Avoman and I look forward to meeting and working closely with members of the Australian avocado industry to achieve the objectives of this forward thinking project.

The Avoman project is forging ahead, I already find myself involved in planning grower training sessions for the important growth cycle recording exercise (more about this in the accompanying article) and in planning for the first release of the prototype software.

I can be contacted at the same location as Alex was, namely the Maroochy Horticultural Research Station in Nambour on (074) 412211, Fax (074) 412235.

I look forward to hearing from any avocado grower with a problem.

## Avoman Training Sessions For Tree Growth Recording

*By Simon Newett, for the Avoman Project Team*

Many growers in regional productivity groups throughout the country last year received growth cycle recording kits. These kits, which were produced by the Avoman project team, will be used by growers to record seasonal changes in tree growth on their own farms. This information will be used to develop growth cycles for a wide range of varieties in many growing conditions throughout Australia.

While many growers did not receive these kits in time to begin recording growth last season, this year most will start recording when flower stalks appear. To help growers accurately identify specific growth stages throughout the season and to ensure consistency of recording, the Avoman team will undertake a series of training events. Avoman team members will be organising training sessions for members of regional productivity groups and other interested growers in the near future. Contact your local team representative for more details.

The DPI's resident avocado Guru, Tony Whiley is currently honing the growth monitoring skills of the Avoman Extension team so that they can train groups of avocado growers in their respective regions. Training sessions will be timed to coincide with growth events for specific varieties in each of the major growing regions. Shepard growers will kick off with sessions on the Atherton Tableland in May.

The results of this recording work will be analysed by the Avoman team and used to produce new growth cycles for avocado varieties throughout the country. This information will eventually find its way into an Avoman publication on varieties as well as the growth management component of the Avoman software.

If you do not currently have a growth recording kit and would like one, contact your nearest Avoman team member or call Simon Newett at Maroochy Research Station on (074) 412211. The kits cost

\$5.00 each and one kit is all you need for a season. If you wish to record growth for more than one variety, please let us know how many recording sheet multiples you require and we will insert them into your kit.

### Tweed/Brunswick Field Day

An avocado Field Day will be held at the property of Graham Anderson, Duranbah Road Duranbah on 15 June commencing at 1.00 p.m.

Avoman, pruning and canopy control will be discussed. A Joint meeting of the Tweed and Brunswick Branches will also be held.

Those wishing to attend should turn off the Pacific Highway at the Avocadoland sign south of Chinderah.

# Recycling Strategy Gives Extended Life To Polystyrene Produce Boxes And Trays

By David Hilliard, Advertising and Marketing Consultant

Disposal of used expanded Polystyrene produce boxes has been a major problem for both raw material producers and manufacturers of boxes. Indeed, the problem was a growing one, owing to the ever-growing demand for polystyrene containers.

The introduction of permanent compactor units in Brisbane, Sydney and Melbourne signals the start of a comprehensive waste minimisation and

recycling strategy initiated by the Expanded Polystyrene industry.

The two year program will see styrene box compactors operating in key areas throughout Australia.

The compactors significantly reduce the volume of produce boxes, making for easy and economical transport to recycling facilities. The crushed polystyrene can be extruded to form pellets for injection moulding of a wide range of products.

The outstanding user and environmental benefits of this new system are significant. First, the system is justified by its own economics; then there is a huge reduction in waste materials going to council tips; and, most importantly, it largely eliminates disposal costs for markets, major chains and retailers. In a nutshell, the compactor recycling strategy means that there is life after life for expanded polystyrene produce boxes!

## Growers Should Use Polystyrene Boxes

By Ross Richards, Renmark

All growers by now should be aware that up to 30% of reject fruit in Scott Ledger's QDPI samples from retail stores were bruised. Some of this in the farm but much must be subsequently acquired in transport, wholesale markets etc.

If you are not already aware, wholesalers stack your boxes in "sevens" for effective ethylene treatment and cooling. Not only is this one additional handling but it causes boxes to be stacked such that the weaker parts of the box are carrying the load.

The box by this stage is weaker because

of the humidity caused by the fruit evaporating 1% of its weight each day (blame the weatherman but he is not causing all the humidity). This is bad for the avocados particularly if they are packed in a 90 mm (inside depth) box which fitted the fruit nicely when it left the farm.

If you haven't changed to polystyrene boxes now is the time—100 mm should be the minimum size and cross locking the style.

The advantages of polystyrene boxes are:  
1. They cost less than the equivalent cardboard carton, a saving of 47¢ each

in my case.

2. No cost to make, cardboard carton cost approximately 10¢ each.
3. The stacked pallet in any configuration is more stable than any strapping or wrapping method, however, make sure the top layer is held down.
4. Stacking may be 6, 7 or 8 in each layer on a pallet. Stacking with 6 in one layer and 7 in the next makes magnificent air channels in both directions for cooling. Ask your wholesaler, he'll love you for using it!
5. Completely recyclable if polystyrene label are used (there are two makes available) or details are screen printed on the box at manufacture.
6. There are recycling plants at Sydney, Melbourne and Brisbane.

The disadvantages of using polystyrene boxes are:

1. The boxes occupy considerable storage space.
2. In some locations, freight costs may be higher than for cardboard boxes.
3. Paper labels cannot be used because they affect the boxes' recyclability.
4. There is a cost involved in using polystyrene labels, albeit less than the cost of constructing a cardboard box. Screen printing by the manufacturer is cheaper than stick on polystyrene labels.

Polystyrene boxes help to overcome some of the problems mentioned in this article, so why not change to this type of packaging the next time you order and help prevent damage to your fruit!

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- The lightweight, easy-to-handle qualities eliminate time wasting stapling and assembly.

- The clean, white finish of the boxes provides excellent presentation and sales appeal.

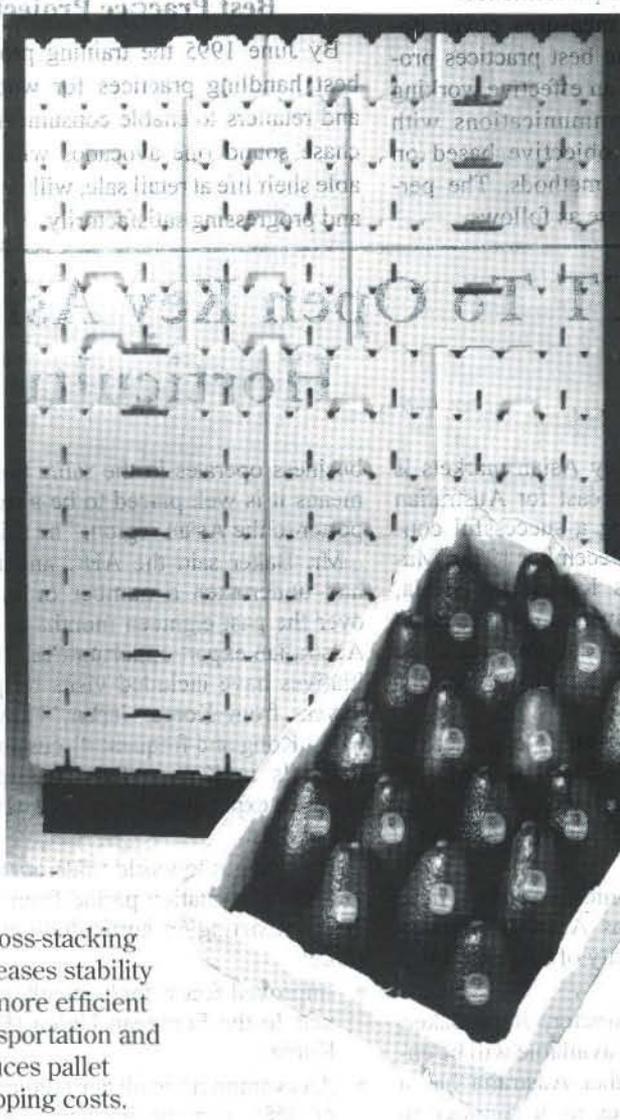
- The outstanding thermal efficiency of EPS ensures the products retain coolroom freshness and out-turn for optimum prices.

- Grower or produce identification can be readily achieved by either screen printing or self-adhesives.

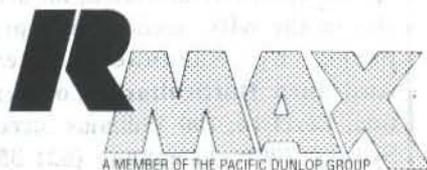
- RMAX Styros contain no CFCs.

- Used avocado Styro trays can be collected and recycled.

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- Cross-stacking increases stability for more efficient transportation and reduces pallet wrapping costs.



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## Performance Measures Agreed For AHC

In the past, there has been some concern about the performance of the AHC. At a recent meeting with the AAGF Committee, the AAGF and AHC agreed to a set of interim performance objectives and measures prior to industry strategic planning later in 1994.

The objectives and measures have been agreed upon by both parties to ensure each is aware of expectations and to assist in measuring the AHC's performance.

The performance measures cover domestic marketing, the best practices project, development of an effective working relationship and communications with evaluation of each objective based on agreed measurement methods. The performance objectives are as follows.

### Domestic Marketing

The AHC is to develop a national promotion strategy for 1994, incorporating advertising, promotions and PR which progresses towards priorities established from consumer market research. Performance measures are to be agreed with QFVG, AAGF and AHC and include development of a report by QFVG and an AHC report to the marketing forum.

### Best Practice Project

By June 1995 the training program in best handling practices for wholesalers and retailers to enable consumers to purchase sound ripe avocados with acceptable shelf life at retail sale, will be in place and progressing satisfactorily.

### Effective Working Relationship

During 1994 and 1995 the AHC will regularly attend AAGF general and executive meetings in order to improve the working relationship and to maintain clear lines of open and frank communication.

### Communication

The AHC is to ensure publication of four issues of Talking Avocados in 1994 and 1995 in order to aid the transfer of technology to growers, to keep them abreast of industry issues and information and to update them on AAGF and AHC activities.

Following a review of the Avocado Industry's Strategic Plan later in 1994, additional objectives may be included for 1994/95.

## GATT To Open Key Asian Markets For Horticulture

Market access to key Asian markets is the major benefit forecast for Australian Horticulture following a successful conclusion to GATT in December 1993. Major markets such as Korea, Indonesia, Japan, China and Taiwan are expected to open up between 1995 and the year 2000 providing significant opportunities for Australian exports.

In Europe, competition is expected to intensify as tariffs decrease but it will remain an important market for Australian products such as pears, stonefruit and mandarins.

However on the domestic market, little impact is expected as Australia already implements the majority of rules set down by GATT.

AHC Managing Director, John Baker, said the opportunities available will be enhanced by the fact that Australia has a number of advantages as a supplier to Asia—a region with some of the fastest growing economies in the world.

"A major advantage is Australia's ability to produce counter seasonal to the Northern Hemisphere. And while this is also applicable to other major Southern Hemisphere countries, Australia's close proximity to Asia and the fact that

business operates in the same time zone, means it is well placed to be a major exporter to the Asian region," he said.

Mr. Baker said the AHC and industry had undertaken a number of initiatives over the past eighteen months to support Australian export opportunities. These initiatives have included visits by produce buyers from Korea, Japan, Taiwan and Hong Kong and frequent discussions with officials in Korea, Taiwan and Japan aimed at expanding Australia's export opportunities.

The changes to world trade over the six year implementation period from 1995 to 2000 impacting on horticulture are to include:

- Improved access for horticultural products to the European Union (EU) and Korea.
- An average cut in all agricultural tariffs of 36% over the implementation period.
- A 20% cut in domestic support measures used by governments to subsidise farm production and incomes (exceptions are assistance measures such as disaster relief, research etc.).
- A dramatic reduction in subsidised farm exports.

- A cut in tariffs by 20% by the EU and a structuring of import arrangements in a way which lessens their disruptive effect on trade.
- A reduction of impact by seasonal tariffs.
- Development of a program by Korea to bring its border measures into GATT conformity.

Other benefits from GATT will include a global uniform approach adopted for sanitary and phytosanitary standards, import bans replaced by tariffs and agreements in place for tariffs to gradually decline.

Non-GATT members such as China and Taiwan who are seeking GATT membership will have to open their markets which are currently banned to a range of horticultural imports.

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.



## What Is The AHC

*From Bundaberg Region Horticultural Magazine, September 1993*

The Australian Horticultural Corporation (AHC) was established by an act of parliament in 1987. Other bodies also established by similar legislation have been the Horticultural Research and Development Corporation (HRDC) and the Horticultural Policy Council (HPC) (The Queensland Fruit and Vegetable Growers organisation also operates through an act of parliament passed in Queensland in 1923).

The principal object of the establishment of the AHC is to assist Australian horticultural industries to achieve their full potential in overseas markets with other objectives including assistance with the development of these industries. AHC sees its purpose as providing leadership in marketing, enabling Australian horticulture to develop a competitive advantage on export and domestic markets. Its values are based on customer service, a results initiative and a focus on quality.

Much is being made at the present time on the need for quality assurance. It is the goal of the AHC to be the first statutory marketing authority to achieve quality certification to the International Standard as a service business, as the first step in the Corporation's Internal quality management program. The AHC sees this certification as an objective measure of the program to:

- Improve customer service.
- Improve performance.
- Improve its cost effectiveness.

(The Bundaberg Association can vouch for the quality of the service provided in its dealings with the AHC.)

The bulk of the Corporation's finances for marketing programs comes from levies contributed by participating industries on a national basis and from the Commonwealth Government for industry wide programs. There also is a fee-for-service work undertaken for non-participating industries.

Marketing programs for the ten participating industries are based on strategic plans, undertaken by each industry and co-ordinated by the AHC. From the plans come industry objectives and priorities, set by each industry. These are then followed by marketing programs, developed and implemented by the AHC which then account to each industry for the results and performance of these programs.

Marketing Forums comprising representation from growers, packers, exporters, processors, retailers and state or regional interests are essential to the development of marketing programs. The marketing forums provide industry opinion into the direction and methods used.

Programs, where all of horticulture is an equal beneficiary, are funded from the AHC's Corporate and Government funds. These programs include:

- Market intelligence and research.
- Market access.
- Quality.
- Raising Australia's international profile

In all the AHC programs and objectives, performance measures and indicators are developed and identified in the Corporation's Corporate Plan.

Two particular programs where new ways of measuring effectiveness have been developed, include the domestic apple campaign and the 100% Australian orange juice campaign.

With the apple campaign AHC were able to measure the increase in apple sales through access to supermarket check-out screening data and were also able to access similar sales data on product involved in the fresh juice campaigns. In both cases AHC were able to measure the success of the campaigns.

As previously stated, the purpose of the corporation is to provide leadership in marketing, enabling Australian horticulture to develop a competitive advantage on export and domestic markets.

AHC Board Member, Jack Sumich, has paraphrased the Corporation's purpose to "creating the environment to make things happen".

### Who Is In The AHC

The industries that are members of the AHC are:

Apples	Pears
Citrus	Nursery
Nashi	Chestnuts
Macadamias	Avocados
Honey	Dried Fruits

## New Export Development Manager Focuses On Clean Food Promotions

Neil Offner has been appointed the AHC's Export Development Manager responsible for managing the AHC's export programs and promotions, market access activities, bilateral relations and relations with exporters.

Neil has significant experience in horticulture and quality and has previously held positions with the Dept. of Primary Industries and Energy, AQIS and the WA Dept. of Agriculture.

One of his key projects will be the man-

agement of the AHC's participation in the Federal Government's \$6 million Clean Food Export Promotions in Taiwan throughout 1994. Eleven horticultural exporters, the Australian Apple & Pear Growers Association, and the Macadamia industry are joining with the AHC to promote Australian horticultural products. The exporters investments are boosted by the Government which matches their contribution with equal amounts of generic horticultural promotion.

The AHC decided to participate in the Government's program as it mirrors the objectives of the AHC's Australian Produce Identification Programme (API) initiated after AHC research in South East Asia in September 1992. The research showed that consumers in South East Asia have a high regard for Australia and Australian produce, but were unable to clearly identify Australian produce and had no loyalty to any brand or packer from Australia.



## Videos Added To 1994/95 Promotions

Avocado promotions are to benefit from the use of in-store videos during 1994 and 1995 extending the benefits of the in-store demonstration program. Avocados will feature with other products on a video program being developed by Queensland Fruit and Vegetables (QFVG) to run in 160 stores in Brisbane, Sydney, Melbourne, Adelaide and Perth educating consumers about fruit and vegetables.

The AHC has again contracted QFVG to undertake the majority of promotions for Avocados during 1994/95. The campaign valued at \$150,000 emphasises varietal differences and how to pick ripe avocados. It will build on the "Delicious all year round" theme of last year educating consumers about the availability, versatility and simplicity of Australian avocados.

The AHC will continue to promote Avocados with other AHC participating products, maximising exposure for all

products on TV programs such as the ABC Consuming Passions and the Channel 9 What's Cooking.

Funds have also been allocated to South Australia and Western Australia to continue their State promotions of avocados.

The use of the new in-store videos will be supported by in-store sampling using demonstrators, merchandising, point of sale material i.e. posters and recipe leaflets, development of public relations activities directed at food media and consumers, and an education program explaining the nutritious value of avocados for babies.

The in-store video program will be similar to popular TV programs such as Healthy, Wealthy and Wise and will include a nutritionist introducing the segment to explain the nutritional benefits, varieties, availability, selection, storage and handling of avocados. This will be

followed by a home economist demonstrating uses through recipes and offering handy preparation hints.

The 30-minute tape will run continuously throughout the shopping day and will be changed every two months. It will consist of one minute segments focusing on different aspects of six different commodities. Each commodity will have a total of five segments distributed throughout the tape so that shoppers will be able to pick up useful information each time they shop.

One benefit of the in-store video system will be its ability to reach consumers during opening hours when demonstrators are not available. Chain stores such as Woolworths, Bi-Lo, Festival and QIW as well as independent stores around Australia will install the video monitors in their fruit and vegetable sections aiming to influence the buyer at the time of purchase.

## The Marketing Edge - Profit From A Global Perspective

The AHC is holding a conference for leaders in the Australian Horticultural industries to highlight the challenges and opportunities influencing future business growth in Australia and overseas.

The conference, *The Marketing Edge - Profit From A Global Perspective*, is to be held in Sydney from 27 to 29 June. It will cover a broad range of issues and includes presentations from speakers from Australia, Asia, Europe and the U.S.A.. However an important part will be the rare opportunity for delegates to meet, discuss, share information and learn from other horticultural businesses.

The highlights of the conference are:

- Australia's Prosperous Future.
- The Changing marketplace featuring the challenge in Asia, the US market and consumption patterns, European forecasts for supply, distribution and consumption, and opportunities in the convenience market.
- New Trade rules - the implications from GATT and other trade agreements.
- The competitive response featuring an overview of Chile and lessons for Australia.

- Prosperity from new markets by Seeking and planning markets and products.
- Australia as a strategic resource base beyond the year 2000.
- Management practices featuring benchmarking and best practice, International Produce Identification and, Quality Management.

There will also be sessions on Dollars for Development and finance, retail in Australia, and packaging developments.

**China Workshop** - Following the conference on 30 June will be a half day workshop on the China Market which has long been regarded as THE market of potential. Recent policy changes have significantly reduced barriers to sales of imported fruit and vegetables into China and companies world wide are assessing how they can meet the needs and wants of China's 1.2 billion consumers.

For more information contact the Conference Co-ordinator, The Marketing Edge C/o Australian Horticultural Corporation Ph. 02 357 7000 Fax. 02 356 3661.

## Horticultural Corporations Discuss Common Goals

The Boards and Staff of the Horticultural Research and Development Corporation (HRDC) and Australian Horticultural Corporation (AHC) have decided to formalise their meetings on a regular basis to maintain communications between the two Corporations and discuss continued co-operation.

HRDC Chairman, David Minnis said the joint board meeting (held in February 1994) was a useful means of developing greater understanding on issues of importance to Australian horticulture.

"While the HRDC and the AHC are two very distinct bodies, each with their own responsibilities and direction, we cannot afford to lose sight of the fact that we are both involved in improving the Australian horticultural industry."

Malcolm Irving, AHC Chairman said as well as the combined board meeting, regular meetings were being held between staff on program management issues.

Issues focused on by both Corporations included: the development of quality management systems, market research, market access, achievement of industry best practice, levies and relations with industry members.



## National Quality Training Underway

Quality management in Australian Horticulture has received a major boost with the development of a national training and management program by the Australian Horticultural Corporation (AHC).

A feature of the scheme are the steps that have been developed for producers, packers and marketers. As businesses progress, their achievements will be formally recognised at key stages under the training scheme.

The main purpose of the program is to assist horticultural businesses to improve their profitability and international competitiveness through quality management. The national scheme has been developed by the AHC in conjunction with industry, State Departments of Agriculture and AQIS.

The training initiative is reinforced by the Horticultural Task Force's report which identified a need for industry to move towards improved quality management systems.

John Baker, AHC Managing Director said that all States were encouraging Horticultural businesses to implement quality management systems but different levels of expertise existed around Australia.

"A National Scheme is essential to ensure that trainers, consultants and industry are working in the same direction and building on the expertise and knowledge of colleagues," he said.

Agreement from State Departments of Agriculture and AQIS on the need for the national scheme was gained at the AHC's Horticultural Industry Leaders' Confer-

ence in June 1993. To finance the development of the 3-year scheme, funding has been provided by the Federal Government's Agribusiness program, the AHC and commercial sponsorship from industry.

Already work has commenced on a low cost, grower/supplier system at the introductory level which will be available by July 1994. The supplier system is being developed to form a first step to AHQCS accreditation. It will also satisfy the procurement requirements of packers and processors.

"Industry said they wanted to start with a simple, low cost program so we listened and are developing one," said Mr. Baker.

A key aspect of the national scheme will be the development of a "Train the Trainer" program to enhance the knowledge and skills of trainers and specialists. Those completing the program will be certificated so that industry can confidently identify those professionals skilled in quality management training systems for horticulture.

Jillian Wills has been employed as the AHC's Quality Training Co-ordinator, to co-ordinate the development and implementation of quality training programs for horticulture including development of the national training scheme.

She has qualifications in Marketing and Science majoring in Food Technology and was previously a training consultant with Food Industry Training Limited. Prior to this Jillian held positions with the NSW Dairy Corporation, Ricegrowers Cooperative, Masterfoods of Australia and Kellogg's.

## Avocado Quality On The Move

*By Richard Bennett, AHC Manager, Quality Operations*

Significant progress has been made on the direction of the avocado industry quality program since the last issue of Talking Avocados. At that stage, the industry had acknowledged that the key area of attack should be retail and wholesale handling practices which lead to a deterioration of avocado quality at retail sale, particularly those which are pre-ripened and "ripe for tonight".

Production aspects which have an impact on quality at retail sale, particularly anthracnose and stem end rot would be covered under the existing Avoman project. This would further focus the industry's quality funds in the AHC's avocado budget on a key quality target.

Discussions with retail, wholesale, AHC, QDPI and industry representatives in February agreed to the concept, now known as the "Best Practice for handling Avocados" Project. The project being proposed will target practices at wholesale level in major markets and other distribution centres focusing on ripening, handling and storage. At retail level, the project will target transportation, storage, handling and merchandising.

The projected outcome is a national training program leading to accreditation of individuals and firms by the Australian Avocado Growers' Federation as preferred wholesalers and retailers. The program will be developed initially in conjunction with Queensland wholesalers from the Brisbane market and retailers throughout Queensland. In particular, Woolworths have extended their co-operation with the AHC and industry by providing valuable assistance.

Funding for the project is not available through the Horticultural Research and Development Corporation as contributions to continuing projects account for 1994/95 funding priorities.

The other preferred option is to seek funding from the Department of Primary Industries and Energy Agribusiness program. Early advice suggests that the benchmarking and quality content could be a compelling combination with DPIE.

This is an ambitious project extending into new ground for the avocado industry, but one which is likely to have a high degree of success and benefit for the industry.

### ANVAS Accreditation

The applications for ANVAS accreditation have been received from the following nurseries:

- Rainforest Nursery, Mareeba
- Birdwood Nursery, Woombe
- Batson's Nursery, Morayfield
- Mountain Views Nursery, Pomona
- Anderson's Avocado Nursery, Duranbah

Inspections have been carried out but testing is yet to be finalised.

## Horticultural Census

The Australian Bureau of Statistics (ABS) supplies statistically data on many subjects including horticulture. The type of information provided to industry leaders, such as the AAGF, assist with decision making and thus assist those that supply the information in the first instance.

From an ABS perspective, there are two very important issues regarding horticultural statistics, data quality and confidentiality.

The information provided to the ABS on the annual Agricultural Census form and in the Agricultural Finance Survey is collected under the authority of the Census and Statistics Act, 1905. The Act stipulates that individual returns remain strictly confidential to the ABS. There are no circumstances under which the ABS will release the details provided by the individual producer to any other organisation, public or private, without the explicit permission of that producer. The ABS data is not passed on to the Australian Taxation Office.

The paper forms are destroyed within two years. The Bureau retains computer records but these do not contain name and address information. Access to questionnaires and to computer files is also strictly controlled within the ABS, so that only staff with a need to see them for official purposes can do so.

The data is published in an aggregate form, or to put it another way, all the data

is added up and published as a total.

The lowest geological level at which data is published is what is called the Statistical Local Area (SLA), roughly equivalent to a Local Government Area (LGA). In some circumstances, the total for some commodities in an SLA may be the production for an individual producer. The Act allows the ABS to publish that data but the ABS does not disclose to anyone the identity of the actual producer. If any producer has any concern about the possibility of his/her activities being identified, then it would be advisable to contact the ABS.

Because of the strict confidentiality practices, growers can be confident that there is no reason to withhold data from the ABS. It has been suggested in some quarters that ABS figures are somewhat less than the "real" figure because people understate their production.

An important issue which producers need to consider when completing questionnaires is the use to which the data are eventually put. Generally, when the ABS is asked what the information is used for, they respond by providing a broad perspective. For example, data is used "for policy making". The following is a more concrete example.

Almost every agricultural industry is supported by research and development activities generally co-ordinated by a central body (or group of bodies). Examples include the Rural Industries Research and

Development Corporation (RIRDC) and the Horticultural Research and Development Corporation (HRDC). Funding of R&D activities comes from two sources. Levies imposed on growers are the most obvious source. The second is funds made available by the Federal Government. The important point to note is that the government matches the levies funds on a dollar-for-dollar basis to a maximum of 0.5% of Gross Value of Production (GVP). The GVP figure is produced by the ABS and is based heavily on production data provided by the growers.

Any understatement of production on the part of growers has the potential to reduce the amount of R&D funding from the government.

Many readers will be aware that ABS data is available to and is used extensively by your representatives—agricultural industries, the National Farmer's Federation and affiliated organisations, local members of Federal and State governments—in developing proposals and arguing for them on your behalf. Therefore, it is in the grower's best interest that accurate data is provide on the ABS questionnaire.

The ABS appreciates the ongoing co-operation of the various businesses, farmers and other people who co-operate with them in producing the data that is so important measuring and evaluating the various dimensions of Australia's economic situation.

## Is There Enough Money For Research?

At present, levies are collected by the Federal Department of Primary Industries and Energy Levies Management Unit on behalf of the Australian Avocado Growers' Federation. These funds are distributed to the Australian Horticultural Corporation (AHC) and the Horticultural Research and Development Corporation (HRDC) for promotion and research.

The AHC levy is currently 15¢ and the HRDC levy 3¢ per tray or equivalent. But is this enough to meet the needs of the industry?

Some growers have doubts over the use to which the AHC levy is put and question whether or not they get value for money.

However, so far there has been no complaint over the HRDC levy—not surprising when the size of the levy is considered.

Most avocado growers are aware that Avoman is under funded and has had to be curtailed. The type of management tools offered by this project will simplify running an avocado farm and with more funds available, this concept of management could be brought on line much sooner.

In this issue of *Talking Avocados*, the Western Australian Association has indicated that they are now collecting a separate levy, which will enable them to fund

their own promotion and research. The South Australia Association is already funding research on salt tolerant rootstock and the Sunshine Coast Association has been trying to get research done on fruit spotting bug, which they are willing to finance.

Obviously, the HRDC levy is inadequate for the industry's current needs and perhaps it should be increased, but by how much?

It appears that the industry is returning to the bad old days where each State did its own research instead of having a well co-ordinated and controlled national research program.

# Rootstock Study Counters Salinity Threat

By Chris Rowley, Communications Officer, Horticultural Research & Development Corporation

A Horticultural Research and Development Corporation funded project aimed at the development of salt tolerant rootstock for the avocado industry of southern Australia commenced in July last year.

The research, which is being undertaken by Senior Research Scientist, Peter Galasch from the South Australian Research and Development Institute at Loxton, aims to further expand and improve the viability of the avocado industry in this area.

While the avocado plantings in the Riverland/Sunraysia area are relatively small, encompassing only 180 hectares of trees, the area currently produces fruit with an annual gross value of \$4.8 million. The fruit which is mainly of the Hass variety is directed toward the high return, late season market (December to February), when the harvest in the major production areas in New South Wales and Queensland is complete.

The research project is in line with an industry needs analysis, from which the South Australian Avocado Growers Association identified the development of a more salt tolerant rootstock as their highest priority for production research. Unlike other production areas in Australia, the devastating soil disease *Phytophthora cinnamomi* is not active in the Riverland/Sunraysia areas, however tree health and crop yields are adversely affected by high salt levels in irrigation water and high soil pH. Severe marginal leaf burn and premature leaf loss occurs during periods of high water salinity leading to reduced yields and the production of smaller sized fruit of lower value. It has been estimated that a salt tolerant rootstock could improve fruit quality; increase yields by 20% and returns to growers by 30% in years of high salinity (one in three years).

A range of Australian and overseas rootstocks have been held in the Avocado Nursery Voluntary Accreditation Scheme and by the CSIRO, however field tests had not previously been conducted on their suitability. This project has focused on the identification and cloning of suitable rootstock to meet the needs of the industry with the aim of determining the net financial benefit of using these alternative rootstocks. It also aims to establish an experimental planting for future evaluation of the enhancement of yield and fruit

quality from trees grown on salt tolerant rootstocks.

To date, two salt tolerant rootstock varieties, AV88-6 and AV88-8 have been selected following extensive work at CSIRO Merbein. At Loxton Research Centre, leaf analysis of samples from field grown rootstock seedlings imported from Israel has identified individual trees superior for salt tolerance. These are Fuchs 20 (2), a GA13, a Moaz and a Waldin.

The propagation of trees, using the three tiered clonal rootstock method now used by leading nurseries, is on schedule for planting at the experimental site on Yandilla Park at Renmark. The major scion variety grown in the Riverland/Sunraysia area—Hass—is being used in a randomised complete block design comprising eight replicates, with single trees for each plot.

Already vigorous rootstock seedlings have been grown to 1.0 to 1.2 metres in height and clonal material has now been grafted to these seedlings. The clonal material has been multiplied to provide sufficient budwood for the project. In total 230 seedlings have now been established to ensure there is sufficient and uniform

plants of each rootstock scion combination.

Under the production phase of the experiment, researchers from the South Australian Research and Development Institute hope to harvest the trees, record maturity, on-tree storage of fruit, the concentration of salts in leaves, pathogen levels on root systems, and analyse the reasons for the differences observed. An analysis of variance will be conducted on the yields, fruit quality and tree growth data collected, using the STATISTIX program resident on the computer system at Loxton Research Centre.

Industry funds for this project are being provided by the South Australian Avocado Growers' Association and the Sunraysia Avocado Growers Association.

## HRDC FINAL REPORTS

Order No	Title/Researcher
AV010	Curing 'Hass' Avocados for cold storage disinfestation against Queensland fruit Fly - Mr. Andrew Jessop - NSW Agriculture
AV129	Development and support of marketing groups in South East Queensland avocado industry - Mr. Alex Banks - Queensland Department of Primary Industries

The reports are available from the HRDC at a cost of \$20 each (including postage). Cheques should be made payable to:  
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# Population Dynamics And Biological Control Of The Avocado Leaf-roller

*From Queensland Fruit & Vegetable Growers 1994 Research Report*

## Introduction

Avocado leaf-roller was first recorded as a pest of avocado in 1981 and has since become a major cause of fruit loss. Chemical control is effective but expensive and destroys beneficial species.

## Issues

Non-insecticidal control of leaf-roller is seen as a major advantage, particularly during the critical flowering period, because insecticide sprays at this time interfere with pollinators. Repeated applications of broad spectrum insecticides are also disruptive to beneficials such as predatory lacewings, flies, beetles, bugs, spiders and a range of parasitic wasps. Destruction of these invariably leads to outbreaks of latania scale, mite and ectropics looper which require further chemical treatments.

## Background

Natural biological control by native beneficials provides only partial suppression of leaf-roller, even in orchards which are largely unsprayed. This indicates that these native beneficials are not efficient biocontrol agents against leaf-roller. The

introduction of an efficient exotic parasite from Indonesia was seen as having the potential to assist the native beneficials achieve adequate levels of natural control.

The identification of the leaf-rollers' sex pheromone blend provided an effective monitoring tool using delta traps, and allowed the correct identification of the species associated with avocado. Detailed studies of the sex pheromone's potential for biological control, and of seasonal fluctuations in leaf-roller populations, have been undertaken. Studies on optimal pheromone blend concentrations, position of traps within orchards, trap design and pheromone emitter age were carried out to provide information on future research related to pheromone disruption as a means of controlling the pest.

Regular monitoring of a number of orchards was carried out to determine the influence of seasonal and crop development factors on populations of leaf-roller. Collections of eggs, larvae and pupae were also undertaken to determine the level of parasitism. The effectiveness of *Bacillus thuringiensis* (Bt) against leaf-roller was studied in laboratory and field studies.

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## TECHNICAL REPORTS

### Results

The exotic wasp parasite, *Macrocentrus homonae*, was identified as an efficient parasite and, following collection in Java, was introduced into quarantine. Difficulties have arisen in obtaining a regular supply of the parasite from Java and it has also been difficult to maintain a culture in quarantine. A synthetic sex pheromone blend was identified and used successfully to monitor field populations. The pheromone was field tested to develop procedures for a mating disruption program.

Non-chemical control has been attempted with Bt and with releases of the egg parasite *Trichogramma ivelae*, but results to date have been disappointing. Mass rearing and inundative releases of *Trichogramma chilonis* collected from leaf-roller eggs in north Queensland are to be investigated.

### Conclusions

Field monitoring of eggs, larvae and adults on three commercial orchards using pheromone traps and visual surveys has shown that there are four to five discreet peaks in leaf-roller activity per season. The initial peak is associated with the pre-flowering flush in May and June. This generation gives rise to higher populations during flowering in July, with recurring synchronised peaks from August through to October. Damage to flower panicles and young fruit occurs from July to October. High populations in January and February cause serious damage to individual fruits and fruit clusters. Chemical control should be aimed at the pre-flowering period to avoid spraying during flowering.

A range of insect parasites and predators and spiders were recorded. Only one parasite, *T. chilonis*, was effective, and only when leaf-roller eggs were at very high levels. The other beneficials assisted in suppressing the populations but did not provide adequate control. Even in orchards subjected to minimal chemical applications the native beneficials do not provide adequate protection.

The parasite *Macrocentrus* was collected and first introduced into quarantine

in 1990. The parasites laid eggs in leaf-roller larvae, but because only males were produced the colony could not be maintained. Since then it has not been possible to collect parasites from Java in sufficient numbers. Changes to the spray program in tea plantations where the parasite is usually found, has decimated their population.

Laboratory and field studies have been carried out to investigate the effectiveness of the bacterial insecticide Bt. Results with current formulations and rates have been poor. New formulations used at significantly higher rates, in conjunction with feeding stimulants, are currently being investigated.

## Research Raises Questions About Biological Pest Controls

From California Grower December 1993

The bug-eat-bug world of entomology has raised new questions about the wisdom of purchasing predatory insects to control pests, such as aphids, on various commercial crops.

Growers in California, in an attempt to address mounting environmental and safety issues concerning pesticides, as well as the resistance of some insect pests to chemical controls, have turned to the use of predatory insects and other natural methods to control insect pests.

"There's sort of a mad rush for alternatives to pesticides, which is certainly understandable," said Jay A. Rosenheim, Assistant Professor of Entomology at UC Davis. "Pesticides are being lost because of regulatory issues or resistance evolution.

Research conducted by Rosenheim on the use of lacewing larvae to control cotton aphids has revealed the interaction between predator and prey is more complex than previously supposed.

In an experiment conducted at the University of California's Kearney Agricultural Centre in Parlier, aphid-infested cotton plants were sealed in cages, either alone, with combinations of lacewing larvae and other predatory insects occurring naturally in cotton fields, such as assassin bugs, damsel bugs or big-eyed bugs, or with lacewing larvae only.

After a week, the plants were cut and the surviving insects were counted, revealing that no lacewing larvae survived when placed with damsel bugs or assassin bugs,

and that only 20% survived when placed with big-eyed bugs. Researchers concluded that the predatory insects ate the lacewing larvae, but did little or nothing to the aphids infesting the cotton.

"The whole thing was surprising," said Rosenheim. "There was never any attention given to the possibility that a predator might eat another predator instead of an herbivore, and it was certainly surprising that by adding predators, you get worse biocontrol."

Rosenheim's work with lacewing larvae and other naturally occurring predatory insects was intended to investigate the results of an earlier experiment using large releases of lacewing eggs.

Experimenters released lacewing eggs at 260 times the recommended rate of 5,000 eggs per acre in small plots of aphid-infested cotton, while other plots used as controls had no eggs released in them.

Although the population of aphids in the plots containing released lacewing eggs decreased modestly for a few weeks, the pests later returned in numbers similar to the control plots. Furthermore, very few lacewing larvae could be found within a few days following the egg release.

According to Rosenheim, growers releasing lacewing eggs may have unknowingly brought on a placebo effect by avoiding the use of pesticides, which also kill large populations of naturally occurring beneficial insects, and allowing nature to run its course.

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# Biocontrol Researchers Get Together In New Zealand

By Lindy Coates, Queensland Department of Primary Industries, Indooroopilly

During a visit to New Zealand in February, I was fortunate enough to attend a workshop on 'Disease Control in Horticulture' which was held at Massey University, Palmerston North. The aim of the workshop was to discuss strategies to reduce pesticide use for postharvest disease control in horticultural crops. The workshop was attended by biocontrol researchers from New Zealand, the United States, South Africa and Australia.

Dr Charles Wilson (US Department of Agriculture, West Virginia), a leading world authority on the biocontrol of postharvest diseases of temperate fruits, described the three approaches that his research team is taking to reduce chemical use after harvest.

## Application Of Yeasts

The first approach is the postharvest application of non-antibiotic producing yeasts which control a wide range of postharvest diseases of citrus, pome and stone fruit. Dr Wilson's team is currently collaborating with the biopesticide company Ecogen to commercialise some of the yeast strains which they have found to be effective against postharvest fruit diseases. In some cases they have found that when the yeasts are mixed in with very low concentrations of conventional fungicides (for example, 10% of the normal rate), better disease control is obtained than when the yeasts are applied without any fungicide. They have been able to do this by selecting yeasts which have some resistance to the fungicides which are used. The reason for doing this is to maximise disease control while at the same time minimising fungicide use.

An important part of this work has been to investigate the safety of these organisms to humans and the environment. There is no point in pursuing a biocontrol agent which works wonders against disease but poses a threat to human health. Just like fungicides, extensive toxicology studies must be done before a biocontrol agent can be registered for use on fruit.

## Natural Compounds

The second area of research is the application of natural compounds derived from both plants and animals. Dr Wilson's

team is currently screening a large number of natural compounds for activity against the fungi which commonly cause postharvest disease in fruit. The main advantage of applying natural compounds is that they biodegrade more rapidly than synthetic compounds. Even so, just because a compound is natural, doesn't mean that it is not toxic. Toxicology testing is a very important part of the evaluation process.

## Natural Resistance

The third approach is the enhancement of the fruits' natural resistance to postharvest diseases. Fruit produce a number of compounds which help to reduce infection by disease-causing organisms. The production of these compounds is often related to the stage of fruit ripeness. As the fruit ripens, levels of these compounds may decline, thus decreasing fruit resistance to disease. Treatments which enhance the production of these compounds can therefore help to increase the fruit's resistance to disease.

Dr Wilson's team has been looking at the application of low dose ultraviolet light for the purpose of increasing the fruit's natural resistance to disease. The method has shown good potential for apples, peaches, citrus and sweet potatoes. In some cases the ultraviolet treatment causes delayed fruit ripening.

Dr Lisé Chorister from the University of Pretoria, South Africa, outlined some of her research over the last 7 years on the biocontrol of avocado, mango, lychee and citrus diseases. She has been working with strains of various *Bacillus* species (bacteria which commonly inhabit leaf surfaces) which have been shown to be effective against many of the fungi which cause postharvest disease in these fruit crops. Although treatment with these bacteria is only experimental at this stage in South Africa, large scale field and packing-shed tests have been successfully done. The bacteria can either be applied as a preharvest spray or as a postharvest dip. Dr Korsten has shown that the bacteria can be incorporated in the 'Tag' wax which avocado fruit are coated with after harvest. She is currently working with the

private sector to investigate the potential of commercialising the treatment.

While in New Zealand, I also visited the main avocado growing region in the Bay of Plenty. At a growers afternoon which was held at Te Puke Research Station (Horticultural and Food Research Institute of New Zealand), Dr Korsten gave an overview of the South African avocado industry, Dr Bill Hartill (Consultant to HortResearch) gave a New Zealand perspective on postharvest disease control in avocados, and I had the chance to update New Zealand avocado growers on our anthracnose biocontrol project. This is a joint project between QDPI and the University of Queensland, and is funded by the AAGF, the New Zealand Avocado Export Council and HRDC. In the first year of the project (1992/93), a large number of bacteria and yeasts were isolated from the surface of avocado leaves and fruit. These isolates were tested against the fungi which cause anthracnose in avocado, *Colletotrichum gloeosporioides* and *Colletotrichum acutatum*. The most effective and consistently performing bacteria and yeasts were selected from this process, and are currently being evaluated in more detail. At a field site at Mt Tamborine, monthly foliar sprays of two bacteria and two yeasts have been applied to Hass avocado trees since last October, and will continue until fruit mature later this year. We have included a treatment of monthly copper hydroxide sprays as a comparison. Disease assessments will be made later this year when fruit are harvested and ripened.

Determining the ability of the selected bacteria and yeasts to colonise and survive on the surface of avocado leaves is an important part of the evaluation process and is being studied in detail by Ms Marcelle Stirling from the University of Queensland. Marcelle has shown that the isolates which we are currently field testing can survive and maintain quite high numbers on avocado leaf surfaces for at least one month.

In addition to field testing, we have now commenced postharvest testing of selected yeasts and bacteria. These isolates are being applied to avocado fruit as a

## How Beneficial Bugs Are Produced

Many growers, are familiar with 'beneficial' insects, however, few would realise the complexities involved in producing the critters.

A company "Bugs For Bugs" in the Central Burnett produces two parasitic wasps, *Leptomastix dactylopii* and *Aphytis lingnanensis*, and a variety of ladybird species.

Before goodies can be bred, baddies are required on which they can feed and grow.

Baddie-breeding is a complicated process. Mealybugs and oleander scale are the standard breeding medium. The insects are grown in specially-designed environment controlled breeding chambers, to optimise control over the breeding process. The chambers are maintained at exactly 25°C and a humidity of between 50 and 60%.

The 'food' for the beneficial insects are bred and grown on butternut pumpkins. Butternuts have a smooth skin, required to

breed the scale, and the shelf-life necessary to survive the lengthy breeding process.

The *Leptomastix* wasps are bred using mealybugs. The *Aphytis* wasps are bred on oleander scale. Several ladybird species are bred on the mealybugs or scale.

Established mealybug colonies are maintained in the breeding containers. The crawling insects are transferred to new pumpkins by the 'drip' method. Trays of fresh pumpkins are placed under the 'mother' colonies. Young mealybugs use tiny silk threads to travel from old to new, establishing new colonies of the insects.

Oleander scale, which clings to pumpkins rather like a barnacle to a rock, is actually brushed from established colonies to new pumpkins where they establish themselves.

The scale must be produced at precisely the correct density on the pumpkin. Too light a colony will not provide enough

food for the beneficials and too heavy a concentration makes it difficult for the beneficials to establish a foothold.

The pumpkins are then moved into chambers containing established colonies of the parasitic wasps. The wasps' life cycle, including the breeding process, continues unaltered.

For harvesting, wasps are attracted to a fluorescent light, sedated with either ether or carbon-dioxide and then collected and sorted into packages. The ladybirds are collected mostly by hand.

The insectary staff have strict work schedules which allow them to enter each room just once and only in a certain order. This prevents the movement of predators or parasites back into the mealybug breeding rooms on the body or in the clothes of the workers. A few 'beneficial' insects let loose in the breeding room could eat a year of hard work in just weeks.

postharvest dip. Prochloraz treatment (which is the currently recommended fungicide treatment for postharvest disease control in avocado), is being included as a

comparison in all evaluations.

Research is also continuing into the effects of copper sprays and applied nutrients on the natural array of microflora which inhabit avocado leaf surfaces. This work is being conducted by Marcelle Stirling (University of Queensland). The aim here is to promote the growth of beneficial micro-organisms which live on leaf surfaces by reducing chemical use and applying nutrients such as molasses. We need to explore as many options as we can for the biocontrol of avocado fruit diseases so that we are prepared for the inevitable limitations placed on chemical use in the future.

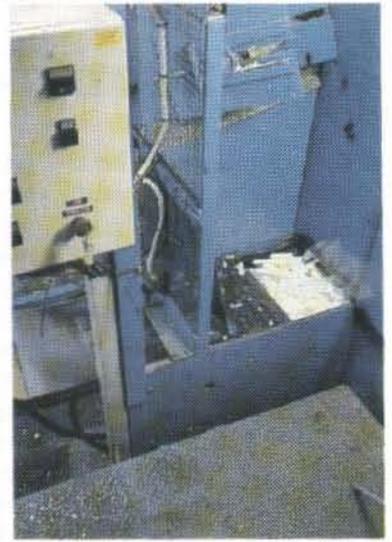
*For funding this visit, I wish to thank the Australian Centre for International Agricultural Research (ACIAR). For funding our project on the biological control of avocado anthracnose, I would also like to thank the Horticultural Research and Development Corporation (HRDC), AAGF and the NZ Avocado Export Council.*



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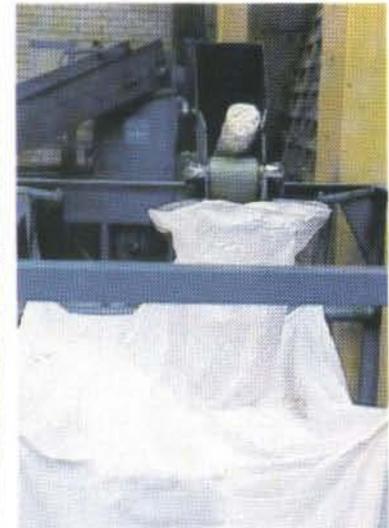
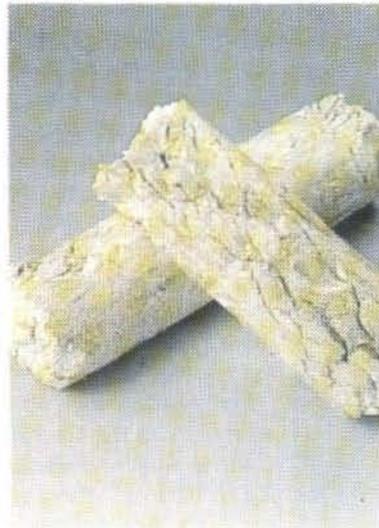
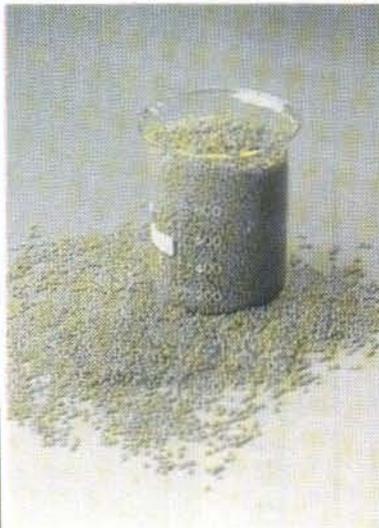
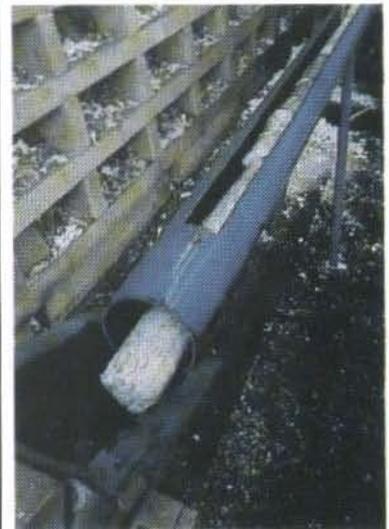
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