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- **Fruitspotting Bugs?**
- **Canopy Management Strategies**

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AVOCADOS AUSTRALIA LIMITED
ABN 87 105 853 807

Level 1, 123 Logan Road
Woolloongabba, Qld 4102 Australia

PO Box 663 Stones Corner Qld 4120 Australia

Phone: 07 3391 2344
Fax: 07 3391 2388
Email: admin@avocado.org.au
Web: www.avocado.org.au

Antony Allen a.allen@avocado.org.au

Front Cover: **Tauranga, Bay of Islands, NZ venue of the 2005 Australia and New Zealand Avocado Growers Conference "*Profit Together*".**

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Fax: 07 3391 2388 Email: TalkingAvocados@avocado.org.au

We all make mistakes: If we make a mistake please let us know so a correction may be made in the next issue.

Contents

Chairman's Perspective

The Market

The Australian market has continued to provide reasonable returns for avocados although returns have dropped from the highs recorded throughout the summer months. Over summer the lower supply and high consumption levels contributed to excellent wholesale returns and retail prices that would have historically been expected to slow demand dramatically.

The north Queensland and Bundaberg seasons have started well with limited fruit quality problems and very few complaints of immature fruit being marketed. This scenario is probably a result of the lack of a real "wet season" in Queensland. Fruit disease control has been more effective and little fruit has been harvested in the rain. Also fruit maturity appeared to be advanced this season on many blocks. I hope the lack of quality issues is also an indication that growers are more aware of the damage that can be done to our industry by marketing immature fruit and fruit with quality problems.

Given that production will be below average in south Queensland and northern New South Wales this year growers in the northern areas should be able to manage the crop flow into the marketing chain to avoid the accumulation of old fruit in the system. Old fruit at retail level remains the greatest threat to consumer confidence and thus demand. Better communication within the industry is critical to reducing the problem and Antony Allen provides an update on the Crop in this edition on page 18..

Strategic Plan

The draft Strategic Plan 2005-10 which was published in the last edition of *Talking Avocados* was endorsed and adopted by the AAL Board at its March meeting. The plan will now provide direction for the industry's investment decisions for the next 5 years.

Consumer Research

The new strategic plan identified that to build strong demand for the increasing levels of production an up to date analysis of the critical factors affecting purchase and consumption of avocados in the domestic market was critical. A project to provide this analysis has begun and a report on the findings and recommendations will be made at the conference in September. The AAL Board, the Marketing committee and their service providers will use the research to maximise the effectiveness of your investment in marketing and promotion into the future.

Conference

Planning for the next joint conference is well advanced, as you will see from the information provided within this edition of . The programme will provide all attendees with the opportunity to be informed on the latest research and marketing information from both a national and an international perspective. The conference will also provide us all with an excellent opportunity to network with other growers not only from Australia and New Zealand but also from South Africa, California and Chile. Remember these conferences are currently only held every four years so it is an opportunity not to be missed.

South African Visit

In February the CEO and I attended the annual Research Symposium in South Africa. Our South African colleagues are conducting research in a number of areas of potential interest to our industry and it was very useful to hear their latest reports and discuss the projects with the researchers. Some of this work will be presented at the New Zealand conference. The avocado industry in South Africa has enjoyed a couple of years of reasonable returns from export. However, they are facing a number of challenges. Costs of labour have increased significantly and this is encouraging the growers to increase the level of mechanisation. A significant percentage of the production area is subject to land claim. This has created a level of uncertainty which is limiting the amount of new investment in orchard plantings and very few orchards are changing hands.

Drought

The continuing drought in many of our production areas is a serious concern for the industry and those affected. The useful rain which I noted was being received when I wrote my column for the last edition must have stopped before the ink dried. The effects of the prolonged water deficits will be observed with yield and fruit size reductions in this crop. Long term, the damage will be harder to quantify but will contribute to the difficulty in achieving consistent sustainable yields and will challenge the viability of some orchards.

Rod Dalton

Rod Dalton
AAL Chairman
and Director for the South Queensland Growing Area.

ANVAS ACCREDITED NURSERIES

ANVAS accredited trees can be purchased from the following nurseries:

Anderson's Nursery
Graham & Viviene Anderson
Duranbah Road
Duranbah NSW
Ph: 02 6677 7229

Avocado Coast Nursery
Greg Hopper
Schulz Road,
Woombye Qld
Ph: 07 5442 2424

Birdwood Nursery
Peter and Sandra Young
71-83 Blackall Range Rd
Nambour Qld
Ph: 07 5442 1611

Rainforest Nursery
Ron and Joan Knowlton
25 Reynolds St
Mareeba Qld
Ph: 07 4092 1018

Industry Matters

Compiled by Antony Allen

Strategic Plan Endorsed by AAL Board and the Avocado IAC

The new industry Strategic Plan has been endorsed by both the Avocados Australia Board and the Avocado Industry Advisory Committee in Brisbane on 22 March. The AAL Board and IAC recognised the extensive eight month process to develop the plan in consultation with the industry. All sectors were able to have input in the development of the plan and the Australian avocado industry now has a five year plan to aid its direction and development.

The new 2005/2010 Avocado Strategic Plan will be launched to industry in May 2005.

Survey finds women favour produce while men favour steak

Women are three times more likely than men are to choose fruits, vegetables and/or salads as their favourite foods, according to a consumer survey by the Grocery Manufacturers of America. It found that 30% of women declared fruits, vegetables, and/or salads as their favourite food, while 25% of men identified red meat as their top choice. Only 8% of men put fruits and vegetables at the top of their list, while the same percentage of women named red meat as their favourite food.

A separate GMA consumer survey suggests that people are buying more nutritious foods, with 73% of those surveyed saying they looked for healthier foods these days when they shop. Sixty-six percent of those surveyed said they are looking for foods that are made with whole, unrefined grains; 65% said they looked for reduced and low-fat products; 59% looked for vitamin fortified products; 54% sought reduced and low-calorie items; and 49% wanted sugar-free foods. It also found that 64% of consumers are trying to reduce their caloric intake and 52% said they are exercising more often.

AAL works on "Horticulture Business Code" for Avocado Growers

AAL is working with the Horticulture Australia Council (HAC) on the development of a mandatory horticulture business code. HAC has advised government officers that consultation on a draft code should start as soon as possible to allow for an intensive period of 'road testing' with different industry groups to ensure the final code is simple, practical and workable across all crop groups.

All industry groups will be asked to participate in the road testing for their particular commodities, such as bananas, mangoes, apples, stone fruit, vegetables and the like, to ensure the code is workable for each commodity and their particular trading requirements. AAL will keep our members informed on when this will take place.

After the consultation process, government will prepare the final code and regulations to put it in place. This is not expected until later this year.

Prior to introduction, an extensive information and training program will need to occur to ensure all growers and wholesalers are aware of their responsibilities and can use the code effectively.

A fact sheet is available at *www.horticulturebusinesscode.com*

Federal Government Grants

The Department of Agriculture, Fisheries and Forestry (DAFF) is running the New Industries Development Program (NIDP) as part of the Backing Australia's Ability: Building our Future through Science and Innovation package.

There are 2 funding schemes running at present:

- Pilot Commercialisation project: Grants of between $50-100K are available - applications close in April and Sept.
- In Market Experience Scholarships (IMES) - for agribusiness managers to look at new markets and gain experience etc. Applications close in July.

If you want more information phone 1300 884 588 or *www.daff.gov.au/agribiz*

Access to AAL Website

In the last week of April all Avocado growers that have provided an email address to AAL will receive their username and password. Avocado growers will have access to levy related issues such as Final R&D reports and Marketing updates. Avocados Australia (AAL) members will have more extensive access to AAL information and other products that AAL provides to members.

If you would like to receive the new e-newsletter "Guacamole" and the "login" section of the Avocado website please contact Annette on 07 3391 2344 or by emailing *admin@avocado.org.au*. T he only way we can keep your address updated is if you let us know of any changes.

Please watch for your email and use your access to these materials.

Chipless RFID Tags in Development

Chipless radio frequency identification (RFID) tags may hold promise for common supply chain applications, reported the RFID News & Solutions Web site recently. Most tags today are silicon-based, consisting of an integrated circuit (IC) chip with memory. By contrast, chipless tags do not have an IC to store their data. Instead, they encode unique patterns on the surface of various materials.

These patterns then become the data that is reflected back to custom-designed interrogating readers. One chipless tag technology showing promise uses Surface Acoustic Wave (SAW) technology. SAW chips have been used for years in cellular phones and other wireless devices to filter radio frequency signals. SAW tags promise to overcome some typical issues retail suppliers face today, such as read range and accuracy of cases inside pallets or near other radio devices. The technology also addresses readability limitations when tagged objects are near liquid or metal, or when they are exposed to extreme temperatures.

Industry Matters continued

Genetics may influence Taste Preferences

People may inherit a sense of taste that affects their desire to eat a lot of vegetables and fruits, reported MSNBC.com on February 11. In a recent study, researchers explored how well people could detect a substance known as PROP in solutions of various strengths. Some people couldn't taste it, some tasted it at moderate concentrations, and others had a bitter taste from highly diluted solutions. People who were most often able to taste PROP tended to dislike eating vegetables.

A dislike for cruciferous vegetables was especially related to an ability to detect PROP. The study suggested that PROP tasters comprise about 75% of the population, so taste preferences may be a significant barrier to meeting nutrition recommendations for many people. In a separate study, researchers found that individuals who preferred fruit liked sweeter foods and ate dessert more often than those who preferred vegetables. Vegetable lovers, on the other hand, tended to eat spicy foods more often and enjoyed bitter or savoury flavours.

New Report shows true worth of Agriculture

A new report launched this week shows Australian agriculture is at the core of a sector of the national economy that generates more than 12% of national GDP each year. The research was funded by a VC from the Australian Farm Institute with matched funding through HAL.

The project set out to quantify the full scope of economic activity associated with the agricultural sector in Australia. It measured all the economic activity within the farm sector, as well as within industries providing goods and services to farmers, and within the industries using farm produce to manufacture or market products for consumption. The researchers termed this Australia's 'Farm-Dependent Economy'.

The report found that Australia's Farm-Dependent Economy contributed an average of 12.1% of national GDP for the six years up to 2004. This is nearly 4 times the simple yet widely-used measure of the value of commodities at the farm-gate. The report is not just constrained to big-picture economic effects. It also drills down into the impacts of policy changes and natural disasters on employment, living standards and economic activity in Australia's regional areas. It highlights that policy changes impacting on agriculture have a much greater impact on the whole economy than has ever been recognised.

For a full copy of the report go to *www.farminstitute.org.au/*

Freshcare 2nd Ed. Code of Practice

All Freshcare members should have received a copy of the 2nd Edition Code of Practice, by post, late last year. All new members should receive a copy of the Code at training/on joining. Copies of the Code can also be downloaded from the Freshcare web site.

To allow members adequate time to update their Freshcare systems/ paperwork, Certification Bodies will conduct initial assessments/ annual audits against either the 'Freshcare Code of Practice: 1st Edition - 2000' or the 'Freshcare Code of Practice: 2nd Edition - October 2004' until 31st December 2005.

Please advise your auditor at the time of booking which Code of Practice you are operating to. All members must be compliant with the 2nd Edition Code of Practice by 31st December 2005, all initial assessments/annual audits conducted after 31st December 2005 will be against the 2nd Edition Code of Practice.

The APVMA and Spray Drift Management

As many of you know, the APVMA has published a discussion paper containing proposals for refining its approach to spray drift risk management *www.apvma.gov.au/chemrev/APVMA_spray_drift_proposal.pdf*

Since then the APVMA has meet with a number of key agricultural organisations to discuss these proposals. It has also been gathering comment and new information to further refine the proposals. Some 30 written submissions commenting on the proposals have been made by a range of industry and community groups. In October 2004, the APVMA took part in an international spray drift conference where useful new information and approaches to spray drift risk management were discussed.

On 16 and 17 February the APVMA hosted two major meetings on spray drift management. The first, a day of discussion of fundamental issues with State regulators followed the next day with a day-long spray drift forum with both industry, farmer and State representatives. The industry forum provided an opportunity for the APVMA to listen to and respond to industry concerns on its spray drift proposals. Over the next two months, the APVMA will refine its proposal paper drawing on the new industry comments as well as additional input from community and technical groups. The APVMA will make the new draft available for a final round of public consultation and comment before any final decisions are made.

Study Highlights Distribution Centre Trends

New technologies, elevated food safety concerns and the growth of mass merchandisers are all factoring into a rapidly changing environment for the logistics function of food distributors and retailers, according to the 2004 Food Industry Distribution Centre Benchmarking Report. Key developments affecting distribution include:

- Economies of scale, which are allowing substantial reductions in administrative and fixed costs
- Reduced inventories and deals
- New-item growth in the marketplace
- Implementation of new technology and information systems
- Food safety in the public eye, which is encouraging distributors to implement new handling methods throughout the supply chain

The primary growth opportunity today is found in fresh and frozen products, as retailers seek to differentiate themselves through more upscale products and services. This report was prepared by the Food Marketing Institute.

Industry Matters continued

Tropical Fruits Industry partnership Program (TFIPP)

The Steering Committee of the TFIPP has met to review progress and plan future activities. The TFIPP is a Federal Government initiative aimed at providing tropical fruits industries with an opportunity to assess their place in the world and plan for the future. The Federal Government has provided significant funding for this project and the steering committee has accepted the challenge to ensure sound outcomes are achieved in a very short time frame. The Committee are working with well known industry specialists, Ridge Partners and Mr Zeki Murad has been appointed TFIPP Project Coordinator. Zeki has an extensive background in working in tropical horticulture throughout the world, and brings a wealth of experience to the project.

Avocados Australia meets with Senator Richard Colbeck

Avocados Australia Chairman Rod Dalton, Treasurer Henry Kwaczynski and CEO Antony Allen met with Senator Richard Colbeck at the AAL offices on Wednesday 6 April. AAL was pleased to introduce the Australian avocado industry to the Senator who is the new Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry, responsible for Horticulture. It was a productive meeting and AAL will continue to develop a good working partnership with the Senator over the years to come.

Australian Roundup

Western Australia Report

By Wayne Franceschi,
AAL Director for the Western Australia Growing Area.

The West Australian crop for 2005/2006 appears to be down on previous years. There seems to be some good crops that have set in Manjimup, but closer to the coast at Pemberton the crop looks to be well down. This appears to have been due to some cold weather around flowering. Production in the Perth area was looking to be above average, but an unusually heavy summer fruit drop has reduced the crop.

At the last growers association meeting it was agreed that all correspondence will be handled electronically. Minutes and notices of meetings and other correspondence will be placed on the WA website *www.avocadoswa.com*. Where we have a viable address, emails will also be posted. Any West Australian growers who wish to receive correspondence are asked to send an email to either Alan (*alan@avowest.com.au*) or Ellie (*petenellie@westnet.com.au*).

Tri-State Report

By Colin Fechner,
AAL Director for the Tri-State Growing Area.

The avocado season has finished and growers are now busy harvesting their other crops of grapes, citrus and persimmons.

Most growers I have spoken to about this next season estimate that it will be a third less than the crop we have just harvested. Reed and Gwen seem to have set a good crop with Hass being light. This is a good indication of the benefits of growing a few varieties, as it is rare that all varieties will fail in the same year.

The AGM for this region is going to be on Tuesday, 24 May in Renmark. The AGM is going to be a combination of guest speakers and a field walk. Due to water restrictions and lack of good rains in the catchment areas of the Murray Darling Basin, our focus this year is going to be on drip irrigation and nutrition. Guest speakers are still to be finalised. Members of the South Australian Avocado Growers' Association (SAAGA) will receive a meeting notice in the mail. Notice of the meeting will also be advertised through the ABC and local papers.

As discussed at our last AGM, we are looking at having a study tour to WA to look at various properties, focusing on canopy management and other issues. It is planned for mid April 2006 and an application for Horticulture Australia voluntary contribution funding has been sent.

South Queensland Report

By Rod Dalton,
AAL Director for the South Queensland Growing Area.

The ongoing drought remains the major issue of concern in the area. The "normal" wet season has not appeared and rainfall recordings have been close to all time record lows over the summer. If significant rainfall is not received in the near future then a number of orchards will have insufficient water reserves for the spring. Fruit size of this crop is being adversely affected and next seasons flowering will be challenged!

A production survey of AAL members in the area provided an excellent response and confirmed that production will be approximately 45% lower this season than last, which was an excellent year for many growers in the area. As accurate crop estimation remains a challenge for the Australian industry for a range of reasons, positive responses to surveys such as this assist the industry by increasing the accuracy of the current "crop prediction models" which are very basic to say the least.

Harvesting of fruit outside its "optimal eating maturity range" remains a concern. Anecdotal evidence is that growers from this area (and most other regions) chase the early and the late markets, which does not help their reputation or that of the area. With good crops in North Queensland and the Bundaberg area this season and with New Zealand indicating an above average crop, I expect the rewards for chasing the early and late markets will be limited. I encourage all growers to harvest their crop when they enjoy eating their fruit not when "the dog stops eating" the fruit. Lets hope by the time you read this we have all enjoyed some useful falls of rain - ever the optimist!!

North New South Wales Report

By Peter Molenaar,
AAL Director for the North New South Wales Growing Area.

The North Coast of NSW is currently experiencing more harsh weather. This is disappointing as the period from mid October when the drought broke, through to the end of December was some of the best growing weather that we have experienced for many years. Since Christmas, rainfall has been very scattered with February recording close to record lows in most catchments. Fortunately we haven't experienced the extreme high temperatures of recent years. This has resulted in very little sunburnt fruit; however, fruit size will be affected by the dry conditions.

Local growers gathered at Kate Thompson's property at Alstonville recently to view her phytophthora control systems. Kate has changed over to organic methods and is implementing composting, composted teas and other natural methods. Growers walked away impressed and had something to think about.

If Fruit Spotting Bug (FSB) is an issue in your operation, then you should have returned your FSB Survey that was sent out in the Summer

issue of *Talking Avocdos*. Unfortunately only 40 out of 600 surveys were sent back, which would appear to indicate that FSB is not an issue! Do you AGREE? Another copy of this survey is now being sent out to growers. Please fill it in and send it back.

Central Queensland Report

By Lachlan Donovan and Ron Simpson,
AAL Directors for the Central Queensland Growing Area.

Most growers are now well into the Shepard harvest. The Shepard season will be finished by the middle of April. The overall Shepard crop for the district is down this year, but this will be compensated by a larger Hass crop than last year. Fruit size is also larger than last year.

Returns so far this season have been up on last year. This has been driven primarily by the lower volume of fruit. With the increased volume of Hass to come this season from this district there are a couple of things that growers can do to help maintain these higher returns: avoid putting immature fruit on the market and maintain our level of quality standards. Maintenance of quality helps to complement the promotion activities carried out by the industry. Remember that poorer quality fruit can be sold to processors.

A trial of the new trays was done by Team Avocado at the end of their season, but unfortunately they were supplied with the wrong version of the modular 12 tray. This led to the trial being a waste of time and money for Team Avocado. Trials will be done in this district after Easter using the latest version of modular 12 tray, which has improved ventilation.

Approximately 600 fruit spotting bug surveys were sent to growers, but only 40 were returned. This is a disappointing result. Growers must remember that if they want to have their say they must complete industry surveys. Also those growers who have not yet returned their planting survey, please do so.

Hopefully through the rest of this season the trend for better returns can be maintained.

North Queensland Report

By Jim Kochi,
AAL Director for the North Queensland Growing Area.

As predicted in the December report in *Talking Avocados*, the North Queensland Shepard crop was smaller than the 2004 crop. With the smaller crop came an increase in fruit size and many growers reaped the double reward of more trays of larger fruit at better prices. The Shepard crop here is almost over after 6-8 weeks of harvest. In previous years the harvest extended over 10-12 weeks. The early completion of the New Zealand Hass crop has allowed more sales of Shepard and has enabled the crop to go through the stores quickly. As always some growers jumped the market early and some were severely penalised for sending immature fruit that was really unsuitable for sale. Whilst growers are at fault for offering immature fruit, the market agents/ merchants are equally at fault for pressuring the growers to send in immature fruit and sadly, rewarding them for the rubbish. Now that the Shepard crop is tapering off, the same market pressure is trying to push immature Hass into the market.

Cyclone Ingrid visited the north, but fortunately only came as far as Cooktown, some 200km north of us and we were spared. It was a very worrying time as the rain and winds resulting from the cyclone were awesome (category 5 - the highest).

After a week of torrential rain (250mm at Atherton) we at last have some fine weather as we finish off the Shepard season and start the Hass after Easter. We hope the Bundaberg growers will be kind enough to let us get our crop started before they unleash their crop.

The Mareeba-Dimbulah area had heavy thrip damage this year and big volumes of excellent fruit went to processing because of the scattered blemish. We are trying to assess the level of damage caused by this insect and we hope to report those findings in a later issue.

I would appreciate any comments or photos recording thrip damage from other areas. I'll show you mine if you show me yours! This could be the topic for our next meeting.

Sunshine Coast Report

By Henry Kwaczynski,
AAL Director for the Sunshine Coast Growing Area.

Despite continued reduction in grower numbers on the Sunshine Coast, the local grower association (SCAGA) continues to survive and provide members with a link to the national peak body (AAL) especially regarding important and interesting industry information. At the recent annual general meeting, one new committee member came onto the committee and he is most welcome. Thanks to all the past and new committee members, without whom this association could not function. The association is already planning for the Brisbane Exhibition (the Ekka) to be held in August 2005. This is an important promotional event for Queensland and the avocado industry in general.

At a recent SCAGA meeting, Dr Henry Drew spoke about the new project relating to fruit spotting bug. As you may be aware, many thousands of dollars have been spent in an effort to gain greater understanding

of this pest, and to determine more effective means of control. Henry mentioned the national survey that has been distributed, and that it is most important for all growers to respond to this. The initial response to the survey has been pretty disappointing (only 40 grower responses out of 600 from Eastern Australia) - a strong message in grower apathy. Either growers are totally uninterested in a solution to this pest problem, or just cannot be bothered. The fruit spotting bug problem was identified by growers as one that needs urgent attention and grower levies are paying for this project. If there is not greater grower feedback, it is possible that the project may not be able to continue, so I urge everyone to respond to the survey. If you need more information about this survey or the project, contact AAL CEO, Antony Allen (07-33912344).

The message is mixed regarding avocado production for this calendar year. Some areas report above average fruit set, while others are not so confident. Of course the ever diminishing agricultural land in this region adds to production level uncertainty. In terms of total Australian production, I believe the prognosis is in the vicinity of 32 - 36 thousand tons - this is a small increase over previous years and it indicates that the production is not galloping as predicted in terms of number of tree plantings in recent times. Maybe we will see a rather large increase in production in the next 3 to 4 years - time will tell. On the Sunshine Coast, as in many areas, climatic conditions are playing a role in production - or lack of it. Rainfall in February this year was the lowest since 1929, and March doesn't look much better - and this is our wet season when it is not unusual to get around 500 - 600mm per month.

Central New South Wales Report

By Chris Nelson,
AAL Director for the Central New South Wales Growing Area.

Growers are enjoying a quieter time of year, concentrating on final preparations for this year's harvest, and working on the orchard nutrient set-up for flowering later in the year. This year's crop is looking very promising, and with the final fruit drop completed, it now appears that a medium to heavy crop is expected in most areas. Recent rains, although not drought-breaking, have certainly helped develop the fruit size and better quality for this year's crop.

At our AGM of the North Coast Avocado Growers Branch of NSW Farmers held on 19 February we elected the following office bearers: President Gordon Burch, Vice President Chris Nelson, Secretary Alison Tolson and Treasurer Sue Nelson. Alison can be contacted on (02) 65690872. We followed the AGM with a very enjoyable and informative day at Gordon and Margie Burch's property in Comboyne. The added bonus of a visit from John Leonardi made it well worthwhile with many growers taking the opportunity to discuss canopy management. John also managed to visit most growers' farms over the several days of his tour, and growers were appreciative of the chance to obtain first hand interaction with one of our industry researchers.

Plans for our study tour to WA are still on hold for another year, awaiting the chance of funding from Farmbis.

Fruit Spotting Bug: All growers are reminded to complete the survey which they have now received twice by mail. It is important that growers provide researchers with as much information as possible to help this important project succeed.

What's on..... 2005

APRIL

14: National Fruit Packaging Workshop. Melbourne, AUSTRALIA. www.summerfruitaustralia.com.au

27 - 29: The Australian Food Industry Conference 2005. Sydney, AUSTRALIA. *www.iir.com.au*

MAY

10 - 13: HOFEX 2005 Wanchai, HONG KONG. *www.hofex.com*

18 - 20: SIAL China 2005 Shanghai, CHINA. *www.sialchina.com*

24 - 28: PacPrint 05. Melbourne, AUSTRALIA. *www.pacprint.com.au*

JULY

10 - 13: Foodpro 2005. Sydney, AUSTRALIA. *www.foodproexh.com/index.htm*

12 – 13: Impetus 2005 – supply chain management and RFID event. Melbourne, AUSTRALIA *www.ean.com.au/impetus2005*

AUGUST

23: Avocados Australia Researchers Workshop. Brisbane, AUSTRALIA.

24: Avocados Australia R&D Committee Meeting. Brisbane, AUSTRALIA.

30: Avocados Australia Marketing Committee Tele Conference.

SEPTEMBER

5 – 9: 12th Australian HACCP Conference Series. Sydney, AUSTRALIA. *www.haccptown.com*

19: Avocados Australia Board Meeting. Tauranga, NEW ZEALAND.

20 - 22: Australia/New Zealand Joint Avocado Conference. Tauranga, NEW ZEALAND.

21: Avocado Annual Levy Payers Meeting. Tauranga, NEW ZEALAND.

23: Avocados Australia Board Meeting. Tauranga, NEW ZEALAND.

23: Avocado Industry Advisory Committee Meeting. Tauranga, NEW ZEALAND.

NOVEMBER

5 - 8: PMA Fresh Summit International Convention & Exposition. Atlanta, Georgia, USA *www.pma.com*

If you have any local grower meetings, field days or events that you would like to include in "*What's on in 2005*", please contact us with the details.

2005 New Zealand and Australian Avocado Growers Conference

"Profit Together"

Supported by Horticulture Australia

HAL

Know-how for Horticulture™

Where: ***Tauranga, Bay of Plenty New Zealand***

When: ***20, 21, 22 Sept 05***

2005 PROFIT TOGETHER

Every four years the Australian and New Zealand avocado industries combine to hold a joint conference. This year the venue for the joint Conference is Tauranga, New Zealand the heart of New Zealand's avocado production.

The New Zealand Avocado Growers' Association and Avocados Australia welcomes you to attend the third quadrennial New Zealand and Australian Avocado Growers' Conference, to be held at: Baycourt Theatre, Tauranga, New Zealand

The theme of the conference is "Profit Together". There is an exciting line up of international and national speakers who will present our latest knowledge and understanding of important issues relevant to successful avocado production.

Topics being covered include:

- Flowering and fruit set: yield, fruit size and production
- New germplasm and global breeding programmes
- Pest and disease control strategies
- Integrated production systems and the impact on market access
- Postharvest quality and outturn
- Competing in a global world
- Building demand: promotions, marketing, customer trends and expectations

Above:: Mt Maunganui at sunset, The Bay of Plenty, New Zealand.

As space is limited to 500 delegates please register early to ensure your attendance.

Avocados Australia members receive a $100 discount for early registration, prior to 15 June 2005. Early bird registration for Avocados Australia members is just $330 instead of $430 for everyone else. This is a great time to consider membership if you have not already joined.

Your registration form can be found in this edition of *Talking Avocados* or on our website. For more information please use the following link: *www.avocado.org.au* or call us on 07 3391 2344.

2005 New Zealand and Australian Avocado Growers Conference continued

CONFERENCE PROGRAMME

TUESDAY 20th SEPTEMBER 2005

7.00 am Conference Registration

SESSION 1

Introduction

8.00 am Welcome
Hugh Moore and *Rod Dalton*

Official Opening
TBC

Keynote Address - 'Beyond Yield'
Jim Donovan

Weather and climate expectations
- a 25 year look forward
Peter Deuter

10.00 - 10.45 MORNING TEA - Baycourt Theatre

SESSION 2

Building demand - promotions, marketing and customer and consumer trends and expectations

Chairperson: Antony Allen

NZ Consumer Institute - profile of the New Zealand and Australian fresh produce consumer now and into the future
Belinda Allen

Developing the UK avocado market through generic promotion
Derek Donkin

Report on Australian consumer research
TBC

The Australian marketing programme
John Pritchard

The New Zealand generic promotion campaign
TBC

Fresh Change Avocado Programme - a commercial example of developing an understanding of retail performance and steps to improve sales.
Marie Piccone

1.00 - 2.00 LUNCH - Baycourt Theatre

SESSION 3

Pest disease control strategies, integrated production systems & the impact on market access

Chairperson: *John White*

Chemical reviews, CODEX, and into the future with chemicals for avocados
Kevin Bodnaruk

Fruit spotting bug - reviewed
Henry Drew

Cold disinfestation - non-chemical treatment systems for avocado
Ed Hamacek

AvoGreen and mite control
David Stevens

Pheromones and avocado pests in Australia
Geoff Waite

New strategies for the integrated control of avocado disease
Jay Anderson

New control strategies for Phytophthora root rot
Fiona Giblin

SESSION 4

New germplasm and global breeding programmes

Chairperson: *Jonathan Cutting*

TBA
Stefan Kohne

Rootstocks
Tony Whiley

The California position
Guy Witney

Panel discussion and question and answer session from the floor

continued over

Photos Left to Right:
Jetboating Kaituna River, Traditional Maroi Weaving, Maori Warrior at Sunset, View to Matakana Island, Mt Maunganui Beach, The Bay of Plenty, New Zealand.

2005 New Zealand and Australian Avocado Growers Conference continued

WEDNESDAY 21ST SEPTEMBER

SESSION 5

Competing in a global world. A series of presentations by AMAPWG member delegates.

Chairperson: *Henry Kwaczyski*

8.00 am TBA
Gabi Naami (Israel) (TBC)

A New Zealand perspective
John Carroll (AVEC)

A Chilean perspective
Juan Pablo Cerda (TBC)

A Mexican perspective
APEAN representative (TBC)

A South African perspective
Nic Reay (TBC)

An Australian perspective
Antony Allen

9.30 - 10.15 MORNING TEA - Baycourt Theatre

SESSION 6

Postharvest quality, outturn

Chairperson: Jim Kochi

Avocado postharvest quality - an overview
Mary Lu Arpaia

Improving avocado fruit quality through tree nutrition - present knowledge
Peter Hofman

Does fruit water status at harvest determine the inherent ripening rate and expression of ripe rots?
Jonathan Dixon

Library trays - a powerful tool in fruit quality management
Henry Pak

Stem end rots - how, where, and what do they infect?
Kerry Everett

TBA
John Bower

TBA
Nagin Lallu (TBC)

12.50 - 1.30 LUNCH - Baycourt Theatre

FIELD VISIT

Conference Dinner - Tauranga Racecourse

Photo Above: Maori Warrior, The Bay of Plenty, New Zealand.

Below: Hiking Mt Maunganui, The Bay of Plenty, New Zealand.

2005 New Zealand and Australian Avocado Growers Conference continued

THURSDAY 22ND SEPTEMBER

SESSION 7

Flowering, fruit set and yield

Chairperson: *Ron Bailey*

TBA
Gad Ish-Am

Understanding avocado fruit set in New Zealand - an overview
Jonathan Dixon

Alternate bearing in avocado
Carol Lovatt

What causes fruitlets to abort?
Loren Garner (USA)

The California cross pollination experiment
Mary Lu Arpaia

10.10 - 11.00 MORNING TEA - Baycourt Theatre

SESSION 8

'Profit Together' - addressing grower technology, technology transfer and production communication needs and expectations

Chairperson: *Roger Barber*

Guy Witney *Derek Donkin*
Antony Allen *Jonathan Cutting*

Question and answer session from the floor

1.40 - 2.40 LUNCH - Baycourt Theatre

SESSION 9

Fruit size and production

Chairperson: *Lachlan Donovan*

TBA
Francisco Mena

Mulching - is it worth it?
Jonathan Dixon

Photo-oxidation in avocado leaves
Andrew Mandemaker

New strategies and tools for avocado canopy management
John Leonardi

An innovative system to achieve early precocity in avocado under the marginal growing environment in the Bay of Plenty, New Zealand
David Sher

4.30 CONFERENCE CLOSING

Please Note: this is a draft program that is subject to change.

Marketing Plan for 2005/06

Introduction

This report outlines the activities to be funded from grower marketing levies for the 2005/06 financial year.

A first draft of this plan was presented to the Avocado Marketing Committee on Tuesday 22 February 2005. The committee provided recommendations which have been incorporated into this document, including a budget revision due to the forecasted crop reduction. This plan has now been approved by both the AAL Board / IAC in late March.

Incorporating Findings of New Consumer Research

The plan has taken into consideration the possibility that a new creative campaign may need to be developed, pending the results of the consumer research currently being commissioned.

The 2005/06 Campaign Components

- Television advertising – 2 phases
- Development of new creative
- Magazine advertising
- Retail point-of-sale
- State promotional funding
- Export Development

Television Advertising

A thorough analysis of media options was undertaken and four media options were presented to the marketing committee. Included in the media investigations were opportunities with free-to-air TV, pay TV, cooking program sponsorships, sporting sponsorships, transit, outdoor, radio and sampling. The recommended option is outlined below.

The decision was based on target audience reach and flexibility to cover key production periods. It also provides good coverage of the key markets of Sydney, Melbourne and Brisbane, plus national coverage including Adelaide, Perth and regional areas previously not reached. The television advertising campaign for 2005/06 will be split into two phases. Please see the first phase.

Magazine Advertising

Continued placement of print advertisements in previously selected niche magazine publications for the 2005 season. However continuation of this strategy into 2006 will depend upon the research findings.

Heartwise Journal
- June 2005 (confirmed)
- September 2005 (confirmed)
- March 2006 (pending research outcomes)

Bounty Babycare Book
12-month publication distributed from April 2005 (pending research outcomes)

The budget includes a provision to update the artwork to incorporate the new campaign creative if necessary.

Retail Point-of-Sale

1. Print and distribution of point-of-sale material for 2006 season, possibly an 8-page fold-out recipe leaflet.
2. Content and approach will be guided by outcomes of consumer research.

Public Relations

1. A provisional budget for the 2006 season.

State Promotional Funding

Funding to support state based promotional activities throughout the year and encourage the state associations to implement additional promotions consistent with the national theme.

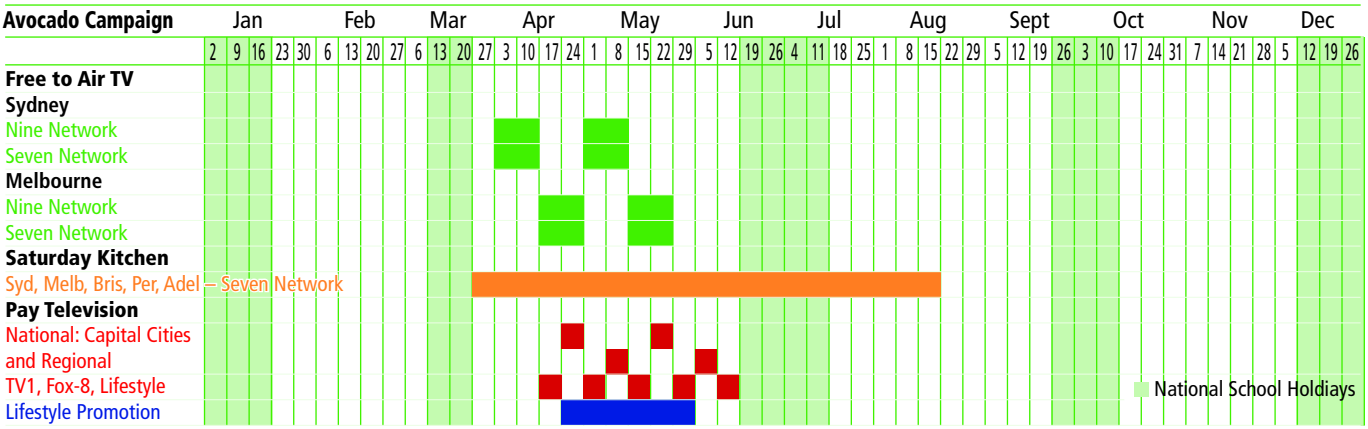
A call for proposals from state associations will need to be made in '*Talking Avocados*' (and *www.avocado.org.au*). Allocation of funding will be based on the quality of proposals and past track record in implementing promotions.

Export Development

This budget includes funding for:

1. Industry representation on HAL-built national Australian stand at Fruit Logistica 2006
2. Industry representation on HAL-built national Australian stand at HOFEX 2006
3. Co-operative promotions with exporters

Activities within this budget area will be developed in close consultation with the AAL Export Development Committee. (HAL and AAL to develop guidelines for applications.)



The Development of Canopy Management Strategies across Australia

By John Leonardi
Avocados Australia Phone/Fax: 07 5438 0257
PO Box 532 Caloundra QLD 4551
Email: j.leonardi@avocado.org.au

Introduction

Canopy management is a significant challenge for the Australian avocado industry. Effective strategies to optimise light penetration, maximise and maintain fruit quality and yield, reduce production costs, and improve efficiency of harvesting and spraying operations are essential. Several systems of canopy management are currently employed. These include selective limb removal (individual limbs are removed to maintain tree size and inter-row access); tree thinning (alternate rows or trees within a row are removed as orchards begin to crowd); stag-horning (trees are pruned back to a stump and allowed to regrow; mechanical pruning (trees are pruned to form a hedgerow) and tree removal (whole blocks removed after 10-15 years and replaced with new trees).

The current project "AV04008 - The development of canopy management strategies suited to the different growing environments across Australia for increased profitability" is the result of the previous work on pruning and growth regulator application (AV00007) and the review of canopy management strategies (AV02006).

Previous work

The previous project on the effect of pruning and growth regulator (Sunny®) application on shoot growth, flowering, yield and fruit quality made several findings:

- Pruning can control tree size however the timing of pruning will determine the success of this canopy management system. Yield was reduced in trees pruned for the first time, but after 2-3 years there was no difference in yield between pruned and unpruned trees. Trees should be pruned after harvest and prior to the onset of flowering to minimise yield losses due to flower removal.
- Pruning can stimulate vegetative growth. The timing of post-harvest prune will influence the amount of regrowth during flowering and fruit set. In the warmer production areas where the harvest is completed before flowering, pruning soon after harvest can induce vegetative growth that may compete with the developing fruit and reduce fruit quality. In southeast Queensland pruning 'Hass' immediately after harvest increased regrowth and reduced fruit quality compared with unpruned trees. Pruning 1-2 months after harvest reduced regrowth and maintained fruit quality. In north Queensland pruning 'Shepard' immediately after harvest also increased regrowth and reduced yields. Pruning 1-2 months after harvest had no effect on yield.
- The success of summer pruning is dependent on establishing and maintaining a tree shape at fruit set so that further pruning can be implemented in the presence of the crop. The timing of the summer prune influences the length of shoot regrowth and the size of the canopy. Pruning in mid to late summer in southeast Queensland reduced the proportion of the regrowth shoots that flowered the following spring. For example, at one site 55% and 43% of the shoots flowered in trees pruned in January and February compared with 78% in trees pruned in December and 88% in unpruned trees.
- Foliar application of Sunny? at flowering increased fruit size by 7-16%. Sunny® applied to the regrowth resulting from summer pruning reduced shoot length and increased flowering the following spring.
- Pruning can reduce the Calcium (Ca) concentration in the fruit. Low fruit Ca have been associated with poor fruit quality and the reduction in Ca levels observed in fruit sampled from trees pruned after harvest may be responsible for the increase in the incidence of fruit rots and disorders.

This research was conducted on 'Hass' avocado in southeast Queensland (Childers/Bundaberg) and 'Shepard' avocado in north Queensland (Mareeba). In these growing areas the crop can be harvested up to several months prior to flowering. However, there is the need to identify and develop successful canopy management strategies in other growing areas (eg. in cooler, temperate climates where fruit is present on the tree during flowering) before wider industry recommendations can be made. In 2003, the Avocado Canopy Management Review project (AV02006) identified and analysed several canopy management strategies currently employed by individual growers in the different production areas across Australia.

The current project

This project aims to identify canopy management strategies that can be successfully implemented in all major avocado growing areas across Australia including North Queensland, Central/Southeast Queensland, North/Central New South Wales, Sunraysia and Western Australia. 4-5 sites will be selected from each region. Information on variety, tree age, tree spacing and row orientation, nutrition, irrigation and other management practices, and harvest time for each canopy management system will be documented. The timing of phenological events such as flowering, vegetative flushing cycles and fruit maturity at each site will also be recorded. The effectiveness of each canopy management system in terms of cost of operation, impact on yield, fruit size and quality, tree size control and the net return per hectare will be evaluated.

Trees pruned to form an 'A' shape allowing good light interception into the orchard.

The Development of Canopy Management Strategies across Australia continued

An overcrowded orchard in desperate need of some form of canopy management. Note the lack of sunlight entering the orchard floor and large unproductive areas at the base and inside overshadowed trees.

In addition strategies to improve the canopy management systems will be evaluated. Pruning stimulates vegetative growth and the amount of regrowth during early fruit set and development may impact on yield and fruit quality. Further work will be carried out to identify the optimum time to prune trees to minimise regrowth in other production areas. In addition, the use of other growth regulators, such as naphthalene acetic acid (NAA) for regrowth control and prohexadione-calcium (a GA biosynthesis inhibitor) to reduce shoot growth and improve yield and fruit quality will be investigated under Australian conditions.

Grower participation sought

I would like to hear from growers who are using canopy management strategies in their orchards. Your experiences and contributions may provide valuable information to the national program. Interested growers can contact me:

Five year old 'Hass' trees being hedged using an Afron pruner.

Avocado Researcher Profile

Dr John Leonardi

Avocados Australia is proud to profile Dr John Leonardi to the avocado industry. John has been a full time employee of your peak industry body (AAL/AAGF) for the last five years and has worked for the industry in the area of canopy management research. During the period from July 2000 to June 2004 John worked from an office in the Queensland Department of Primary Industries (QDPI), Maroochy Research Station, Nambour, from July 2004 he moved from the QDPI and now is working from an Avocados Australia office. John brings to our industry a wide range of skills and extensive experience in tropical crops. His skills are important to our industry and we recognise the need to develop younger researcher's skills and interests in our industry. Please find below an outline of John's extensive experience.

Dr John Leonardi

Education and Experience

- **Doctorate of Philosophy, University of Queensland, St Lucia, Brisbane (1999)**

  Factors limiting fruit set and retention in cashew *(Anacardium occidentale L.)*

- **Bachelor of Agricultural Science (Honours I), University of Queensland, St Lucia, Brisbane (1989)**

July 2004-current

Industry Project Officer, Avocados Australia

Project: The development of canopy management strategies suited to the different growing environments across Australia for increased profitability

Evaluate and document canopy management strategies utilised in production areas across Australia. Identify strategies to improve canopy management systems being evaluated

July 2000-June 2004

Horticulturist, Avocados Australia and Australian Avocados Grower Federation

Project: Avocado canopy and orchard floor management

A levy funded project was established to investigate the effect of pruning and growth regulator application (Sunny®) on shoot growth, flowering, yield and fruit quality. The effect of mulching on fruit size and quality was also investigated. The research was primarily conducted on 'Hass' avocado grown in warm subtropical environments.

November 1998-June 2000

Experimentalist, Queensland Department of Primary Industries, Maroochy Research Station, Nambour

Project: Avocado canopy health and management

Conduct trials to evaluate the effectiveness of foliar phosphonate applications as a means of controlling Phytophthora and develop management strategies for using Sunny® (a growth retardant) to increase fruit size and yield.

May 1995-October 1998

Project Scientist, CSIRO Division of Plant Industry, Tropical Ecosystems Research Centre, Darwin

Projects: Stabilising mango flowering and cropping in northern Australia

National mango breeding program

Conduct trials to test the effectiveness of the CSIRO developed mango flowering treatment on Kensington Pride trees in northern Australia. Study the effect of treatment on leaf gas exchange, tree water use, yield and fruit quality.

The aim of the national mango breeding program was to develop new mango varieties for the domestic and export markets. A joint project involving the Queensland Department of Primary Industries, Northern Territory Department of Primary Industries and Fisheries, Agriculture Western Australia and CSIRO Division of Plant Industry. Involved in the hybridisation phase of the program. Performed hand pollination techniques using selected cultivars and trained staff in mango hybridisation.

October 1994-April 1995

Research Assistant, Central Queensland University, Rockhampton

Develop trials to investigate the effect of irrigation and nutrition on Culinary Bamboo shoot production and establish grapevine rootstock and Papaya dieback trials.

October 1993-July 1994

Part time Research Assistant, CSIRO Division of Horticulture, St Lucia, Brisbane

Project: The effect of pollen parent on nut retention and subsequent yield in macadamia.

Perform hand pollination techniques using selected cultivars to identify whether self and cross incompatibilities exist in macadamia.

March 1990-August 1993

University of Queensland and CSIRO Division of Horticulture| PhD Research Program

Project: Factors limiting fruit set and retention in cashew *(Anacardium occidentale L.)*

In this study the pattern of flowering and fruit set was investigated in several cultivars. Pollination experiments were performed to observe the period of pistil receptivity, the timing of pollen tube growth and the extent of self and cross compatibility amongst selected cultivars. Studies on pollen-pistil interactions and early embryo development were carried out to identify possible causes of premature fruit drop. The translocation of assimilates during flowering and fruit set was studied to determine whether competition for photosynthates may be limiting fruit set in cashew.

Crop Update

Australian Crop

By Antony Allen, CEO of AAL

Australia is estimated to experience a slight reduction in crop during the 2005/06 season (financial year). Environmental conditions have impacted on the crop in some regions. The total crop is estimated to be 5,225,000 trays. This estimate is the "early estimate" and will be updated as the region's crop is verified.

Estimates from regions.

Region	Trays 2004/2005	Trays 2005/2006
Atherton	950,000	825,000
Bundaberg	1,500,000	1,700,000
Sunshine Coast	1,000,000	800,000
West Morton	600,000	300,000
Mt Tamborine	200,000	150,000
NSW	400,000	700,000
Sunrayasia	400,000	125,000
Riverland	400,000	125,000
Western Australia	700,000	500,000
Total	**6,150,000**	**5,225,000**

Crop Update
continued

New Zealand Crop

By Jonathan Cutting, CEO of NZAGA

New Zealand experienced a more normal fruit set in the 2004 spring. Early indications are for a much increased fruit set, at least double the 2004/05 harvest season of 2,200,000 trays.

Such an increase in crop will pose some logistical and marketing challenges for the NZ avocado industry and the industry is facing its biggest crop ever. The official early bird crop estimate will be conducted through April after the major fruit drop episode is over and the results made known to industry on 1 May 2005.

The volume of avocado exports will show significant growth. At a series of Road Shows presented in growing regions in February the following possible market allocation was presented to growers

Estimates

Destination Market	Estimated Trays
New Zealand	1,500,000
Australia	1,200,000 to 1,500,000
USA	1,000,000
Japan	250,000 to 350,000
Other	<100,000
Total	**4,050,000 to 4,450,0000**

Avocado harvest temperature:

"It's 30 degrees! Time to knock off?"

Mick Considine *PhD*
Department of Agriculture WA
Locked Bag 4 Bentley DC, Perth, 6983, Australia
mconsidine@agric.wa.gov.au

Pemberton to Perth: 7-12 days per month >30 °C

In order to maintain the high quality of Hass avocados from Western Australia (WA), the industry has adopted the Californian recommendations; to harvest below 30ºC and cool-store within 6 hours. The concern is that these recommendations are too restrictive, as from Pemberton to Perth, there are 7-12 days per month at >30ºC in the harvest period. Also, many growers lack adequate cooling facilities. Since growers have received little feedback of poor quality, there is increasing pressure to ignore the guidelines. But, if there are no reports of poor quality, then what's the problem?

Maybe we haven't seen it yet!? Because most WA fruit is consumed within 14 days, there is little time for disorders to develop. But, with the projected expansion of the WA industry, longer storage times will greatly increase the incidence and severity of postharvest disorders. Hence the risk that poor-quality fruit will be marketed, damaging the industry's reputation.

Several studies have looked at the impact of heat on the quality of avocado fruit, especially in relation to chilling injury. However, these studies do not reflect WA conditions. For example, Arpaia and co-workers (Arpaia *et al.*, 1991) applied heat to fruit already harvested, showing that chilling injury increased with temperature above 30ºC. Note; these fruit were harvested at approximately 25ºC and regardless, the effect of heat on the detached fruit bears little relation to the effect preharvest. Others, such as Woolf and co-workers (Woolf *et al.*, 1999; 2000), have looked at preharvest heat, but only with direct exposure to sunlight; shaded fruit again, were less than 30ºC. Since sunlight itself greatly affects fruit development, we saw the need to look more closely at the WA conditions, with shaded temperatures above 30ºC. We also saw that other factors may also interact, in particular pre-cooling and cool-storage durations.

With the support of the Avocado Growers' Association of Western Australia (AGAWA) and Horticulture Australia Ltd (HAL), researchers at the Department of Agriculture of Western Australia (DAWA) designed a three year project to provide guidance on this potentially hot issue. We now have the results from year 1.

Temperature, sun, cooling and storage

The strategy for year 1 was to look at as many factors and interactions as possible from one orchard, near Pemberton. In the second year the experiments will be refined to provide more robust and applicable information on the key issue(s) by looking at other orchards. In the third year, it is intended to further refine the experiment with a trial shipment.

The results of the first year were enlightening. Figure 1 shows the impact of temperature over the range of 27-34ºC on the quality of ripened Hass. Although quality seemed to suffer somewhat from an increase in temperature up to 30ºC, this trend did not continue at higher temperatures. In fact, as temperatures increased there was a significant reduction in two measures of rot. Other qualities we measured showed little change over this temperature range. However, Figure 1D shows the complexity of the issue; while fruit that were cooled within 6 hours of harvest showed no change in colour as harvest temperature changed, fruit that were delayed for 24 hours did. Although the pre-cooling delay in itself had little effect, it was interactions like this that we wanted to capture.

Other variables we looked at included sun-exposure and cool-storage duration. While our data-loggers showed that exposed fruit had a pulp temperature on average 6ºC higher than the shaded fruit, there was little difference in quality. Meanwhile, storage had the expected effect; fruit stored for 28 days had a markedly reduced quality compared to fruit stored for 14 days. This was especially stark in relation to the increase in severity of rots (data not shown).

"Don't stop yet!"

While the results of year 1 do suggest that 30ºC is not as critical to quality as previously thought, we can't knock off just yet either. Particularly important, is the need to include other orchards and/ or regions in the study to determine whether the results do truly reflect the WA conditions. Also, the impact of storage duration was clear, and since the interactions between storage and temperature, or other variables were low, any differences in quality due to the harvest environment would be

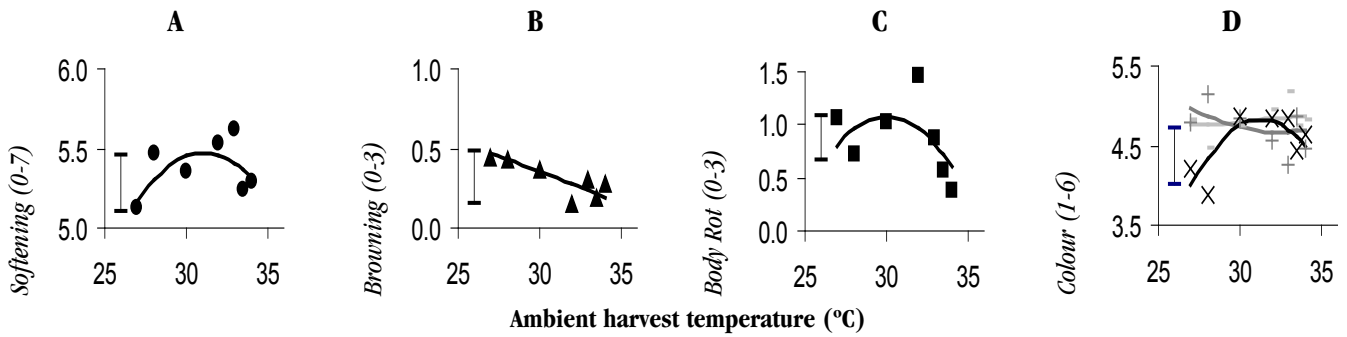


Figure 1. *Main effects of ambient harvest temperature on the postharvest quality of shaded Hass avocado. A-C, Effects of temperature on Softening, Vascular Browning and Body Rot; D, Effect of 'temperature and pre-cooling delay' interaction (2h; 6h; 24h). Mean raw and calculated data, along with least significant difference (5% LSD), are displayed.*

"It's 30 degrees! Time to knock off?" continued

magnified by storage. As the WA avocado industry continues to grow, such storage times will become necessary, so the industry needs to be certain that the decisions made at harvest are as informed as can be. Thus, this season's year 2 trials will look further at this issue so that the industry recommendations can be revised on the basis of relevant and sound data.

Acknowledgements

Michael Considine, Alec McCarthy, Jane Speijers and Soon Chye Tan wish to thank Horticulture Australia Ltd and the Avocado Growers Association of Western Australia for a voluntary contribution grant to support this research. Also, the support from Paul and Maria Bidwell for access to avocado fruit.

Further reading

Arpaia M.L., Ontai S.L. and Reints J.S. Jr 1992. *Protecting the postharvest quality of avocado.* Calif Avoc Soc Yearbook. 76: 93-97.

White A., Woolf A. and Hofman P. 2001. *Fruit quality parameters assessed using guidelines from the AvoCare Assessment Manual.* HortResearch, New Zealand.

Woolf A.B., Bowen J.H. and Ferguson I.B. 1999. *Preharvest exposure to the sun influences postharvest responses of 'Hass' avocado fruit.* Postharvest Biol Tech. 15: 143-153

Woolf A.B., Wexler A., Prusky D., Kobiler E. and Lurie S. 2000. *Direct sunlight influences postharvest temperature responses and ripening of five avocado cultivars.* J Am Soc Hortic Sci. 125(3): 370-376

Visitor from Israel

By Fiona Giblin
from Horticulture and Forestry Science, Queensland Department of Primary Industries and Fisheries.
Email: fiona.giblin@dpi.qld.gov.au

Approximately 20 years ago, a team of scientists lead by Dov Prusky at the Department of Post Harvest Science of Fresh Produce, Agricultural Research Organisation, Volcani Centre, Bet Dagan, Israel, embarked on an area of research which has since proven to be critical to our understanding of the ability of plants to naturally resist disease.

Their research explored the biochemistry of compounds found in the leaves, fruit skin and fruit flesh of avocado. They detected, isolated and confirmed the existence of antifungal compounds present in the skin of fruit. These compounds, known as dienes, are of particular importance during fruit ripening and have a significant impact on the interaction between the fruit and infection by the anthracnose pathogen Colletotrichum gloeosporioides.

It has been known for a long time that Colletotrichum gloeosporioides is able to infect fruit on the tree at any stage after fruit set. The fungus can penetrate into the wax layer and cuticle of the fruit where it ceases growth and remains dormant, as a quiescent infection, until harvest. As the fruit ripens, antifungal diene levels go down and this allows the fungus to resume growth, infect the fruit, and produce anthracnose lesions.

We intend to develop a capability to measure diene levels in avocado at the Indooroopilly plant pathology research laboratory. This is necessary as part of our project to control anthracnose by enhancing the levels of natural defence compounds using defence promoters and rootstocks.

From 10-22 October, we were very fortunate to have biochemist, Ilana Kobiler, visit us from Israel. Ilana has worked with Dov for many years and came to share her techniques with us. We spent a very intensive 2 weeks extracting compounds from avocado leaves and skin and then analysing the extracts using High Power Liquid Chromatography (HPLC).

Fruitspotting bug hotspot project

- results and conclusions

Geoff Waite
Principal Entomologist, Maroochy Research Station

The project, *'Fruitspotting bug management using hotspots for targeted monitoring and control'*, which ended in June, sought to:

Confirm that the fruitspotting bug hotspot phenomenon does exist, and can be identified in avocado orchards in all avocado growing areas where the bugs are active.

- Demonstrate that these hotspots can be used to monitor for the presence of the bugs.
- Control the bugs by treating when possible only the hotspots, but at least use hotspot activity to determine when to spray whole blocks.
- Determine if there is any difference among cultivars with respect to fruitspotting bug susceptibility, with a view to identifying cultivars having the potential to act as trap/decoy trees.

Hotspots

Data acquired over the two seasons of the project support the hypothesis that growers can utilize the hotspot phenomenon to improve management of fruitspotting bugs. The data also provides some interesting information in relation to the relative susceptibility of various avocado cultivars to the bugs, providing the opportunity to develop an 'attract and kill' approach for the management of the pests.

The results of the first season's trials (2002-03) conducted under relatively light spotting bug infestations were reported in the Spring issue 2003 of *Talking Avocados*. In 2003-04, the higher intensity of bug attack was noted early in the season through the level of damage detected in the previously identified hotspots at all trial sites. A pleasing aspect was that at Glasshouse despite the increased activity, only part of the trial blocks (the hotspot area) rather than the whole block was sprayed on a number of occasions. This was made possible through regular monitoring, resulting in 2.4 and 4.0 equivalent whole sprays being applied for the season, compared with 10 applied to the rest of the orchard (Table 1). Final damage levels, though higher than in 2002-03, were insignificant at 1.3% and 0.5% for the trial and non-trial blocks respectively, so that relatively little extra damage resulted from implementation of the strategy in the trial blocks.

The Woombye orchard, which is situated in an intense district-wide hotspot, suffered heavy damage (13.6%) in 2003-04. This resulted not from monitoring failures, but because of a site-specific problem that prevented the application of critical sprays when they were required. From a research point of view the scenario that unfolded here was instructive in regard to several issues. Firstly, it again identified that the major infestation by fruitspotting bugs commenced in hotspot areas that were associated with adjacent rainforest and untended neighbouring fruit trees. Secondly, it reinforced the notion that the wider and probable total infestation of an orchard ensues relatively quickly if hotspots are not treated as soon as fresh damage is detected; it also suggests that sprays should probably be applied more frequently to hotspots than to the whole orchard under the traditional approach, to prevent pest dispersal beyond the hotspots. Thirdly, despite the data presented below in relation to cultivars that the bugs seem to prefer, it showed that **hotspots can override cultivar susceptibility,** and the bugs will attack whichever cultivar happens to be growing at their 'first port of call' (Figure 1). Finally, if several hotspots occur in a relatively small orchard, the whole orchard should be sprayed.

At Goodwood, hotspots were monitored to determine when cover sprays should be applied. These were often used in conjunction with perimeter sprays. Experience with the strategy has lead to a commitment by management to implement and progress the hotspot strategy this season.

Cultivars

Earliest of the cultivars (cv) grown in the orchard at Maroochy Research Station, the cv Pinkerton sometimes flowers in late August and usually in early September, and sets fruit at least three weeks before Fuerte. For this reason alone, it is very attractive to fruitspotting bugs, which become active as the weather warms and various host plants set fruit.

In 2003-04, the Pinkerton tree known as Pinkerton 2 set in excess of 300 fruit. Fruit spotting bug populations early in the season were very high, and this was reflected in the severe damage caused to this

Table 1: Endosulfan sprays applied to Glasshouse trial blocks, 2003-04

Date	Sprays applied to Block 4 (consisted of 11 rows)	Sprays applied to Block 5 (consisted of 13 rows)	Days between sprays
3 November 2003	Rows 1-6	Rows 1-4 Rows 5-7 bottom half only	
10 December 2003	Nil	Rows 1-4 Row 9 bottom half only	**37**
23 December 2003	Rows 10-11	Rows 1-13	**13**
21 January 2004	Nil	Rows 1-13	**29**
10 February 2004	Rows 1-11	Rows 1-4 bottom half only	**20**
26 February 2004	Rows 1-11	Rows1-13	**16**
Equivalent sprays applied	**2.7**	**4.0**	
Sprays applied to balance of orchard = 10			

Fruitspotting bug hotspot project - results and conclusions continued

cultivar soon after fruit set. Within three weeks, more than 300 fruit had been damaged and although the data shows a relatively constant level of damage with no apparent new damage occurring, this apparent reduction in bug attack is merely a reflection of the shedding of damaged fruit (Figure 2). Fuerte 2 was attacked more severely and earlier than Fuerte 1, which again suffered most damage late in the season. There were major differences in the amount of damage incurred by Pinkerton and Fuerte, compared to Hass (Figure 3).

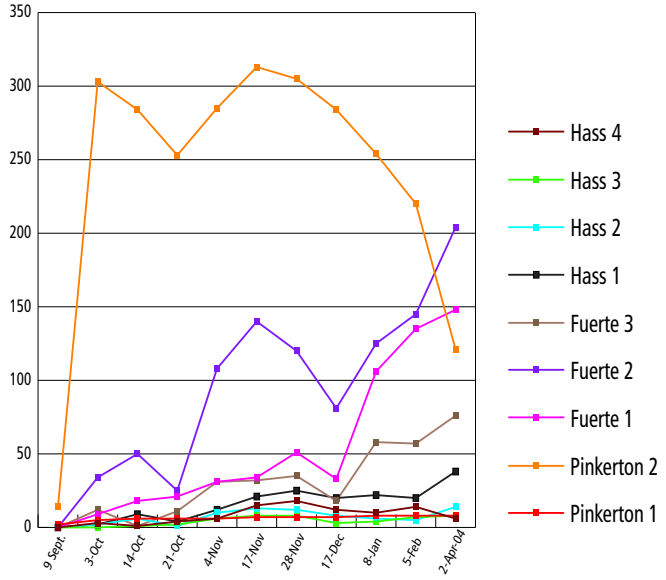


Figure 2: Fruitspotting bug damage to avocado cultivar, Maroochy 2003-04

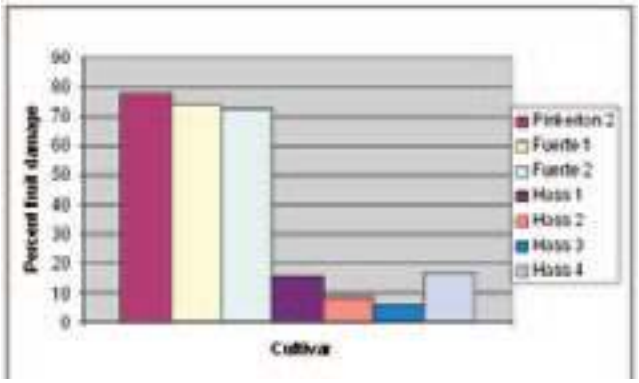


Figure 3: Fruitspotting bug damage on tree/cultivar, Maroochy 2003-04

As noted above, hotspots can override apparent cultivar susceptibility/non-susceptibility, especially when control of the bugs has been less than adequate, and/or the interval between successive sprays is too long. While the bugs do exhibit a preference for the thin-skinned cultivars, if they are allowed to move into the orchard and remain there in numbers, they will inevitably disperse throughout, regardless of the cultivar mix. This was apparent at Maroochy in both seasons where, despite major damage being caused to the Fuerte and Pinkerton, because the bugs were not controlled on those trees, they moved on and attacked the Hass. In this particular situation, in addition to lack of control of the bugs, the resulting damage in the Hass trees was probably more severe than it might be in a commercial orchard because of the close proximity of the various cultivars to one another in this very small trial orchard.

Key outcomes of the project were:

- demonstration that hotspots exist over a range of orchard types in different geographical areas
- bug activity can be monitored in these hotspots and treatments applied accordingly, either to the hotspot alone or to the whole block/orchard
- some cultivars are more susceptible to fruitspotting bugs than are others, and at the very least can be used as indicators of bug activity, and could be used as decoys or trap trees on which the bugs can be killed before they disperse into more valuable commercial cultivars. The use of a thin-skinned cultivar such as Fuerte for these purposes facilitates monitoring, since fresh damage is more easily visible on thin-skinned cultivars than on Hass.

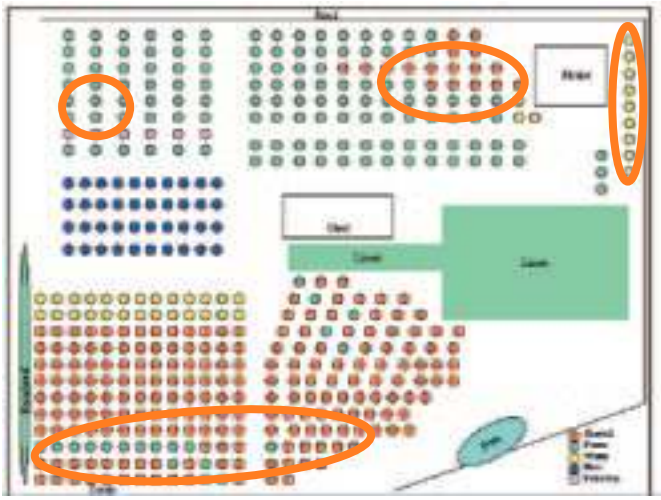


Figure 1: Woombye Orchard Hotspots: *(not to scale)*

Avocado Oil is a 'Nutrient Booster"

New research shows that Avocado Oil is a much healthier alternative to many manufactured salad dressings.

Researchers in America say two and a half teaspoons of Avocado Oil drizzled over salad acts as a "Nutrient Booster", helping the body to absorb more heart-healthy and cancer-fighting nutrients.

A report in the latest issue of Journal of American Dietetic Association shows that Avocado Oil and Avocado fruit don't just provide healthy ingredients such as mono-unsaturated fat, antioxidants and phytonutrients, they also assist the body to better absorb their goodness.

According to Dr Steven Schwartz, one of the team at Ohio State University that conducted the research: "Many fruits and vegetables are rich in beneficial carotenoids, but most fruits and vegetables are virtually fat free, which may limit the body's ability to absorb some of these nutrients.

"Our latest research shows that the natural fat content in Avocados (and Avocado Oil) increases carotenoid absorption, which offers nurtritional advantages over other sources of fat, like salad dressing."

The Ohio State University study tested two groups of healthy adults on salads and salsa with and without fresh Avocado and also separately studied Avocado Oil. It reported "those who eat the lettuce, carrot and spinach salad containing 75g of avocado - equivalent to 2.5 teaspoons of Avocado Oil - absorbed 8.3 times more alpha-carotene and 13.6 times more betacarotene, which are recognised for their ability to protect against certain cancers and heart disease."

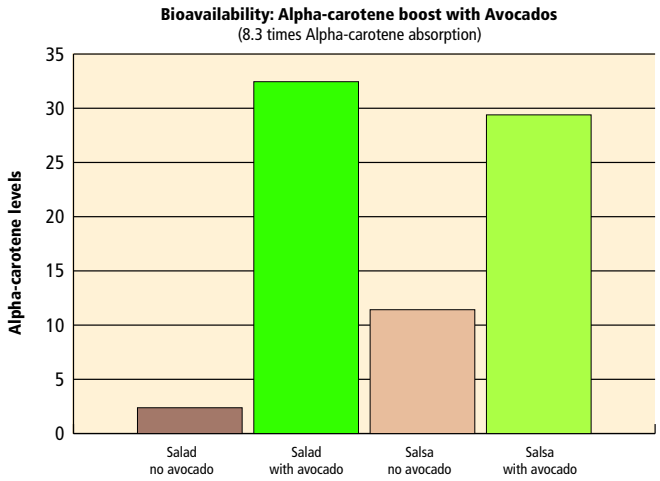
The report went on to say those who consumed salsa with 150g of Avocado - equal to 24g of Avocado Oil - absorbed 4.4 times more lycopene, which has been linked to prostate cancer protecion and their absorption of beta-carotene doubled. They also absorbed 4.3 times more lutein, which contributes to eye health and protects against macular degneration, the leading cause of blindess in the elderly.

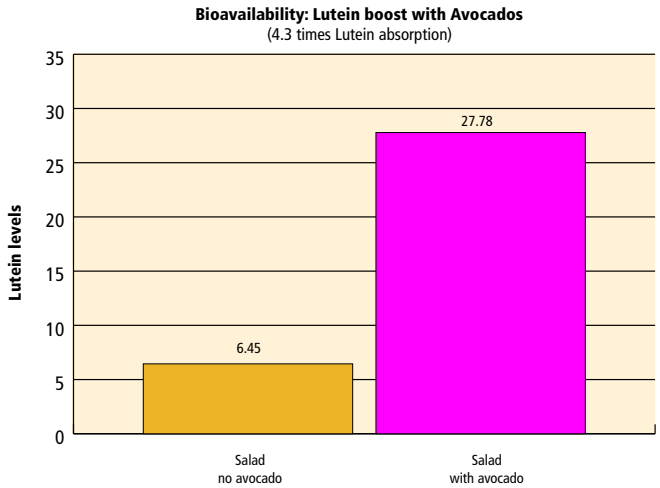
The results showed that the increases worked for both fresh Avocado fruit and Avocado Oil. However, the research indicated that whilst the optimum amount of fresh Avocado required per meal was 150g, just 24g of Avocado Oil was needed to provide the benefits.

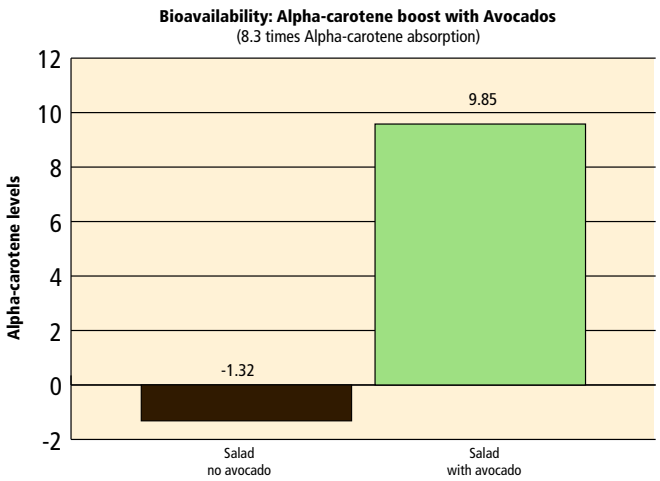
Chris Nathan, Managing Director of New Zealand's award-winning Avocado Oil producer, Olivado Gourmet Foods, says these findings backs literature reports his company has been collecting on the health benefits of Avocado Oil.

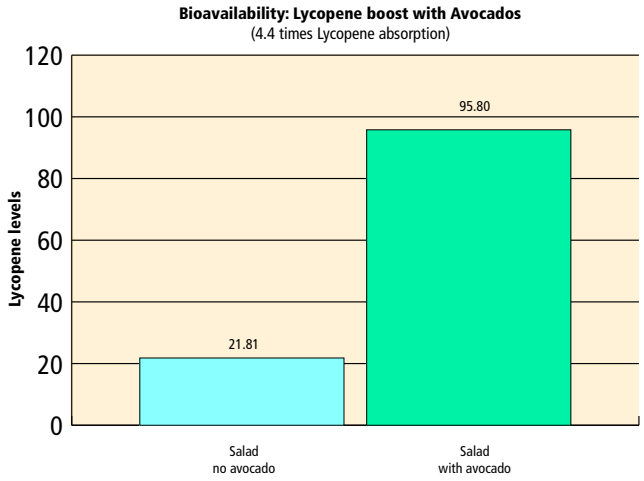
"There is mounting evidence to show that people should be including Avocado Oil, as well as the Avocado fruit in their daily diet and this latest research is the most compelling to date," he adds.

"And what a lot of people need to realise is that you can also use our Avocado Oil in cooking because it has a very high smoke point and won't burn like many other foods oils."









News from around the world

Fast Jet Cargo Vessel Tackles Need for Speed

Following the European Commission's decision to promote short sea projects, the launch of BGV's Fast Jet Cargo Vessel is close at hand

A pilot project to develop a new fast jet cargo vessel for short sea shipments of fresh produce around Europe could lead to the introduction of a viable alternative to road transport for Spanish and North African exporters to Northern Europe by the middle of next year.

The fast jet vessel's impending arrival comes in the wake of the European commission's Transport White Paper of September 2001, which proposed new funding for the development of so-called "motorways of the sea" as an alternative to land transport. In doing so, the EC hoped to encourage new intermodal, maritime-based logistics chains that would improve sustainability and commercial efficiency.

The new ship, yet to be officially named but referred to as BGV Fast Jet Cargo Vessel, has an average top speed of 35 knots/hr and is designed for roll on/roll off transferral of containers, swap-bodies and semi-trailers. Furthermore, the vessel has a relatively low fuel consumption level due to the innovative design. The largest version currently conceived will be able to carry 230 trailers and can be fully loaded or unloaded within an hour. The project is being overseen by French consortium BGV International in collaboration with Dutch group NEA Transport Research and Training, and follows the success of UnitNet Shortsea, a separate programme aimed at finding an alternative to trucking from Spain to northern Europe.

Recently short sea trials involving citrus shipments from Cadiz to Rotterdam met with considerable success, says Natasa Solano-Vesela, business development manager at NEA. "Results so far have shown that the short sea alternative is very suitable for the transportation of fruit," she says. "Taking into consideration the fact the Fast Jet Cargo Vessel is even faster, it should be concluded that the advantages of using such a vessel will be even greater."

According to Ms Solano-Vesela, a number of shipping routes have been taken into consideration during the vessel's conception. "The boat could be deployed for perishables on the route from North Africa and Spain to Rotterdam, Scandinavia or Russia," she suggests. "In principle, it is able to operate on the Atlantic route as well and could be used on the US/Northern Europe stretch."

"The vessel represents an excellent substitute for road transportation, which, within Europe, is being confronted with increasing restrictions like road congestion, motorway tolls and driver resting time," says Ms Solano-Vesela.

"The fast jet cargo vessel offers numerous possibilities for time-sensitive cargo like fruit and vegetables."

The first BGV Fast Jet Cargo Vessel is currently being constructed on behalf of a Norwegian client and will be deployed between Boulogne-sur-Mer around mid 2006 for the transportation of fruit, vegetables and fish.

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Modern Trade Drives Growth of Thailand's Food Retail Sector

The retail trade is an important sector of the Thai economy, accounting for approximately 14 per cent of the country's GDP and 44 per cent of total consumer expenditure in 2003.

The Thai economy has gradually recovered from the financial crisis suffered in 1997 and this factor, combined with a liberal regulatory regime, has encouraged an influx of multinational retail investment in modern retail formats across the country.

The majority of these investments have come from leading international retail chains, including UK giant Tesco, which operates the Tesco Lotus chain, French retailers Carrefour and Casino, and Dutch-based retailer Makro. Thailand's retail market is dynamic and diverse with a range of retail formats in operation, including hypermarket stores, shopping centres, supermarkets and convenience stores.

The largest retail group in Thailand is Ek-Chai Distribution System Co, which operates Tesco Lotus Supercenters and Lotus Express. The

News from around the world continued

group's stores generated around US$1.374bn in sales turnover in 2003. Other major retailers include, Makro, with a turnover of US$951m; Charoen Pokphand group, which operates the 7-Eleven convenience store chain (US$778m); Central Group, which owns Tops Supermarkets (US$673m); The Mall Group (US$654m); and Cencar; operating Carrefour outlets (US$398m). In 2003, trade sources estimated that there were around 296,000 food retailers in Thailand.

Thailand's food retail sales were put at US$30.59bn in 2004, up 6 per cent on the previous year, and making up 60 per cent of total Thai retail sales. A 10 per cent growth in grocery sales during 2003 made Thailand the second fastest growing Asian retail market behind China. Hypermarkets, which occupy the largest portion of the modern trade segment, have accelerated their expansion schemes to open more branches in Bangkok and major cities and they lead the way in implementing competitive pricing and promotional strategies.

The expansion of large multinational discount stores over recent years has led to the closures of small retail businesses. According to AC Nielson, the number of traditional grocery stores reported in 2002 was 283,009, and this number decreased 3.43 per cent to 273,314 in 2003. Thai consumers have moved toward hypermarkets and supermarkets that provide convenience, one-stop shopping, and a large parking area, as well as offering a range of products, often at lower prices.

Most Thai consumers, particularly those who live upcountry, still visit wet markets to buy their fresh food products as they perceive the products sold at wet markets to be fresher and cheaper.

In 2003, Thailand had approximately 238 supermarkets, 6,500 convenience stores, 127 hypermarkets/discount stores, 289,135 traditional grocery stores and around 560,000 wet markets.

The leading food retailers in Thailand are Tesco Lotus, Big C, Makro, Carrefour, Tops Supermarket, Home Fresh Mart, Foodland Supermarket, Home Fresh Mart, Foodland Supermarket, Villa Market, Siam Jusco and UFM Fuji Supermarket.

Despite the expansion of large hypermarket and supermarket chains, the low price, familiarity and close location of wet markets make them a preferred shopping source for many consumers, particularly those in the lower income brackets.

Most Thai people still shop at wet markets for their fresh food products. Thai consumers have the highest frequency of visiting wet markets, with an average of 18 visits per month. They frequent convenience stores at least six times a month, and supermarket and hypermarket stores four times per month.

Pundits see great potential for further growth in the Thai retail market as the economy continues to grow. By 2008, total retail sales are expected to reach US$60bn. The total number of food retail outlets is also anticipated to rise to 350,000 outlets by 2008.

EUROFRUIT magazine - March 2005 - Retail Monitor

News from around the world continued

CASPIAN Boycotts Tesco over RFID Tagging

CAPSIAN (Consumers Against Supermarket Privacy Invasion and Numbering) has launched a website in an attempt to boycott Tesco, the world's third largest retailer, following the decision to extend trials of item-level RFID (radio frequency identification) tagging.

In January, Tesco reached an agreement with ADT Security Services for the supply of 4,000 RFID readers and 16,000 antennae in the first phase of a multi-year contract, the largest order of its kind in the world.

CASPIAN founder and director Katherine Albrecht deemed the decision "irresponsible" and called on consumers to reduce their purchases at Tesco or boycott the chain altogether.

For the past year, Tesco has been running trials of RFID tags which consist of a microchip and a tiny antenna that transmits data from the chip to a reader. The reader is activated when the antenna comes into range and the data can be used to trigger an event such as ordering more stock.

CASPIAN is concerned that the technology, which is likely to replace traditional bar codes, can be secretly monitored right through a customer's shopping bag.

Tens of thousands of unaware shoppers have already been affected by the trials which were tested in Gillette razor blades during August 2003.

EUROFRUIT magazine - March 2005 - page 10

Mexican Avocado given Free Reign in all 50 US States

Imports of fresh Mexican Hass avocados have been extended to all 50 US states on a year-round basis. The first phase of the expansion, issued by the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), will become effective as of January 31.

During the first two years, Hass avocados from approved orchards and municipalities in Michoacan, Mexico will be distributed in all states, excluding California, Florida and Hawaii. In January 2007, all 50 states will be opened up to avocado importers.

US growers have heavily opposed imports of Mexican avocados for nearly eight decades because of feared competition which could cut their sales by as much as 20 per cent.

As a result, the market has been closed to Mexico until the North American Free Trade Agreement was signed in 1993. However, allegations that Mexican avocados were plagued by pests grounded imports for a further four years.

Under the new regulations, certain phytosanitary measures have to be respected. In order to reduce the risk of introducing plant pests, such as fruit flies, into the US, Hass avocados will only be grown in approved orchards in Michoacan. In addition, the avocados must be packed in clean, new boxes or clean plastic re-usable crates prior to export. The boxes must also be clearly labelled with the name of the grower, packing-house and exporter.

Mexico is the world's largest avocado producer with an annual harvest of 1m tonnes. Last year, 42,600 tonnes of avocados, worth US$90m, were shipped to 31 US states during a restricted six-month commercial period, lasting from October to April.

According to the USDA's Foreign Agricultural Service, this year Mexico's avocado production is forecast at 1.03m tonnes due to increased plantings of avocado trees, favourable weather conditions and good yields. As a result, Mexican growers expect to increase their US exports to 135,000 tonnes, worth around US$240m.

AMERICAFRUIT magazine - February March 2005 - page 4

Internet Access for Regional Areas

By Antony Allen

With every minute that passes the amount of information that is available on the "world wide web" (www) or internet, grows. With each day it becomes more important to have the most cost effective, highest connection speed available.

As growers the need to access information regarding weather, prices, markets and other important business information is becoming more and more necessary to stay ahead of the pack. Even Avocados Australia in our "Login" section will contain information such as final reports on research projects and marketing updates that will include files of 500KB and up to 2MB in size. These files can not be shrunk. To do so would make their inclusion of no value - the value is in the completeness of the reports.

So what can I do?

Well you can check if you have broadband internet in your area. The most likely type of broadband that will available to you is "ADSL". ADSL is a form of broadband that uses existing telephone wires. It allows you to make calls and use the internet at the same time, while having just one telephone line.

How do I know if I have ADSL access?

The easiest way is to use *www.whirlpool.net.au* to search your own phone number. Whirlpool is an independent site that has good information regarding plans, equipment and information. Go to this website and in the top right hand side enter your number to see if your exchange is ADSL enabled. If it is you will be given the option to search the providers in your area and the site will compare price, speed and services. If you are not able to access ADSL, and it will be clear to you if you can't, satellite internet is the next broadband option for you.

What is Satellite and what can it do for me?

Broadband Satellite is a great way for you to enjoy broadband internet almost anywhere in Australia. Because 2-Way Satellite internet doesn't depend on land-based phone lines or cables, it can reach places that are far beyond the range of broadband ADSL or cable services.

Broadband Satellite uses the enormous bandwidth and geographical coverage of orbiting satellites. So even if you live in a community far from the nearest city, you'll still be able to surf the net at amazing speeds. There are two options for you to choose from - high speed uploads and downloads with a 2-Way Satellite Service, or a hybrid 1-Way Satellite service that gives you fast downloads with either cost-effective (but slower) phone-line uploads or somewhat faster ISDN uploads provided by the Broadband Regional Connect package.

Both options will let you download large files fast. The amazing download speeds of either Broadband Satellite service means even large downloads take a lot less waiting. And the Satellite connection is far more robust than dial-up, so you won't have to start again because the line dropped out.

To access satellite you may be eligible for the HIGHER BANDWIDTH INCENTIVE SCHEME (HiBIS). HiBIS can make satellite as cost effective as ADSL. For more information including suppliers go to *www.telinfo.gov.au*

Most importantly, investigate your options. It may be best to stay on the dialup system that you have now, but for a small amount more (approximately $10 - $20 per month more including local call costs) the online world is available at speeds that will amaze you, making downloading easier.

Grower Member Application Form

Avocados Australia Limited

ACN 105 853 807

For Associate and Affiliate membership application forms please go to **www.avocado.org.au** or call **07 3391 2344**

Member Details

Business name and/or trading name: _____

_____

ABN: _____

Key contacts: _____

Preferred address (postal): _____

_____

Address of property (if different): _____

_____

Contact Details

Business phone no: _____

Home phone no: _____

Fax no: _____

Mobile no: _____

Email: _____

Corporate Structure

How would you describe the nature of your operations (please circle)?

Individual	Partnership	Company	Trust
Lessee	Cooperative	Other (please specify)	

Please indicate the area of property that you crop for avocado production (please circle)

0.5 - 5 ha	6-19 ha	20-49 ha	50-99 ha
100-149 ha	150-199 ha	200-499 ha	500 ha+

Special Interests

Please tick your main areas of interest from any of the following:

- ☐ Consumer information
- ☐ Environmental management/ sustainability
- ☐ Organic farming systems
- ☐ Water management
- ☐ Field days
- ☐ Pest management
- ☐ Food safety
- ☐ Production management
- ☐ Quality Assurance
- ☐ Technology/innovations
- ☐ Marketing
- ☐ Supply chain management
- ☐ Key political issues
- ☐ Other (please specify) _____

Payment Options

Grower Membership of Avocados Australia is $110 pa (including GST). You can pay your membership by cheque or credit card. To pay your membership fee, please choose one of the following options:

☐ Cheque

Please find enclosed a cheque for $110.00 made payable to Avocados Australia Ltd.

Please charge $110.00 to my credit card. Details are listed below.

☐ Credit card (please circle):

Bankcard MasterCard Visa

Credit card number:

Name on credit card:

Expiry date:

Signature:

Privacy Options

Avocados Australia Ltd adheres to privacy rules with respect to the way we collect, use, secure and disclose personal information. Please indicate below (tick) if you do not wish to receive additional information.

☐ I do not give Avocados Australia Ltd permission to allow my postal contact details to be accessed by other organisations other than Avocados Australia Ltd which offer beneficial products and services.

•NB - No personal details other than name and postal address will be given out under any circumstances.

ONCE YOU HAVE COMPLETED THIS FORM
PLEASE PLACE IT IN AN ENVELOPE ADDRESSED TO:

Avocados Australia
Reply Paid 663
Stones Corner Qld 4120

(no stamp required within Australia):

For more information or assistance please go to

www.avocado.org.au or call on **07 3391 2344**

Where to with spotting bugs?

By Dr Henry Drew
Growing Greener Growers, Hunchy, Queensland
Ph: 07 5445 0032 Email: hjdrew@ozemail.com.au

Spotting bugs in avocados has long been a contentious issue. Probably no other pest elicits such strong feelings. The debate has seesawed back and forth with the seasons. Are they a major problem? Does spraying make it better or worse? Can hotspot spraying provide the answer? Is fruit fly a bigger problem?

Well it's time for you the growers to have your say. Just before Christmas over 600 avocado growers in the Eastern States were sent a copy of a spotting bug questionnaire with the December issue of *Talking Avocados*. In the heat of the festivities not very many were returned! **Does this indicate that spotting bug is not an issue for most growers?** Are they so easily controlled as to be a minor problem? Or was it simply a case of more important priorities like getting together with family and friends and forgetting the headaches on the farm?

No matter what your reasoning we NEED your reply! If it is NOT a major issue we need your questionnaire to confirm that. So if you can please search your desks, your offices, your tractor cab or your waste bin to find the form and return it, it would be much appreciated. If you can't find it a copy can be found on the Avocados Australia website at *www.avocado.org.au*. Additionally all eastern seaboard Avocados Australia members, have received another copy of the questionnaire mailed DIRECTLY to them. Please take the time to return it and go into the draw for a Suncoast Gold Macadamia Hamper.

So far the limited results do look very interesting. Of course Fuerte and Pinkerton growers reported the highest pest pressure. However even 12% of predominantly Hass growers had more than 20% of fruit rejected in the shed in their worst years. Most damage was believed to occur in January - February with little damage after April in all areas. Damage and spraying practices varied very widely as did the estimated dose of Endosulfan applied. 10% of respondents were not spraying at all. 75% were using airblast sprayers with most applying between about 1 and 3 litres of spray per 100 cubic metres of canopy. Average application speed was 3.4 kph. Most respondents using Endosulfan were applying a relatively low dose of between 2 and 6 ml Endosulfan per 100 cubic metres of canopy. There seems to be some confusion over the relatively new concepts of Dilute Spraying and Concentrate Spraying now appearing on all tree crop product labels. This highlights the issue of sprayer calibration and its link to effective dose for both insecticides and fungicides. On average even Hass growers applied 6 sprays per season for spotting bug with about 20% of respondents applying 10 or more sprays.

About 30% of respondents had never seen a live spotting bug in the orchard. Almost 30% of respondents were not confident in differentiating spotting bug and fruit fly damage and nearly 70% were not confident in differentiating spotting bug nymphs from assassin bug (good guy) nymphs. The most consistent factor in hotspots was local area, with most respondents blaming the hotspot site on adjoining native habitat.

Once a greater number of questionnaires have been returned and analysed local consultants will be visiting 20 orchards from Nambucca to the Atherton Tableland to prepare case studies on interesting properties. These in-depth studies will hopefully further clarify some of the issues.

If you haven't already replied I look forward to receiving your questionnaire in the near future.

Electronic Guacamole?

What is "Guacamole"?

We should all know what guacamole is? A dip made of mashed avocados seasoned with onions, tomatoes, garlic, chillies, and other spices.

3 Hass avocados, halved, seeded & peeled

1 lime, juiced	1/2 teaspoon salt
1/2 teaspoon ground cumin	1/2 teaspoon cayenne
1/2 medium onion, diced	2 Roma tomatoes, seeded & diced
1 tablespoon chopped cilantro	1 clove garlic, minced

In a large bowl place the scooped avocado pulp and lime juice, toss to coat. Drain, and reserve the lime juice, after all of the avocados have been coated. Using a potato masher add the salt, cumin, and cayenne and mash. Then, fold in the onions, tomatoes, cilantro, and garlic. Add 1 tablespoon of the reserved lime juice. Let sit at room temperature for 1 hour and then serve.

But what is electronic Guacamole?

Avocados Australia's new fortnightly e-newsletter is called "Guacamole" and is similar to the dip, a mix mash of avocado information for Australian avocado growers with bits and pieces of horticultural, business and international information related to our industry. We have recognised the importance of keeping you informed in between Talking Avocados editions and electronic communication is the quickest and most effective mode of information dissemination that is available.

"Guacamole" will only be published electronically, emailed every

fortnight directly to those growers who have provided email addresses to Avocados Australia. We will make sure that it is not more than 300 KB in size - we don't want to clog up your inbox!

Avocado Growers Organisations

Regional Avocado Grower Organisations

Atherton Tableland Avocado Growers' Association
Merrilyn Land, President 07 4093 2206
Col Cummins, Secretary 07 4095 8121
Fax: 07 4095 8122

Bundaberg & District Orchardists' Committee
Geoff Chivers 07 4153 3007
Fax: 07 4153 1322

Sunshine Coast Avocado Growers Association
Henry Kwaczynski, President 07 5442 1767
Fax: 07 5442 1767

West Morton Avocado Growers' Group
Rod Dalton, Convener 07 5466 1316
Fax: 07 5466 1497

Tamborine Mountain Local Producers' Association
Bruce Bartle, President 07 5545 1527
Bev Buckley, Secretary 07 5545 2617

New South Wales Avocado Growers Association Inc.
Gordon Burch, President 02 6550 4055
Alison Tolson, Secretary 02 6569 0872
Fax: 02 6569 0885

South Australia Avocado Growers' Association
Colin Fechner, President 08 8541 2819
Greg Liebig, Secretary 08 8541 2174
Fax: 08 8541 2174

Avocado Growers' Association of Western Australia
Alan Blight, President 0417 179 127
Eleanor Press, Secretary 08 9776 1332
Fax: 08 9776 1332

Directory of Government Contacts

Australian Government Departments & Agencies

Department of Agriculture, Fisheries and Forestry
02 6272 3933 www.daff.gov.au
New Industries Development Program
1300 884 588 www.daff.gov.au/agribiz
Agriculture Portal www.agriculture.gov.au
Austrade
13 28 78 www.austrade.gov.au
Australian Bureau of Agriculture & Resource Economics
02 6272 3933 www.abare.gov.au
Australian Bureau of Rural Sciences
02 6272 3933 www.brs.gov.au
Australian Bureau of Statistics
1300 135 070 www.abs.gov.au
Australian Competition and Consumer Commission
02 6243 1111 www.accc.gov.au
Australian Customs Service
1300 363 263 www.customs.gov.au
Australian Pesticides & Veterinary Medicines Authority
02 6272 5852 www.apvma.gov.au
Australian Tax Office
13 28 66 www.ato.gov.au
Australian Quarantine and Inspection Service
02 6272 3933 www.aqis.gov.au
Business Entry Point www.business.gov.au
Department of Employment and Work Place Relations
02 6121 6000 www.dewr.gov.au
Department of Environment and Heritage
02 6274 1111 www.deh.gov.au
Department of Foreign Affairs and Trade
02 6261 1111 www.dfat.gov.au
Department of Industry, Tourism and Resources
1800 024 095 www.industry.gov.au
Department of Transport and Regional Services
02 6274 7111 www.dotars.gov.au
Food Standards Australia New Zealand
02 6271 2222 www.foodstandards.gov.au
Grants Link www.grantslink.gov.au
IP Australia
1300 65 1010 www.ipaustralia.gov.au
The Ministerial Council on Consumer Affairs
www.consumer.gov.au

State Government Departments & Agencies

Australian Capital Territory
Business ACT
1800 244 650 www.business.act.gov.au

New South Wales
NSW Agriculture
02 6391 3100 www.agric.nsw.gov.au
Dept of State and Regional Development
02 9228 3111 www.business.nsw.gov.au

Northern Territory
Dept of Business, Industry and Resource Development
www.nt.gov.au/dbird/dpif

Queensland
Dept of Primary Industries
07 3404 6999 www.dpi.qld.gov.au
Dept of State Development
07 3225 1915 www.sd.qld.gov.au

South Australia
Dept of Primary Industries and Resources www.pir.sa.gov.au
Food for the Future
08 8226 0585 www.food.sa.gov.au

Tasmania
Dept of Primary Industries, Water and Environment
03 6233 6496 www.dpiwe.tas.gov.au
Dept of Economic Development
1800 030 688 www.development.tas.gov.au

Victoria
Business Victoria
13 22 15 www.business.vic.gov.au
Dept of Primary Industries
136 186 www.dpi.vic.gov.au
Food Victoria www.food.vic.gov.au

Western Australia
Department of Agriculture
08 9368 3333 www.agric.wa.gov.au