



# TALKING AVOCADOS

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**CEO's Report for 2011/2012**

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**Social Media Report:  
Australian Avocados goes Social**

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**Impact Induced Bruising in  
Ripening 'Hass' Avocado Fruit**

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# Avocados Australia Limited

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## Talking Avocados

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

## In this issue

Chairman's Perspective	3
CEO's Report	4
Letters to the Editor	5
Industry Matters	6
Around Australia	11
Infocado Crop Forecast	18
Cold storage of partially ripened Shepard	19
Avocados New Zealand – A "World View"	20
New technology leading the way	24
The Quality Story – how are we looking now?	26
<i>Calonectria illicicola</i> ( <i>Cylindrocladium parasiticum</i> ) a newly confirmed root pathogen of avocado	29
Impact Induced Bruising in Ripening 'Hass' Avocados	34
Social Media Report	40
Update on Sustainable Orchard Management Practices	45
News from Around the World	47

**Cover:** Promoting Australian avocados.

# Chairman's Perspective

Crikey, what a year 2011 was. Floods, cyclones, extraordinary high avocado prices, the slide in prices in June, the high of the VII World Avocado Congress in September, and the crash of prices in mid September followed by a campaign of dissatisfaction by growers and Avocados Australia against the major retail chains, New Zealand imports, Country of Origin labeling, and a few other matters affecting the quality of life of our growers.

Added to all of this, we approach this summer with the lowest prices in ages amid a demand drop for avocado by consumers, also affecting bananas, mangos, stonefruit, watermelons, pineapples, and practically every other fresh fruit and vegetable product. Plentiful supply of all fresh fruit and vegetables has exacerbated the low prices.

Really, in this economic climate and with this level of competition on the fresh produce shelves what is the reason that consumers have for paying more for avocado at best, or at least buying that extra piece of fruit. The competition for 'share of stomach' and 'share of the fresh produce dollar' is fierce and I would have thought that the fresh 'ready to eat now fruits' would have won the battle. However, avocado throughput through the market is running at an all time high of over 300,000 tray equivalents. This is an unprecedented level of consumption and sets a new hope for the future.

The avocado retains its special position at the top of the fruit and vegetable pile and has not suffered the carnage experienced by the other fruits and vegetables. Bananas are being dumped in paddock, pineapples are left to rot, potatoes are ploughed in, watermelons are selling for one cent a kilo or left to rot. Yet, our consumers continue to pay relatively high prices for a difficult to manage fruit. Why?

My answer is that in the last six years we have created a reason for the consumer to want to use an Australian avocado as part of their meal. Whatever that reason is, it must be strong enough to keep our consumers committed



to the product. Whatever that reason is, we must strive to identify it and develop our marketing program to enhance and extend it.

There may be other answers too, and I would be happy to have these discussed. We have in our industry over 800 members who are all capable of contributing good ideas and I encourage you all to approach your regional director, any director, myself or CEO Antony Allen and put forward your views.

As we move into 2012 I wish you all good health and good times during the festive season and hopefully the weather will be kinder to us all. Happy New Year for 2012.

*Jim Kochi*

Jim Kochi, Chairman, Avocados Australia



Avocados Australia has for a number of years paid a large amount of money for the industry's right to use the Heart Foundation "Heart Tick" on avocados.

**If you are using a "Heart Tick" logo from anyone other than the label companies Label Press, Spicer Labels, Sinclair International and Warehouse Packaging and Design you are acting illegally.**

No other label printers are able to legally print the "Heart Tick" for use on avocados. Avocados Australia is undertaking a clean up of the "Heart Tick" printing. We will lose access to the "Heart Tick" logo if it is used illegally.

Avocados Australia, AUF and the Heart Foundation will enforce their Registered Trademark rights to the fullest extent.

If you have non-genuine labels do not use them. If you know of label companies offering to print non-genuine "Heart Tick" labels for you please let us know on **1300 303 971**, so we can all help keep this valuable tool.

**All growers could lose access to the "Heart Tick" logo if you don't act now.**



CERT TM

## CEO's Report

Wow! What a mixed twelve months the Australian avocado industry has had.

In February 2011 average prices were historically high and while reducing a little the better than normal wholesale prices continued until September 2011. With prices to growers looking very good up until September 2011 a number of growers looked for prices to lift further in the last few months of 2011. The opposite happened with the market crashing literally over a three week period, and this is where we still sit: a low market that has operated in an up/down way for the last four months. Over this period Australian growers have been sitting around a sale price range of \$8-18 per 5.5kg tray. Over the same period the New Zealand growers have received \$0-14 per 5.5kg tray in Australian dollars. And yes, the \$0 is dumped fruit; there are plenty of examples of fruit being dumped over the last few weeks. It is hard to imagine New Zealand growers receiving a profit for this season, and it is likely that some will receive a bill.

So the question we come to is: Why? There are many compounding factors; poor crop forecasting, a large New Zealand crop, growers playing the market, poor consumer sentiment, economic challenges on the global scene, poor weather across the eastern states, plentiful supply of all other fruit and vegetables, and the list goes on and on. Suffice it to say that it was overall beyond challenging and a lot of the factors were out of our control.

The whys are nice to know and it is important to look back and see what happened and learn from it, but the "What's going to happen?" is the real question everyone is asking.

This year is going to continue to challenge us as an industry, along with all other horticulture industries. Prices always head south very quickly and the climb back up is always a slow process.

For avocados the fundamentals are sound; our product is still in the growth phase of the product cycle. Any product has a life cycle and this is even true for fresh products, for example bananas and apples are most certainly in the mature stage of the cycle.

The market will sort itself out is the simple answer. That is what a market based system does. The silver lining is that

innovation hardly ever comes from the 'sunny days'. The problems of this period have and will continue to improve the structure and profitability of the Australian avocado industry. The need to change our way of thinking is most possible in this phase, businesses and people will do and change practices that they haven't even thought about changing.

There are new orchard practices finally being implemented across the country, growers are listening and learning more than ever on and about the market, new alliances and new business models are springing up across the industry. All this activity won't all work, but even if one third is successful the effect will be enormous for the whole industry.

The avocado industry's ability to take advantage of supply chain improvements and the national marketing program's activity is essential. The ground work for innovation has been laid down over the last five to seven years of strategic industry investment. Strategically crafting the R&D and marketing programs to have tools ready to use and to gain efficiencies within businesses across the supply chain.

There are other benefits of being a poor returning market: New Zealand growers will have an even bigger incentive, simple business survival, to develop other markets besides Australia, other countries seeking to enter the Australian market will struggle to develop a profitable plan to do so, and the ability to further develop Australian avocado exports is enhanced, even with an historically high Australian dollar.

The overall message is that in troubled times innovation and clever change management will see those quick enough to take advantage of the opportunities in a period like this to grow their business and prosper.

*Be content to act,  
and leave the talking to others.* ~ Baltasar Gracian

**Antony Allen**  
CEO, Avocados Australia



## Letters to the Editor

Dear Editor in Chief,

Re: Wolfpacks of Marketing Piranhas

After reading the Spring Edition, I am satisfied that the marketing debacle last September was another brilliant marketing coup by the New Zealand industry, pure and simple.

The Around Australia reports show that those areas e.g. Central Queensland that had substantially completed picking by early September had a good year. Those of us marketing after early September had a pitiful result. To put it in perspective, our marketed yield improved by 270% over the previous dust storm affected year, but our gross returns increased by only 72%. Work out the devastating effect on net return yourself. One item that nagged, therefore, was a five figure contribution to Avocado Australia levies.

New Zealand was able to come in completely under our guard, sew up over half Australia's major supermarket shelf space to the exclusion of Australian avocado, work their currency spread like professionals and move a record crop with no concern by the NZ producers.

My image of our marketing strategists is one of well-fed tweedy types, rods and trusty flies at the ready, double malts in hand resting in their deckchairs and dabbling in the bubbling market stream. Little did they know the market stream was in fact a seething wolfpack of marketing piranhas.

Got your dynamite ready yet fellas?

Yours,

Alan Hartley  
Crescent Plateau Holdings  
Pretty Gully NSW



# Industry Matters

## Branding Australian Avocados



Avocados Australia have taken the step of branding locally grown avocados with an 'Australian Avocados' sticker, better allowing consumers to choose home-grown avocados at the supermarket.

"Identifying where produce comes from can cause a lot of confusion for shoppers. It's regulation for produce to be clearly marked with its country of origin at the point of sale, but that's not always the case," commented Antony Allen, CEO of Avocados Australia.

The new stickers will offer shoppers the reassurance that they are buying Australian avocados and by doing so supporting local growers, their families and regional communities across Australia.

"We are really excited to get a more Australian branded sticker for the whole industry; the sticker will be fully supported within the marketing program and will be the key identifier for consumers for Australian avocados."

The sticker is currently being rolled out across authorised label companies and will be available with and without a barcode. For more information please contact [admin@avocado.org.au](mailto:admin@avocado.org.au) or call the Avocados Australia office on (07) 3846 6566.

## Avocado Transport Guide



As growers would be aware, Avocados Australia in conjunction with Agri-Science Queensland have been developing a number of new education materials to fill information gaps within the supply chain.

Along with your copy of Talking Avocados you should have received a copy of the new 'Avocado Transport Guide: Road and Rail' as well as the 'Avocado Transport Guide: Road and Rail Quick Reference' document.

As you can see, the transport guides provides guidance on how to ensure the fruit is pre-cooled to the correct core temperature. It also provides recommendations for

in-transit temperatures and emphasises the importance of maintaining good air flow during transport. These guides are being distributed to all avocado transport companies in the coming months.

Thank you to Peter Hoffman, Leigh Barker, Scott Ledger, Victoria Jones, Terry Campbell and Simon Newett at DEEDI for their valuable input into these documents. For more information about any of these guides or to order more copies please contact Avocados Australia Program Manager Julie Petty at [supplychain@avocado.org.au](mailto:supplychain@avocado.org.au) or 07 3846 6566.

## Orchard Biosecurity Manual released to industry

Since 2007 the Australian avocado industry has had a comprehensive 'Industry Biosecurity Plan'. To ensure the ongoing protection of Australian avocado growers the plan was updated in 2011. A part of the updating process included the development of the 'Orchard Biosecurity Manual'.

The manual is a tool specifically created for growers to assist in applying the IBP at a practical level. All growers should now have a copy of the manual. Avocados Australia encourages all growers to make time to not only read the new Orchard Biosecurity Manual but to also integrate the practical biosecurity principles it contains into your orchard management.

## Guacamole offers up latest industry news



Avocados Australia would like to announce the re-launch of 'Guacamole'; the Australian avocado industry's monthly email newsletter. Guacamole is intended to be a topical and industry specific email newsletter.

Guacamole is separated into two sections: *Industry Communication* and *Industry News*.

Industry Communication will provide a snapshot of the recent news and information directly sent out by Avocados Australia. This includes Grower Updates, Industry Updates, Member Updates and industry Media Releases. Please note that not all grower and member updates will be included in Guacamole.

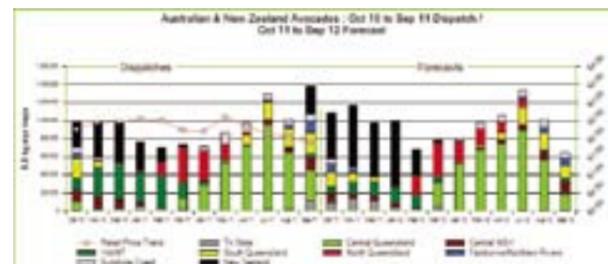
Industry News will provide a range of the latest media coverage on industry issues; this will include news articles, radio clippings and tv broadcasts.

## Infocado update

Currently staff are preparing the January Quarterly Infocado Report. All packhouses have been asked to review their last seasonal forecast to ensure the most up to date information is included in the report. Seasonal forecast forms are sent out monthly for review. This is to allow people to make changes as new information comes to hand. This is particularly important given the large volumes of fruit in the market from September 2011 onwards. It is important not just to update your Infocado forecasts, but also to ensure agents and supermarket customers are kept informed of changing harvest volumes.

Extracts from the last Quarterly Report are included below:

**Graph 3: Australian and New Zealand Avocados: Dispatch and Long Term Forecast**



Individual Infocado Reports for the 2011/2012 season are also under production and growers should expect to receive them in the coming months.

## OrchardInfo update

Within the coming months all Australian growers will be receiving via post and email copies of the 2010/2011 season OrchardInfo forms to update. These forms will be sent out to each growing region as their season finishes. The forms are used to collect orchard information including tree numbers, tree age, varieties, rootstocks and overall production. Once collated, this information will give individuals and the industry a clear understanding of how many trees of different ages are in the ground and therefore provide the information necessary to generate long term forecasts for the industry. It will also give individuals a good idea of what varieties are being grown and where.

We strongly encourage you to fill out the forms to the best of your ability and return them to us as the more people who participate, the more accurate the reporting will be.

For more information please contact Avocados Australia Program Manager Julie Petty at [supplychain@avocado.org.au](mailto:supplychain@avocado.org.au) or 07 3846 6566.

## New Avocados Australia Member logo available: Promote your support of our industry today!



Avocados Australia has developed a 'Members Logo' that is now available to all Avocados Australia members for use in their communication e.g. email signature, letterhead, promotional material. We encourage all members to use the logo to demonstrate that you are supporting your industry.

As the peak industry body for the Australian avocado industry we are proud to represent the interests of all Australian avocado growers, but many do not realise that we are a 'not-for-profit' membership-based organisation.

There is a common misunderstanding among growers that if you are an Australian avocado grower and you pay an avocado levy then you are automatically a member. This is not the case; to become a member you need to complete an easy two-step membership process.

The funding generated from our members, and not from avocado levies, allows us to provide certain services with tangible benefits to the whole of industry. These services include:

- **Bio-security** - lobbying the Government to protect your business
- **Submissions and lobbying** - approaching Federal and State Governments on industry matters
- **Avocados Australia website** - providing information about retail prices, dry matter testing etc.

## Industry Matters continued

- **Infocado** - expanding and improving the national avocado crop flow information system
- **Avocado export plan** - developing a strategy and tools to help exporters access new markets
- **Talking Avocados** - continuing to improve industry communication via our quarterly magazine

If you are not a member or your membership is coming up for renewal please remember that we need your support through your membership to continue offering these services.

A Grower Member Application Form is available on page 53. For more information or for Associate and Affiliate membership forms please visit the Membership section of the website at [www.industry.avocado.org.au/Membership](http://www.industry.avocado.org.au/Membership)

To obtain a copy of the Avocados Australia Member Logo please contact Maree Tyrrell at [admin@avocado.org.au](mailto:admin@avocado.org.au) or call the Avocados Australia office on (07) 3846 6566.

### Talking Avocados correction

In the Spring 2011 issue of Talking Avocados (Volume 22 No 3) a printing error occurred on page 33 in the article, 'High density planting systems for 'Hass' avocados'.

Indicator arrows that accompanied the photos were not printed. Please find the photos below with all indicator arrows. Avocados Australia apologise for any inconvenience this may have caused.

### Don't cripple horti exporters

Our horticultural exporters need all the help they can get. The sky-high Australian dollar has hugely reduced the price-competitiveness of Australian exports compared to produce from Chile, South Africa and more.

And our cost of production is already much higher than that of our competitors. Yet stupid and stubborn policies from both the Federal Government and its Australian Quarantine Inspection Service continue to cripple the sector. It's difficult to see how exporters can go on.

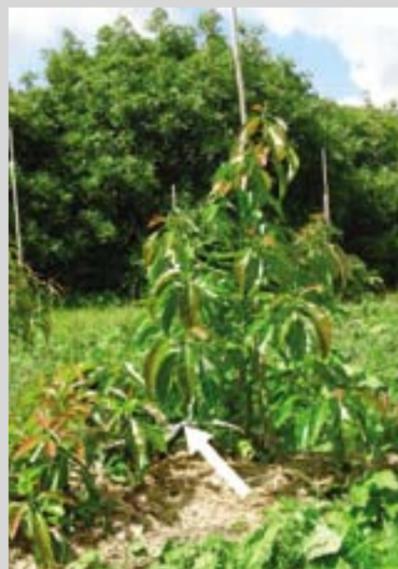
AQIS charging multiple exporters the entire travel cost for jobs where inspectors complete several jobs is dishonourable at the very least. AQIS's refusal to inspect export shipments at less than three days' notice surrenders the single advantage our exporters have into the Asian market - the ability to transport by air overnight. Reports of AQIS refusing to inspect at two days notice must make exporters blood boil.



**Figure 1.** The desired growth habit for single-leader 'Hass' avocado trees. Note the new "sympetetic" lateral shoots (arrowed) produced at each leaf node along the primary growth axis.



**Figure 3.** Avocado growers have the option of planting out smaller trees and promoting the growth of a single, vigorous growing point in the orchard. This is done by removing at an early stage any competing "proleptic" shoots arising from below the primary growing point that is being promoted to form the new trunk. Arrows mark the proleptic shoots that need to be removed.



**Figure 4.** Strong single-leader 'Hass' avocado tree with the desired slender pyramid shape produced by pinning down the main stem of the tree and forcing a new stronger growing point from above the graft union. The original section of plant (arrowed) can be seen pinned down to the left.

And the fact exporters are now aiming to trade five days a week because of exorbitant AQIS charges on weekends must make Australia the laughing stock of international trade. It already costs Australian exporters three times as much to send a consignment as it costs Chilean producers.

Then we have the outrageous banning of a chemical used to treat shipments for fruit fly, without a viable alternative having been found. This has seen our exports banned in New Zealand, and consider this: New Zealand is known for its progressive and tough approach to agri-chemicals, yet it has not banned this one.

Add to this the loss of the important Thai market for cherries and stone fruit. The supermarket duopoly has a stranglehold on the domestic market and so exports are vital for the future of our growers.

If horticulture - now close to Australia's biggest agricultural industry in terms of production - is to survive, exports need to be booming. They aren't. Exports have dropped \$200 million in two years, down to \$497 million, and a third of horticultural exporters have left the industry in the past four years. Other countries find ways to help their exporters. We're finding inventive ways to send ours broke. Source: The Weekly Times

### Wet weather bears fruit for some

This summer's weather may be a let-down, but Sydneysiders can enjoy some of the lowest fruit and vegetable prices in years.

"You better believe it... I'm selling four mangoes for \$5. Last year it was two for \$5," said Frank Vecchio, owner of the Wynyard Park fruit stand in Sydney's CBD. In his 20 years of business, Mr Vecchio said he has not seen such quantities of produce at fruit and vegetable wholesale markets.

The chief executive officer of NSW Chamber of Fruit and Vegetable Industries, Colin Gray, said the oversupply was caused by a decline in consumer demand due to the recent unseasonal wet weather. Consequently, wholesale and retail prices have fallen.

"The problem with the weather is that people are not buying as much, not enjoying barbecues with the fruit and salad bowls," Mr Gray said.

In particular, the cooler weather has not enthused customers to buy traditional summer fruits such as mangoes, stone fruits and watermelons, according to Bill Chalk, wholesaler and partner of Southern Cross Produce.

He said wholesale prices for mangoes were \$1-2 per kilo

compared with \$5 per kilo last year and white peaches were \$1-1.50 per kilo, the lowest in years.

"The lower prices are a great thing for the public but it's heartbreaking for the farmers," said Mr Chalk, who has experienced a 30 percent decrease in turnover this year.

The chairman of NSW Farmers Horticulture Committee, Peter Darley, said retailers were responsible for the low wholesale prices. He said the large supermarkets had been purchasing only half the quantity of product at the wholesale markets because they want to earn a higher profit margin rather than have a higher turnover of fruit and vegetables.

The effect of lower prices has been borne by growers. "Every farmer I have talked to is concerned about sustaining their cash flow on such low [wholesale] prices," said Mr Darley.

The low wholesale prices have been sharply felt by farmers who have lost produce in the wet weather. Grower John Maguire of Enniskillen Orchards, in the Grose Valley, said rain in October and November wiped out some of his peach and nectarine crops.

Mr Maguire's strawberries were also affected by mould. "I pick one, throw out eight... and with decreased wholesale prices. It's such a battle," he said. Source: SMH

### Producer calls on industry to address glut issues

The fruit and vegetable industry has long been plagued by periods of product over supply. It may mean cheap prices for shoppers, but it puts strain on horticultural businesses. Now a north Queensland producer is calling on the industry to make serious changes to stop gluts occurring in the future.

Charlie DeDomenico grows capsicums and rockmelons in the Burdekin, south of Townsville. He was getting such poor prices for his product throughout 2011 that he was forced to leave crops in the ground. He says it's time that fruit and vegetables growers put in place strategies to stop the oversupply, and keep everyone viable. "The approach would be to grow only what can be sold," he says. "If you have a good year the previous year, it's silly to go in there and double up the second year."

The peak body that represents the vegetable industry is Ausveg. The Chairman John Brent says he doesn't believe the oversupply is a result of growers producing too much. But he says the most important issue is making sure Australians are encouraged to buy more fruit and vegetables.

## Industry Matters continued

## Fruit and vegies price dump encouraging healthy eating

Potatoes are cheap as chips, bananas have returned to appealing prices and buying a kilo of tomatoes won't make you see red.

The cost of fruit and vegetables has plunged in the northern suburbs, but some Darebin shopkeepers say residents have failed to catch on, still preferring junk food that has gradually increased in price.

Broadway Fresh Fruit and Vegetables proprietor Frank Gallicchio said many shoppers were unaware of the plunge in prices and were still slow to buy fresh produce. "The price of a lot of junk food has gone through the roof, but you can feed the family on fruit and vegetables very cheaply now," Mr Gallicchio said.

Compared with 12 months ago, fresh produce such as bananas, stone fruit, potatoes and apples have plunged in price. "Bananas were up to \$16 a kilo 12 months ago, but now they're about \$1.40 and a year ago cherries were \$35 a kilo, but you can get a kilo for around \$12 now," he said.

Fairfield fruiterer Domenic Biviano said demand was down despite an incredible price drop across the board in the past year. Mr Biviano attributed the low prices to a bumper growing season and an oversupply in a market where people were cautious about spending. "Vegetables are down by 15 percent, with cauliflower down to \$1.40 each - less than half of what it was," Mr Biviano said.

His Station St business sells potato chips, which he said had gone up in price during the past 12 months. "A 75g pack of chips costs \$3.20, but potatoes are only 99c a kilo. "You could make a lot of chips out of that," Mr Biviano said.

Australian Medical Association Victoria president Harry Hemley said he hoped the fall in prices would encourage people to eat more of them. "Too often people eat junk and snack foods because they are cheap and accessible," Dr Hemley said. A healthy diet comprised two daily serves of fruit and five serves of vegetables, with nutritious foods such as nuts, legumes, lean meat, fish and low-fat dairy products, he said. Source: News Community Media

## A Gem™ for the Australian Avocado Industry

After over twenty years of testing in the USA and South Africa, the Gem cultivar developed by the University of California, Riverside, CA USA, has reached Australia.

Gem™ has been planted in trial blocks in Queensland and NSW, with trees to be planted in Western Australia and Mildura/Renmark regions in the next 12 months. Positive results from trials in both the USA and South Africa are encouraging growers that Gem™ will perform in similar Australian conditions.

Named after the initials of researcher Grey E. Martin, who selected the variety, 'Gem™' fruit are produced on a semi-compact, vase-shaped tree. The fruit's skin colour turns from green (when on the tree) to a dark burgundy/black when ready to eat. The tear-drop shaped fruit are borne typically interior in the tree, mostly in clusters, thus protecting the fruit from the elements. The trees also are less prone to severe 'alternate bearing' than Hass. The seasonality of 'Gem™' is somewhat later than that of 'Hass,' allowing for a later start of harvesting and subsequently a later marketing window.

Westfalia Fruit Estates (South Africa) was granted the primary licence to manage Gem™ around the world. Westfalia has in turn granted Natures Fruit Company the exclusive licence to manage Gem™ in Australia. This cultivar (3-29-5), commonly referred to as Gem™, is protected by Plant Breeders' Rights and/or patent throughout the avocado growing world.

Under the agreement, NFC controls all aspects of the management of Gem™, from ordering nursery trees on behalf of growers to marketing the fruit via a dedicated marketing program. "Westfalia believe that a grower club model is the best way in which to ensure the success of the Gem™ cultivar", said Mr Theo Bekker, Technical Manager of Westfalia Estates. "It is very important that this exciting new cultivar not be 'lost' in the market place, as has happened in the past with newly released fruit cultivars. Active management, including focussed and targeted promotion to specific markets, will ensure that consumers have the opportunity to seek out and have access to Gem™ as their preferred avocado variety".

## Around Australia

## Western Australia Report

By Russell Delroy, Avocados Australia Director for the WA Growing Area



Following ideal spring flowering temperatures most WA growers have set a very heavy crop for next season. From north of Perth all the way down to Albany most orchards have a very heavy set. Growers need to remember that nutrition programs should be adjusted to size up the crop, carry the load and still achieve sufficient summer flush for a return flowering next spring - inadequate nutrition at this stage will certainly encourage more pronounced biennial bearing.

The turmoil in the marketplace from spring has continued through the Christmas period and into January - and looks set to continue into the Shepard season. Growers will have received some of their lowest returns on record - many will be below their budget figures and may have to curtail forward expenditure on upgrading plant and equipment etc.

As of early January, there is still about half the WA crop to be harvested. Dry Matters have been unseasonably high

in Manjimup/Pemberton fruit this season and holding fruit late will result in poorer quality outturns and risk damaging the 'WA Quality' brand - the allure of potentially better short term returns for late fruit needs to be weighed against damage to our longer term brand position.

With next season set to be a record crop for WA we do not want to see a repeat of this season's low returns. An early forecast of total Hass volumes into the Australian market next year between September and February indicates weekly volumes will again exceed an average 200,000 5.5kg tray eqv. per week, similar to the season we are currently experiencing. It is important that growers provide their packers/marketers with early and accurate forecasts of expected crop volumes so pre-season promotional planning and access to retail space can be organized.

A key focus next season must be to promote 'Australian Avocados' on Australian retail shelves - this must become a central platform of all marketing by our industry going forwards. A new fruit sticker with an 'Australian Avocados' logo has been developed by Avocados Australia and is now available - I encourage packers to adopt this sticker so the marketing message to buy Australian is supported by clearly labeled Australian product. A sample of this

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# Avocado Growers

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*Around Australia continued*

new sticker was on the cover of the spring issue of Talking Avocados.

**Tri State Report**

By Nick Hobbs, Avocados Australia Director for the Tri State Growing Area



I am starting to wonder if the advances in technology are making our lives better. The last season has seen our weather pattern change around completely from severe drought to bloody wet; with a lot of the rain coming with storms in summer. A number of growers near Mildura got severely hailed in early spring. There were literally chunks taken out of avocados and trees stripped of leaves with significant crop damage to all crops in the storm strip. More recently Waikerie was hit by a severe storm that went through the avocado orchards there dropping up to thirty percent of fruit on the ground.

Last night severe storms lashed most of South Australia. News reports told of severe winds and hail up to seven centimetres in diameter hitting a town in the west of the state. Severe thunderstorm warnings were issued for the Riverland. You start to wonder if it is your turn this time.

On goes the computer and you check the radar. It's a mass of red and heading this way. As if I really want to know as I can hardly shift my orchard out of the way.

It is banging and crashing and pouring all night. So as each storm cell passes you are awoken by the thunder to do what? Check the bloody radar on the wifi iPad. It's as if you can will it to go around you by checking it really frequently. The technology is just making it more stressful. Given the SOI is now above 18 and La Nina is back I expect that I will be checking the iPad a lot more nights this summer. Best wishes for the New Year.

**Central New South Wales Report**

By Chris Nelson, Avocados Australia Director for the Central New South Wales Growing Area



From the Hawkesbury plateau in the south to Coffs Harbour in the north, growers have observed excellent flowering converting to very ordinary fruit set. The odd early flowering block or warmer micro climate has produced good results, but 2012 will be a good year to mostly catch up on the golf or fishing.

This has been one of the more challenging seasons in terms of trying to maintain viable returns for your fruit. I have listened to lots of rubbish about whose fault it was that the market has been so over supplied, but the fact remains, since the beginning of the NZ season terminal markets on the east coast have been swamped by low value un-programmed and often un-forecasted volumes of NZ avocados. The results have seen traders continually offered the excess fruit on consignment i.e. on a "give me what you can for it" basis. With price usually the main criteria in shoppers and fruiterers minds, how can they resist these bargains. How can this not constitute dumping in anyone's terms when NZ farm gate returns are considered? Next time a wholesaler or anyone else tries to tell you the problem is all this Tristate fruit or all this WA fruit, tell them to save their breath. See for yourself. Visit any of the east coast markets and witness how much cheap NZ fruit is on offer.

The damage has been done and presumably many NZ growers will think twice before repeating the exercise. As individual growers, there is not a lot you can do to prevent a repeat performance but as an industry there is obviously potential to achieve change. What is absolutely

vital is to convince the Australian Government to support the implementation of equal marketing levies on imported product. Follow up on Avocados Australia's 'call to action' and convince your federal member to support this policy change.

Antony Allen, CEO of Avocados Australia, will be doing all the hard work lobbying at the federal political level but it will amount to nothing unless you inform your local member how the current inequitable situation will ultimately affect you and your community if it is allowed to continue. If the information on page 15 of the last Talking Avocados is not sufficient call the Avocados Australia office for more support.

Thank you to all those growers who supported me in the recent Avocados Australia election. I will continue to do my best as your Director on the board.

Finally I would like to thank Antony Allen and all his staff at the Avocados Australia office for the wonderful support they have provided the industry throughout the 2011 year and I hope everyone had a great Christmas and start to the New Year.

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Around Australia continued

**Tamborine and Northern Rivers Report**

By Tom Silver, Avocados Australia Director for the Tamborine and Northern Rivers Growing Area



A promising flower set across a lot of our region was again compromised by cooler temperatures and rainfall in late September to October resulting in a fruit set below expectations for the fourth year in a row. Most trees either failed to set or instead set cocktails in abundance. However what mature fruit has set continues to show so all is not lost, and hopefully by February we may be a bit more positive.

Following the ban on the sale of endosulfan in late 2010 (endosulfan has a two year phase out period), growers who do not have a stored supply will be conducting their 2011/12 spray programs with a new range of issues in controlling fruit spotting bug. Our industry is currently partaking in a broad ranging study to finally get a handle on this massive issue and hopefully solve it in a post-endo world. The avocado project titled 'A multi target approach to fruit spotting management' is in cooperation with macadamias and a number of smaller industries with matched funding from HAL. The 'multi target approach' means that the project is targeting a range of options that when used in conjunction with each other will give the best level of control while minimising chemical use and therefore negative publicity. These approaches include new generation narrow spectrum chemical controls, improved monitoring using trap crops and pheromone traps, biological controls and eventually

industry adoption through extension and support. In the meantime, some farmers are having luck using trichlorfon (Lepidex, Dipterex, etc.); though care needs to be taken to ensure the pH of tank mixture is correct. Farmers should be cautious about repeated use of BETA-CYFLUTHRIN (pryrethryns) due to insect resistance and mite problems. And of course always read the label.

The poor market conditions experienced by Tamborine and northern NSW growers late in the 2011 season has been tough, all industry levels have suffered though it is the grower who has been the only party that got properly burnt. Lessons have been learnt, they now need to be remembered. Unfortunately our fragile free market is exposed to many distorting factors and players which conspire to bring it down. As growers we need to supply the market to the best of our ability, I personally believe that if we are confident and talk things up, rather than down as well cooperate and are accurate in our forecasting the avocado market will respond accordingly. I can assure you that your industry body is working hard behind the scenes to help and set the course but the action will need to come from growers and the commercial players.

I wish you all a safe, successful, summer season.

**South Queensland Report**

By Daryl Boardman, Avocados Australia Director for the South Queensland Growing Area



It's a week before Christmas as I write this report so I hope you all had a wonderful Christmas and New Year.

We have had some funny weather over the past months with no rain to speak of in November, rain arriving when December started; with very good falls and luckily no major damage at this point, let's hope it stays this way and we don't get a repeat of January. We also had the coldest day on record for December on the 5 December so we seem to be definitely living in a changing climate, or is it a climate that is still changing?

As I write this we are also seeing a market again saturated with avocados and we are seeing prices similar to what was seen in late September. It's such a shame for all those involved, particularly the growers who are receiving such low pricing. I must say it's not much fun for packers and marketers either when we have conditions like this.

I would like to remind everyone to make an appointment with your local federal member and push for equal levies on imported product. Only by doing this can we hope to achieve more resources to promote avocados in Australia and to increase sales for all fruit sold, as this is the fundamental way to increase or stabilize prices.

Let's hope for a great 2012 season.

**Sunshine Coast Report**

By Peter Annand, Avocados Australia Director for the Sunshine Coast Growing Area



The collapse of the market last September was a reminder that Sunshine Coast and other growers positioned between the supplies from Bundaberg and New Zealand need to continue to review their marketing strategies to encourage stable prices. Quality and predictability of supply remain the keys to success. Every grower, whether marketing directly or through a packhouse or other marketing group, needs to ask; am I sure that my retailers' supply expectations are realistic and are being met if not exceeded? That way, we can keep a market position for fruit from these districts.

The amount of effort that Avocados Australia staff put into facilitating a return to more stable market conditions; encouraging more constructive communication between growers, packhouses, importers and retailers; was a reminder that membership fees, as well as levies, are important in ensuring that our industry continues successfully to balance production growth with demand growth as well as maintain a stable market price to protect our investment.

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Around Australia continued

Levies on avocado sales fund marketing to grow demand, and research to lower production costs. They are not available to fund staff time spent lobbying to ensure a fair playing field for Australian growers (for example, by requiring importers to pay an equivalent levy) or ensuring that the market works efficiently (for example, supporting moves towards greater transparency in retail pricing). These important activities rely on membership fees. If you are not a paid-up member, do think about becoming one. The fee is a small contribution towards benefits we all share and gives you a say in these matters that vitally affect our returns.

Sunshine Coast growers generally report a good fruit set, following timely rain, and now are looking forward with cautious optimism to watching the fruit put on weight through the summer months.



**Central Queensland Report**

By Lachlan Donovan and John Walsh, Avocados Australia Directors for the Central Queensland Growing Area



Santa has been and the market is very much on the nose with little sign of it improving until the volume of fruit reduces. It will be interesting to see what impact this has on the start of the Shepard season; as it is expected that there will still be a considerable volume of fruit to come in the New Year.

This region has an above average crop for 2012 season and, barring Mother Nature, harvesting should kick off

at the beginning of March. We should all be reminded to make sure that dry matters are right so that the fruit on offer eats well. It is also important to get the forecast for the crop for next season accurate and put into Infocado as important marketing decisions will be made in February. Crop volume and harvest timings are two important factors that can affect the outcome of these decisions. This also flows through to the latter half of next year; so if there is plenty of fruit the industry can make retailers aware of this.

Hopefully Mother Nature is kind and we start the New Year in better shape than the last one.

**North Queensland Report**

By Jim Kochi, Avocados Australia Director for the North Queensland Growing Area



This time last year the North Queensland growers were looking at the prospect of high returns and I hope that a more realistic approach is taken for this coming season. I am sorry to burst your bubble but the facts are that the crop from New Zealand this summer was the largest ever and Hass avocado will still be available in big volumes right up until early March.

In December 2011 New Zealand fruit was as low as \$12 per tray and is now as low as \$2 per tray and I would expect these low prices to have an influence on avocado prices all through the summer. It will take an environmental disaster somewhere to change this course.

The Shepard crop looks to be very average so it might be prudent to plan your harvest in close cooperation with your wholesale merchant. I would encourage all NQ growers to contribute to Infocado so we can all have a good understanding of the volume expected and so we can make a plan for a harvest that can match demand.

The Australian crop harvested in September last year suffered badly mainly due to a lack of reliable production and harvest forecast figures. Basically, the market was oversupplied without prior notice and the price of avocado crashed and it recovered very slowly.

This was a very expensive lesson for some growers but I do hope the NQ growers will take notice and plan not to repeat the September 2011 crash.

Infocado is free to use for all avocado growers. Please use it to your benefit.

Best wishes to all growers for the coming summer season.

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# Infocado Crop Forecast

## Quarterly Report

### January 2012

Welcome to the **quarterly** Infocado report. This report is released in the months January, April, July and October.

Each reports shows the previous 12 month's dispatch figures and the future 12 month's forecast figures including both Australian and New Zealand data.

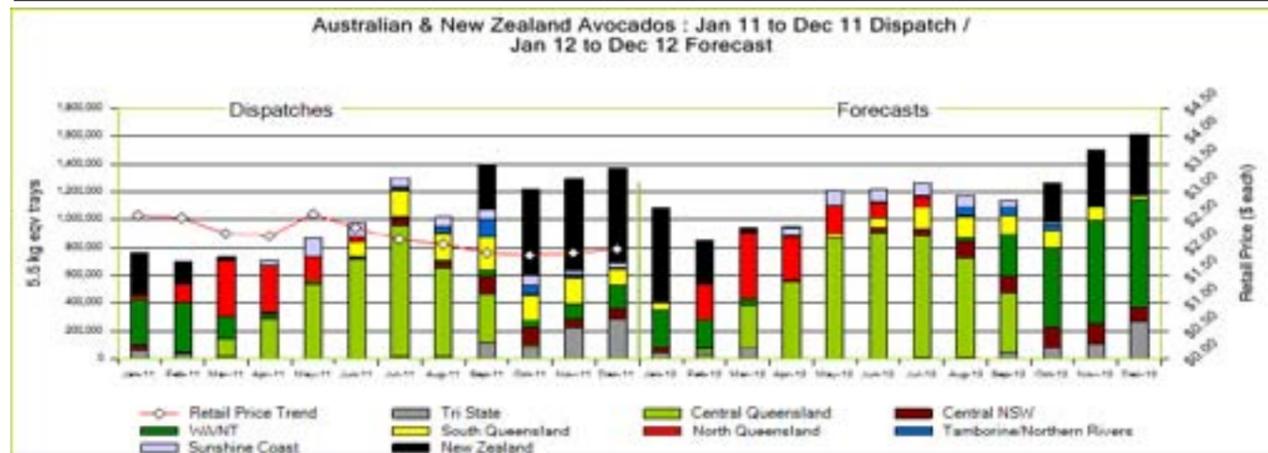
Australian Avocados Forecast Jan 11 to Dec 11 (5.5 kg eqv trays) - from quarterly report January 11													
	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	12 Mth Total
Hass	403,453	295,215	141,792	307,182	898,838	853,269	1,110,790	948,487	719,358	560,586	522,647	553,970	7,315,587
Shepard	20,000	467,647	717,277	384,303	16,486	0	0	0	0	0	0	0	1,605,713
Other	24,775	3,191	20,499	61,948	59,969	76,725	118,536	103,017	79,076	18,586	3,260	18,727	588,309
<b>Total</b>	<b>448,228</b>	<b>766,053</b>	<b>879,568</b>	<b>753,433</b>	<b>975,293</b>	<b>929,994</b>	<b>1,229,326</b>	<b>1,051,504</b>	<b>798,434</b>	<b>579,172</b>	<b>525,907</b>	<b>572,697</b>	<b>9,509,609</b>

Australian Avocados Dispatches Jan 11 to Dec 11 (5.5 kg eqv trays)													
	Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sep 11	Oct 11	Nov 11	Dec 11	12 Mth Total
Hass	431,751	392,249	179,153	165,168	805,883	914,383	1,200,635	934,947	1,034,196	574,952	621,004	629,302	7,883,623
Shepard	8,277	144,215	510,122	481,275	21,656	620	0	39	0	0	0	0	1,166,204
Other	23,010	9,452	25,128	60,276	40,589	60,116	103,789	80,955	37,916	20,165	16,624	59,069	537,089
<b>Total</b>	<b>463,038</b>	<b>545,916</b>	<b>714,403</b>	<b>706,719</b>	<b>868,128</b>	<b>975,119</b>	<b>1,304,424</b>	<b>1,015,941</b>	<b>1,072,112</b>	<b>595,117</b>	<b>637,628</b>	<b>688,371</b>	<b>9,586,916</b>

Australian Avocados Forecast Jan 12 to Dec 12 (5.5 kg eqv trays)													
	Jan 12	Feb 12	Mar 12	Apr 12	May 12	Jun 12	Jul 12	Aug 12	Sep 12	Oct 12	Nov 12	Dec 12	12 Mth Total
Hass	382,907	259,509	169,021	412,983	1,095,029	1,139,299	1,112,670	1,024,759	1,071,482	988,698	1,106,059	1,149,489	9,911,905
Shepard	13,059	277,404	720,480	496,998	23,014	0	0	0	0	0	0	0	1,530,955
Other	18,404	9,882	25,000	31,003	87,951	78,105	146,341	149,670	66,328	0	10,924	28,257	651,865
<b>Total</b>	<b>414,370</b>	<b>546,795</b>	<b>914,501</b>	<b>940,984</b>	<b>1,205,994</b>	<b>1,217,404</b>	<b>1,259,011</b>	<b>1,174,429</b>	<b>1,137,810</b>	<b>988,698</b>	<b>1,116,983</b>	<b>1,177,746</b>	<b>12,094,725</b>



Jan 11 to Dec 11 Dispatches & Jan 12 to Dec 12 Avocado Production Estimates 5.5kg eqv trays		
Region	Jan11 to Dec11	Jan12 to Dec12
North Queensland	1,145,384	1,464,610
Central Queensland	3,606,304	4,705,797
Sunshine Coast	618,711	511,468
Southern Queensland	1,237,444	848,663
Tamb/Northern Rivers	292,594	215,051
Central NSW	565,477	739,508
Tri State	864,319	653,505
WA	1,256,683	2,956,123
<b>Total</b>	<b>9,586,916</b>	<b>12,094,725</b>

Please Note: The monthly forecast and dispatch figures in the Quarterly Infocado Report incorporate an allowance (which varies by region) to allow for the production forecasts and dispatches that are not inputted into the Infocado system. This production (dispatch and forecast) data is not inputted for various reasons including some packhouse's unwillingness to engage with industry and/or lack of computer access. For this reason it is not possible to extrapolate the figures from the Weekly Infocado Report to come up with either the dispatch and/or forecast figures in the Quarterly Infocado Report. At any time the Weekly Infocado Report incorporates around 85% of total production and forecasts however this does vary depending on time of year (as a result of the fruit coming from different regions with different levels of packhouse input). It is not functionally possible to incorporate allowances for missing data into the Weekly Infocado Report hence the variance between it and the Quarterly Infocado Report.

#### Comments from the CEO

The crop estimate for the year 2012 is by far the largest avocado crop in the history of the Australian industry. The increase on 2011 is 26%. The flow on effect if we look forward to the forecast for the financial year is even more significant, 2012-2013 shows an increase of at least 30% when compared to the 2011-2012 year. This is without adding the New Zealand crop into the volumes, which will lift levels even further. This is of course the first look at the end of this year's crop. The forecast will need to be reviewed at each quarter through this year.

Given the estimate, all pack houses and growers should begin planning and working with the supermarkets, wholesalers and exporters from this point on. This crop is more than manageable and can result in good returns to growers if managed sensibly and cohesively by the whole industry. Markets will find their level and carefully planned programs will result in happy consumers and increased sales.

The marketing program is in full swing for the next 5 months. The careful and strategic planning is underway now for the full 2012-2013 year. This forecast will determine the budget and the timing of activity.

February, March and April 2012 look manageable and this gives some time to plan for the volumes from May onwards. The total crop volumes per month are not very much more than the market has been able to absorb in past years. The issue that will need careful planning is that there is no room for error in volumes on a weekly basis.

The Weekly Volumes teleconference will be essential in managing this year's crop. Please contact Maree Tyrrell on 07 3846 6566 or [admin@avocado.org.au](mailto:admin@avocado.org.au) to participate in this teleconference, held every Tuesday morning.

# Cold storage of partially ripened Shepard (AVo8018)

In the last edition we spoke to DEEDI researcher Dr Roberto Marques about the R&D trials undertaken to fine tune handling recommendations for the 'Avocado Ripening Manual'. In this article we again talk to Roberto about his work, this time on storage of partially ripened Shepard.

**TA:**

Roberto, last time we spoke you explained the commercial importance of storing partially ripened fruit. Is this the same for Shepard and did you follow the same trial procedure?

**RM:**

Yes, part of the development of the new ripening manual meant working with one large avocado handler to develop systems that met their need to consistently deliver partially ripened fruit. They told us that a big problem to them was that orders are often delayed or even cancelled, so they need to store partially ripened fruit and therefore we needed to find out how to best do that.

What we did was to source commercially packed fruit from South East Queensland, which we ripened with ethylene to the sprung stage of ripeness (which fruit are normally dispatched to retail). We then held batches of fruit at temperatures ranging from 2-8°C for periods of up to 14 days. We then ripened the fruit at 20°C and assessed the fruit to find out the effect of storage.

**TA:**

What were your findings for the Shepard fruit?

**RM:**

The effect on fruit quality was large. At low storage temperatures or for long durations we got diffuse discolouration at commercially unacceptable levels. The effect is shown in Figure 1. We clearly showed that partially ripened Shepard is more sensitive to storage temperatures of 5 °C or below than Hass.

**TA:**

So what are your critical recommendations resulting from this work.

**RM:**

As shown in the Figure 1, for storage up to seven days

you should store partially ripened fruit at 8°C. We are also saying not to store fruit at 2–5°C for periods longer than three days.

**TA:**

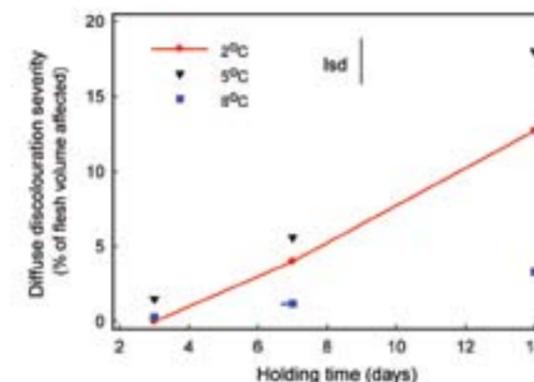
Where can avocado handlers get more information?

**RM:**

All these findings have been incorporated into the Avocado Ripening Manual which was released at the recent World Avocado Congress. The manual is now available to download from the Avocados Australia website at [www.industry.avocado.org.au/EducationMaterials](http://www.industry.avocado.org.au/EducationMaterials); alternatively limited copies are available to order from the Avocados Australia office, please contact [admin2@avocado.org.au](mailto:admin2@avocado.org.au) in this case.

This project was made possible through the through the active participation of the CostaExchange Ltd, Avocados Australia and the DEEDI project team. This project has been facilitated by DEEDI in partnership with Avocados Australia. It has been funded by voluntary contributions from CostaExchange Ltd and by avocado grower R&D levies through HAL. The Australian Government provides matched funding for all HAL's R&D activities.

**Figure 1** Effect of storage temperature duration and on Shepard fruit at 3 different levels of ripeness.



**Figure 2** Effect of storage temperature on flesh quality of ripe Shepard fruit stored for 7 days.



Storage at 2°C



Storage at 5°C



Storage at 8°C

# Avocados New Zealand – A “World View”

John Schnackenberg  
Chairman

New Zealand Avocado Growers' Association Inc  
and Avocado Industry Council Ltd

**In this article I will address recently expressed concerns from your industry about New Zealand's contribution to the promotion of avocados in Australia. Thank you for this opportunity to present the New Zealand perspective in Talking Avocados.**

The Memorandum of Understanding (MoU) between Avocados Australia and the NZ Avocado Growers' Association Inc (NZAGA) provides a framework for co-operation between our organisations on research and development, marketing and promotions, trans-Tasman communications and conferences and with it, mutual respect and goodwill.

We respect the right of Avocados Australia to defend opportunities for Australian growers in retail chains. However we feel that respect and goodwill has been lacking and we take issue with the looseness of truth and the divisiveness that has been allowed to pervade public releases about the New Zealand avocado industry's current and long term contribution to the growth of the fresh avocado category in Australia. It clearly makes much more sense to work seamlessly together to grow the avocado category in Australia - a fundamental point of establishing a MoU in the first place and the position the NZAGA retains.

## World View

The New Zealand avocado industry is very much an export focused industry and it will become more so as production ramps up. Exports of avocados from New Zealand are managed under an export management strategy with legislative support. This enables growers and exporters to unite within 'product groups' to self regulate quality, sizes, packaging and other matters such as independently audited pack-house standards, but not volumes or destinations.

Our production timing is different to the majority of the Australian production. That is, we set fruit October to November, and harvest for export usually from September to February (a little earlier and somewhat later for our local market).

Annual production is significantly variable due to strong alternate bearing tendencies of our crops in the mid North and Bay of Plenty. Accordingly, we are strongly supportive of Avocados Australia's initiative in establishing an international collaborative 'Avocado Research Consortium' and have been initial seed funders of this initiative with Avocados Australia, a point missed in the recent media releases.

This current season will see our highest production ever – possibly 5.8m trays (32,000 tonnes). The destination of this season's crop and recent season actuals are set out in the table at the foot of the page.

While our industry has previously predicted that production could reach 12 million trays by 2015/16 season based on our assumed planted area, it appears this area is overstated and it seems likely that actual production in 2015/16 will be in the range 8 – 10m trays, of which we would expect to export around 65 percent.

Historically the majority of our export crop has gone to Australia. For a short period (1999 - 2001) we exported 50 percent of our crop to the USA and about the same to Australia. Exchange rate movements in the early 2000s and growing Australian consumer demand shifted our focus back to Australia and our export percentage to Australia has ranged between 68-94 percent since 2001/02.

Our industry is very mindful that with expanded production new markets outside of Australia need to be developed. Also, investment needs to be made in generic promotions in the developing markets and our established markets to facilitate growth in demand and consumption.

Those of you who attended the recent very successful VII World Avocado Congress in Cairns will know that avocado production is increasing worldwide but fortunately,

demand and consumption is growing faster. The USA, Europe, and Japan as established markets all have significant capacity to expand consumption (Europe and Japan's current consumption is below 1kg per person per annum) and the potential into new markets such as China and India will be huge.

New Zealand has established a free trade agreement with China and is developing one with India. We are hopeful that by the 2013/14 season we will have access for our avocados into China and that access to India will follow not too far behind.

This season we have significantly lifted exports to Japan from under 90,000 trays last year to possibly 400,000 trays this year. In that market we are a small player to Mexico but are well established as a premium brand and are comfortably growing our market share during the window available to us (September to January). We expect Japan to be a one million tray market for us within a couple of seasons.

We have again exported significant volumes of fruit to the USA this season (approx 200,000 trays) and additionally

a similar amount has gone to other South East Asian destinations.

Clearly our own domestic market can and needs to grow. Currently our consumption is at about 1.8kgs per person per annum. It would be great if we were at the current Australian consumption of 2.8kgs per person per annum and that is a sensible target for us over the next few years. This will only account however for another 800,000 trays of New Zealand production.

## Australia View

Historically, Australia has clearly been the dominant destination for our exports and in the recent two years has been relatively rewarding for New Zealand exporting growers with help from the exchange rate. However, none of us expect the dream run to continue indefinitely, hence our multi-year campaign to raise exports to other destinations with the expectation that Australia may be taking less than 60% of our export crop within a few seasons given its likely size.

Our participation in the Australian market has enabled

Season	Total Trays (5.5kg)	Export	% to Aus	Vol to Aus	Domestic	Process	Total Tonnes
2011/12*	5,800,000	3,596,000	78%	2,804,880	1,542,800	661,200	31,900
2010/11	3,036,337	1,721,698	92%	1,583,962	1,034,090	280,549	16,700
2009/10	3,952,303	2,280,276	84%	1,915,432	1,334,190	337,837	21,738
2008/09	2,701,660	1,399,270	91%	1,273,336	1,158,117	144,273	14,859
2007/08	4,866,480	2,644,862	74%	1,957,198	1,480,529	741,089	26,766

\*2011/12 Current estimates, previous seasons, actual.



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\* STANDARD 5.5KG TRAY WITH INSERT

Avocados New Zealand – A “World View” continued

huge and consistent growth in the fresh avocado category providing stable 12 month supply and pricing to the Australian consumer. This participation has immense ongoing benefit to Australian growers, handlers, retailers and consumers.

The potential to further lift demand and consumption over the summer months is obvious. Summer in Australia is a time when there had been little, if any, generic avocado marketing undertaken, and a time when actual consumption was lower than the April to October period. It is also interesting to note the new laudable Avocados Australia goal of achieving consumption of 5kgs per person per year, suggesting that with well managed supply and strong promotions the real potential of a doubling of consumption within a short period of time. This will not be achieved without consistent supply growth, in summer this supply is available from increasing production both in Western Australia and New Zealand.

New Zealand has been raising compulsory levies for generic Australian promotions since the 2007/08 season. From 2009/10 we have agreed with Avocados Australia and Horticulture Australia Ltd (HAL) that NZAGA would collaborate to use Avocados Australia’s generic promotions material. The strong arguments for doing so were to provide a consistent message over twelve months of generic promotions allowing Avocados Australia to concentrate their spend April to September. Further, we are promoting ‘Avocados’, not ‘New Zealand Avocados’, thus supporting Australian fruit at the same time. In practise what this means is that while up to one third of Avocados Australia’s promotion levy is collected October to March very little of that is spent at this time – indeed, New Zealand money is the main enabler. NZAGA’s use of Avocados Australia generic advertising material is for the benefit of all Australasian growers and the fact that compulsory New Zealand contributions fund this activity is again overlooked.

A levy of NZD\$0.20 (\*AUD\$0.16) per tray is now collected on all exported fruit and allocated across our markets. Approximately NZD\$500,000 (\*AUD\$399,366) is being directly spent in Australia from this levy. In addition a number of exporters/growers are making their own voluntary contributions (over and above standard rebates) to promotions of approximately NZD\$500,000 (\*AUD\$399,366). Given about 2.8m trays going to Australia, New Zealand’s spend this season amounts to over NZD\$0.35 (\*AUD\$0.28) per tray. **Our growers are paying their fair share in the summer window.**

Promotional spend is but part of the story. One of the many benefits to the Australian market of the ‘controlled’ exports from New Zealand is that we are able to set and

maintain high grade standards, generate accurate crop estimates, develop appropriate crop flow plans including flows to other countries and monitor weekly actual packing and shipping and provide consistent quality fruit, to retail and wholesale. This means ‘no surprises’ in the market place. This is important as our supply line is arguably seven to ten days longer than the Australian one and largely it is a very consistent flow once underway. Further, all our fruit is packed in export approved and audited pack-houses and grown under a compulsory national IPM program, AvoGreen®.

The New Zealand industry does not tell Australian supermarkets when we will start or which states and chains we will be in; they tell us. They determine this based on Avocados Australia’s industry information generated from Australian growers through the Infocado system. That information also dictates the extent to which we are geographically allocated space with each chain and from when. That information needs to be accurate – not understated nor overstated.

That unfortunately has been the major market flaw this season – not a matter of New Zealand creation, a matter of a failure in the Avocados Australia industry data supplied by Australian growers and packers.

This season started with the vast majority of New Zealand fruit bound for Australia committed to retail programs through to late November. As we progress towards late December the volume packed for export to destinations other than Australia drops away and by mid to late January, New Zealand fruit is pretty much all going to Australian retail or wholesale.

Would another two weeks of supply by Australian growers into retail chains in late September have made a significant difference to values and the wholesale oversupply situation? Very possibly. Did New Zealand cause it? No. Are we paying for it? Yes. As are all growers supplying fruit at this time. The cost in lost income to Australian and New Zealand growers as a consequence of the failure of the grower supplied Avocados Australia Infocado data far outweighs arguments about promotion contributions of 20c or 25c and it becomes somewhat disingenuous when minimal Australian promotion money collected at this time is spent at this time.

On the bright side, demand and consumption is setting new highs which will generate continuing benefits for Australian growers as you approach your next season. Long term, the most expensive and effective promotion is invariably discounting the price – unfortunately this time, not by our choice.

There has been significant incorrect comment recently in

the Australian press on New Zealand avocado activities in Australia. A couple of other random public comments need response:

1. New Zealand growers are absolutely NOT subsidised by the New Zealand Government as has been suggested. Australian growers are fortunate that they can access \$1 for \$1 subsidies for research and development and New Zealand growers look forward to working with Avocados Australia and HAL in the international Avocado Research Consortium intended to identify mitigation tools for alternate bearing. From time to time NZAGA research projects attract \$1 for \$1 funding but at present our R&D spend is 100 percent funded by growers.
2. Fruit grown for export must meet our IPM based AvoGreen® protocols. We are subject to the same or stricter residue requirements as Australian growers are, due to common trans-Tasman food safety requirements. Stricter, in the sense that most of our export markets have lower or nil residue requirements than both Australia and New Zealand and in order for our growers’ fruit to be ‘all market compliant’ we are likely to be using less sprays and less harmful sprays than would be used in Australia with lower or no residues.

Again, thank you for the opportunity to present the view of the New Zealand grower. Hopefully this information will assist you all to understand exactly the contribution New Zealand growers have and are making to grow the avocado category in Australia and our ongoing commitment to do so. We look forward to continuing to work cooperatively with the Avocados Australia board to the advantage of all.

\*Based on current exchange rates as at 1 September 2011 NZD\$1 converts to AUD\$0.79



Avocados Australia Comments on the Article Above

Infocado is a voluntary data collection system and collects approximately 85 percent of all avocados sold by Australian growers. New Zealand contributed their Australian sold tray data until they ceased contributing their information in the week commencing 25 November 2011.

The Australian industry has assessed the investment throughout the year of the Australian grower marketing levy, and the investment through the year matches the collection estimates for Australian trays for the last year.

The Australian marketing program is aimed at, as any successful generic program should be, growing overall consumption, that consumption increase does not stop when the program schedule stops. Otherwise consumption would be at 1980s levels, except when the schedule is operating. We don’t run a ‘sales’ campaign, that is what the commercial businesses do, leveraging the consumption growth.



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# New technology leading the way

## Australia's white hot smartphone revolution



At 37 percent, Australia has the second highest (just behind Singapore) smartphone penetration in the world, according to a recent study conducted by Google. Mobile internet usage by Australians now rivals that of PCs for activities like social networking and, soon, shopping. The growth in mobile internet use is being driven by the iPhone which is used by 46 percent of respondents in the study.

What are so many Australian doing with their smartphones? Searches are one of the most popular uses of the mobile internet with two in five Australians using their smartphone daily to 'search' as opposed to three in five on their PC.

## Smartphones help tech-savvy growers improve crop management

With the proliferation of smartphones and other electronic gadgets, it seems that there's an 'application' for just about everything you do these days, and that includes planting, growing and maintaining crops.

- The PureSense app allows growers to monitor moisture levels near the roots of crops via underground sensors.
- The Dupont Tankmix app helps growers determine the amount of product needed to treat a specific field area.
- ScoutDoc is an easy to use field scouting/record keeping app for farmers to create or import a field map and save information collected when scouting or inspecting field crops.

## Marketing made easy by Design Crowd



DesignCrowd is an online marketplace providing logo, website, print and graphic design services by providing access to freelance graphic designers and design studios around the world. How does it work? Describe your project, set your deadline, deposit your project budget, invite top designers, watch as 25 to over 100 custom designs are submitted from designers around the world and then simply select the best design.

## First 4G smartphone coming to Australia soon

Telstra will launch the first 4G smartphone – an HTC Android handset with a 4.5-inch (4.1-cm) screen - in Australia late this month (January 2012), sources have said. Telstra claims its 4G (also known as long-term evolution or LTE) network is twice as fast as its existing 3G. Download speeds on 4G can range from 2Mbps to 40Mbps, whereas the current 3G network is 1.1Mbps to 20Mbps.

## LG smart fridge tells you what to buy, cook and eat



LG wants to give your house a 'smart' makeover, releasing a Smart Refrigerator as well as ovens and washing machines that can be controlled via smartphone. LG's Smart Refrigerator comes with a 'food management system' that allows users to check what's in their fridge from their smartphone, right down to their expiration date.

## Welcome to the supermarkets of the future



- **Self service checkouts** allow consumers to scan, bag and pay for items unassisted. Since 2003, Coles has installed them in 90 stores across Australia, with plans to roll them out to a third more within the next two years.
- **'Tap N Go' card readers** allow shoppers to tap their credit or debit card on a card reading device without having to sign or enter a PIN for transactions under

\$100. This technology is already in use in some petrol stations, chemists, takeaway outlets, convenience stores, Bunnings and Dymocks stores.

- **Smartphone barcode scanning apps** allow consumers to scan product barcodes and check for price comparisons. The apps provide links to extra product information and/or price comparisons. They can also alert consumers to products containing certain allergens. The apps are currently available in Japan, the UK and the US.
- **VIP Trolleys** feature a computer, video screen and GPS navigation. The trolleys automatically scan and calculate the total cost of items as they're placed in the basket. It also alerts shoppers to specials. Consumers can upload shopping lists and recipes and the trolley will then direct them to the store location of the listed items. They are currently being trialled in some IGA stores in Melbourne and Canberra.

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# The Quality Story – how are we looking now?

Joanna Embry  
Avocados Australia

As consumers, we know how disappointed and frustrated we get when we buy an avocado, get home, cut it open and then because of flesh damage can't use all or some of the flesh. Intuitively we know that in the broader community these individual experiences would add up to have an overall impact on consumer repurchase of avocados. However, up until a few years ago we didn't have any quantitative data telling us at exactly what point those quality issues start to impact on overall consumption of avocados. This is what prompted the industry, approximately four years ago, to put resources into the research to determine what those levels are.

From the subsequent consumer research that was conducted we were able to determine that consumers want:

- Ripe fruit they can eat tonight or tomorrow
- Fruit with less than 10 percent internal flesh defects
- Mature fruit
  - Minimum of 23% Dry Matter for Hass
  - Minimum of 21% Dry Matter for Shepard

The research was able to show us that if we couldn't supply avocados to the specifications outlined above then consumers would talk with their feet.

In specific terms, the research found that 85 percent of consumers want fruit they can use immediately and they want that fruit to be soft or medium soft (not firm).

The research also found that the severity of any flesh defect was more important than price and/or the frequency of encountering that defect.

## Quality Results to Date

Since 2008 the Australian Avocado industry has been collecting survey data at the retail level to track how quality is stacking up against consumer's demands. Results show that overall internal quality in both Hass and Shepard has improved over that time period. Figures 1 and 2 below represent the change in proportion of fruit that has more than 10 percent internal damage to the flesh.

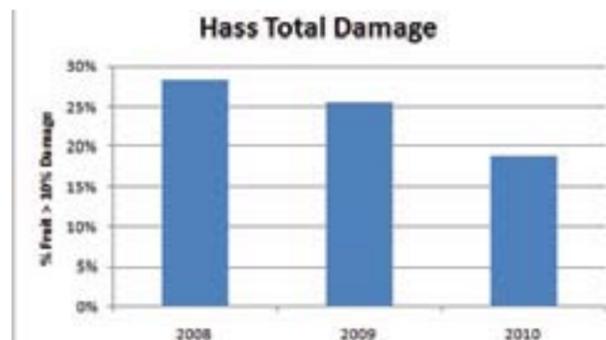


Figure 1: Proportion of Hass avocados with more than 10% internal damage

## Summary Points

### Consumer Demand

- 85 percent of consumers want fruit they can use immediately.
- Fruit with less than 10 percent internal flesh defects.
- Mature fruit (23% Dry Matter for Hass, 21% Dry Matter for Shepard).

### Bruising

- In 2010 the significance of bruising as the cause of internal damage reduced below body rots for the first time.
- Between 2008 and 2010 the proportion of Hass avocados with more than 10 percent bruising to the flesh decreased by 50 percent..
- In Shepard avocados, bruising is still the most significant issue.

### Maturity

- Avocados have been sampled from the Sydney Markets on a monthly basis to measure the dry matter (maturity) since 2008.
- All regions (except WA and Tristate) at the beginning of their seasons continue to have fruit that falls short of the 23 percent dry matter standard for Hass.

### Retail stores

- From 2008 to 2010, both major supermarkets have improved levels of total damage.
- Independent supermarkets have had the least improvement and consistently the highest level of damage/
- Independent fruit and vegetable stores have always had either the lowest or second lowest level of damage.

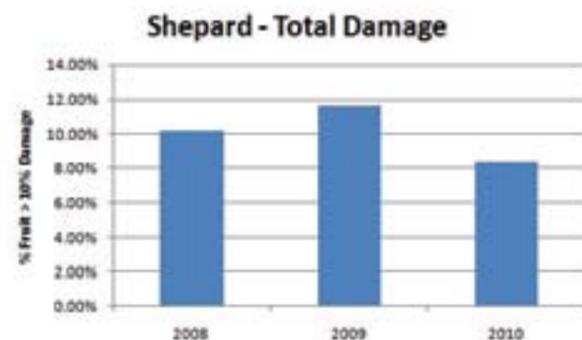


Figure 2: Proportion of Shepard avocados with more than 10% internal damage

Up until 2010 bruising was always the most significant quality issue however in 2010 a reduction in the level of bruising resulted in the overall level of damage decreasing and the significance of bruising as the cause of internal damage reducing below body rots for the first time.

Figure 3 shows that the proportion of Hass avocados with more than 10 percent bruising to the flesh has decreased by 50 percent between 2008 and 2010 from 12-6 percent. Figure 4 shows that this is now less than the proportion of Hass avocados with more than 10 percent damage due to body rots. The most significant improvements have been made in NSW and Victoria.

### Hass - Defects Over Time

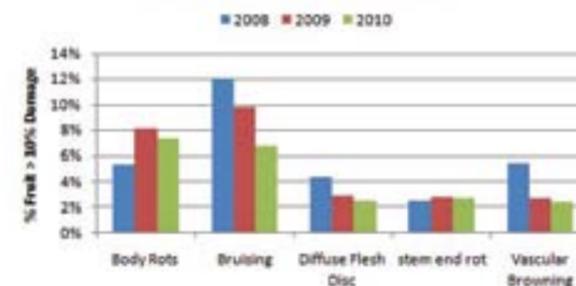


Figure 3: Change in proportion of Hass avocados with more than 10% specific internal defects between 2008 and 2010

### Hass - Defects Over Time

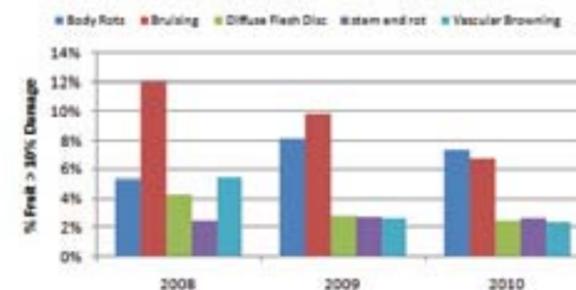


Figure 4: Proportion of Hass avocados with more than 10% of specific defects by year

In Shepard avocados, bruising is still the most significant issue (as shown in figure 5) with the reduction in body rots being the largest contributing factor to the overall reduction in internal damage. Figure 6 shows that bruising

actually increased very slightly between 2009 and 2010 although not nearly to the levels it was at in 2008.

### Shepard - Defects Over Time

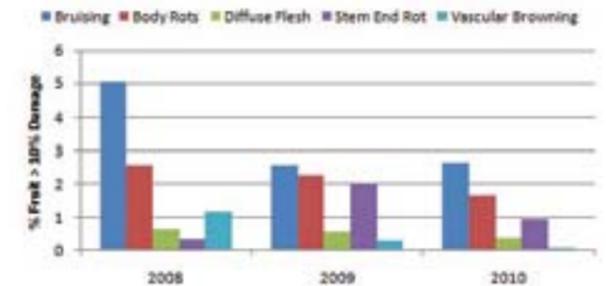


Figure 5: Proportion of Shepard avocados with more than 10% of specific defects by year

### Shepard - Defects Over Time

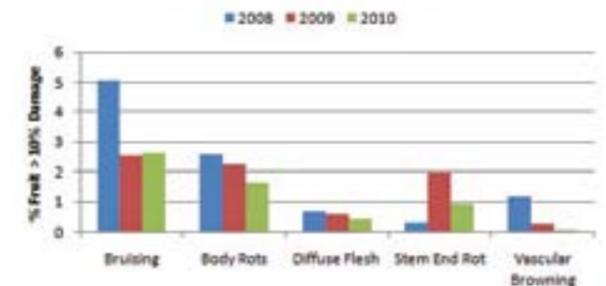


Figure 6: Change in proportion of Shepard avocados with more than 10% specific internal defects between 2008 and 2010

In terms of store type, the data is summarised into four store type groupings ie. Major Supermarket 1 (M1), Major Supermarket 2 (M2), Independent Supermarkets (IS) and Independent Fruit and Vegetable Stores (I).

The results (figure 7) indicate that both supermarkets have improved levels of total damage, independent supermarkets have had the least improvement and consistently the highest level of damage and independent fruit and vegetable stores have always had either the lowest or second lowest level of damage. This is consistent when you look at bruising specifically in Hass avocados. M1 has actually gone backwards – bruising levels improved significantly in 2009 but have started to worsen again in 2010. M2 has shown the most improvement. Again independent supermarkets show the least improvements



The Quality Story – how are we looking now? continued

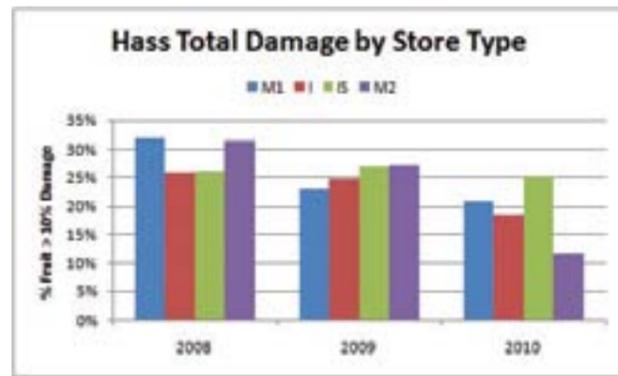


Figure 7: Proportion of Hass avocados with more than 10% total internal damage by store type between 2008 and 2010



Figure 8: Proportion of Hass avocados with more than 10% bruising by store type between 2008 and 2010

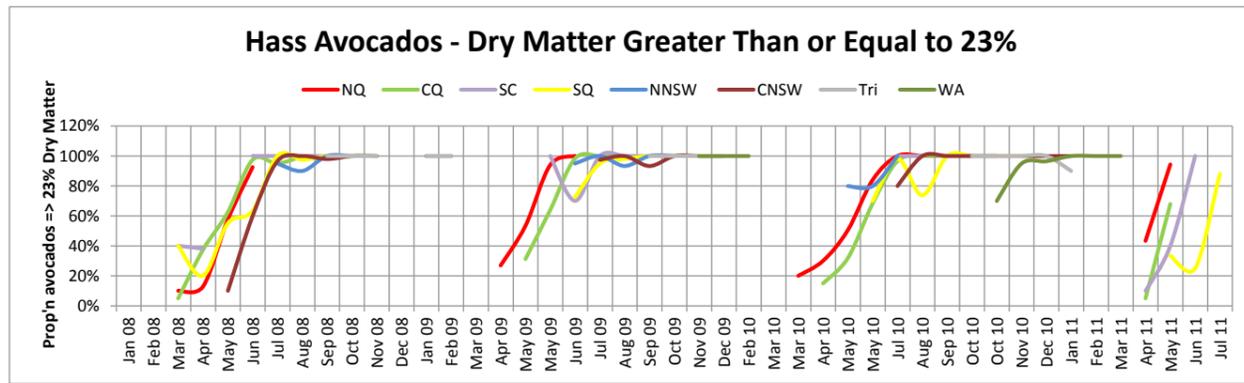


Figure 9: Avocado Dry Matter Results (2008 to 2011)

To test the maturity of fruit, samples are collected from the Sydney Markets on a monthly basis to measure the dry matter (as an indicator of maturity) of fruit in the market place. This data has been collected since 2008. Figure 9 below indicates when first samples are collected from specific regions and subsequently the length of time taken for all fruit within a sample to reach the industry standard. All regions at the beginning of their seasons continue to

have fruit that falls short of the 23 percent dry matter standard for Hass. Western Australia and Tristate regions are general exceptions to this rule (except in 2010/11).

### Acknowledgements

This project is funded using avocado grower R&D levies which are matched by the Australian Government through Horticulture Australia.



# Calonectria ilicicola (Cylindrocladium parasiticum) a newly confirmed root pathogen of avocado

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conducted to confirm identity of the fungi that had been recently isolated from diseased roots of avocado nursery trees, and to establish pathogenicity of three of these fungi.

### Materials and Methods

A selection of nine young vegetatively cloned avocado trees and seedlings were examined. The plants were chosen due to their apparent ill-thrift compared to others, but none had severe foliar dieback. The root systems of most samples were severely necrotic with very few healthy white feeder roots (e.g. Plate 1). Root tissue was selected and plated onto selective agar and resulting fungal cultures examined. Three were chosen further testing. These were identified by examination of fungal structures under the microscopic and additionally by gene sequencing techniques, as *Calonectria ilicicola*, *Ilyonectria liriodendri* and *Gliocladium* sp. (see the insert for details on fungi names). Our DEEDI colleagues, Dr Roger Shivas and Ms Yu Pei Tan performed the morphological and molecular identifications.

The experiment was conducted with ‘Velvick’, ‘Hass’ and ‘Reed’ seedlings in the DEEDI glasshouse facilities at Indooroopilly and at the new Ecosciences Precinct at Dutton Park. (DEEDI are no longer located at Indooroopilly). Seedlings were transplanted into potting mix amended with the test fungus (or no fungus as a

Plate 1: Roots of young avocado plant removed from the pot without disturbing potting media. Note the dark brown/black necrotic root in the centre, and other roots with brown lesions.



### Summary

Glasshouse testing for pathogenicity (ability to cause disease) of 3 fungi isolated from diseased roots of avocado nursery trees was undertaken in 2010 and 2011 as part of the levy-supported disease management projects AV07000 and AV10001. The study has demonstrated that *Calonectria ilicicola* is a severe root rot pathogen of young avocado trees. This is the first published study demonstrating the destructive potential of this fungus, and highlights the importance of clean planting material.

Old name for fungus	New name for fungus
<i>Cylindrocladium parasiticum</i>	<i>Calonectria ilicicola</i>
<i>Cylindrocarpon liriodendri</i>	<i>Ilyonectria liriodendri</i>
<i>Cylindrocarpon destructans</i>	<i>Neonectria radicularis</i>

### Introduction

In recent years, several isolates of fungi from the ‘Nectriaceae’ family were obtained from diseased roots of young avocado trees that had declined or died soon after transplanting into orchards in Australia. Historically, there are three records of such fungi associated with avocado in Queensland (unpublished). These include *Cylindrocladium* sp. and *Cylindrocladiella parva* (as *Cylindrocladium parvum*).

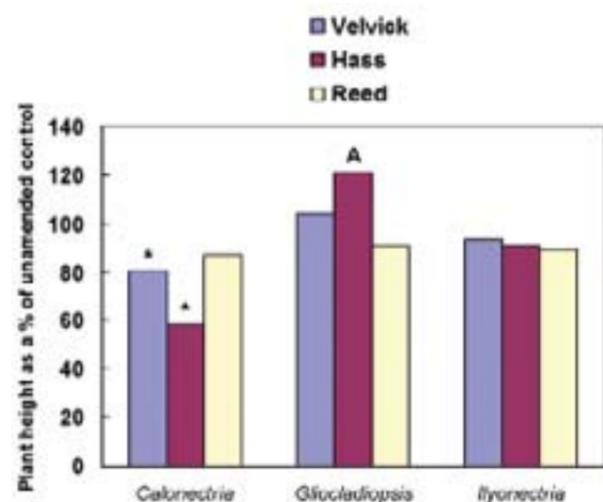
In other parts of the world, *Cylindrocarpon* sp. has also been isolated from roots of avocado trees exhibiting symptoms of tree decline eg. chlorotic or brown leaves, leaf drop, tree death, and from roots of nursery trees which either had symptoms of severe root rot or which often appeared healthy. The causal fungus in these studies was *Cylindrocarpon destructans* based on morphological and molecular characterisation (Besoain and Piontelli 1999; Darvas 1978; Zilberstein *et al.* 2007).

There are no records of pathogenicity testing of these isolates in avocado. Therefore, the current study was

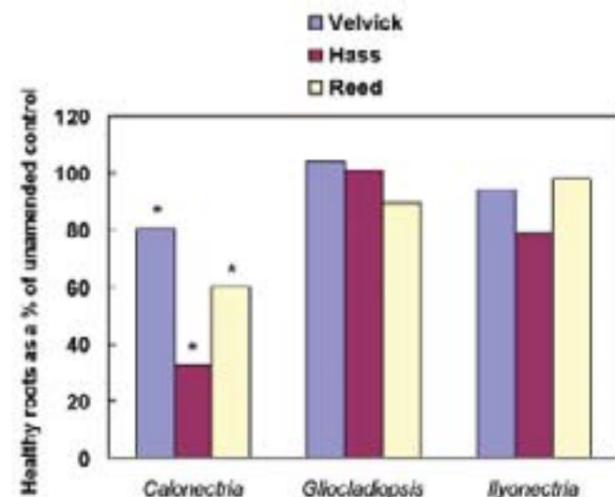
*Calonectria ilicicola* (*Cylindrocladium parasiticum*) continued

control), and grown for 6-19 weeks. For each experiment, plant heights were measured regularly, and at the conclusion of the trial root systems were examined visually for percentage of healthy roots. Washed root pieces were

**Figure 1:** Heights of 'Velvick', 'Hass' and 'Reed' seedlings grown in fungi-amended compared with height of seedlings grown without fungi



**Figure 2:** Proportion of healthy roots of 'Velvick', 'Hass' and 'Reed' seedlings grown in fungi-amended compared with roots from seedlings grown without fungi



Footnotes for Figures 1 and 2:  
\* significantly less than than control seedlings;  
<sup>A</sup> significantly greater than control seedlings

plated onto selective agar medium, and examined for fungal growth. Root mass was also determined after drying at 60°C.

**Results**

The full results of this work will soon be published in the journal 'Plant Pathology' (Dann *et al.*, 2011). In each trial, amendment with *Calonectria* sp. significantly reduced plant heights (Figure 1) and percentage of healthy roots, compared to plants growing in unamended mix, or in *Neonectria* sp. or *Gliocladiopsis* sp. amended media (Figure 2). Root mass was also reduced but not always significantly. Roots from plants receiving *Calonectria* sp. showed large areas of severe dark brown or black necrosis, and also smaller brown necrotic lesions (Plate 2).

Cultures of *Calonectria* sp. (Plate 3), *Neonectria* sp. and *Gliocladiopsis* sp. were consistently re-isolated from diseased roots from respective amendment treatments. The molecular and morphological characterisation confirmed the identity of re-isolated fungi as *Calonectria ilicicola*, *Neonectria liriodendri* and *Gliocladiopsis* sp.

**Discussion**

This study has demonstrated that *Calonectria ilicicola* is a severe root rot pathogen of young avocado trees. The fungus consistently reduced the portion of healthy roots compared to controls and the other test fungi, in separate trials with three cultivars. In two trials, amendment of potting media with this fungus impacted negatively on plant heights over time, and root biomass. *C. ilicicola* could be reliably re-isolated from diseased roots, fulfilling the requirements of a pathogen according to Koch's Postulates. This is the first report demonstrating pathogenicity of *C. ilicicola* on avocado.

*Calonectria ilicicola* has a wide international distribution and host range. In Australia, it causes black rot of peanut and collar rot of papaya (Male 2011). Clean planting material is the most critical step in successful prevention of black root rot disease, caused by *Calonectria ilicicola*, in avocado. Although nursery trees may look healthy, root examination followed by rapid diagnosis, will quickly determine whether this pathogen, or another insidious root pathogen like *Phytophthora cinnamomi* is present.

*Ilyonectria liriodendri* and *Gliocladiopsis* sp. used in these trials were not pathogenic to avocado roots. *Ilyonectria liriodendri* has been established as the causal agent of black foot disease, a root rot, of grapevines in many parts of the world, including Australia (Whitelaw-Weckert *et al.* 2007). It has not previously been reported from avocado, and in this case it was most likely isolated as a ubiquitous rhizosphere inhabitant. There are reports of isolates of

**Plate 2:** Roots from 'Velvick' plants receiving *Calonectria* sp. amendment to potting media 14 weeks earlier



**Plate 3:** Colonies of *Calonectria ilicicola* growing from root pieces of avocado 5 days after transferring to selective media



*Cylindrocarpon destructans* (= *Neonectria radicola*) as pathogenic on avocado (Besoin and Piontelli 1999; Darvas 1979; Zilberstein *et al.* 2007). Further surveys for nectriaceous pathogens associated with dieback of avocado are needed to resolve their pathogenicity and taxonomic status.

**Acknowledgements**

The avocado disease management projects, AV07000 and AV10001, have been funded by avocado grower R&D which are matched by the Australian Government through Horticulture Australia.

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### The University of California writes:

*Phytophthora root rot is the most serious and important disease of avocado worldwide. The causal agent, Phytophthora cinnamomi, has over 1,000 hosts, including many species of annual flower crops, berries, deciduous fruit trees, ornamentals, and vegetables.*

*Root rot thrives in areas of excess soil moisture and poor drainage. Trees of any size and age may be affected. The pathogen is easily spread through movement of contaminated nursery stock of avocado trees and other plants, on equipment and shoes, in seed from fruit lying on infested soil, or by activity by people or animals that moves moist soil from one place to another. Phytophthora produces four different spore stages that are involved in disease development and survival: sporangia, zoospores, chlamydospores and oospores. They spread easily and rapidly in water moving over*



*or through the soil. Entire areas can readily become infested. Phytophthora species are not true fungi but have many fungal-like attributes.*

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***Chemical control.** Certain phosphonate fungicides (phosphorous acid and phosphonate compounds) can markedly improve trees' ability to tolerate, resist, or recover from infection by Phytophthora cinnamomi. Good control requires using fungicides in combination with other recommended practices, such as careful irrigation practices and applying wood chip mulch. Phosphonates cannot eradicate Phytophthora from the grove and avocado root rot requires ongoing management throughout the life of the trees.*

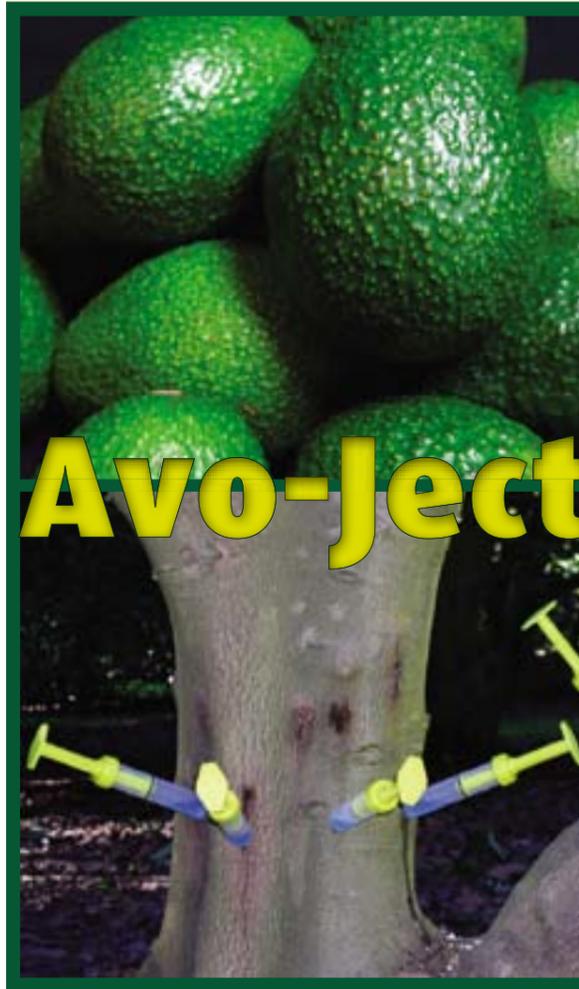
***Application methods.** Varying with the product label, phosphite fungicides may be sprayed onto bark or foliage, injected into soil with irrigation water (chemigation), or injected into trunk vascular tissue. If permitted on the product label, **proper trunk injection is***

***generally the most effective application method** when treating severely diseased trees. Proper application timing is critical. Phosphites can move both up and down within plants. To induce phosphites to move to roots, apply phosphites prior to initiation of new root growth.*

Application (spraying) directly onto bark is usually not effective for managing avocado root rot. Bark application may be more effective in managing the trunk canker fungus *Phytophthora citricola*. Application through the irrigation system is more effective in slowing down the spread of avocado root rot disease than it is in controlling disease in already infected trees.

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# Impact Induced Bruising in Ripening 'Hass' Avocados

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## Introduction

Matching consumer demand with supply relies on consistently providing appropriate quality and quantity, and at the right price. This is particularly important as supply continues to increase. The consumer is the final 'judge' of quality and value, so quality should be assessed in fruit sampled from the retail shelf, and when the fruit are ready to eat. Retail surveys over the last 20 years (Smith et al, 1990; Hofman and Ledger 2001; Harker and Jaeger, 2007) have shown significant problems with flesh quality, for example 40-50 percent of consumers having bad purchase experiences because of poor internal quality. Recent consumer research suggested that consumer's intentions to repeat purchase will be negatively affected if more than 10 percent of the flesh volume is discoloured (Gamble et al, 2010). A suitable benchmark in relation to flesh defects was for no more than one in 10 fruit to have no more than 10 percent of the flesh affected. Results from the Avocados Australia project on 'Avocado Retail Quality Surveys' (AV07018) in 2008 indicated that 63 percent of the fruit had flesh defects and that 29 percent of these fruit had more than 10 percent of the flesh volume with defects.

The retail surveys indicate that flesh diseases and bruising are the two major causes of flesh discoloration. Considerable research has been undertaken to minimise flesh diseases, but little is understood about bruising. Project AV10019 was commissioned by Avocados Australia to fill this knowledge gap and provide guidance toward commercial practices to minimise bruising.

A bruise can be defined as an area of damage within a fruit that is typically caused by either compression or impact injury (Arpaia et al. 2005). Bruises in avocado fruit flesh are typically dark grey in colour and confined to a well defined area that is usually close to the site of injury. Other forms of bruising, such as light coloured discoloration often associated with hairline cracking of the flesh, have been observed in avocado fruit sampled from the end of

the packing line (Hofman 2002).

Previous work has shown that only about 0.6 percent of Hass fruit sampled from the end of the packing line have significant bruising, and usually this bruising is of lighter colour and less obvious (Hofman 2002; project AV02015). Also, avocado flesh is more easily bruised as the fruit softens (Arpaia et al. 2005), and the bruise severity typically increases with increasing impact energy, e.g. drop height (Brusewitz et al. 1992). This suggests that fruit are more likely to be bruised during and after ripening. Very preliminary work within the AvoCare project (Hofman and Ledger, 2001: project AV99007) indicated that fairly extensive sampling may be required to identify causes of bruising during ripening and distribution, which may require methodology development and testing.

The current research project entitled 'AV10019 - Reducing Flesh Bruising and Skin Spotting in 'Hass' Avocado' was initiated with a primary focus on reducing flesh bruising in ripening avocado fruit to provide better quality fruit to consumers. It is not clear when bruising symptoms first appear after a bruising event happens. Moreover, it is not known how the symptoms of bruising worsen over time. Gaining an insight into when bruise expression peaks relative to the causal event would enable more informed bruise assessment and, thereby, facilitate monitoring and bruise reduction practices in commercial avocado supply chains. This article presents the results from a preliminary experiment to determine the time to bruise expression after controlled impacts to single ripening fruit. The treatments used were various combinations of fruit firmness and drop heights.

## Methodology

'Hass' avocado fruit at the green hard stage were collected from a ripener's premises in the Brisbane Markets at Rocklea, Queensland. The fruit were carefully transported to a Postharvest Research Laboratory at Gatton. There, they were initiated to ripen by a dip treatment in 1000 µL L<sup>-1</sup> ethephon (an ethylene releasing compound) plus 0.01% Tween 80 (a wetter/spreader compound) for 10 minutes. The fruit were then air dried and kept in a darkened shelf life evaluation room at 20°C and 85 percent RH until they variously reached firmness levels 3, 4 and 5 (White et al., 2009; Table 1). Fruit were sorted on the basis of hand firmness and assigned to impact treatments on a matched (e.g. for size, shape) sample basis. Individual fruit were labelled using a white marker pen. They were weighed individually with a digital balance.

**Table 1.** Avocado hand firmness guide (White et al. 2009).

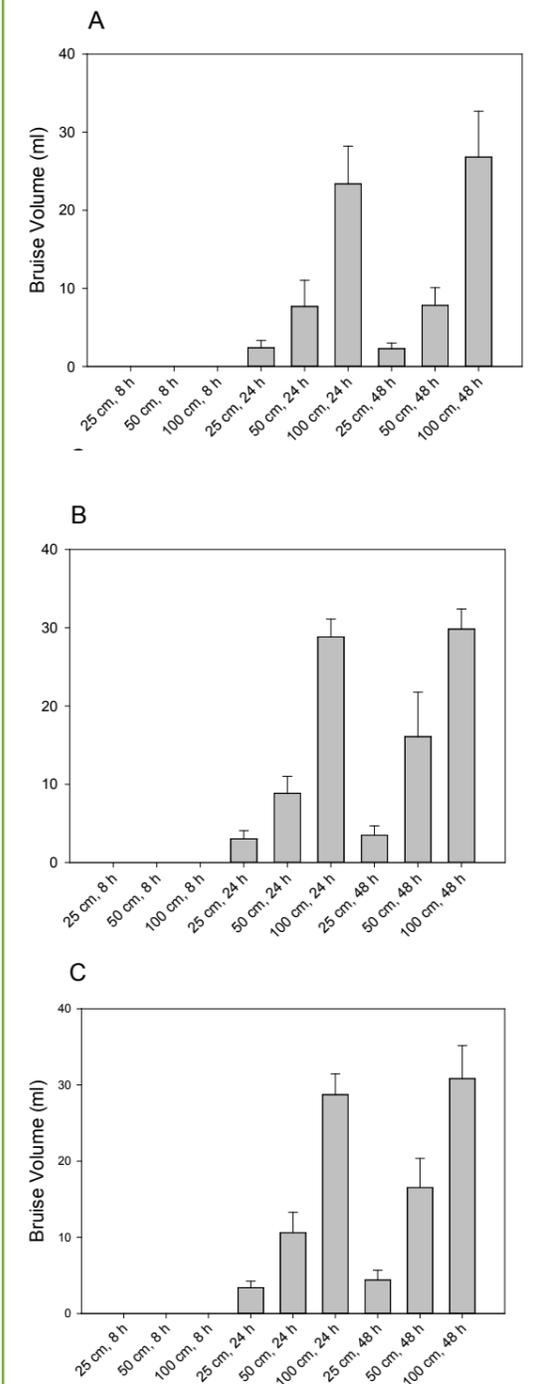
0	Hard, no 'give' in the fruit.
1	Rubbery, slight 'give' in the fruit.
2	Sprung, can feel the flesh deform by 2-3 mm. under extreme thumb force.
3	Softening, can feel the flesh deform by 2-3 mm. with moderate thumb pressure.
4	Firm ripe, 2-3 mm deformation achieved with slight thumb pressure. Whole fruit deforms with extreme hand pressure.
5	Soft ripe, whole fruit deforms with moderate hand pressure.
6	Over ripe, whole fruit deforms with slight hand pressure.
7	Very over ripe, flesh feels almost liquid.

Fruit were individually impacted by dropping in a pendulum device from heights of 25, 50 and 100cm against a solid surface. Pendulum based impact devices have been used previously (e.g. Mohsenin 1986). The average impact energies absorbed by the fruit were 0.38, 0.81 and 1.67 N (newtons) for the drop heights of 25, 50 and 100cm, respectively. The impact area on each fruit was traced using a white marker pen. The fruit were then held at 20°C for evaluations at 8, 24 and 48 hours. The fruit flesh around the stone was then halved through the impact site using a sharp and smooth knife. The bruise volume was quantified in the two halves using a volume displacement method. Briefly, the bruise affected area of the fruit was carefully removed and dipped into water within a calibrated measuring cylinder (Rashidi et al., 2007). The increase in volume of the water plus bruised flesh was recorded. The volume of cracks that also resulted from impact was estimated separately by filling the cracks with a calibrated medical syringe. The crack volume was added to the volume of bruise to calculate the full bruise volume caused by an impact. Bruise volume was, thus, the quantitative measure of 'bruise severity'. The experiment was conducted as a 3 x 3 x 3 factorial randomised complete block design. The data were statistically analysed with Minitab software.

## Results and discussion

The severity of visible flesh bruising in the avocado fruit worsened with increasing time after the impact event (Figure 1). Tissue discoloration was not obvious until 24 hours after impact for 'Hass' avocado fruit impacted at hand firmness stages 3, 4 and 5 from 25, 50 and 100cm heights. The damage appeared initially in the form of cracks and then became more voluminous as damaged flesh tissue changed colour to brown. The data suggests that bruises continued to grow in volume even beyond 48

hours, particularly with intermediate drop heights.



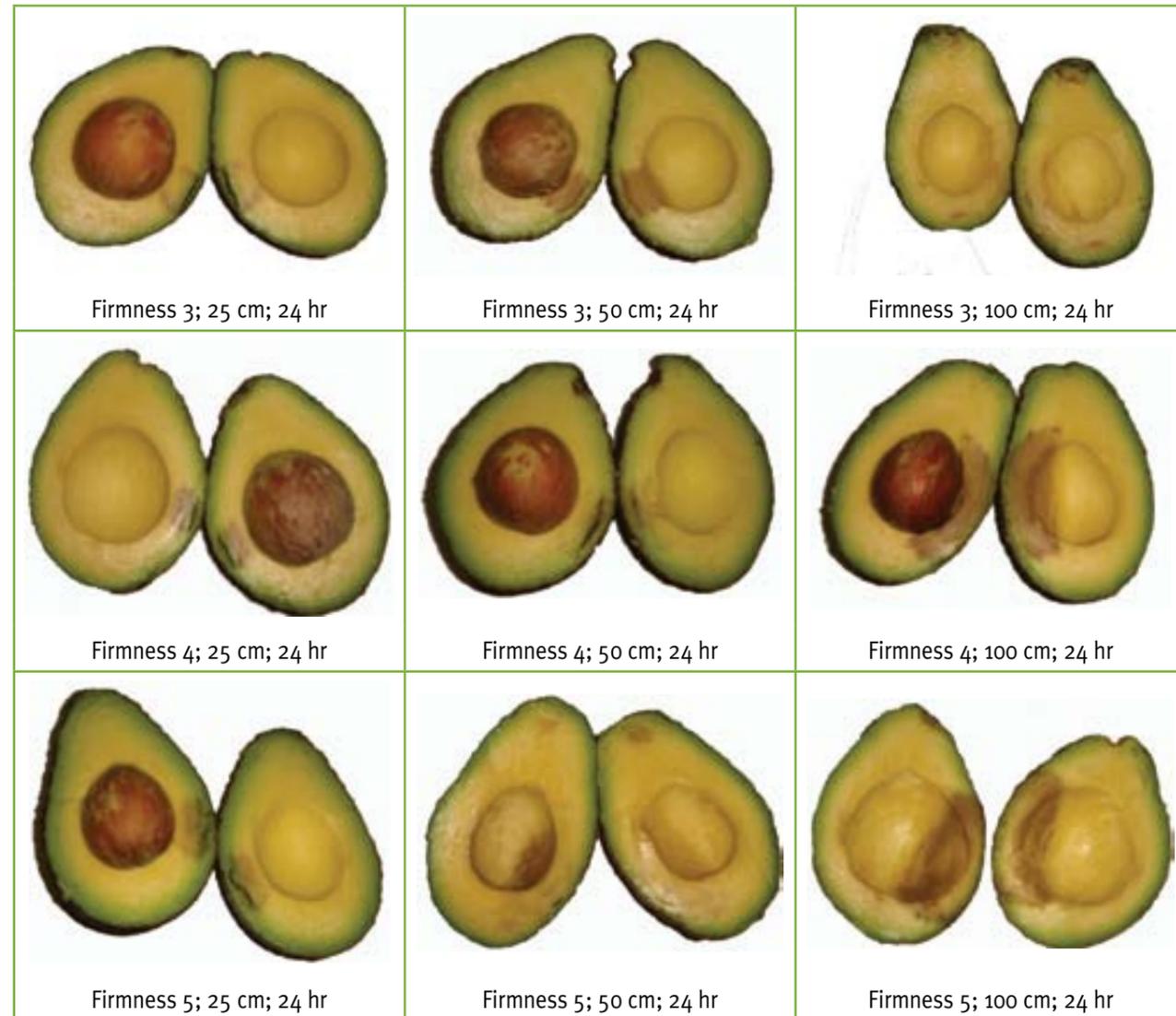
**Figure 1.** Changes in the bruise volumes over time after 8, 24 and 48 hours in 'Hass' avocado fruit (n = 10) impacted from 25, 50 and 100cm drop heights at hand firmness stages 3 (A), 4 (B) and 5 (C).

Trends in the data also suggest that at similar times after impact for already softening avocado fruit, any of the

## Impact Induced Bruising in Ripening 'Hass' Avocados continued

three drop heights tested, more or less equally damaged the flesh tissues, reflecting only a small affect of firmness of ripening avocado fruit. The bruises at 24 hours after

impact in 'Hass' avocado fruit for different stages of firmness and for impacts from different drop heights are depicted in Figure 2.



**Figure 2.** Bruising of 'Hass' avocado fruit at 24 hours after impact for three different stages of hand firmness and three different drop heights.

This experiment has enhanced our understanding of the bruise severity response over time for individual 'Hass' avocado fruit treated at different stages of ripening with various levels of impact energy caused by dropping fruit from several heights. The improved understanding will be applied in ongoing supply chain experiments to determine exactly where, when and why 'Hass' avocado fruit become bruised from the ripener onwards. It will also be applied to better understand bruise symptom development in ripening 'Hass' avocado fruit. The collective findings

will be used by industry, research and service personnel, including assessors who monitor avocado quality in the supply chain. In the value chain context, it is particularly important to conduct internal quality assessments that reflect the consumers experience; namely, when bruise expression has peaked.

### Acknowledgements

This preliminary study was conducted as part of the project entitled 'AV10019 - Reducing Flesh Bruising and Skin Spotting in 'Hass' Avocado' project is funded using avocado grower R&D levies which are matched by the Australian Government through Horticulture Australia. The

authors thank other DEEDI and UQ staff members for their advice and assistance. They also thank commercial supply chain stakeholders, particularly Coles, Murray Brothers and Woolworths, for their cooperative support.

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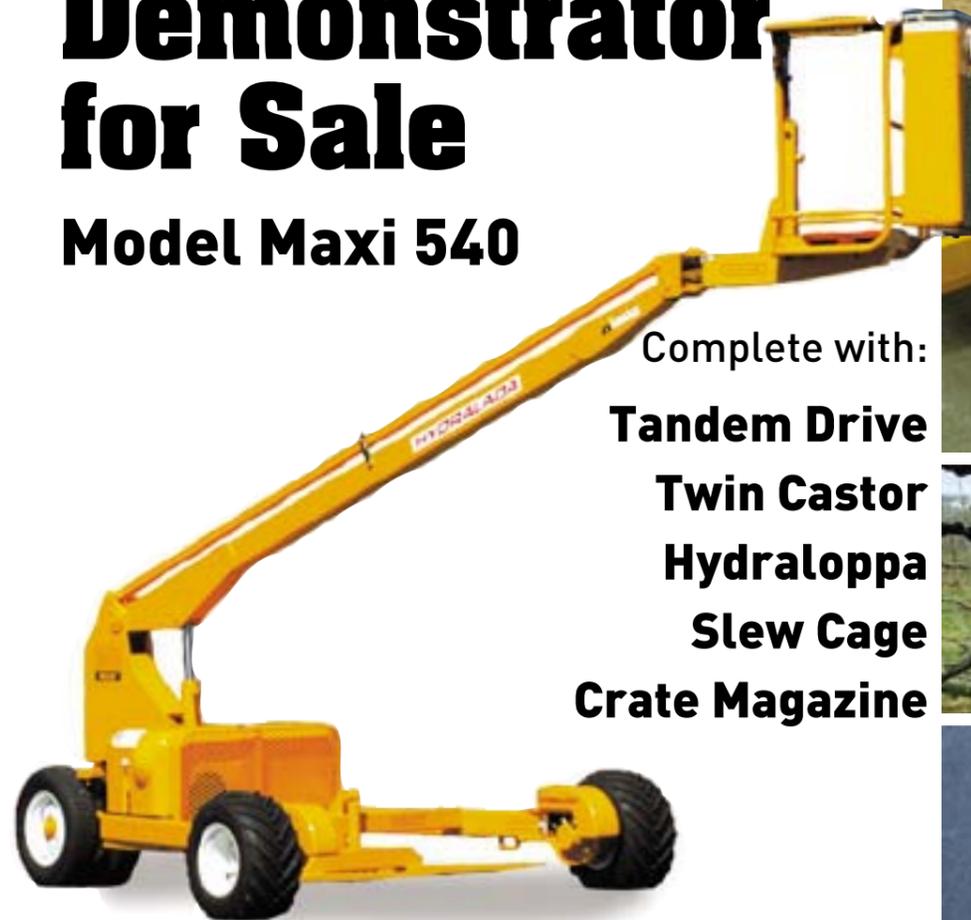
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# Social Media Report

## Australian Avocados goes Social: 1<sup>st</sup> July – 30<sup>th</sup> November, 2011.

This year Australian Avocados have gone social with an Australian Avocados Facebook page, YouTube Channel and two Twitter accounts (one for Food Service and one to support the *I Heart Footy* Consumer PR campaign). The website has been updated with social buttons to promote the various social media channels.

The national avocado marketing campaign for 2010-2011 has helped drive total avocado value growth by an increase in average household spend & household reach<sup>1</sup>.

- AWOP increases have come as a result of increased average purchase occasions
- In addition to higher overall household reach, more Australians can be classified as medium and high frequency buyers
- Increases in frequency has come from both retained and transitional buyers with retained buyers making almost one more shopping trip this year and transitional buyers now spending almost as much as retained buyers
- Strong retention rate for avocados with 86 percent of buyers being retained

Therefore, the basis of the campaign in 2011/2012 will remain the same since the brand equity created by the industry has been strong and the new strategy developed has only added to that.

The change this year is a much stronger focus on developing social media channels. Up until now, the communication with avocado consumers has been one way, using mediums such as television, magazines and the website and online campaigns. In 2011 there has been a shift from one way to a two way dialogue; engaging the brand advocates through launching the industry's social media campaign. This activity spreads the brand's reach and can utilise brand advocates (high frequency buyers of the product) to reach out to other consumers who have a medium and low purchase frequency. Social Media also plays an important role when it comes to Search Engine Optimisation. The more channels Australian Avocados have online, the more opportunities the brand has for showing up in search engine results with these brand controlled touch-points

### The Website – Social Buttons

New social buttons will be coming to the website soon. Social media users share content that they like with others and it is important to make content as 'share friendly' as

<sup>1</sup> AC Nielsen Analysis, July 2011

possible, to allow them to do so. When a user shares the content or 'likes a page', this is publicised to their friends or circles, which can in turn drive new 'referral traffic' to the Australian Avocados website.

- Since July 2011, StumbleUpon was the highest ranked referring site, driving 33,428 visits to the Australian Avocados consumer website
- Facebook.com was the second highest ranked referring site (driving a total of 4,051 visits).



StumbleUpon is a discovery engine that finds the best of the web, recommended to each unique user. It allows its users to discover and rate Web pages, photos, and videos that are personalised to their tastes and interests using peer-sourcing and social-networking principles.

### Social Content

There is a balance of branded and non-branded content shared across Australian Avocados' social media channels. As part of the Social Media Strategy, a full Australian Avocados campaign calendar was developed inclusive of key dates or events, relevant to the target audience; this allows the content delivered on the social media channels the opportunity to tap into relevant events or topics that the audience is interested in. Through this content, the conversation is extended beyond being simply about Australian Avocados and our recipes.

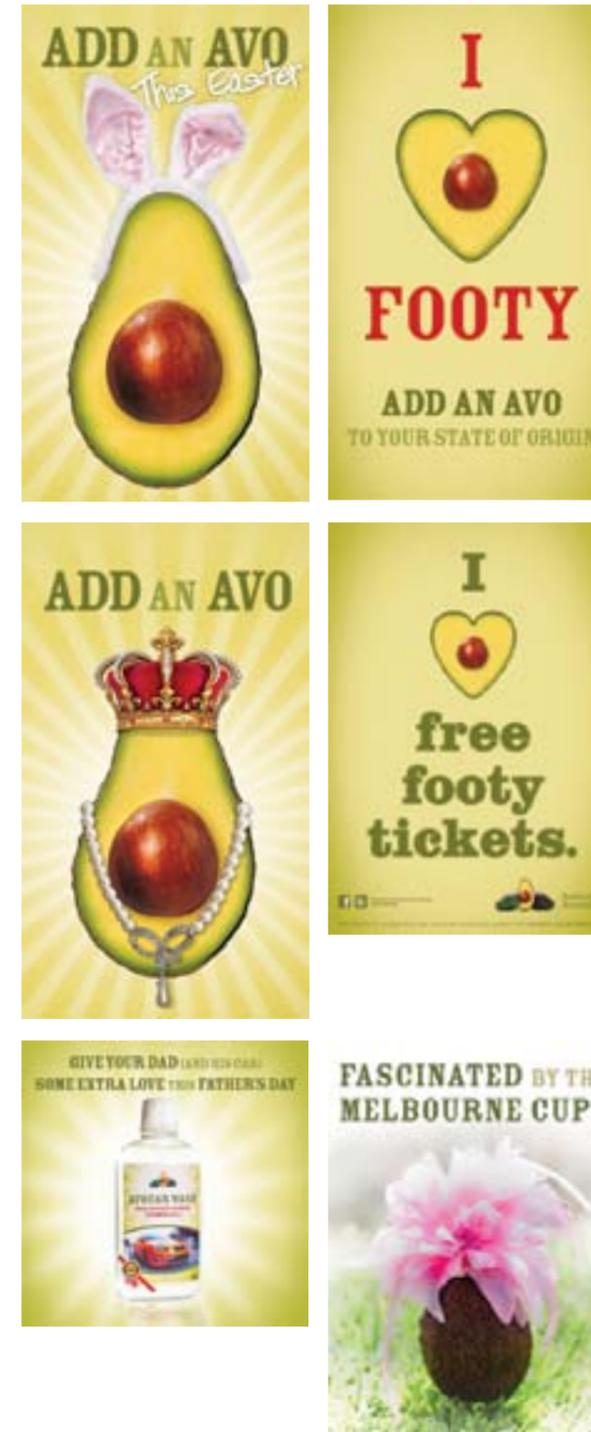
While recipe related content is still a key area, broadening the conversation takes the relationship from just being a brand to a 'friend'; consumers demonstrate higher levels of engagement with a brand's Social Media Channel when they're given the opportunity to read and talk about their common interests.

To operate effectively across the social channels, Social Brand Guidelines were created to ensure a consistent voice is communicated by the brand. In addition, a Response Policy was developed with 'ready-to-go-answers' for a variety of topics that may be initiated by consumers (for example, 'How to Grow' questions or what to do when consumers post inappropriate comments).

### Example: Key dates or events

Social content can be 'fun', and to align with the brand's 'quirky' personality we've created some fun profile images

for different events. These are posted alongside messages about how you can bring avocados into the event e.g. Easter recipes that mix avocados and chocolate, Queen's Birthday (which gave us a long weekend) party recipes and party-recovery avocado recipes:



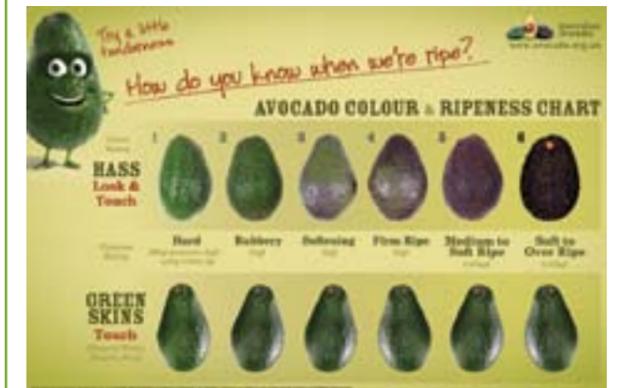
If the key date or event is relevant or positively perceived by the target audience, we can also talk about it without

necessarily needing to tie in the product. By promoting it, however, we are kept front-of-mind:



### Turning Existing Collateral, Social

Existing collateral have been converted into social media friendly content, like the industry's supply chain education poster below. This Avocado Colour & Ripeness Chart was resized to fit inside Facebook and shared on our page:



### User Generated Content

User generated content is a great way for connections to become more engaged with the industry's social media channels, particularly on Facebook. When a Facebook connection posts something to the Australian Avocados Facebook page, the story which is generated also shows up on their friends' News Feeds. This allows for a greater reach with more people viewing that particular post and being exposed to the brand which indirectly encourages



Social Media Report continued



Twitter is a great platform for the food service industry because it is instantaneous – menu updates, specials or ‘latest news’ can be posted up straight away, allowing Australian Avocados to provide up-to-date information about the food service industry and be of value to its followers. Although other people may follow this Twitter account, the Australian Avocados food service Twitter profile only follows industry professionals/ restaurants to reinforce its position as being a credible industry-specific account.

Other campaigns that have been supported via the social media channels are Early Learning ‘Eating My Colourful Veges and Fruits Program’ and The Cutest Baby Competition.

Summary

The first six months has been a fantastic social experience for Australian Avocados. There are a few more surprises coming up, so connect with Australian Avocados and experience first-hand all the social media campaigns that are going to coming up.



Facebook: [www.facebook.com/AustralianAvocados](http://www.facebook.com/AustralianAvocados)



YouTube: [www.youtube.com/AustralianAvocados](http://www.youtube.com/AustralianAvocados)



Twitter: [www.twitter.com/iheartfoody](http://www.twitter.com/iheartfoody) and [www.twitter.com/add\\_an\\_avo](http://www.twitter.com/add_an_avo)

Food Service

The Food Service Education Program is dedicated to showing chefs how versatile avocados can be on a menu. The food service Twitter account engages those in the food service industry, food media, and food bloggers with posts about innovative avocado dishes, Masterclass video releases, and more food service news.

Why Twitter?

Chefs love Twitter because they work long hours and are seldom found sitting at a computer as a result. They use it to communicate with their friends in the industry that operate on similar schedules and sometimes, as a social tool to arrange meeting up with their peers after work or at an event.

# Update on Sustainable Orchard Management Practices

(AVo8020)

Dr John Leonardi  
Avocados Australia

The objective of this project is to identify sustainable orchard management practices used by avocado growers across Australia and to conduct trials to evaluate the effectiveness of these strategies.

Evaluate Orchard Management Sites

25 sites from the major production areas across Australia have been selected as case studies. Growers from each site provide information on the timing and cost of their orchard management operations and the impact of these practices on tree health, yield and fruit quality.

Currently information from sites in Central and Southern Queensland is being collated for the 2011 season. In these regions a range of orchard management strategies are being used including mulching (Rhodes grass, composted vegetation waste and filter-press), brewed microbes, molasses and natural mineral fertilisers. Grower collaborators in the Northern and Central New South Wales will be visited in February and March to collect information on their orchard management practices and the impact of these strategies on yield and pack-out figures for the 2011 harvest.



Conduct Orchard Management Trials

Several trials investigating the effect of a range of orchard management practices on tree growth, fruit quality and yield are continuing.

Branch scoring trials

Trials investigating the effect of branch scoring on yield were assessed in October in Central New South Wales and in December in South-West Western Australia. Scoring involves cutting a groove around the branch to sever the phloem using a knife or pruning saw. Branches are scored in the autumn to reduce vegetative growth and increase flowering and fruit set the following spring.

**Central NSW:** A single branch was scored in four year old Hass avocado trees in May 2010. The effect of branch scoring on the number of fruit was assessed in 15 trees in October 2011. Fruit yield assessments were made on the scored branch and a similar non-scored branch within the tree. The total number of fruit in each tree was also counted.

At this site scoring tended to increase yield with the scored branch averaging 54 fruit compared with 38 fruit on a similar non-scored branch. Trees averaged at total of 207 fruit.

**South-West Western Australia:** Two trials were established in the region.

**Site 1:** A single branch was scored in 3 year old Hass avocado trees in April 2010. The effect of branch scoring on the number of fruit was assessed in 19 trees in December 2011. Fruit yield assessments were made on the scored branch and a similar non-scored branch within the tree. The total number of fruit in each tree was also counted.

At this site scoring significantly increased yield with the scored branch averaging 48 fruit compared with 17 fruit on a similar non-scored branch. Trees averaged a total of 84 fruit.

**Site 2:** A single branch was scored in 3 year old Hass avocado trees in April 2010. The effect of branch scoring on the number of fruit, fruit size and yield was assessed in 10 trees in December 2011. Fruit yield assessments were made on the scored branch and a similar non-scored branch within the tree. Total fruit yield in each tree was also collected. Trees with no scored branches were also included for comparison.

At this site there was no significant effect of branch scoring on yield (Table 1). However, scoring tended to reduce fruit size with a mean fruit size of 279.8g compared with 295.8g in non-scored branches.

## Update on Sustainable Orchard Management Practices continued

**Table 1** The effect of branch scoring on the number of fruit, fruit size and yield

	No. of fruit	Fruit weight (kg)	Mean fruit size (g)
Scored tree			
Scored branch	18	4.8	279.8
Non-scored branch	17	4.9	295.8
Total tree	138	41.2	298.0
Non-scored tree			
Single branch	14	4.2	296.4
Total Tree	97	28.0	289.9

\* Trees were 4 1/2 year old at the time of harvest in December 2011

### Where to from here?

#### Mulching trials

The trial investigating the effect of mulching on tree growth, fruit yield and quality established in Central Queensland during September 2009 is continuing for another year. Filter-press, avocado woodchip and cane-tops were reapplied in September 2011.

Shoots were tagged prior to flowering and the effect of mulching on the length of the spring growth flush and percentage of shoots bearing a fruit will be assessed in

January 2012.

#### Microbe treatments

The effect of soil applications of TwinN® a freeze dried source of nitrogen fixing microbes on tree growth, fruit quality and yield is being investigated in the 2011/12 cropping season. Treatments were applied in October 2011 and the effect of treatment on root growth will be assessed in January 2012.

#### Foliar treatments

Foliar treatments of pyroligneous acid (PandA®) an organic liquid derived from bamboo that has been reported to improve root, shoot and fruit growth, increase resistance to pests and diseases, reduce leaf fall and fruit drop, and improve yield and fruit quality commenced in November 2011. Monthly applications of PandA® at 2 and 4 ml/L with and without copper fungicide will continue until harvest in June 2012.

#### Acknowledgements

Thanks to all growers who have assisted in conducting trials; Mapleton Agri Biotec Pty Ltd for supplying the microbial product (TwinN®) and O'Grady Rural for providing the pyroligneous acid (PandA®). This project is funded using avocado grower R&D levies which are matched by the Australian Government through Horticulture Australia.



## News from Around the World

### US (FL): Florida avocados finish above forecast

The Florida avocado season has just about wrapped up, and final production numbers for the state are anticipated to be above initial projections. Industry-wide production was forecast at 1.1 million bushels, but current reports have production at 1.18 million bushels, with another 20,000 bushels anticipated to come in. The resulting 1.2 million bushels would put production at 10% above the forecast.

"It has been a very good season," says Mary Ostlund, Director of Marketing for Brooks Tropicals. "We've had a record crop year, and volumes are up to levels we had before Hurricane Andrew," she adds. A lot of that volume has come from new growth that was planted in the wake of the Hurricane. "It's been a steady climb back to pre-Andrew volumes," she notes, "it's getting back up there." Source: [www.freshplaza.com](http://www.freshplaza.com)

### Spain: Lack of rain affecting the avocado campaign

The lack of rain that has been affecting the area since November 20 has hurt the avocado campaign, one of the most important in the municipality. According to the president of the Cooperative, this has affected the collection of this fruit dramatically. Specifically, in the last quarter of 2011, production shrank by 20% over the same period of last year - "we collected 81 tons and the price rose 10%, with an average of 0.98 euros a kilo of avocados".

Water shortage has made farmers irrigate crops using water from wells. To pump water out of the wells electric motors have been used, which has consumed lots of energy. The rising fertilizer prices and thefts in the area have also hurt the campaign. Source: [Diario Sur](http://Diario Sur)

### US: Hass Avocado Board promotes avocados for the big game

**71.4 million pounds of avocados expected to be consumed**

Each year, Big Game is one of the largest consumption occasions of the year for Hass avocados, and this year is no exception. The Hass Avocado Board (HAB) is estimating that 71.4 million pounds of fruit will be consumed by fans during this year's Big Game festivities. To further encourage consumer purchases of avocados during this key sales period, HAB is implementing a multi-platform



marketing campaign that highlights how Hass avocados can be incorporated into Big Game party menus.

"With more than 71 million pounds of avocados expected to be consumed during game time this year, the Big Game provides a great opportunity for retailers to build higher basket rings by displaying avocados with complementary produce," said Jimmy Lotufo, chairman of HAB.

"Guacamole has become a staple at Big Game parties, and HAB helps encourage even stronger avocado demand by offering consumers produce-rich recipes and creative usage ideas."

To further support the tie between Hass avocados and the Big Game, this year, HAB is sponsoring the Taste of the NFL®. Since 1992, the Taste of the NFL® has attracted the country's top chefs and football's greatest talent to raise money in support of food banks throughout the United States. The efforts culminate on the eve of the Big Game at Party with a Purpose®, an annual wine and food event featuring a chef from each NFL® city serving their signature dish alongside a current or alumni NFL® player. HAB will be working directly with Atlanta-based chef Kevin Rathbun to feature a Duck Tostada with Hass Avocados and Pasilla Chile Sauce for the philanthropic event. Rathbun is an award-winning and notable American chef of restaurants Rathbun's®, Krog Bar® and Kevin Rathbun Steak®.

HAB's Big Game program includes extensive online and social media outreach, including a micro site, SportsAvocadoCentral.com, which will serve as a resource for consumers planning their Big Game parties. The site will feature game day entertaining tips and two new recipes, including Spiced Won Tons with Hass Avocado Dipping Sauce and produce-rich Tropical Salsa Guacamole, as well as other recipes that are perfect for Big Game parties. Consumers also will have the opportunity to share their recipes on popular social networking sites or via email, as well as save their favorite recipes in one location in their personal "recipe playbook." Traffic will be driven to the site through online and social media advertising, inclusion in HAB's subscriber e-newsletter and via a social media promotion with the theme, "Build Your Big Game Party with Hass Avocados." HAB's Facebook® and Twitter® pages will feature trivia games where fans can win an avocado cutter. Social media games, recipe contests and creative avocado usage ideas have helped build HAB's Facebook® page to more than 40,000 Hass avocado fans. Source: [www.freshplaza.com](http://www.freshplaza.com)

### NZ: North Avocado growers face disaster

A "blimmin disaster" slashing returns for avocados has the Avocado Growers Association's Northland representative,

## News from Around the World continued

Mike Eagles, forecasting some orchardists selling up or being financially elbowed out of the industry. He suggested the avocado industry, which had 13 exporters, should consider following kiwifruit's single-desk Zespri model. But others say avocado growers have been well served by the multiple exporter system and the record 5.8 million tray crop this season has benefited pickers, packers and consumers and given growers more fruit to sell, albeit at lower returns. Some growers could be receiving as little as \$2 a tray for fruit which last season earned them up to \$20.

"Most growers wouldn't be covering the cost of production, which is around \$6-\$7 a tray," said Mr Eagles of Maungatapere. "I wouldn't be surprised if some went to the wall. If you have a big mortgage you can't afford to run at a loss for long." Orchardists had to try to "hang in there" during the "blimmin disaster". "I wouldn't like to try to sell an orchard at the moment," Mr Eagles said. Someone he knew had paid \$2.5 million for an orchard about five years ago and more recently sold it for \$1.5 million. Also, while some avocado growers could be considering kiwifruit as an alternative, Psa vine disease was making making that option seem "just as dodgy". Mr Eagles attributed the collapse of local market avocado prices two or three months ago to an over-supply, which - with sources across the Tasman muddling information on timing the need for imports - had reduced avocado returns in New Zealand's biggest export market.

He favoured single-desk marketing with an organisation like kiwifruit's Zespri expanding avocado sales in big Asian markets. He also wanted to see more fruit going into oil production and into Fressure Foods' use of ultra-high pressure processing equipment which doubled the fruit's shelf life. The chairman of Fressure Foods, the Avocado Industry Council and the Avocado Growers Association, John Schnackenberg, of Katikati, agreed returns were down, but said growers would not be so hard hit because exports were nearly doubling on last year, bringing in more per tray payments even if the rate was lower, and making 2011/12 the industry's biggest earning year. The record 5.8 million tray crop this season was up from about 3 million trays last season. The previous record of 4.2 million trays was achieved in 2007/08.

Mr Schnackenberg said grower returns were linked to whether their exporter had links with overseas retailers. The 2010/11 season had been good for pickers and packers - both of which were delighted to deal with 5.8 million trays - and for New Zealand and Australian consumers, pleased avocados were cheap and plentiful, Kamo avocado grower Roger Barber, vice-chairman of the Avocado Growers Association for 10 years until he stepped down a couple of months ago, said growers had "the best of

both worlds" with multiple exporters. The four largest exporters handling up to 90 per cent of fruit leaving New Zealand - Primor Produce, Southern Produce, Freshco and Just Avocados - combined competition and co-operation by bonding to market under the Avanza brand in Japan and the US, he said. Northland has about 430 of the country's 1600 avocado export growers - 96 in the Far North and 332 around Whangarei and Mangawhai. All but a few of the rest are in the Bay of Plenty. Far North growers - most of them between Kauri Flats and Houhora - produced 20 per cent of the 2008/09 avocado export crop, while Whangarei-Mangawhai growers produced 25 per cent and Bay of Plenty 51 per cent. Source: northernadvocate.co.nz

### Peru could be world's biggest avocado exporter in 8 years

On Thursday Peru's Ministry of Foreign Trade and Tourism (Mincetur) said the country would become the world's largest exporter of avocados in eight to ten years. "[Avocado exports] have been growing and we will be the world's number one avocado exporter in eight or ten years," said Jose Luis Silva, Minister of Foreign Trade, according to El Comercio.

He said the country was seeing significant increases in avocado production and quality. Silva added that Peru's avocado exports had been one of Mexico's main concerns when approving the Free Trade Agreement earlier this month. "In Mexico there is great fear from Mexican farmers, but they don't have anything to fear because we produce avocado at different times [...]" Silva said avocados were one of Peru's many non-traditional exports that had been increasing in the past few years. Source: peruthisweek.com

### NZ: Bay avocado growers face grim season

Some Bay of Plenty avocado growers could be receiving as little as \$2 a tray for fruit which last season earned them up to \$20. That's the prediction of grower, packer and industry stalwart Hugh Moore of Katikati. "Some New Zealand exporters are still shipping fruit to Australia without a market for it to go to and in Australia, at the wholesale level, they are disposing of skip bins full of over-ripe fruit. "The result is some growers will be getting either a nil return or a bill, or between \$2 and \$4 a tray when they had hoped for at least \$15 this season, given it was a big crop year," said Mr Moore, a former chairman of the Avocado Growers Association, who has been in the fruit growing industry for more than 35 years.

Mr Moore said while the industry's major exporters who sold direct to retail were expected to return between \$10 and \$11 to growers, exporters with no retail markets were

struggling to achieve any returns at all. "Many growers don't know this is coming because their exporters aren't telling them. It will not be a Merry Christmas, nor a Happy New Year for them." John Schnackenberg, chairman Avocado Industry Council and of the Avocado Growers Association agrees with Mr Moore's predictions but said because the industry expected to export around twice as much fruit as last year, growers would not be so hard hit. "We expect to export 3.5 million trays which is about twice as much as last year so returns to the economy will still be significant," he said. This season has produced the biggest New Zealand crop ever, estimated at a total of 5.9 million trays (both export and local market), compared to the previous largest crop of 4.2 million in 2007-08, and just over 3 million trays last year.

"Around 65 per cent of growers will get returns in double figures but around a third will get less than that and some may get a bill," said Mr Schnackenberg. Growers yet to harvest, should be asking exporters if they had a market for fruit before picking. "Growers own the fruit right up until the point of sale and they have the right to ask exporters where it is going and what returns are likely to be." Avocados keep well on the tree and fruit doesn't have to be harvested all at once. "The industry has been giving growers this message for some time but unfortunately some growers have not been paying attention. "They should be asking questions. We are also communicating with exporters," he said. The most exposed exporters were those who did not have links with retailers in Australia or other markets, such as Japan, Asia or America, to send fruit to.

Mr Moore said growers needed to take back control of their industry and demand better from poorly performing exporters. "What we are seeing is a repeat of the exporting disaster which hit the kiwifruit industry in 1987 and led to the formation of the marketing board and ultimately Zespri. "I don't see the avocado industry getting a marketing board but growers need to demand more co-operation between exporters and more transparency about what's happening in the markets," he said. The season got away to a bad start when the Australian industry underestimated its crop volumes and New Zealand fruit arrived before local fruit had exited the market. Mr Moore said exporters who shipped fruit without a market for it were irresponsible. Source: bayofplentytimes.co.nz



### Award-winning chefs team up with Avocados from Mexico

Avocados from Mexico teamed up with three award-winning chefs to host holiday parties for three lucky winners of the Mexican Hass Avocado Importers Association's (MHAIA) Holiday Personal Chef Sweepstakes. The winners received a holiday party for their family and friends prepared by Chefs Rick Bayless, Top Chef Masters Season one winner and chef/owner of Chicago's popular Frontera restaurant; Iliana de la Vega, culinary educator and restaurateur; or Roberto Santibañez, restaurateur and author of "Truly Mexican." The chefs provided their expert advice for holiday entertaining in short "webisodes" highlighting the delicious food, enjoyable company and atmosphere of successful holiday parties, which can be viewed on MHAIA's Facebook page, [www.facebook.com/theamazingavocado](http://www.facebook.com/theamazingavocado). Their tips include:

Use Seasonal Ingredients – Chef Rick Bayless recommends using fresh, seasonal ingredients whenever possible to get the most flavor out of holiday meals. "Fresh in-season produce always provides the best flavors," says Chef Bayless. "I made a decadent guacamole using sundried tomatoes, crispy bacon and avocados from Mexico, which are available year-round," he explained, referring to the party he hosted in Manalapan, New Jersey on December 3rd.

Plan Ahead - For Chef Iliana de la Vega, the best part of holiday entertaining is spending time with friends and family and she was excited to provide that experience to a family in Atlanta, Georgia on December 2nd. "Mexican food is great for entertaining because you can prepare most of it ahead of time and then simply garnish or re-heat when guests arrive. You aren't stuck in the kitchen while your guests are enjoying themselves," Chef de la Vega explains. "At the party, I prepared shrimp cocktail in a creamy avocado sauce a few hours prior to the party and kept it fresh by placing plastic wrap directly onto the surface of the sauce before refrigerating."

Stick to the Basics – "If you learn some basic sauces – in Mexican cooking that can be salsas, guacamoles, adobos or moles – you'll find you can create a variety of dishes, from appetizers and snacks to delicious entrees with ease," suggests Chef Roberto Santibanez. "For example, I dressed up a poached chicken with a delicious pistachio sauce but it also would have been great with fish or a rack of lamb," he explained, referring to the party he hosted in Lake Havasu, Arizona on December 1st. MHAIA rounded



## News from Around the World continued

out this program with a satellite media tour and a Twitter party with Chef Santibanez serving as spokesperson, sharing recipes and tips for putting a twist on traditional holiday meals.

To learn more and view the webisodes with tips from the three chefs, visit the Amazing Avocado Facebook page <http://www.facebook.com/theamazingavocado>.

For more information visit [www.theamazingavocado.com](http://www.theamazingavocado.com)  
Source: [www.freshplaza.com](http://www.freshplaza.com)

### Kenya: Hope for avocado as country sets wasps on fruit flies

Kenya has released imported wasps to fight the invader fruit fly paving the way for the lifting of a ban that was imposed on avocado exports three years ago. Scientists have been conducting research on the predator insects that were imported from the US in 2006, and last week, the country finally embarked on a concerted war against the pest that has cost more than Ksh3 billion (\$33.4 million) in export earnings since South Africa shut its doors on avocado imports in 2008. The all-out war was waged with

the release of the two wasps, scientifically known as *B. invadens* from Hawaii - *Fopius arisanus* which attacks eggs and *Diachasmimorpha longicaudata* which attacks larvae.

The wasps were let loose with government permission by scientists from the International Centre for Insect Physiology and Ecology (ICIPE) in the coast region, the first in a series of such releases in key fruit growing regions. According to head of horticulture at ICIPE Dr Sunday Ekesi, who doubles as the principal scientist and programme leader of the African Fruitfly Programme based in Nairobi, the historical event signifies the first importation of the parasitoids in Africa, whose success will see the programme replicated all over the continent. The wasps that are natural enemies help in controlling infestation by laying their eggs in the body of the target insect, which is then used as food for the developing larvae, eventually destroying it.

After successful experiment on eco-safety in Magadi, the researchers have done mass laboratory production and rearing of these parasitoids that were released in Kilifi at a well attended ceremony witnessed by scientists from ICIPE, agriculture ministry, farmers and other interested parties. Considering that the natural enemies have a capacity to eliminate parasitism by 40 per cent, other methods that were also unveiled will be employed in tandem. These include a cocktail of special traps, biological pesticides and sanitation to achieve an acceptable level of control of the pest *Bactocera dorsalis*, that is reported to have been introduced on the continent from Sri Lanka in 2003, spreading with reckless abandon due to lack of a natural predator.

Scientists in insect science - called entomologists -- have been studying the lifecycle of the fruit fly in order to understand how to control it with methods suitable to the African environment. Research indicates that the mature female lays eggs on the fruit after piercing the skin. The eggs hatch into maggots and start feeding on the fruit, which rots and falls off. Once on the ground, the maggots develop cocoons and hibernate in the soil, hatch and attack mangoes, bananas, oranges and the cycle continues.

#### Alternative method

To beef up the imported natural predators, scientists are now recommending that farmers use poisoned protein baits as the best method. Females need proteins to lay eggs that hatch and are easily attracted to it from a distance and killed by the insecticide. The baits are placed at a spot on the canopy or set on the tree trunk of each tree in the orchard. The traps can be made locally from yellow plastic cans, that are poked and the bait such as Mazoferin is spread. The trap is replenished weekly. Insects

are naturally attracted to colour yellow.

Developed alongside the female magnet is a male version. A local firm, Farm Consult has developed wicks that only attract the males. The wicks are laced with methyl euginol mixed with an insecticide called Malathion and works the same way. Elimination of males leads to the laying of infertile eggs drastically reducing the pest population. "For best results apply both methods to kill male and female insects," said Dr Ekesi. Source: [menafn.com](http://menafn.com)

### Peruvian avocado exports to jump by 30% in 2012

The Peruvian Hass Avocado Producers Association (Prohass) predicts exports will rise by around 30% to 90,000 metric tons (MT) in 2012, website [Agraria.pe](http://Agraria.pe) reported. The expected boost is largely due to the opening of U.S. market access without cold treatment, which was approved in July last year.

Prohass president Arturo Medina told the website an export value estimate could not be made at this stage. "Last year was very good for returns. It's difficult to know if we can reach the same (returns), and we also have to add the subject that we will have a higher volume," he was quoted as saying. However, Promperú agro-industry chief William Arteaga told the website the industry would likely hit US\$190 million in shipments thanks to U.S. access, which would represent a rise of 5.6%.

Earlier U.S. entry in 2012. Medina adds that in 2011 the industry was able to ship 436 containers to the U.S. last year in August, but this year the industry will be able to enter the market in April or May. He estimates that 90,000MT will be shipped to the U.S. in 2012, which is the equivalent of 2,000 containers. In 2011 the industry sent 86% of its shipments to Europe with the Netherlands as the main destination, from where 70% of the product was re-exported to other countries.

### Chilean avocado stronghold hit by water scarcity

Chile's avocado-growing heartland Quillota in the V (Valparaiso) Region is expecting low crop volumes this season due to water shortages, a farmer representative has warned. Quillota Farmers' Association president Santiago Matta said avocados account for 70% of the province's irrigated cultivated land, while Quillota produces 28% of Chile's overall volumes of the fruit.

"Avocados need water for flowering and fruit forming and we had limited availability, particularly in October, which is an important month for the fruit and therefore, we

anticipate that production will be very low in the province," he said. He said unlike the previous year, snow thawing occurred much earlier than normal which caused serious irrigation problems.

"We were without water this season in August and there was no more thawing, therefore, from late September and in October and November we were virtually without water." Matta said for the last decade his organization has been searching for a solution to the province's lack of water and had participated in the Aconcagua project, which looked at creating a US\$400 million dam from the Aconcagua River.

However, he said in the short-term a battery of wells using underground water and water from the Los Aromos reservoir could be built. Matta said this would require a US\$40 million investment which he considered was not a high price to pay to solve Quillota's water problems, but added the "political will" was not there to complete such a scheme. He estimates the economic damage to Quillota producers due to insufficient water is in the region of US\$200-300 million.

### Concerns raised in Mexico over avocado imports

The ratification of Mexico's free trade agreement (FTA) with Peru has sparked mixed responses, with many arguing it lacked a clear legal framework and would affect a diverse range of agricultural products, including avocados. At [www.freshfruitportal.com](http://www.freshfruitportal.com) we catch up with Michoacán Avocado Growers and Packer Exporters Association president Ricardo Vega, who explains the sector's concerns.

Vega says the agricultural must compete with products from abroad, but highlights phytosanitary concerns as the main issue with Peruvian avocado imports. "We understand that our country is immersed in the global context, in which we should be willing to compete with different products in different countries," he says. "The same way we go with our fruit to other countries, there are different countries that want to come to Mexico with their products, and that's not just the case with avocados.

"I believe it has to be pointed out that we are sending a signal to Peru. We are sending a signal to any avocado that comes from any part of the world." He says with the emergence of more and more disease mutations, Mexico cannot risk that an exotic pest or disease unknowingly enters Mexico some day.

"That is our concern. We are not saying that because they are Peruvians or because they are Brazilians or because it's a fly or because it's a virus. We have to ensure that our crops are properly protected by the authorities before an

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News from Around the World continued

incursion of an external agent.”

Mexican avocados have an annual export value of around US\$700 million and are shipped to all parts of the globe, including Japan, China and Europe. In addition, after more than 80 years of phytosanitary barriers, the industry has managed U.S. market access for the product.

“As avocado growers it concerns us a lot that this opening could lead to a laxness in revisions and as a result will come to jeopardize our access to different markets.

“For example the U.S. It took over 80 years to open that market. What happens if we get some exotic phytosanitary problem and as a result they close us off and other markets veto us?

APEAM has been in contact with authorities and has called on them to guarantee the strict application of phytosanitary measures to protect crops. as well as develop and conduct relevant risk analyses, which are the first tests that any country would demand when they want to import something.

“For example, our Chilean peers have had access to the Mexican market for eight years, however they have not managed to place on single avocado in Mexico because they have failed to comply with the phytosanitary protocol our authorities asked of them,” says Vega.

**Oversupply unlikely**

With impending Peruvian avocado imports, Vega does not believe there will be an oversupply in the Mexican avocado market. “The amount that Peru produces now is no more than 70,000 (metric) tons. We produce one million (metric) tons.

He highlights that Peru also has access to other markets like the U.S., Canada and Europe.”

What we makes us afraid is that the Economic Minister has

consistently refused to establish quality standards. That puts us at risk that any country – once again not just Peru – any country that sends avocados or any other product to Mexico, will flood us with second or third class products that other countries don’t want.”

Peru has only recently sent avocados to the U.S. after approval of entry without cold treatment was given in July. The move took the weight off a flooded market of Peruvian avocados in Europe.

**U.S. Scientists discover avocado seeds could be a valuable asset**

The commercial value of avocado seeds could rise significantly following a study that found they have potential to be used for natural food colorants, website *Foodnavigator.com* reported. A Pennsylvania State University study, published in the *Journal of Food Science*, shows when the seeds are crushed in water along with air they generate an orange hue.

Enzymatic treatment of the seeds results in a stable orange color which could provide a source of sustainable natural colorants for the food processing industry. Lead researcher Dr Gregory Ziegler said consumers associate color with flavor, sweetness, saltiness and safety.

“Color plays a key role in determining the expectations and perceptions of consumers with respect to food. It is one of the most obvious characteristics of food and, if not appealing, negatively impacts on consumer acceptance,” he was quoted as saying. Ziegler said consumers were increasingly regarding artificial colorants as undesirable. “There is a growing public and scientific interest in the development of natural alternatives to synthetic colorants in food,” he said.

Currently, avocado seeds are not commercial and account

for 16% of the weight of the fruit. Ziegler and his team are conducting more studies to asses the potential qualities of the seed extract in model foods, and the potential antioxidant and anti-cancer properties.

**Mexican avocado production to rise 12% in 2011-12**

Mexico’s avocado production is forecast to rise 12% to 1.25 million metric tons (MT) in 2011-12, due to a high alternate bearing cycle, favorable weather and phytosanitary pest control programs.

The United States Department of Agriculture’s (USDA) Avocado Annual, published by the Global Agricultural Information Network’s (GAIN), has estimated the country will increase exports by 3% to 330,000MT during the marketing year.

GAIN has forecast a 10% rise in total avocado plantations during the period to 138,000 hectares, with growers looking to capitalize on strong domestic and international demand.

The state of Michoacán accounts for 85% of Mexican avocado production with 107,000 hectares of the Hass variety, and it is the only state in the country with authorization to export the fruit to the U.S. The second-largest producing region is the state of Jalisco, with 8,468 hectares of Hass avocados.

“At present, APHIS’ (Animal and Plant Health Inspection Service) export inspection program has certified 63,402.216 hectares as eligible to export to the United States,” the report said. “Despite the relatively high cost of production, producing Mexican Hass avocados has been a profitable activity due to high domestic retail prices and increased exports.”

The report said avocado yields vary from 8-9MT/ha to 14-15MT/ha, with an average productivity of 9.1MT/ha. Mexico’s fresh domestic consumption for the marketing year is expected to be 723,000MT, representing an increase of 16%.

“The vast majority of Mexico’s avocado production is consumed domestically as avocados are a staple food in most Mexican households.”

The United States accounts for 75% of Mexico’s avocado exports, while Japan and Canada are also strategic market niches with 10% and 7% of the purchases respectively. Positive results for Mexican agriculture. Mexican agricultural exports have reached a record US\$18.6 billion from January to October, representing a 24% year-on-year increase, according to government statistics.

**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](http://www.avocado.org.au) or call 07 3846 6566

**Member Details**

Business name and/or trading name: \_\_\_\_\_

ABN: \_\_\_\_\_

Key contacts: \_\_\_\_\_

Preferred address (postal): \_\_\_\_\_

Address of property (if different): \_\_\_\_\_

**Contact Details**

Business phone: \_\_\_\_\_

Home phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Mobile: \_\_\_\_\_

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 avocados (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) \_\_\_\_\_

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## Grower Member Application Form continued

### Payment Options

Grower Membership of Avocados Australia is \$143 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 \$143.00 made payable to Avocados Australia Ltd.

Please charge \$143.00 to my credit card. Details are listed below.

**Credit card** (please circle):

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 8005  
Woolloongabba Qld 4102**

(no stamp required within Australia):  
For more information or assistance please go to  
[www.avocado.org.au](http://www.avocado.org.au) or call on 07 3846 6566



## News from Around the World continued

The Ministry of Agriculture, Livestock, Rural Development and Fishing (SAGARPA) estimated by the end of the year this figure will climb to US\$22 billion. Agriculture business development secretary Ernesto Fernández, said it was normal for there to be a last-minute increase in exports at the end of the year. Meanwhile, international agribusiness sales reached the US\$9.9 billion mark. Fernández said avocados and fruit juice were among the food products experiencing growing international demand, as well as coffee, tomatoes, shellfish, meat products and sugar.

### The Hass-Horn: strong fundamentals for avocado growth in North America

Last year was a momentous one for the avocado industry. Towards the end of the Peruvian season, European markets were relieved of an excessive supply after the country gained access to the U.S. market without cold treatment, while the emerging avocado industries of Colombia and India announced they were keen to join the party too, speaking at the World Avocado Congress in Cairns, Australia. In 2012 the global avocado industry is set for another big year, and at [www.freshfruitportal.com](http://www.freshfruitportal.com) we would like to welcome former California Avocado Commission vice president Avi Crane as a contributing avocado columnist.

While the world economy starts its fifth year of a downturn that continues to plague international and domestic commerce, the North American avocado industry is projected to have another record breaking year in 2012. This author projects that total market margins and grower returns will surpass last year and continue a consistent pattern that began 15 years ago.

I believe the key elements that have facilitated this remarkable expansion of profits remain solidly in place in 2012.

#### Growth of Hispanic Population in the USA

The 2010 U.S. Government Census Report results showed that the U.S. population grew by 9.7% during the previous decade, and over half of this growth came from Hispanics. I would estimate the per capita consumption of avocados among this sector to be 2.5 times the general population. Along with the core consumption markets for avocados of California and Texas, this group provides the base of avocado consumption.

#### Year Round Supply

Starting in 1985 (Chile) and 1996 (Mexico), consumers in the U.S. have, for the first time, seen avocados on the shelves of their supermarkets year round. Avocados are no longer a seasonal eating experience, but a year

round fixture on many kitchen tables. This has given the retail trade and food service establishments the confidence of offering avocados 52 weeks a year, with significant promotion periods in January (Super Bowl), April-May (Cinco de Mayo), July (4th of July) and November (Thanksgiving). Many other promotional opportunities during the entire year have made avocados an important produce item for the retail trade. This author has long held the view that the industry also needs to give additional effort to the Chinese New Year.

#### Promotion Boards

The immense promotion efforts since the 1980s that have been paid by California avocado growers, through the California Avocado Commission, continue to put avocados in front of consumers, as well as in the retail and food service trade. In the early '90s, the Chilean avocado industry has joined these efforts with their own promotion program.

Since 2002, these efforts have been augmented by the Hass Avocado Board (HAB) and its affiliated agencies. The Mexican Packer and Grower association (APEAM) independently runs their own program, which I believe is the most effective. The HAB has recently announced that it has chosen Emiliano Escobedo, long time manager of the APEAM program, as its new Executive Director. Escobedo brings to the HAB a track record of success in avocado promotion. I am encouraged that under his leadership, the coordination between the HAB, its affiliated agencies

and APEAM will reach new levels that will make the total estimated US\$50 million 2012 avocado promotion expenditures more effective for the industry.

#### Wal-Mart

When Bruce Peterson determined that Wal-Mart should be a major avocado seller in the mid-80s, I was working for a major produce supplier to Wal-Mart. The industry has never been the same since he made his decision. Today, I would estimate that Wal-Mart is the largest retailer of fresh avocados. However, Wal-Mart's success has shown other retailers of the advantages of avocados and today it is estimated that 65% of all fresh avocado consumption in North America is through retail stores. The success of Stater Bros in Southern California, working closely with its avocado suppliers in offering a truly "Ripe for Tonight" to its customers, I believe will be repeated around North America in the coming years. I project that Stater Bros has the highest per store sales of avocados in the market.

#### Outlook in 2012

2012 will continue to see challenges for the avocado industry. There must be efforts to harmonize the standards for all avocados consumed in the U.S. Cooperation between avocado producers supplying this market must be augmented. Cooperation will result in a more profitable market for everyone. When consumption of this great product increases- everyone wins from the consumer to the producer. Source: Avi Crane.



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