



Australian

*STONEFRUIT
GROWER*

incorporating the Low Chill Stonefruit Grower

February/March 2013

...Issue No. 1/13

'Australian Stonefruit Grower' is the official publication of Summerfruit Australia Ltd & Low Chill Australia Inc. – the industry bodies representing the interests of Australian stone fruit growers.



Know-how for Horticulture™



“This project (LCA Communications including this publication) has been funded by HAL using levy contributions with matching funds from the Australian Government.”

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COVER PHOTO – Supplied by SAL.

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The Taste of Spring



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From the Summerfruit Chairman -

As I write this from my orchard, harvest of *Snow Giant* peaches is finished and the *O'Henry* peaches are mid pick. Across Australia the Summerfruit Industry is entering the final Quarter of its season, the first without Dimethoate and with a restricted use of Fenthion. Word is that Fruit Flies have been a major problem for many growers with some harvests being abandoned and at least one orchard bulldozed.

The Fruit Fly Action Group of Hills Orchard Improvement Group has been very active in collecting the growers' experience of the season into a graphic document for presentation to Government and Media in an effort to get some extended use of fenthion, until an alternative is found. It would be very helpful to Summerfruit Australia if other regional groups or individuals could use this Western Australian document as a template and present it to their State and Federal representatives.

The Federal Government proudly presents the concept of Australia as an Asian food bowl and has developed a *green paper* on Australian food security as the public face of agricultural policy.

The actual policy settings of governments are to allow Agriculture industries to live or die without any extra assistance. With every Government from Local, State and Federal striving to achieve a balanced budget, it is the agricultural sector that is being penalised. With increased cost recovery by governments for goods and services farmers are being forced to pay more for the privilege of growing food while receiving ever-lower returns for their produce.

It will be up to growers to find a way through to Fruit Fly survival using their own ingenuity and resources, appropriate to the way the pest manifests in their own orchard. Growers who are having success in fly control need to be facilitated in sharing their techniques with other growers and having experienced researchers and field officers examine and validate their practices. It will be the case that laws will be broken in using techniques that are not on labels of chemicals. The control of Fruit Fly using the current labels for baits and sprays, in most instances, is insufficient for economic control.

Back to my two little orchards in the Perth Hills.

This season I have used no Fenthion, Dimethoate or Trichlorfon and am currently picking fruit with maybe one or two pieces a day with fly strike. I am currently –

- 1. Trapping females at 80 traps/Ha**
- 2. Baiting twice a week, Bugs for Bugs protein, gelled with Xanthan gum**
- 3. Cover spraying with Confidor and oil at four weeks pre-harvest**
- 4. Delegate and oil once a week before harvest**
- 5. Delegate and oil during harvest**
- 6. Removing infested fruit from field during harvest**
- 7. Mulching fallen fruit during the harvest period**
- 8. Abamectin post harvest, one spray two weeks after last pick**

Residues have tested fine, with Spinetoram (Delegate) at 0.066mg/kg, below the 0.2 MRL.

- 1. The female Medfly traps**
- 2. Baiting more than once a week**
- 3. Delegate used weekly**
- 4. Confidor for fruit fly,**
- 5. Oil for fruit fly and**
- 6. Abamectin on stonefruit**



Are all to some extent against the label and therefore illegal in most jurisdictions? I may be asked to join the NSW labour party as an honour member, or be writing my next report from gaol. The program is requiring about ½ person per week over 10Ha. At the moment that person is I, so other duties such as Summerfruit Australia are on the backburner.

Mark Wilkinson - Chairman



Industry News ...

Innovate or Real-Estate

Apple and Pear Australia Limited (APAL) have joined forces with Summerfruit Australia Limited and Australian Nashi Growers Association to provide a glimpse into the innovative future of Australia's fruit production.

The three day event will be held in July at the QT Hotel on the Gold Coast.





What: Innovate or Real-Estate
Combined Fruit Industry Conference

When: 17-19 July 2013

Where: QT Hotel Surfers Paradise, Queensland

Registration & Sponsorship enquiries are now open.

For further information contact APAL's Communications Manager on 03 9329 3511 or email skulman@apal.org.au





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From the LCA President – Mark Napper



Well what a start to 2013! At the time of writing, northern New South Wales is being buffeted by persistent tropical storms of high winds heavy rain and the resulting floods, power outages and road closures. This at a time when our industry is being buffeted by the winds of fickle markets, extreme weather and baffling decisions of regulatory authorities. These factors have caused some growers to leave the industry. The changes to the usage of *Fenthion* announced in September last year is still a major issue and concern for Low Chill growers and for the industry as a whole.

Whilst we respect the decisions growers make to exit the industry that option is not necessarily available to all and so the LCA Executive is determined to act on behalf of growers to find practical solutions to these major issues and do whatever we can to ensure we have a viable and sustainable industry.

Consequently, our 2012 Annual General Meeting had a number of Speakers present findings on alternatives to *fenthion*. The one presentation that stood out was by **Richard Bull**, an entomologist consultant, who has been exclusively devoted to fruit fly research since 1988 and has had commercial success with area wide management of fruit fly.

Fruit Fly Field Day ...

Given LCA's commitment to informing growers of possible solutions a *Field Day* was held on 14th February at Sandy Creek Orchard, a kiwifruit orchard located at North Tamborine, Queensland. A good number of growers turned out for the day with many challenged, encouraged and educated on successfully implementing this program.



We thank **Howard Windleborn** for making the orchard available and of course Richard for giving generously of his time and knowledge. More details of the day are in this newsletter.

We will make the presentation available on the LCA website as well as contact details for Richard. Another field day with Richard is being planned in April for Northern NSW so please stay tuned!

Attending the meeting was **Tim and Wilma Byl**, growers from WA and active participants in the Hills Orchard Improvement Group (HOIG). The LCA Executive met briefly with them after the field day where we were able to share experiences and hear firsthand of the activities of HOIG. We intend to maintain communication with them and thank them for making the effort to attend.

Low Chill Breeding Program ...

On the following day the LCA Executive met with **Bruce Topp** at the Maroochydore Research Station for an update and review of the breeding program. Bruce has three very promising varieties available this year for large scale trials. Low Chill Growers contribute to the breeding program via a voluntary contribution HAL project. When assessing varieties Bruce is considering attributes that would address our key issues of early season and a harvest period that is suited to the new spray protocols.

The meeting also considered current blockages to commercialisation and has undertaken to do more promoting of available varieties and their attributes.

As proceeds from the sale of trees go back to this project I encourage all growers to consider our varieties when looking to purchase new trees.

Representations have been made to the NSW Government for disaster assistance for NSW growers who have suffered from the recent cyclone and storms.

Ongoing representations will be made to our political leaders on the severe problems the APVMA decision has caused growers and our local communities. We are still investigating possible data collection necessary to have APVMA review their decision.

Thank You and Welcome ...

I would like to thank **Ray Hick** and the outgoing committee members **Greg Nash** and **Geoff Prior** for their contribution on the committee and their service to the industry.

Ray battled tirelessly for a practical APVMA decision and spent many hours supporting the increase to the national levy as well as driving and promoting Low Chill Australia. His insights and dedication will be missed. **We wish him well in his retirement.**

In the goodbye is also a *welcome* to new Committee members **Neil Mungall** and **Kuldeep Smagh**. I look forward to working with them and learning and benefiting from their knowledge and input.

Regards

Mark Napper – President –





Industry Information ...



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CEO Round Up ...

John Moore – CEO Summerfruit Australia Ltd



IS there a sustainable Horizon?

As the peaks and troughs continue now, more than half way through the season, the availability of quality fruit is improving but the most consistent pattern from speaking to producers this season is the disappointing price trend. It's been two years of very tough trading conditions.

Prior to this last Christmas the fruit size was small with poor quality and maturity issues from some regions. Now with the cooler nights, the fruit size has increased and consumers are enjoying an abundance of reasonable fruit. Typically this sunburnt country has dished up a variety of hash weather patterns and, in this mix, a varying incidence of pest and disease.

The larger intense production areas are struggling with oversupply and the supply chain infrastructure; a lack of consistent transportation and almost everyone across the country is spending more and more time with the regulatory paper work. Those of you who chose to try some export will have had their fair share of frustrations with the congestion in Hong Kong if that was a destination.

Keeping an ear to the ground, allegedly more than a million trees were planted this past spring and similarly the year prior.

It is beginning to raise questions and forecasting what is the sustainable future is now more difficult without the crop-forecasting tool – *Info Stone*, abandoned due to lack of producer support. If there is a call for *Info Stone* to be resurrected, please advise your SAL Board member or definitely contact me.

Remember *Info Stone* data must be across a representative National area for anything meaningful to stave a train crash of oversupply.

All producers are concerned about the longevity of important and necessary chemicals to tackle the fruit fly issues, from west to east.

The APVMA has been engaged with specific regional differentiations and practices employed by producers.

The restrictions on *Fenthion* use and other accepted control measures has reduced control options for growers and restricted the movement of fruit into some markets. There is a pressing need for a control options to be used near to harvest to prevent fruit fly infestation and maintain market access for stone fruit but particularly in areas of medium to high chill.

The recent granting of a permit (PER 13840) for the application of *Fenthion* (LEBAYCID) on a modified use pattern in WA has been supported by certified residue data correlated to orchard spray records. No such data exists for high chill stone fruit in the eastern states and for this reason the permit is limited to WA.

Eastern state growers have requested a withdrawal of the current allowed use (3 sprays at 7 day intervals with a 21 day WHP) and are asking for it to be replaced by the WA use pattern (maximum of 2 sprays with a minimum of 10 days between the two sprays and a 7 day WHP).

This project aims to generate residue data in a fully compliant GLP study, following application on the modified use pattern approved in WA, to determine if these resultant residues will be in compliance with the acute reference dose and fit within the current acceptable daily intake. This data will then be used to support the continuation of the current permit in WA and a permit application for *Fenthion* in medium/high chill peaches, nectarines and plums in the eastern states for the 2013-14 seasons

The product LEBAYCID INSECTICIDE SPRAY containing 550 g/L *Fenthion* will be used in this study.



Trials will be conducted at Cobram and Shepparton (Vic), Sydney basin or Orange (NSW), Stanthorpe (Qld) and the Perth Hills in WA and will comprise five sites in peaches, four in nectarines and one in plums. The field component of the study will be conducted by Agrisearch Services Pty Ltd, Shepparton and Gosford, Orange and York and Horticultural Services of Stanthorpe, and the analytical component by Agrisearch Analytical Pty Ltd, Rozelle NSW.

The application of LEBAYCID INSECTICIDE (550g/L *Fenthion*) will be conducted at 17 and 7 days before commercial harvest (DBCH) at an application rate of 75 mL/100L. Application will be through calibrated commercial airblast equipment, reflecting commercial grower application. Samples will be collected immediately following the last application, then 3 days (two sites only) 7 days, 10 days and 14 days later. In addition, at 7 DAT a sample of untreated fruit will also be collected at each location. In addition, at 7 DAT a sample of untreated fruit will also be collected at each location. Samples will be shipped, via freezer transport, to the Agrisearch Analytical Laboratory where residues of *Fenthion* will be determined according to a method developed by the Agrisearch Analytical: '*Determination of Multi Residues in Fruit and Vegetables using DSPE*' AATM_S_60, Revision 7, Agrisearch Analytical Pty Ltd, 22 August 2007.'

The method used will be verified with the APVMA prior to completion of the analytical phase. The method used will be verified with the APVMA prior to completion of the analytical phase. Determination of residue levels which will meet regulatory tolerances will form the basis for to support the continuation of the current permit in WA and a permit application for *Fenthion* in medium/high chill peaches, nectarines and plums in the eastern states for the 2013-14 Season. A report will be presented to HAL by the end June 2013. I expect the APVMA will receive the report at a similar time.

Work will not cease for Low Chill producers. A 21-day WHP is not practicable in anyone's view, but product is still on the shelf. More intense work involving a broader collective effort with chemical companies, APVMA, toxicologists and Industry will be required to determine how long *Fenthion* residue levels are active in fruit with spray regimes of 3 or 4 sprays. It's a real conundrum.

Trials of 3 sprays, proved not enough for Low Chill North Coast NSW sustainability. It could well mean a more intense baiting and trapping program, an increased intensity of this systems approach? Hopefully the recent field day shed some insight to these alternatives. Once the low chill picking cycle has commenced the producers maybe picking every 3 to 4 days depending on the weather. It could well eventuate that the varieties do not need picking every 3 days, with more non-melting varieties planted.

One of the major priorities for Summerfruit Australia Limited is to achieve market access to China.

Over many years the industry has visited China and developed strong linkages with growers, importers, retailers and researchers. Biosecurity Australia is working to timeframes that perhaps are too slow for an Industry desperately seeking market failure relief. But the game of chess continues with their counter parts.

Industry can encourage goodwill and it is with this in mind SAL will commence a program of "guanxi". The Chinese term "guanxi" can, at times, equal the term "networking." The elements of exchanges based on "guanxi" carry a long tradition in doing business in China and Chinese communities. Good "guanxi" can be the key needed to opening doors otherwise closed. The Stonefruit Industry in China is 722,630 hectares in size or 49% of world industry. They produce 8,028,435 metric tons or 46% of world production levels, making it far larger than the Australian production of 90,000 metric tons.

The Stonefruit seasons are counter seasonal which has advantages in that trade does not affect the viability of either industry. In addition, it allows for counter seasonal travel, research and information exchange.

Research and breeding are important parts of the Stonefruit Industry in China and are well funded by the appropriate Chinese Agencies.

The Chinese stonefruit Industry is built around their own varieties, developed from 205 core varieties that date back 3,000 years. Lately however they have invested in breeding newer varieties.

The Northwest Agriculture & Forestry University in Yanling, Shaanxi, China is the leading stonefruit research facilities in China. They commenced a breeding program in 1950 and currently have 400 peach varieties under evaluation. In addition, they have over 10,000 hybrid varieties being evaluated.

The University and the Australian stonefruit industry have seen a strong desire to see cooperation and the exchange of information, resources and personnel take place in the future. Cooperation in achieving mutual market access for stonefruit



was seen as a high priority. Currently the University has an exchange program with Japan, France, the USA and they would like to develop similar relationships with Australia.

This project aims to take a group of eight leading Australian stonefruit growers to the Northwest Agriculture and Forestry University for an intense and interactive program looking at the Chinese breeding program and discussing the tastes and preferences of each other's markets. The outcome is to commence the development of an exchange program between the stonefruit industries of China and Australia.

I have taken this opportunity to give you news of this exciting study group tour prospect in June /early July 2013 and within the next few months further refinements to the schedule will be put in place and SAL will be able to announce the details. This will be limited to 8 persons due to transportation logistics and if successful other such study groups will be recommended.

You may have seen preliminary notices of the pending Fruit Conference to be held on the Gold Coast 17th -19th July 2013.

This is a joint Stonefruit, Apple & Pear and Nashi Fruit Conference. The tag for the conference is *Innovate or Real Estate* and a dynamic list of speakers is planned. *See further information within this edition for a preliminary program.*

The Industry has been calling for a national event of significance and, with this combined gathering, it is a wonderful opportunity to network. It's not all listening. There will be social gatherings, trade exhibits and of course a Gala Ball.

Please note that the Annual Levy Payers and Summerfruit AGM will be held in conjunction with this conference on the afternoon of the 19th July.

John Moore

CEO – Summerfruit Australia Limited

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Industry Information ...

Australian Horticultural Exporters Organisation Appoints New Executive Director



Australian Horticultural Exporters' Association (AHEA) has appointed a long time, experienced industry figure as its inaugural executive director.

Jonathan Eccles started last week as the Australian Horticultural Exporters' Association's first Executive Director. Mr Eccles was previously the chief executive officer of Potatoes South Australia and Australian Banana Growers' Council where he helped steer the banana industry through the devastating Queensland floods of 2011 and the aftermath of Cyclone Yasi.

In announcing his appointment, Chairman of the Australian Horticultural Exporters' Association, **David Minnis**, said he and his fellow directors are delighted to have Jonathan on board to help develop and lead the organisation.

"His skills and wide experience in industry development, communications, marketing, research, market access and leadership will be an asset to the AHEA," Mr Minnis said.



Jonathan Eccles

AHEA is the national peak body representing the interests of Australian horticultural exporting businesses to governments and industry.

It is now in the process of restructuring to widen its activities to assist both horticultural importers as well as exporters.

“Many of the issues facing horticultural exporters such as quarantine and market access also face importers so it is logical that the AHEA now represents this sector of the industry at a national level,” Mr Minnis said.

Mr Minnis added that despite fresh fruit and vegetable exports from Australia having dropped \$200 million in recent years and challenges such as the high Australian dollar and market access, there are still opportunities for exporting horticultural produce to many countries such as

China, Middle East and other Asian destinations.

FOR FURTHER INFORMATION CONTACT –

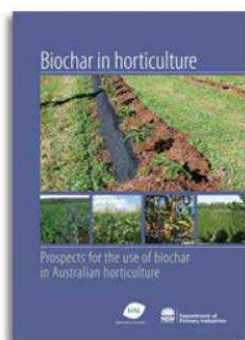
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Industry Information ...



Interest in biochar heats up

A new book about the horticultural use of biochar - a charcoal-like product that has great potential soil health benefits - is now available.

The book, entitled “*Biochar in Horticulture – Prospects for Use in the Australian Horticultural Industry*”, was written by NSW Department of Primary Industries (DPI) scientists and biochar industry experts, and commissioned by Horticulture Australia. Project Leader **Justine Cox** said the team included some of the world’s leading specialists on biochar.

“The book includes the very latest up-to-date information on the science of biochar and it has been written for growers with a lot of very practical information,” said Ms Cox.

“Biochar is the residue of a renewable energy production process called pyrolysis which involves heating biomass in the absence of oxygen. It holds particular potential for long-term carbon sequestration, improving soil health and water holding capacity, and further reducing emissions of greenhouse gases associated with fertiliser application.”

“Representatives of six key horticultural industries made input into the new publication and provided feedback to make sure it was relevant to the growers.”

The book includes chapters on

- carbon cycling in soil and where biochar fits in,
- how biochar is made and what influences its properties,
- what the risks are in production and use of biochar,
- review of the science on what effects biochar has on soil and crop yield,
- an economic model using a vegetable production system,
- Australian research and policy information, including CFI,
- frequently asked questions

Ms Cox explained that the authors concluded biochar was likely to be an important input to improve soil properties, ensure more efficient fertiliser use, increase water storage and increase microbial populations.

“Even though the carbon trading value of biochar is currently small with uncertain long term outcomes, the potential benefits to soil is likely to have much higher value,” Ms Cox said.



There are still many research gaps as biochar is such a new input to agriculture, and many more trials need to be undertaken to fully understand all its qualities. A recent survey of horticulturists to assess current knowledge of biochar indicated most growers had used soil carbon amendments such as green manure crops, mulches and composts, but only a few had trialled biochar on their farm.

The ability to improve soil structure is regarded by most growers as the main benefit of carbon amendments such as biochar. Nutrient and water retention, and a source of food for microbes were seen as other important attributes. Soil borne disease was another benefit that growers recognised.

Ms Cox said that looking at biochar in particular, over 80 per cent of growers were familiar with the potential benefits to horticulture, with most regarding its ability to reduce soil compaction and improve soil structure along with increasing soil microbe activity as reasons why they would invest in it.

“Surprisingly, the attribute of reduced and avoided greenhouse gas emissions was recognised by only 40 per cent of respondents.”

The book is now available on the NSW DPI website at –

www.dpi.nsw.gov.au/agriculture/resources/soils/soil-carbon/biochar-in-horticulture

Industry Information ...

Time to check your chemical shed: ChemClear is coming

Since late last year, ChemClear has been in the planning stages for its 2013 collection for Queensland which is on track to get started in June. Currently there is 37,500 litres of unwanted and out-of-date chemical logged with ChemClear since collecting more than 52,000 litres in 2011 after the Queensland Floods.

ChemClear encourages all property owners to check out their sheds and register any unwanted agvet chemicals with the program before the registration line closes on 19th April.

Only product registered prior to this closing date will be accepted during the collection run later this year.

ChemClear is an industry stewardship program which collects and disposes agvet chemical products from 99 manufacturers under a levy that is applied at the point of sale. Non-participating manufacturers' products, unlabelled containers, unregistered and mixed chemicals can be collected through ChemClear for disposal under a fee per litre charge.

ChemClear National Program Manager Lisa Nixon said the team will be in direct contact with the registrant to establish a collection date, time and pick up location in their local area for the safe retrieval of their products.



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To register for this collection or for any further information, call 1800 008 182 or log on to www.chemclear.com.au.

For all local enquiries call ChemClear Regional Consultant Colin Hoey on 0428 964 576.



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BOOKINGS ESSENTIAL

Registrations close on 19th April 2013

Register at

www.chemclear.com.au | 1800 008 182



Research ...

SF11000 – Improving the consistency of soluble solids concentrations in summerfruit

Milestone report 103 extension – 31 January 2013

Summary

Consistently high sweetness in peaches and nectarines (*Prunus persica* L. Batsch) is an important component of fruit quality and consumer acceptability with the potential to increase grower income and economic sustainability of fruit production. Variation in fruit quality can be a significant problem, as it can reduce the proportion of harvested fruit that meets market and consumer requirements for fruit weight and sweetness. Research to date has not addressed the causes of large variation in SSC among fruit within individual trees.

This project is investigating factors that influence the ability of fruit to accumulate SSC, known as sink strength, during fruit growth, including cell number and size, exposure to light, fruit temperature, and relative differences in fruit developmental stage.

Microscopy and cell enumeration studies have been completed on 30 'Summer Flare 26' fruit samples to investigate the relationship between sucrose, the major component of fruit soluble solids in fruit mesocarp (flesh) at harvest, and both cell size and number.

Preliminary results indicate that within the samples assessed a moderate positive correlation exists between sucrose concentration and cell size as measured by area estimated assuming that cells are elliptical in shape. However, the relationship was found to be highly dependent on fruit maturity as measured by chlorophyll degradation in mesocarp tissue.

The sample size was not large enough to clearly determine if the relationship between sucrose concentration and cell size is consistent within fruit of similar size and/or ripeness at harvest.

There was no significant correlation between cell size and concentration of the reducing sugars glucose and fructose, whose concentration at harvest was relatively low in comparison to sucrose.

Sucrose concentration was negatively correlated with cell number measured within a fixed area of mesocarp surface. It was generally found that fruit samples with larger, and fewer cells, within a fixed area of flesh contained higher sucrose and soluble solids concentrations than samples with more cells within a similar area. Sucrose concentration was also strongly positively correlated with fruit size, but the relationship was exponential, with a diminishing effect of fruit mass on sucrose concentration at larger fruit sizes.

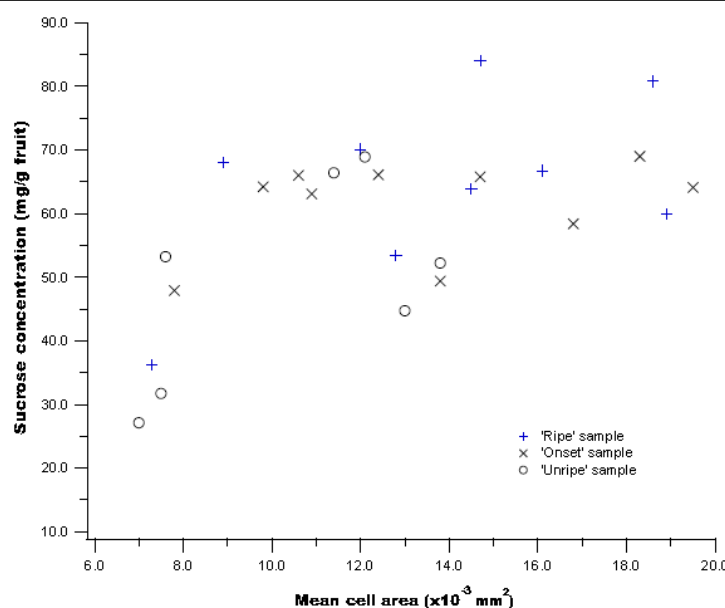


Figure 1. Relationship between sucrose concentration in thirty 'Summer Flare 26' nectarine mesocarp samples and mean cell area ($r^2 = 0.54$). Samples classified into ripeness categories based on absorbance index measured using a DA meter (Ripe = 0.10-0.69; Onset = 0.70-1.29; Unripe = 1.30-1.90).

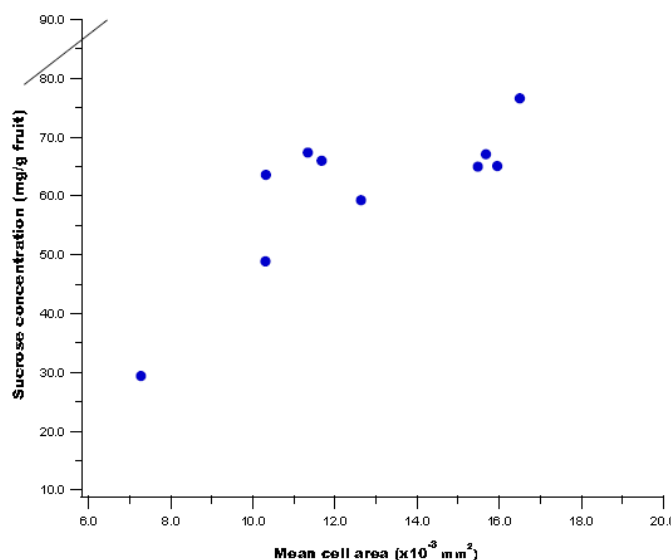


Figure 2. Relationship between mean sucrose concentration in ten 'Summer Flare 26' nectarine fruit and mean cell area ($r^2 = 0.56$). Mean cell area and sucrose concentration calculated from two cheek cores per fruit.



Further cell enumeration studies on Summer Flare 34 samples over the next six months will be conducted to confirm these initial findings, as well as to test the hypothesis that the relationship between sugars in fruit flesh and cell size is consistent within both ripe and unripe fruit, and within fruit of different size classification.

Progress since last milestone report

Achievement criteria: Identified whether SSC is correlated with cell numbers in the mesocarp

During January 2013, cell size and number was measured on 30 'Summer Flare 26' yellow nectarine samples fixed in resin. Samples used were selected from a total of 120 cores obtained from both cheeks of 60 fruit (Appendix 1.1). The range of SSC within samples and section quality were the main criteria for selection of samples for cell enumeration. Five micron sections were cut for microscopy using a Leica RM 2165 microtome and viewed at 4x magnification using an Olympus BX60 microscope with Jenoptik camera. Between 2 and 4 transverse sections were assessed per fruit sample, and the mean cell size and number calculated from these replicates. Cell diameter and number were measured using Image Pro 7 software. Cell area was estimated based on the longest diameter measured and the diameter perpendicular to the longest diameter, and by assuming that cells were elliptical in shape (Appendix 1.2).

Cell number was estimated within each section by counting the total number of cells within a 600 x 600 micron grid. Cells were counted as being within the grid if they partly crossed the grid boundary on the left hand side, or top, of the grid, but were not counted when they partly crossed the bottom, or right hand side, of the grid.

Preliminary results indicate a moderate positive correlation ($r^2 = 0.54$) between sucrose concentration and cell size as measured by area within the group of fruit samples selected for enumeration (Figure 1). However, this relationship was found to be highly dependent on fruit ripeness as measured by chlorophyll degradation in mesocarp tissue (i.e., index of absorbance). When fruit samples were classified into 'ripe', 'onset of ripening', and 'unripe' categories, mean cell area in unripe fruit was generally lower, with correspondingly lower concentrations of sucrose, than in ripe fruit.

Sucrose is the main sugar accumulated in stone fruit during Stage III of fruit development. There was no significant correlation between cell size and concentration of the reducing sugars glucose and fructose (not shown), whose concentration at harvest was relatively low in comparison to sucrose. The correlation between sucrose concentration and mean cell area was also moderately positive ($r^2 = 0.56$) when comparing individual fruit rather than single mesocarp samples (Figure 2).

Mean cell area and sucrose concentration per fruit were calculated based on two sample cores, obtained from each side (cheek) of a single fruit. The proportion of large cells greater than 0.01 mm² in area within fruit samples was also moderately positively correlated with sucrose concentration ($r^2 = 0.37$) (Figure 3). The correlation was marginally better when sucrose concentration was linearized using a natural log transformation. The rate of increase in sucrose concentration with increasing proportion of large cells was similar for ripe and unripe fruit. The relationship between the proportion of large cells and sucrose concentration was considerably weaker for fruit classified as being at 'onset of ripening' stage.

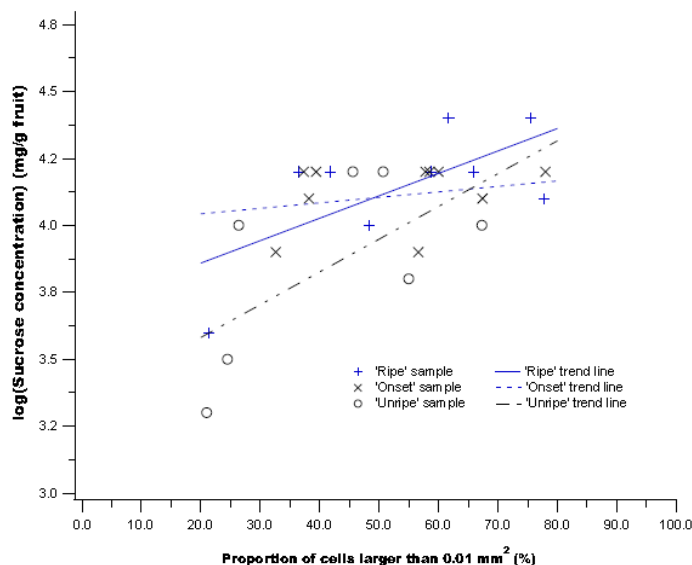


Figure 3. Relationship between the natural log of sucrose concentration in thirty 'Summer Flare 26' nectarine mesocarp samples and proportion of cells larger than 0.01 mm² ($r^2 = 0.37$). Samples classified into ripeness categories based on absorbance index measured using a DA meter (Ripe = 0.10-0.69; Onset = 0.70-1.29; Unripe = 1.30-1.90).

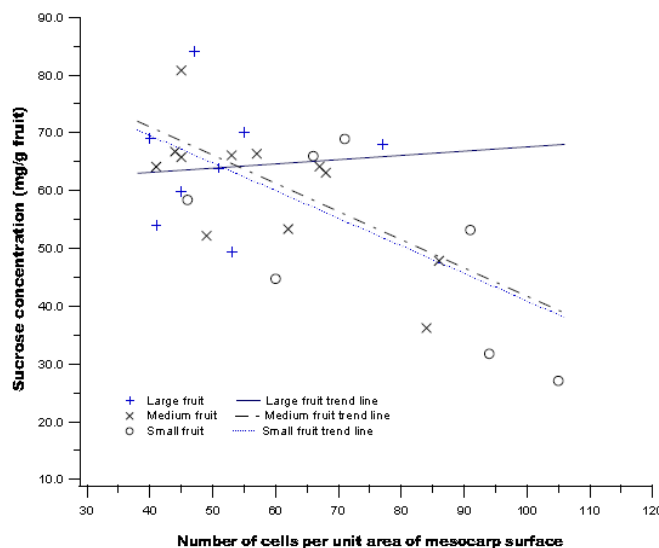


Figure 4. Relationship between sucrose concentration in thirty 'Summer Flare 26' nectarine mesocarp samples and number of cells per unit mesocarp area ($r^2 = 0.37$). Samples classified into size categories where: Large > 140g; Medium = 80-110g; Small < 80g.



Sucrose concentration was moderately negatively correlated with cell number measured within a fixed transverse area of mesocarp surface ($r^2 = 0.37$). It was generally found that fruit samples with larger, and fewer cells, within a fixed area of mesocarp contained higher sucrose and soluble solids concentrations than samples with more cells within a similar area (Figure 4).

Interestingly, the correlation between cell number and sucrose concentration was not significant in samples from larger fruit with a mass greater than 140 g. This result may have important implications for the relationship between sucrose levels and cell number in ripe/large fruit, and requires further investigation. Sucrose concentration was strongly positively correlated with fruit size measured by weight with an exponential (asymptotic) relationship between the two variables explaining 66% of variation (Figure 5). This result seems to suggest that when fruit is small, sucrose concentration is strongly and linearly correlated with fruit mass, but as fruit grows the relationship becomes weaker as increases in sucrose concentration plateau with increasing fruit size.

Total cell number in a single, transverse cell layer of mesocarp tissue, and mean cell area, were both positively correlated with fruit size (Figure 6). Cell number was more strongly correlated with fruit size ($r^2 = 0.68$) in comparison to cell area ($r^2 = 0.51$). Previous studies on peach and nectarine have also found strong correlations between total cell number and fruit size whereas the relationship between cell size and fruit size is less clear. As cell numbers increase during fruit growth, competition between cells may slow the overall rate of increase in cell size in larger fruit. In this study, the correlation between mean cell area and total cell number was found to be weak ($r^2 = 0.25$) (not shown) with no obvious relationship between the two variables. This preliminary cell enumeration study has demonstrated that cell size and number within nectarine fruit is moderately correlated with sucrose and soluble solids concentration. The sample size was not large enough to clearly determine if the relationship between sucrose concentration and cell size is consistent within fruit of similar size and/or ripeness at harvest.

Further cell enumeration studies on Summer Flare 34 samples over the next six months will be conducted to confirm these initial findings, as well as to test the hypothesis that the relationship between sugars in fruit flesh and cell size is consistent within both ripe and unripe fruit, and within fruit of different size classification.

Communication/ Extension Activities (October 2012 – January 2013)

John Lopresti presented information on the causes of peach and nectarine quality variation within trees to 30 growers and allied industry representatives in Swan Hill on the 2nd October 2012, and to 15 Riverland growers during their AGM on the 17th October 2012. The title of the presentation was, "Can we reduce variability in soluble solids concentration within peach and nectarine trees?" A brief summary report for DPI is attached (Appendix 1.3).

Travel – None

Commercialisation & Intellectual property issues – None

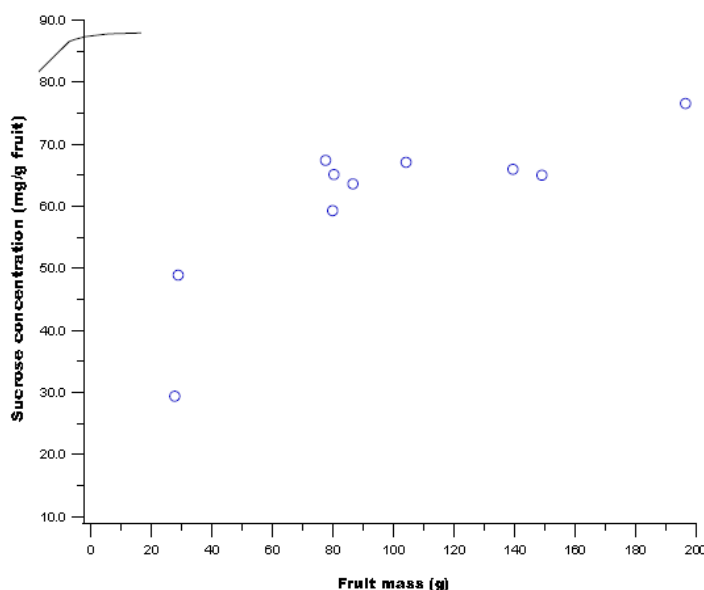


Figure 5. Relationship between sucrose concentration in ten 'Summer Flare 26' nectarine fruit and fruit mass ($r^2 = 0.76$). Mean sucrose concentration was calculated from two cheek cores per fruit.

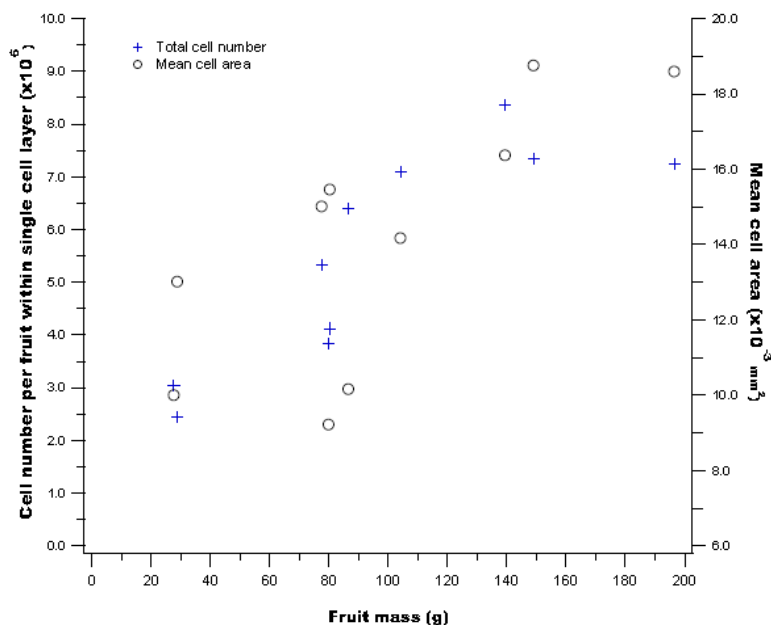


Figure 6. Relationship between total cell number per fruit and fruit mass ($r^2 = 0.68$), and mean cell area and fruit mass ($r^2 = 0.51$), in ten 'Summer Flare 26' nectarine fruit. Total cell number within a single cell layer of mesocarp, and mean cell area, were calculated from two cheek cores per fruit. Total mesocarp area of a single transverse cell layer was estimated per fruit using measurements of fruit diameter and pit area.



Next steps

Further cell enumeration studies on Summer Flare 34 samples over the next six months will be conducted to confirm these initial findings, as well as to test the hypothesis that the relationship between sugars in fruit flesh and cell size is consistent within both ripe and unripe fruit, and within fruit of different size classification. During February 2013 the following experiments will be conducted as a component of John Lopresti's PhD studies.

Within-fruit variation in sugar concentration study (Chapter 3)

One hundred 'Summer Flare 34' fruit will be harvested from multiple adjacent trees within an orchard row at commercial maturity and a non-destructive, portable, 'open'-type NIRS unit (Nirvana - Integrated Spectronics, Sydney, Australia) used to estimate soluble solids concentration on four equally-spaced equatorial sections of each fruit. Twenty highly coloured fruit and twenty yellow/green fruit that show the highest within-fruit variation (i.e., standard deviation) based on Nirvana measurements will be selected for fruit quality assessment and histological studies.

Whole fruit quality measurements will include fresh weight, diameter, mesocarp volume by water displacement, and percentage red colouring on skin, while firmness, chlorophyll degradation and CEILAB skin colour will be measured at each of the four sections around the equator. SSC, soluble sugars and organic acid composition, pH, and dry matter content will be determined on samples cut from above and beneath each equatorial slice used for histological studies. A total of 160 mesocarp samples will be prepared for histological studies, and cell counting and sizing will begin on mesocarp samples taken from fruit with the highest variation in SSC. A proportion of tissue samples may not require assessment if initial correlations are found between soluble sugars and cell number or size.

Between-fruit variation in sugar concentration study (Chapter 4)

In this study, 'Summer Flare 34' fruit will be classified into groups in which each fruit is of similar fresh weight, physiological maturity, and colour, and a Nirvana vis-NIR unit will be used to select fruit with the widest possible range of SSC in each uniform weight/colour/maturity grouping. These factors are representative of sink size, maturity stage and sink activity (i.e., background and blush colour as an indicator of fruit exposure to solar radiation) thus, by controlling for these within a group, a higher proportion of variation in sugar concentration may be explained by differences in mesocarp anatomy if a relationship does exist.

The experiment will consist of two fresh weight classes (low and high), two maturity classes (ripe and unripe) and two fruit colour classes (i.e., >80% red colour with orange/yellow background, and <40% red colour with green/yellow background). For example, a fresh weight of 150 grams might be selected as the weight required for all fruit classified as large. In this case, all fruit within each large fruit size grouping will have approximately this same weight regardless of physiological maturity or skin colour. Each weight/colour/maturity grouping will contain 15 fruit for a total of 120 fruit. The group combinations are:

Group	Attribute level		
	Weight	Maturity	Colour
1	Large size	Ripe	Green
2	Large size	Ripe	Red
3	Large size	Unripe	Green
4	Large size	Unripe	Red
5	Small size	Ripe	Green
6	Small size	Ripe	Red
7	Small size	Unripe	Green
8	Small size	Unripe	Red

To obtain the necessary high degree of uniformity at both levels of weight, maturity and colour, a large initial population of fruit from multiple trees will be required. Thus, fruit sampling will be conducted after harvest, using the Nirvana and non-destructive chlorophyll degradation measurements using a vis-NIR DA-meter, after harvesting all fruit from approximately six trees. A portable Minolta spectrophotometer will also be used to measure background and blush colour of sampled fruit to ensure that differences in colour intensity between fruit in a group is minimised. SSC and DA-meter measurements will be made on fruit at a uniform temperature of approximately 20°C. Harvest will be conducted up to five days after commercial harvest to ensure that a significant proportion of fruit is ripened to provide a range of SSC. Postharvest fruit quality assessments will be conducted on all fruit.

An initial sampling of 50 fruit will be conducted after harvest to determine the weight and maturity distribution within the fruit population and these results will be used to determine the weight and maturity of, large and small fruit, and ripe and unripe fruit, respectively. Once fruit are placed into groupings, they will be assessed and prepared for histology with two mesocarp samples taken from each fruit, from the most coloured and least coloured surface of fruit along the equator. A total of 240 mesocarp samples will be prepared for histological studies. This experiment will be conducted twice over two seasons, but in the second season an early-to-mid season nectarine cultivar will be used to determine if any relationships found are consistent in cultivars with both a higher and lower range of SSC at maturity.

Fruit temperature study (Chapter 5)

The aim of this experiment is to understand nectarine temperature gradients between individual fruit within a tree, and within single fruit as affected by exposure to solar radiation during Stage III of fruit development. A commercially-thinned, single tree will be selected during mid-summer for fruit temperature measurement and twenty-eight fruit tagged from the central portion of the tree (i.e., 1.5 to 3 metres above ground level; 14 fruit on the east and west side of trees, respectively). Fruit will be selected



from uniform FBS with a similar number of fruit per shoot. The measurements will be conducted during the final 4 weeks of fruit growth prior to harvest. The study will consist of a combination of two fruit sizes and two exposures in the following combinations:

Exposed	Small size
Exposed	Large size
Shaded	Small size
Shaded	Large size

Fruit exposure will be based on blush and background colour while large and small fruit sizes will be selected to represent the most common range of fruit sizes found within the tree. Seven fruit will be selected for each size/exposure combination, and diameter, physiological maturity and SSC will be recorded, using a DA-meter and Nirvana, respectively, prior to temperature measurement. Two thermocouples per fruit will be inserted under the skin beneath the blush and green background surface of each fruit, while a third thermocouple will be inserted into the mesocarp from near the base of fruit for flesh temperature measurement (i.e., 78 thermocouples in total). Skin and flesh temperatures will be monitored continuously at 15 minute intervals for 10 days.

Light measurements (PAR) on fruit surfaces will be taken every day of the temperature measurement period. Similarly, fruit maturity, SSC and diameter will be measured on each of these days. On each day of light measurement, PAR will be recorded for the top, bottom, exposed, and shaded, side of each tagged fruit at 10 am, 1 pm and 4 pm, to take into account changes in light conditions within trees as the sun moves from east to west. At the end of the 10 day period, fruit will be detached at the peduncle and fruit transpiration measured over 48 hours while temperature measurements continue.

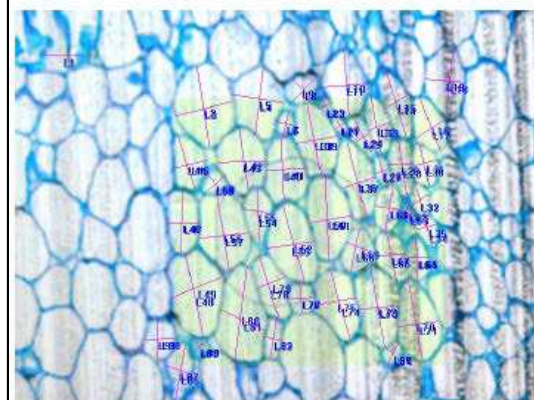
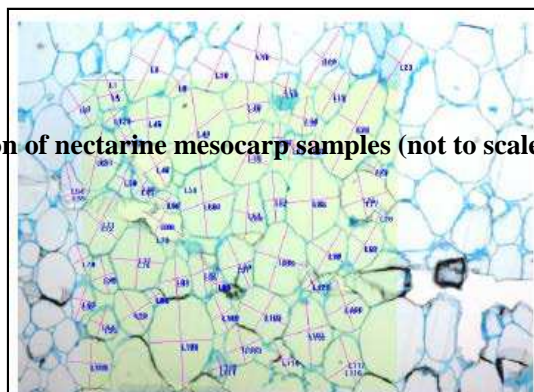
Other issues – None

Appendix

1.1 Core sample of nectarine mesocarp



1.2 Cell enumeration of nectarine mesocarp samples (not to scale)



Appendix 1.3

Brief report on Swan Hill and Riverland summer fruit grower meetings (October 2012)

John Lopresti presented information on the causes of peach and nectarine quality variation within trees to 30 growers and allied industry representatives in Swan Hill on the 2nd October 2012 and to 15 Riverland growers during their AGM on the 17th October 2012. The title of the presentation was, “*Can we reduce variability in soluble solids content within peach and nectarine trees?*”

At both meetings, feedback was very positive on DPI’s research focus in this area. John Lopresti has been invited back next season by Swan Hill growers for an orchard demonstration of non-destructive technologies for fruit quality measurement within trees. Collaborative opportunities were discussed with the Riverland grower group and specifically with Michael Trautwein, an important and proactive grower in the Riverland region. Productive discussions were also held with Gaetan Cutri, a large grower and exporter in the Swan Hill region.

Discussions with growers during the meeting highlighted a number of critical issues that DPI should be aware of when planning R&D in the summer fruit production and quality area.

The major concern for producers in the Riverland and Swan Hill growing regions is the poor eating quality of early season peaches and nectarines. With the over-supply situation in summer fruit after





Christmas, early season markets are considered important for the profitability of the industry. Yet soluble solids content (SSC) in this fruit is generally low ($<11^{\circ}$ Brix) and can result in consumer dissatisfaction, setting the stage for reduced demand during the following months of summer fruit production.

Although early-season cultivars are inherently low in SSC due to a short developmental period, research into tree management and pruning practices may assist in reducing variability and increasing overall SSC. It should be noted that fruit thinning takes place in early-season cultivars prior to pit-hardening due to excessive flowering and fruit set, with approximately 60% of fruit removed from trees. The labour cost of thinning is \$6-8 per tree and is considered a major cost by growers who are interested in chemical flower thinners that may reduce these costs.

Another technique being considered to improve overall fruit quality within a tree is to increase crop density in the upper two-thirds of trees while substantially reducing the number of fruit in the bottom third of trees. Thus, crop yields are maintained and overall quality improved. Increased fruit-to-fruit competition within the tops of trees was not considered an issue if trees were fruit thinned. In fact, the effect of fruit competition within fruit-bearing shoots may be overstated for commercially-thinned trees as research has shown that under low crop load situations, fruit are able to access carbohydrates from other parts of the tree, particularly from non-fruiting shoots. Many studies have shown that fruit size and SSC is generally higher in the top half of trees.

It should be noted that to reduce costs, many growers do not thin mid to late season cultivars due to over-supply at this time of year, and reduced margins. In fact, growers may also reduce the number of harvests to two for certain cultivars even though fruit quality variation in terms of size and SSC will be relatively high, as it is uneconomic to increase the number of harvests to reduce variation in quality.

In developing an R&D program for summer fruit, DPI should be aware that increasingly, free-standing, open-vase type trees are being introduced in both the Riverland and Swan Hill regions due to the relatively high cost of a highly-managed system such as the Y Tatura trellis. Light penetration and greater uniformity in fruit quality, considered an advantage of the Tatura trellis, is being improved in open-vase systems using pruning techniques during tree growth to maximise the open-vase shape of trees.



There is increasing interest in apricot production particularly for export markets with new cultivars being trialled, but low yield and poor quality continue to be of concern.

Growers also showed an interest in research on the relationship between fruit colour and eating quality. It was highlighted that the background colour (green/yellow) is generally a better indicator of fruit maturity/ripeness than the red colour on the blush side of fruit. Although fruit develop red colour and soften as they mature, the two processes are independent of each other. The amount of light intercepted by a fruit influences the relationship between colour and ripeness. Fruit grown in high-light environments develop intense red colour.

Anthocyanins (red pigments) that are light dependent are not related to fruit maturity whereas chlorophyll degradation (loss of green pigments) is related to both light exposure and fruit maturity. Visual quality of fruit is usually related to the red blush of fruit (particularly by consumers), yet eating quality may be more closely related to the de-greening of the background skin colour associated with ripening.

Feedback from growers also highlighted that there is a need for greater R&D in both the tree physiology and fruit physiology area within summer fruit. Producers felt that there was a general lack of information and research regarding: thinning practices to improve quality; optimum harvest maturity for specific cultivars; and the causes of variation in fruit quality within trees.

Diary Note for 2013 - 17 to 19 July 2013 – Gold Coast – Queensland





Industry News – Fruit Fly Field Day Report –

Managing Queensland Fruit Fly Field Day

February 2013

The recent Queensland Fruit Fly (QFF) field day which was held at Mt. Tambourine in Southern Queensland was well attended with over 40 growers present. The change in use pattern of *Fenthion* last season has meant that the industry is looking for alternative ways to manage QFF. The existing permit for QFF control allows 3 cover sprays up to 3 weeks from harvest. For WA growers they have been given the use of two cover sprays pre harvest and a withholding period of 7 days in order to control Mediterranean fruit fly (Medfly).

The field day featured a presentation on baiting and trapping methods by **Richard Bull** who has worked both overseas in the Pacific Islands helping developing nations control QFF and also around the Sunshine coast helping fruit producers manage QFF with a product called *Amulet Cue lure* that he helped develop.



Fig 1. Richard Bull at the field day

The field day was run on Sandy Creek Kiwi fruit orchard at Mount Tambourine managed by **Howard Windleborn** and owned by **Mark Beazley** and **Rob and Roger Bayly**. Howard uses Richard as a consultant to manage QFF using five main principles.

These principles for a management program are;

1. Area wide management by monitoring numbers in traps

Fruit fly traps using an attractant such as *Cue-Lure* are intended for population monitoring. There are a number of commercially available traps on the market but all are meant to give the best indication of the relative numbers of QFF in the orchard from week to week. Therefore checking has to be done regularly. The most common traps are the *Lynfield* trap, the *Steiner* and the *modified Steiner* trap. From tests, results the *modified Steiner* trap produces the greatest number of individuals caught and is the most efficient. The clear tubes on the entrances allow easy entry and difficulty in escaping. Once the male walks or licks the attached attractant *Cu-Lure* and undetectable *fipronil* poison, they usually cannot escape.

ALL NEW

A & A Holdings are proud to announce new machinery lines for orchards.

Firstly the New BMV hedger range which offers the grower a machine with versatility and power to do the bigger hedging jobs from their own tractor.

These machines are superbly crafted and come in a wide range of models to suit every type of crop. All BMV hedgers are controlled by electric joystick which gives the operator a magnitude of operating positions.

Normally these machines come with 500mm tungsten tipped saw blades for winter pruning and can be optioned up with slasher type blades for summer pruning.

Your average tractor can be used, using its PTO drive to power the hydraulic power pack which drives the saws and the tractors remote hydraulic outlets are used to control the movements. The front mounted saw machine is simply bolted to the front of the tractor.

The other new machine from A & A Holdings is the Blosi orchard elevating work platform. These machines come in many different configurations from one, two and three work decks.

The Blosi machines all come standard with hydrostatic drive, motorised high and low gear change. They each can be optioned up with 4 wheel drive, hydraulic side wings, automatic rear wheel centring, compressor and outlets, fruit bin handling and forklifts etc.

The Blosi range is made from the very best components and its build quality is very high.

As A & A Holdings run orchards themselves, they are using these machines and know what the farmer really needs and can give the best advice through their own experience.

For more information do not hesitate to call or check our web site aahold.com for photos and literature.



NIBLOSI
ORCHARD PLATFORM



BMV FLHD900



BMV FL600P

Aedes SM Orchard heavy duty mulcher



NEW

These units are built for a long working life with features like a double plated 5mm shredder shroud. Robust 3PL sliding pickup point. The unit has a Very low profile to get under those low tree crops. The rear levelling roller bearings are robust and easily changeable.

The main hammer shaft rotor is made of special hardened steel to last the hardest of mulching jobs it also carries the largest heaviest hammer on the market cutting large wood with ease and on the main rotor is an innovative cutter setup to clear any stray wire pickups. Options available are hydraulic side shift, double plated front level wheels. Sizes range from 1.5M to 2.5M cutting widths.

For more information please call A & A Holdings on (08) 9293 5400 or 0418 920 760 and you can also check our website on www.aahold.com



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2. Saturation of the area with male annihilation traps (MAT)

To effectively exclude fruit flies from an area, strategies must be employed to drastically reduce their population and then maintain it at a very low level. This relies mainly on Male Annihilation Technique (MAT) devices which consist of an absorbent block impregnated with a specific para-pheromone + an ingredient toxic to fruit flies – the system is designed to “attract and kill”. The para-pheromone for QFF is *Cue-lure* (4-(p-acetoxyphenyl)-2-butanone) and attracts ONLY males, but is very powerful and effective up to 400m.

The use of a commercial product, *Amulet CL*® containing *Cue-lure* and a minute amount of the insecticide *fipronil* which has the unique property of killing both sexes by transfer of the toxin from male to females during mating activities. *Amulet CL* stations are used in commercial orchards at a rate of 16 stations per hectare and hung in fruit trees at 25 m intervals, starting and finishing in end trees and outside rows, so the entire block is enclosed by treatment.

3. Applying protein / insecticide bait sprays to fruit and refuge vegetation within the orchard and surrounding areas

Protein bait sprays are an essential adjunct to *Amulet CL*s in a fruit fly management program. After winter and when immature flies emerge from their pupae, both females and males must have protein meals for their ovaries and testes to develop. This takes 8-10 days and is the basis of the recommendation to apply protein baits at weekly intervals, as it prevents newly emerged females from reaching sexual maturity and subsequent ‘stinging’ of fruit.

It is very wise to create an additional protective barrier around the orchard especially if fruit flies are coming from a known breeding or aggregation location (creek-side vegetation or suburban back yards) by extending the treatment grid in that direction into adjacent vegetation for 50m or so. Fruit fly population monitoring traps located both within the crop and nearby (up to 500m from orchard) non-crop vegetation provide information on how well the treatment is functioning and what the district background population density is. In conjunction with MAT, protein bait sprays should be applied to fruit trees and nearby refuge vegetation at weekly intervals to specifically target female QFF during the development of fruit and up to harvest.

Richard assures me that continually spraying fruit and foliage is OK and that it will not cause a residue or marking on fruit. From experience with low chill stone fruit, I am reluctant to apply anything foliar especially on nectarines as they are so easily marked even with lesser substances.

Only 5-10 ml of bait spray needs to be applied to the foliage and at the field day it was applied using a quad bike with a small tank on the back and a handgun.

Fig 2. Quad bike used for QFF bait application in the orchard ↓



Commercially available bait spray products:

- **AgriPest DacGel fruit fly bait powder.** A powder formulation containing special yeast protein autolysate and natural mucilages which forms a liquid gel that is rain-fast when sprayed on foliage and highly attractive to fruit flies. A toxicant must be mixed with the prepared spray to kill fruit flies. Add 5ml malathion 50 (=maldison) per L spray mix or 5ml Yates Naturalyte (=spinosad)/L. DacGel is available from R.M.Bull, Mt Tamborine.
- **Bugs for Bugs fruit fly bait concentrate.** Yeast protein autolysate liquid concentrate. Use rate is 20ml/L water + 5ml of maldison 50. Available from Bugs4Bugs (commercial packs) or Bunnings as Ecolure, in small bottles.
- **Natralure fruit fly bait spray.** A liquid concentrate of protein hydrolysate using Spinosad as the toxicant. Can cause phytotoxic burn to leaves and fruit. Follow label recommendations.

Bugs for Bugs Pty Ltd make a similar MAT (male annihilation technique) product to *Amulet*, but uses the organophosphate insecticide malathion (=maldison). This kills male QFF rapidly on contact, preventing any possibility of transfer to females who are not attracted to the pheromone in the lure.

4. Strict orchard hygiene

To most growers the common practice is to remove any damaged fruit from the orchard or to mulch it each day with a mulcher or flail mower so that it breaks down or disintegrates quickly. This practice is important as it reduces places that QFF females can sting and minimises the possibility of new generations of QFF developing in the field. It is also a widely used practice in most stone fruit operations to reduce the occurrence of *Carpophilus* beetle and the incidence of brown rot.

5. Weekly fruit inspections and recording

This fruit sampling is an inspection to monitor what you are doing and how effective it is at controlling QFF.

LCA wishes to acknowledge and thank Richard Bull and Howard Windleborn for their presentations and sharing of information and for hosting the day at Sandy Creek Orchard .

LCA will be organising a local field day as an extension to this day sometime in April 2013 to give growers the confidence to use this systems approach on their own orchards for the coming season.

Phillip Wilk - NSW Department of Primary Industries – Alstonville NSW



News ...

Consumer groups seek clarity in food labelling

In a recent article written by Samantha-Jo Harris and published on 25 January, she states that Consumer groups are calling for an overhaul of food labelling in Australia, saying it is confusing and often misleading. A recent survey showed 90 per cent of respondents did not understand where their food was coming from.

It is mandatory for all packaged foods in Australia to carry a country of origin claim, but there is nothing to specify what terms are used, consumer groups say.

Under federal laws, food can be labelled "made in Australia", "Australia made", "manufactured in Australia", "grown in Australia", "Australian owned" and "product of Australia", even if the food is from other countries.

According to the Australian Competition and Consumer Commission, the "product of" claim is much stricter than the general "made in" claim,

The consumer group *Choice* is now seeking the support of the federal government to simplify the country of origin claims, reducing the labels to just three claims: "product of Australia", "manufactured in Australia" and "packaged in Australia".

Ms Harris writes that the food policy adviser for Choice, Angela McDougall, said the proposed changes would give credibility to the terms "product of Australia" and "manufactured in Australia".

"Australian consumers want to support Australian products. Knowing where our food comes from is very important to Australians, which is why these proposed changes are so important," she said. By moving to the use of simpler terms, Ms McDougall says shoppers will be able to identify exactly which ingredients come from Australia and overseas.

And Ms Harris writes that a Woolworths spokesman, Benedict Brook, has said that the supermarket would ensure it meets any legislation and work to help make its customers aware of the origins of its products. "Woolworths has long held the view that country of origin information is a source of confusion," he said

Read more:

<http://www.smh.com.au/national/consumer-groups-seek-clarity-in-food-labelling-20130124-2d9p4.html#ixzz2LCaxdAY9>



Research ...

Seeking *Luscious* Peaches

Dr Bruce Topp – *Queensland Alliance for Agriculture and Food Innovation*
Maroochy Research Station, Nambour QLD

Dr Jose Chaparro – *Fruit Crops Department*, University of Florida, Gainesville, FL 32611

As part of the low-chill peach breeding programs based in Queensland and Florida we are attempting to locate old peaches that were grown in subtropical Australia in the early 1900s. We are keen to hear from anyone who has access to them. We are interested in two groups of old peach varieties. The first consists of heritage cultivars sold by nurseries and grown commercially in coastal northern NSW and Queensland. The second source is feral peach seedlings which were introduced into Australia in the 1800s and early 1900s and have acclimatised and now grow wild in subtropical Australia.

Heritage Subtropical Peaches ...

The advertisement right is from the Brisbane Courier on 6th July 1929 (Figure 1). It lists a number of peach cultivars that were on sale to Brisbane gardeners and orchardists. Certainly 'Beauty of Booroodabin' and 'Improved China Flat' are low-chill cultivars that can be grown in subtropical locations. There are records of commercial orchards of these cultivars in the Pinkenba, Nudgee and Booroodabin regions of what is now the location of the Brisbane airport.

Other heritage low-chill cultivars grown around Brisbane were 'Watt's Early Champion', 'Bell's November' and several strains of 'Dwarf Peaches'.

A Sydney Morning Herald article from 1938 mentions several cultivars that were recommended for growing in coastal Sydney regions and were therefore probably medium-chill if not low-chill. These included 'Edward VII', 'Admiral Dewey' and 'Duffy's Xmas Box'.

Feral Subtropical Peaches ...

Many of you will have seen peach seedling trees growing beside roads, along creek beds and along paddock fence lines. Some of these seedlings have arisen from discarded peach seed of modern cultivars. Others are much older and may represent generations of feral peach reproduction.

Hundreds of peach seedlings grow along Heifer Creek in the Lockyer Valley and have done so for many generations.

In low-chill regions these feral peaches have traditionally provided a supply of "coastal" rootstock seed. Often they are named after a property or land owner; such as 'Barton' peach from northern NSW (Figure 2).

Comparing Old and New

Feral peaches may contain characteristics that are of use in modern breeding programs. We are planning to compare the range of variability in heritage cultivars and feral peach populations with that available in our modern cultivars.

We would appreciate hearing from anyone who can provide information on sources of either low-chill feral peaches or heritage cultivars. Please contact Bruce Topp on 07 54535973 or b.topp@uq.edu.au or 47 Mayers Road, Nambour QLD 4560.

Figure 2. 'Barton' feral peach from northern NSW showing good leaf health and no rust development

Figure 1. Brisbane Courier advertisement for low-chill cultivars in 1929.

LUSCIOUS PEACHES.

This week we offer a special line of Peach Trees, all selected varieties, and every Tree healthy and strongly rooted. Select your requirements from this list, and plant now.

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1317 GEORGE STREET BRISBANE
Highly Grown from Little Acorns Grow





Industry Information ...

Diary Note for 2013 - 17 to 19 July 2013 – Gold Coast – Queensland



The Conference will include the Annual Levy Payers' Meeting and Summerfruit Australia Ltd. Annual General Meeting. – **For More Information Contact:** John Moore – CEO Summerfruit Australia Ltd, 8/452 Swift Street, Albury, NSW 2640 – Ph: +61 2 6041 6641, Mobile: 0419 305 901, Email ceo@summerfruit.com.au.

Publication Details ...

Australian Stonefruit Grower ***incorporating the Low Chill Stonefruit Grower*** ***- 2013 Publication Timetable -***

Contributions are invited for the next scheduled publication - **FEBRUARY 2013.**

FEBRUARY	APRIL	AUGUST	NOVEMBER
<i>Advertising Deadline</i> 7 February	<i>Advertising Deadline</i> 14 April	<i>Advertising Deadline</i> 31 July	<i>Advertising Deadline</i> 31 October
<i>Copy Deadline</i> 10 February	<i>Copy Deadline</i> 21 April	<i>Copy Deadline</i> 7 August	<i>Copy Deadline</i> 7 November

Note: Publication Dates are subject to change at the discretion of the Publishers.

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Low Chill Australia Inc.

PO Box 772, Hervey Bay QLD 4655 – Phone: (07) 4128 0585 – Mobile: 0407 589 445 – Email:

cm@lowchillaustralia.com.au





MT10022 – Export Market Intelligence

Australian Summerfruit Exports, October to November 2012 2nd of 6

Prepared by Wayne Prowse - *Fresh Intelligence Consulting* for Horticulture Australia and Summerfruit Australia
12th February 2013



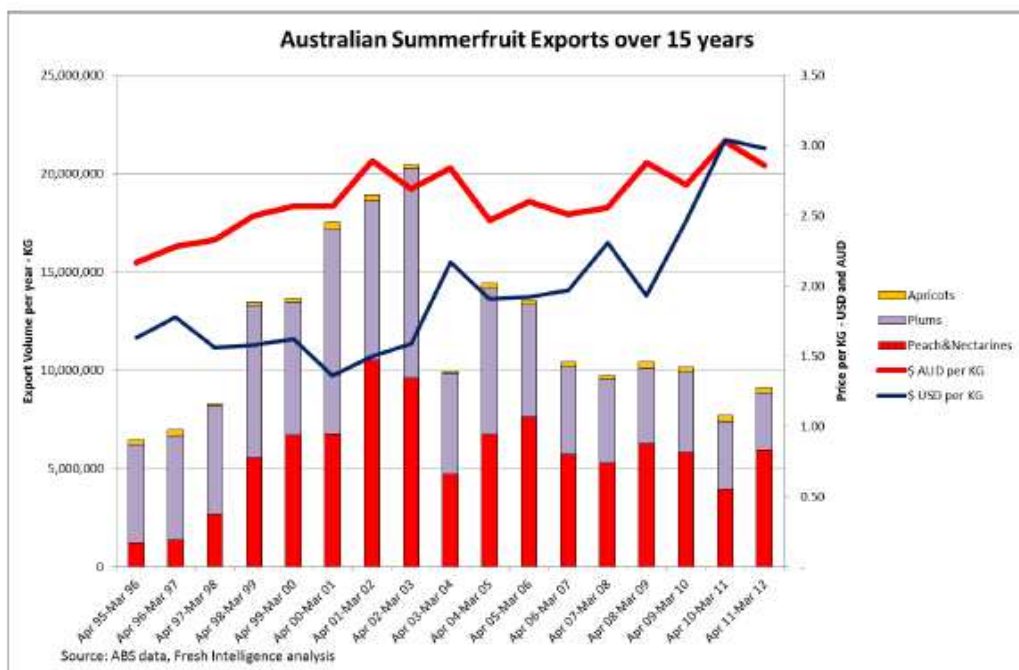
Summerfruit Export Summary

The 2012/13 Summerfruit season 17.3 per cent above last season volumes for the first 3 months though offset by lower recorded values.

- Key results – 2012/13 season to date (30.5% of season to December)
 - Volume 2910 MT +17.3 %
 - Value A\$8.61m +3%
 - \$ per kg \$2.96 -41c (-12%)
- **Nectarine and peaches** have increased share to 67% of summerfruit exports followed by Plums (29%) and Apricots (4%) for 12 months to December (incl 70% last season data).
- Only 80 tonnes of **plum** exports recorded to date which is 60% below last year.
- **Apricot** exports are showing a 17% increase by December led by UAE trade.
- Singapore climbs to No.3 destination with United Arab Emirates and Hong Kong as the main apricot markets accounting for 71% of exports over a 12 month period.
- Summerfruit exports overall have increased on average 1 per cent per year for last 5 calendar years based on compound average annual growth analysis
- Summerfruit imports to Asia from all sources + 4% to 101,000 metric tonnes in 2011 of which Australia supplied 5.5%.
- Australian Summerfruit exports were valued at **A\$26.29 million** for the 12 months to Dec 2012.

LONG TERM TREND ANALYSIS

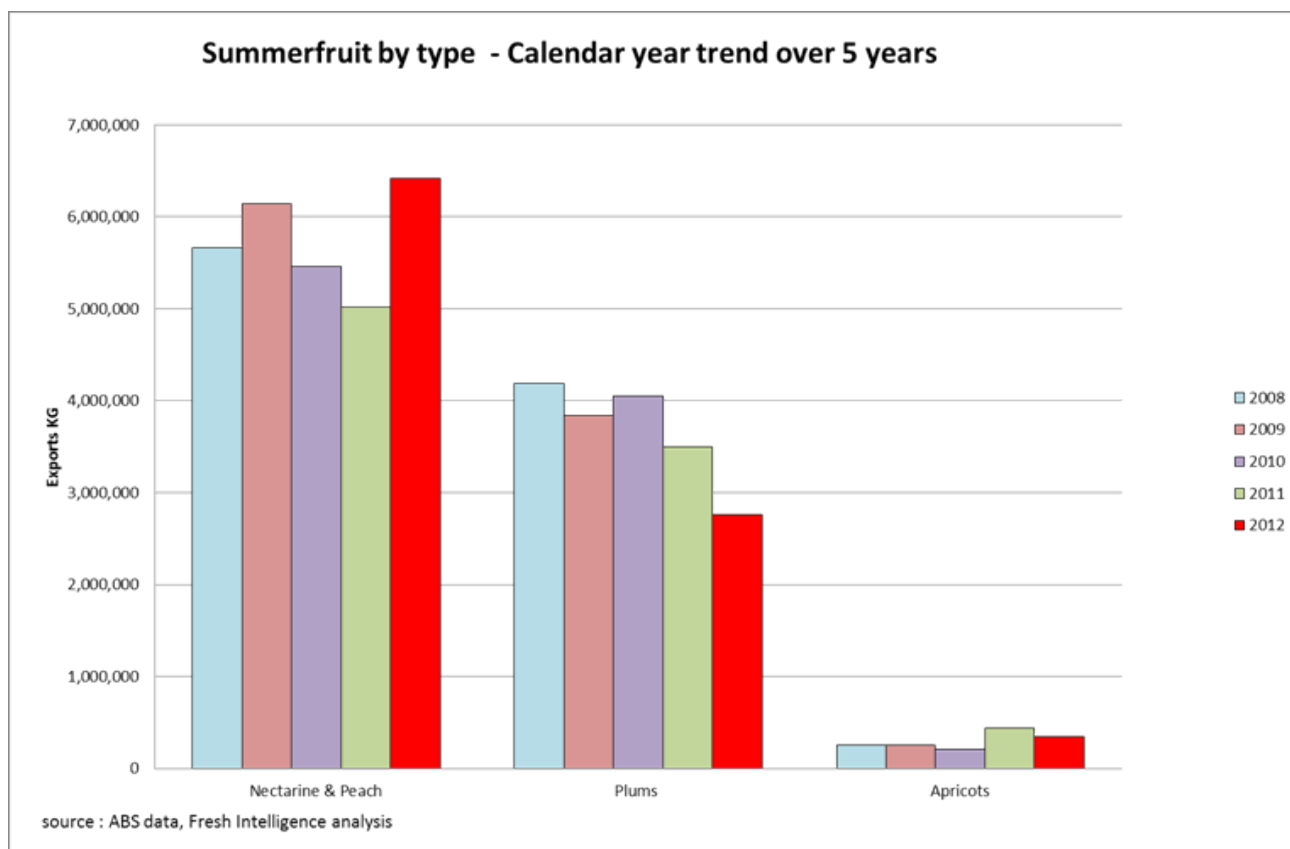
Over 15 years of Summerfruit exports, 2001 – 2003 will be remembered as the peak years helped by low exchange rates of the time. Prices have been trending higher since a low point in 2005 at the same time Chile has been making strong inroads to the Asian markets, particularly Hong Kong, China and Taiwan.





LONG TERM TREND ANALYSIS

While nectarines and peaches are tracking at highest level in since 2005, plums continue a downward trend. Apricots are marginally trending higher off a low base.



Getting familiar with valuable information in this spread sheet

Summerfruit Exports by product to date											
FRUIT Type	Volume			Value			\$ per KG				
	Volume KG (season to date)	Notes the period of measure		Value \$ Million AUD (season to date)							
	October to Dec-11	October to Dec-12	Change to LY	MAT Jan-12 Share Dec-12 %	MAT	October to Dec-11	October to Dec-12	Change to LY	MAT Jan-12 Share Dec-12 %	MAT	Average price per KG
TOTAL SUMMERFRUIT	2,481,941	2,910,357	17%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36 2.96 2.76
Peach & Nectarines	2,016,130	2,521,723	25%	6,421,693	67%	6.53	7.19	10%	17.85	68%	3.24 2.85 2.78
Plums	202,789	80,938	-60%	2,760,655	29%	0.57	0.22	-62%	7.12	27%	2.81 2.68 2.58
Apricot	263,022	307,696	17%	346,567	4%	1.25	1.20	-4%	1.32	5%	4.74 3.91 3.82
TOTAL Summerfruit	2,481,941	2,910,357	17.3%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36 2.96 2.76
		30.5%					32.7%				

source : ABS data, Fresh Intelligence analysis

This data is funded from project MT1 2009

This column shows the product or market list of a product category

These columns compare the **season to date** trade in volume (KG) and is a gauge on how the product or market is performing compared to same period last year by volume. The % column shows change to last year.

This shows the approx share of the total season recorded – compared to last 12 month trade

This column shows the total exports for the last 12 months and is a quick reference to current annual volume trade

These columns compare the season to date trade in value (A\$million) and is a gauge on how the product or market is performing compared to same period last year by value and also compare to volume. The % column shows change to last year.

This column shows the total exports for the last 12 months and is a quick reference to current annual VALUE (A\$ million trade). The % share is to total trade

These columns compare the recorded \$ per kg season to date value to last year and the last 12 months – a litmus test since growers often rate a season on returns achieved per kg. The are recorded FOB figures and may not reflect prices paid to growers



Summerfruit exports by market volume and value – October to December 2012

Summerfruit												
Exports by product to date				Volume				Value				\$ per KG
	Volume KG (season to date)			MAT	MAT	Value \$ Million AUD (season to date)			MAT	MAT	Average price per KG	
	October to	October to	Change	Jan-12	Share	October to	October to	Change	Jan-12	Share	October to	October to
FRUIT Type	Dec-11	Dec-12	to LY	Dec-12	%	Dec-11	Dec-12	to LY	Dec-12	%	Dec-11	Dec-12
TOTAL SUMMERFRUIT	2,481,941	2,910,357	17%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36	2.96
Peach & Nectarines	2,016,130	2,521,723	25%	6,421,693	67%	6.53	7.19	10%	17.85	68%	3.24	2.85
Plums	202,789	80,938	-60%	2,760,655	29%	0.57	0.22	-62%	7.12	27%	2.81	2.68
Apricot	263,022	307,696	17%	346,567	4%	1.25	1.20	-4%	1.32	5%	4.74	3.91
TOTAL Summerfruit	2,481,941	2,910,357	17.3%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36	2.96
		30.5%					32.7%					2.76

source : ABS data, Fresh Intelligence analysis

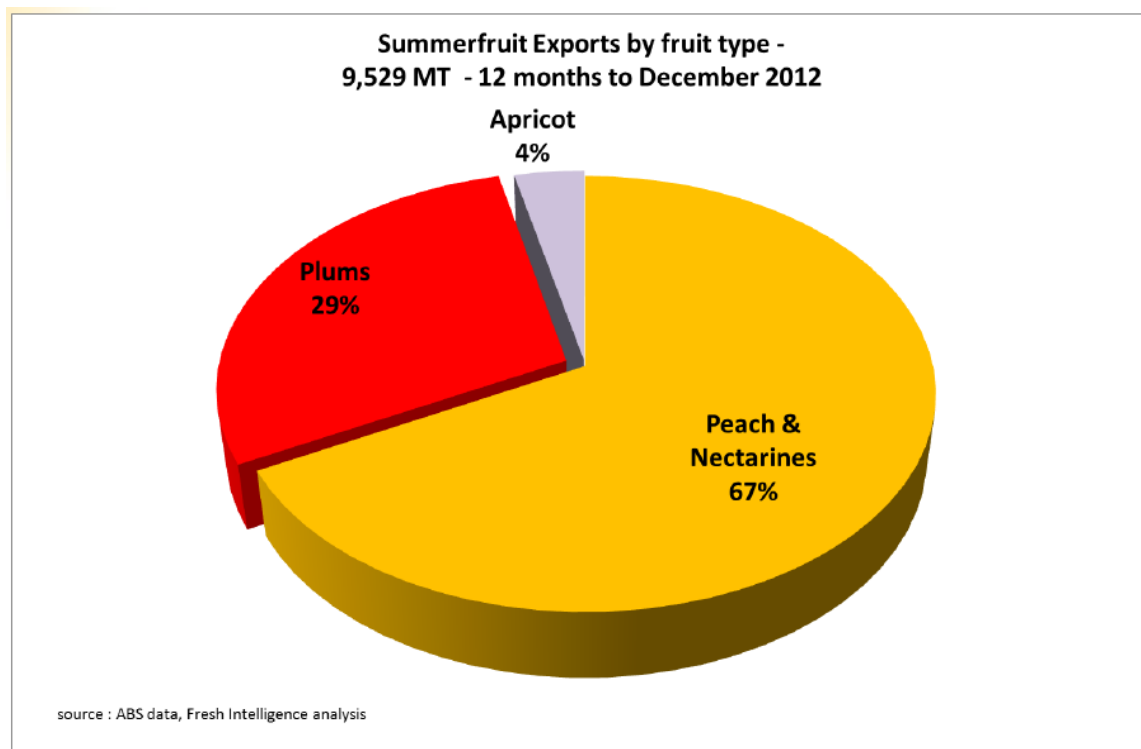
This data is funded from project MT1 2009

Key results – 2012/ 13 season to date (30.5% of 2012/13 season)

Volume	2910.4 MT	+ 17.3 %
Value	A\$8.61m	+ 3%
\$ per kg	\$2.96	- 41c (-12%)

LATEST ANNUAL SNAPSHOT

Over the past 12 months nectarines and peaches account for 67% of Summerfruit exports followed by plums (29%) and apricots (4%)





CURRENT SEASON INDICATORS

Summerfruit exports by state volume and value – October to December 2012

Victoria accounts for 72 per cent of Summerfruit exports on annual basis and is tracking 31 per cent of last season.

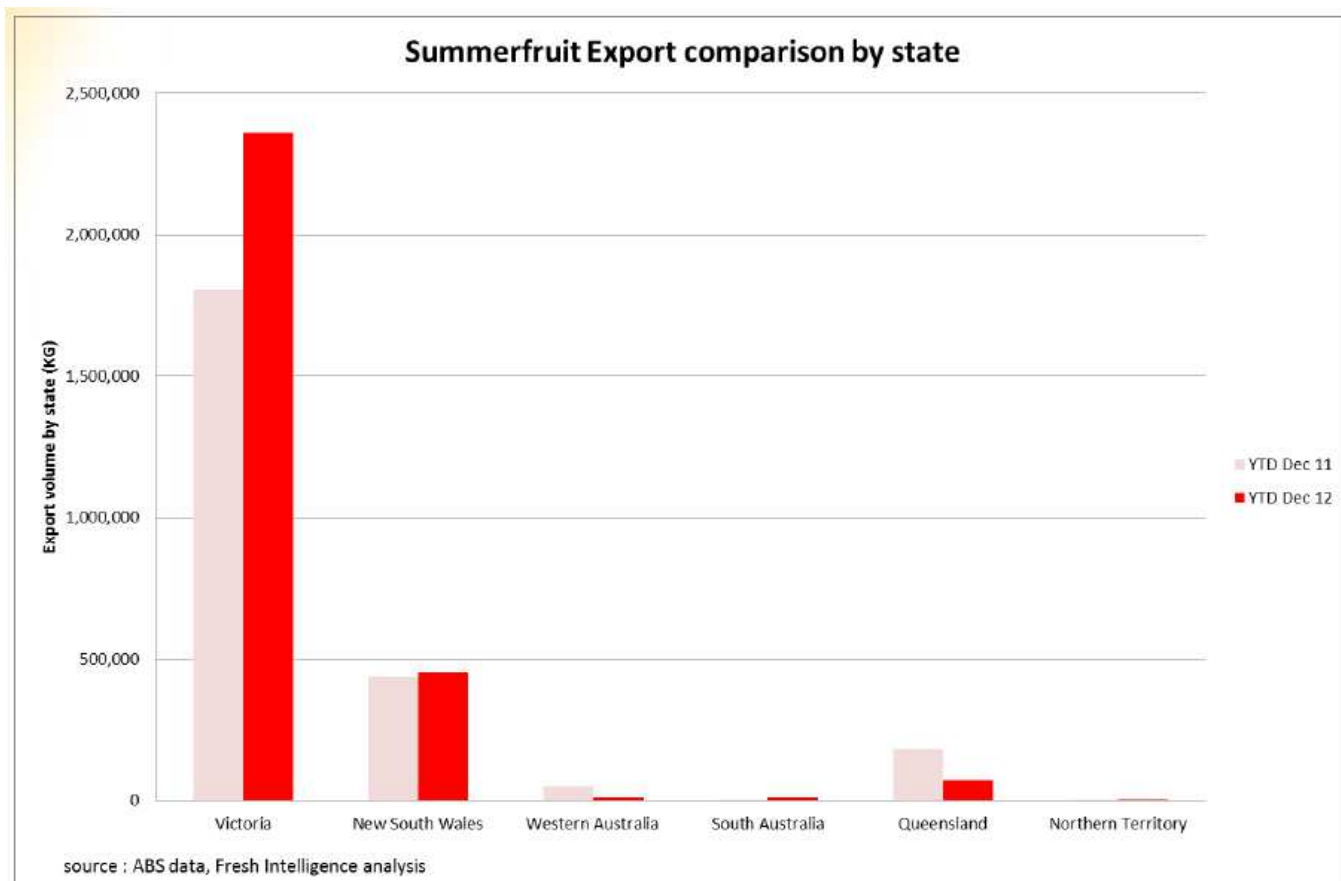
Summerfruit Exports by State		Volume			Value			\$ per KG					
	Volume KG (season to date)			MAT	MAT	Value \$ Million AUD (season to date)			MAT	MAT	Average price per KG		
	Octoberto Dec-11	Octoberto Dec-12	Change to LY	Jan-12 Dec-12	Share %	Octoberto Dec-11	Octoberto Dec-12	Change to LY	Jan-12 Dec-12	Share %	Octoberto Dec-11	Octoberto Dec-12	Jan-12 Dec-12
TOTAL SUMMERFRUIT	2,481,941	2,910,357	17%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36	2.96	2.76
						-	-		-				
Victoria	1,805,087	2,358,119	31%	6,847,590	72%	5.01	5.77	15%	17.41	66%	2.77	2.45	2.54
New South Wales	435,650	451,255	4%	1,385,262	15%	2.46	2.52	2%	5.86	22%	5.65	5.59	4.23
Western Australia	51,198	13,388	-74%	895,086	9%	0.13	0.03	-77%	1.71	7%	2.59	2.32	1.91
South Australia	4,930	12,939	162%	151,977	2%	0.04	0.05	41%	0.63	2%	7.37	3.97	4.12
Queensland	182,956	72,729	-60%	216,712	2%	0.70	0.22	-68%	0.61	2%	3.82	3.08	2.80
Northern Territory	2,121	1,027	-52%	3,027	0%	0.01	0.01	9%	0.01	0%	3.64	8.24	4.25
TOTAL Summerfruit	2,481,941	2,910,357	17.3%	9,528,914	100%	8.34	8.61	3%	26.29	100%	3.36	2.96	2.76
		30.5%					32.7%						
source : ABS data, Fresh Intelligence analysis			This data is funded from project MT1 2009										

source : ABS data, Fresh Intelligence analysis

This data is funded from project MT12009

CURRENT SEASON INDICATORS – SUMMERFRUIT BY STATE

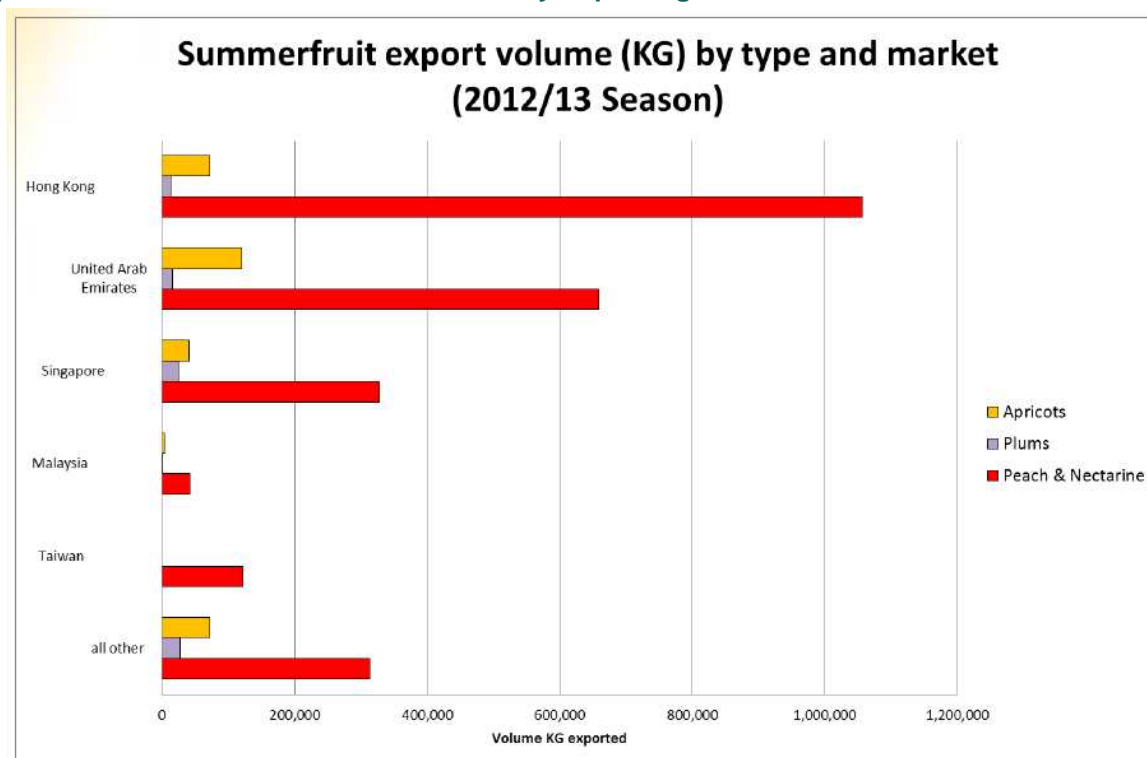
Victoria is the leading state and also the strongest growth driver.





CURRENT SEASON INDICATORS –

This chart shows the ratio of product type that vary by market for the season to date – December. Nectarine and Peaches dominate to date. UAE has a strong start and helped by being the main market for Apricots. No significant plum volumes to measure. Taiwan is only importing Peaches and Nectarines at this stage.



LONG TERM TREND ANALYSIS – SUMMERFRUIT TOTAL

Comparative data for calendar years shows marginal 1 per cent annual average decline over 5 years. Growth trends seen in UAE and also Russia off a low base. Hong Kong and Singapore is at best marginally growing not withstanding annual fluctuations. UK has had largest impact in recent years.

Rank	Country	January - December					Compound % annual growth
		2008	2009	2010	2011	2012	
1	Hong Kong	4,521,180	4,807,214	5,127,136	4,067,368	4,780,263	1%
2	United Arab Emirates	1,082,313	1,684,137	1,221,726	1,753,647	1,972,383	13%
3	Singapore	1,265,249	1,231,449	1,262,472	1,246,818	1,504,571	4%
4	United Kingdom	973,565	644,785	714,792	323,124	20,280	-54%
5	Malaysia	524,743	367,899	395,548	310,352	283,769	-12%
6	Saudi Arabia	392,684	228,455	77,837	116,031	108,166	-23%
7	Thailand	188,609	158,447	281,568	124,977	2,692	-10% to 2011
8	Taiwan	112,926	55,972	38,017	384,249	141,960	5%
9	Kuwait	154,758	184,433	112,705	114,751	124,443	-4%
10	New Caledonia	149,912	173,858	52,265	113,003	113,942	-5%
11	Qatar	111,074	146,433	75,061	46,066	85,343	-5%
12	Indonesia	76,419	108,255	52,660	81,097	51,494	-8%
13	Russia	5,375	59,740	41,281	64,672	81,967	72%
14	Vietnam	58,780	36,885	40,253	50,635	65,511	2%
15	India	96,335	50,804	41,773	28,397	18,756	-28%
	all other	386,473	290,487	188,390	125,945	173,374	-15%
TOTAL SUMMERFRUIT		10,100,395	10,229,253	9,723,484	8,951,132	9,528,914	-1%
			1%	-5%	-8%	6%	
Source of Data: Australian Bureau of Statistics, Fresh Intelligence Analysis							
This data is funded by Horticulture Australia MT12009							



CURRENT SEASON INDICATORS –

Nectarine and Peach exports by market are ahead of last year by volume though value is not as strong. Good growth for Hong Kong, UAE and Singapore. Vietnam has strong growth off a small base – 2521 MT shipped, 25.1% ahead last year for 39.3% of the season.

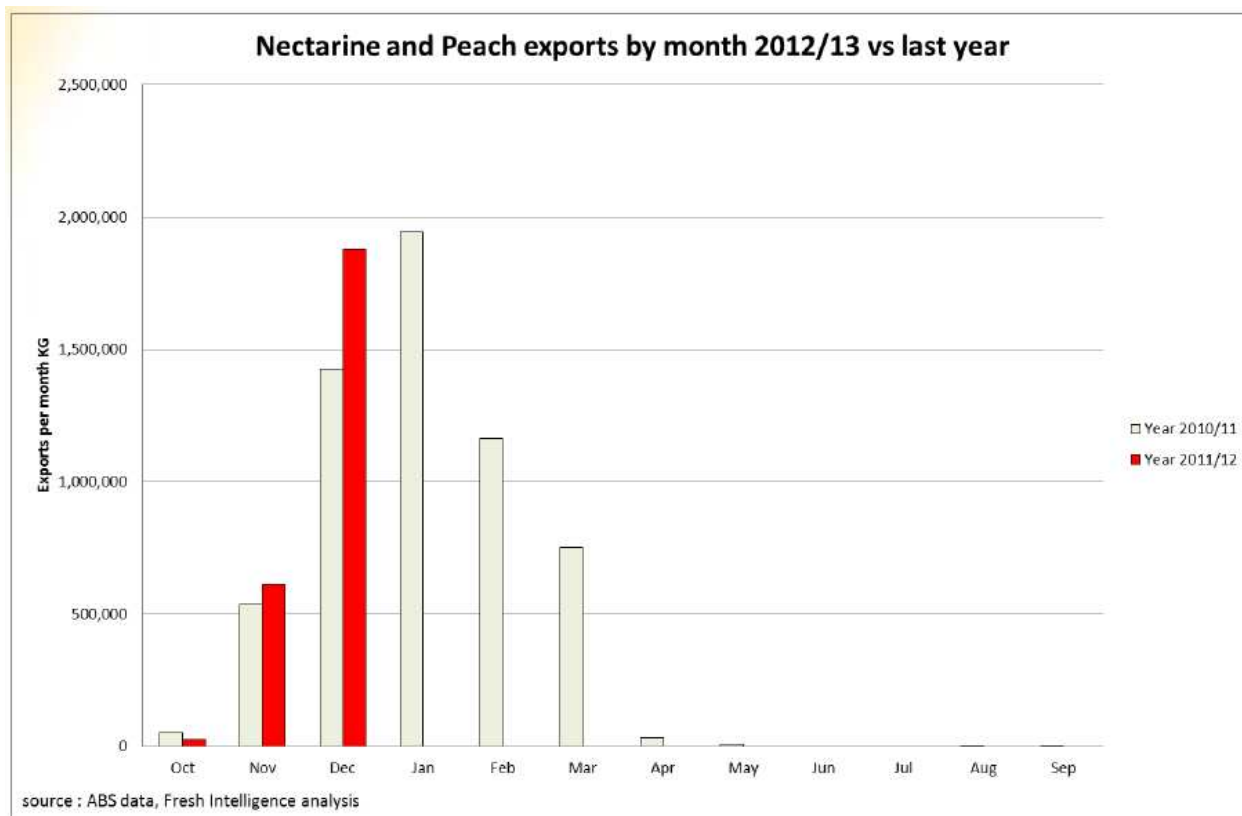
Nectarine & Peaches														
Exports by Season to date														
	Volume KG (season to date)			MAT		Value \$ Million AUD (season to date)			MAT		Average price per KG			
	Octoberto	Octoberto	Change	Jan-12	Share	Octoberto	Octoberto	Change	Jan-12	Share	Octoberto	Octoberto	Jan-12	
Country	-	Dec-11	Dec-12	to LY	Dec-12 %	Dec-11	Dec-12	to LY	Dec-12 %		Dec-11	Dec-12	Dec-12	
TOTAL NECT & PEACH		2,016,130	2,521,723	25%	6,421,693	100%	6.53	7.19	10%	17.85	100%	3.24	2.85	2.78
Hong Kong		832,497	1,057,007	27%	3,143,498	49%	2.22	2.54	14%	7.73	43%	2.66	2.40	2.46
United Arab Emirates		463,640	659,421	42%	1,607,327	25%	2.00	2.44	22%	5.36	30%	4.32	3.70	3.33
Singapore		250,731	328,237	31%	813,979	13%	0.65	0.78	21%	2.13	12%	2.58	2.38	2.61
Malaysia		40,478	41,342	2%	146,755	2%	0.11	0.14	26%	0.57	3%	2.80	3.46	3.86
Russia		36,239	39,249	8%	61,825	1%	0.18	0.20	7%	0.29	2%	5.10	5.02	4.70
Taiwan		141,960	121,680	-14%	141,960	2%	0.36	0.24	-33%	0.29	2%	2.53	1.98	2.02
New Caledonia		51,034	44,758	-12%	88,782	1%	0.18	0.11	-36%	0.21	1%	3.44	2.52	2.33
Kuwait		40,241	47,035	17%	91,880	1%	0.10	0.12	14%	0.21	1%	2.56	2.49	2.25
Qatar		22,625	41,470	83%	71,608	1%	0.06	0.11	81%	0.18	1%	2.65	2.61	2.46
Vietnam		4,935	24,289	392%	49,118	1%	0.02	0.06	171%	0.17	1%	4.61	2.54	3.43
Saudi Arabia		46,120	52,726	14%	77,266	1%	0.10	0.11	17%	0.15	1%	2.09	2.15	1.99
France		19,656	14,188	-28%	20,416	0%	0.14	0.11	-22%	0.14	1%	7.04	7.64	7.05
Canada		4,200	5,882	40%	19,702	0%	0.02	0.03	100%	0.09	1%	4.02	5.76	4.73
Bahrain		3,648	15,565	327%	23,857	0%	0.01	0.06	483%	0.08	0%	2.89	3.95	3.38
Indonesia		11,344	2,650	-77%	20,310	0%	0.05	0.01	-89%	0.07	0%	4.67	2.10	3.58
all other		46,782	26,224	-44%	43,410	1%	0.33	0.12	-62%	0.18	1%	6.96	4.73	4.21
TOTAL Nectarines / Peach		2,016,130	2,521,723	25.1%	6,421,693	100%	6.53	7.19	10%	17.85	100%	3.24	2.85	2.78
			39.3%					40.3%						
source : ABS data, Fresh Intelligence analysis														
This data is funded from project MTI12009														

source : ABS data, Fresh Intelligence analysis

This data is funded from project MT1.2009

CURRENT SEASON INDICATORS

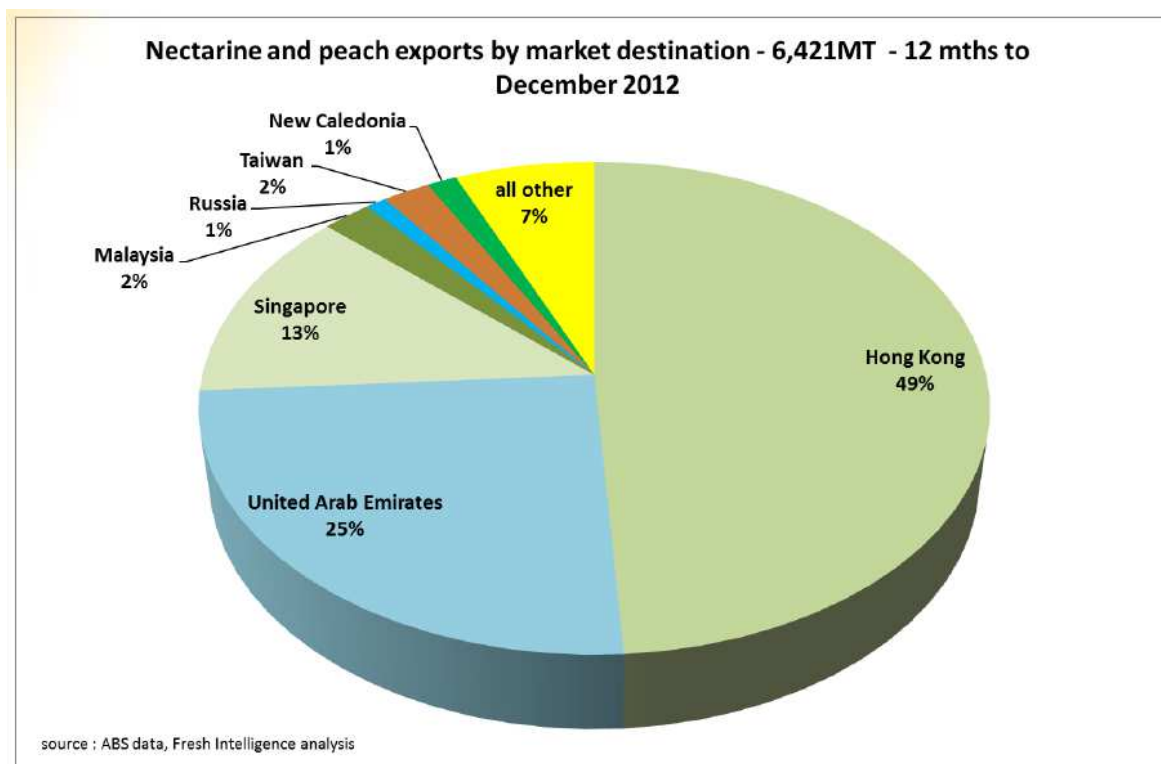
NECTARINE & PEACH exports in December were stronger than last year by volume.





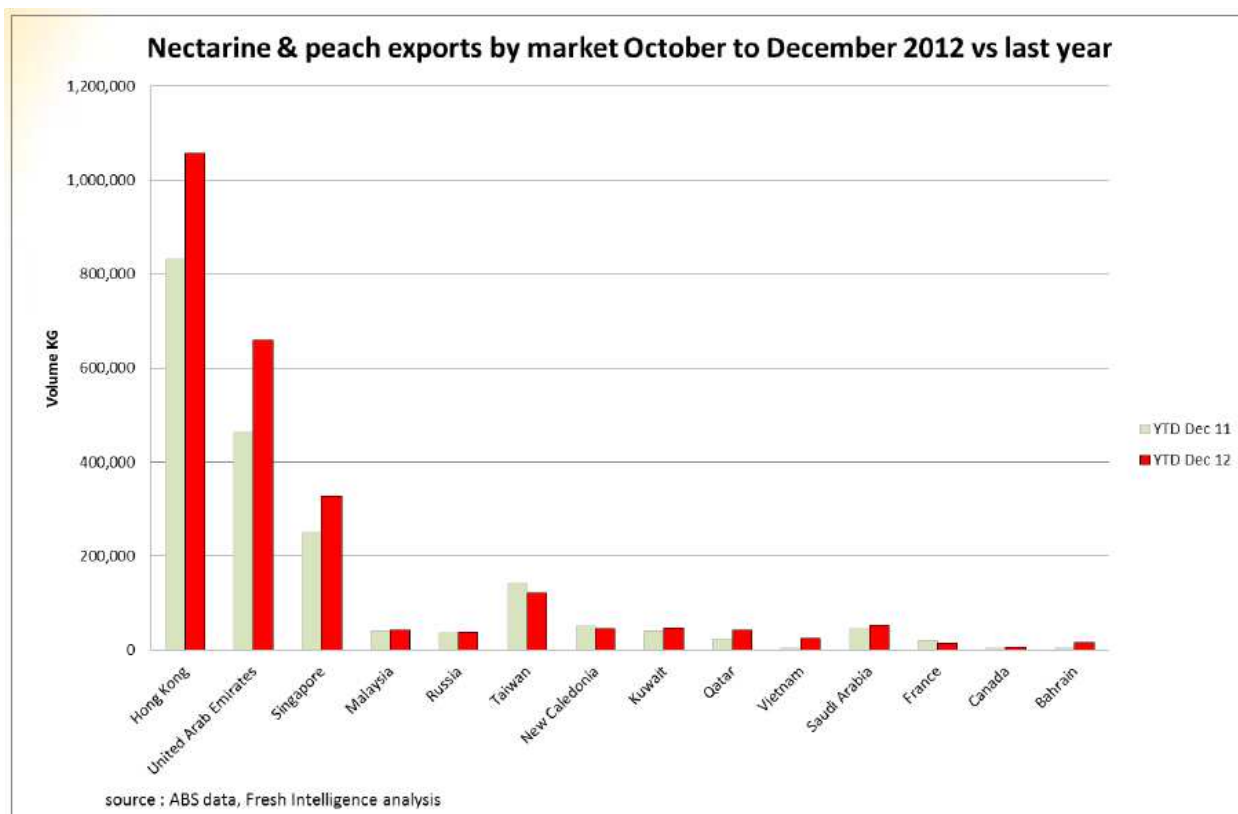
ANNUAL SNAPSHOT

NECTARINE & PEACH - exports (12 months) dominated by Hong Kong, UAE and Singapore, combined these markets accounted for 86 per cent of export trade.



CURRENT SEASON INDICATORS

NECTARINE & PEACHES – In the first 3 months, Hong Kong is the leading market followed by UAE and Singapore accounting for 81 per cent of trade.





LONG TERM TREND ANALYSIS

NECTARINE & PEACHES

Comparative data for calendar years shows 3% compound average annual growth with UAE the main leader. Hong Kong and Singapore are contributing to growth. Russia has highest growth off a small base.

080930 Peach, Incl Nectarin							
Quantity KG							
January - December							
Rank	Country -	2008	2009	2010	2011	2012	Compound % annual growth
1	Hong Kong	2,890,568	3,069,284	3,118,688	2,220,422	3,143,498	2%
2	United Arab Emirates	747,487	1,233,721	903,566	1,068,904	1,607,327	17%
3	Singapore	595,414	613,514	562,569	635,328	813,979	6%
4	Malaysia	218,616	199,013	165,125	144,330	146,755	-8%
5	Taiwan	112,926	55,972	38,017	384,249	141,960	5%
6	Saudi Arabia	298,578	173,911	56,208	88,382	77,266	-24%
7	Kuwait	97,151	157,931	96,830	69,351	91,880	-1%
8	Thailand	88,309	88,366	207,723	68,200	2,122	-6% to 2011
9	New Caledonia	91,969	106,243	39,203	81,603	88,782	-1%
10	Qatar	83,591	98,800	65,645	30,899	71,608	-3%
11	United Kingdom	167,095	33,085	4,992	37,044	-	-100%
12	Russia	3,505	53,485	38,427	51,966	61,824	78%
13	France	35,278	40,939	31,320	28,049	20,416	-10%
14	Canada	56,050	42,025	24,351	10,049	19,702	-19%
15	Vietnam	13,355	23,393	21,413	28,896	49,118	30%
15	all other	159,370	148,664	84,238	66,496	85,456	-12%
TOTAL	NECTARINE & PEACHES KG	5,659,262	6,138,346	5,458,315	5,014,168	6,421,693	3%
			8%	-11%	-8%	28%	

CURRENT SEASON INDICATORS

PLUM exports by market volume and value.

Plums exports look very poor in early stages of season 80 MT exported, 60% below last year for 3% of season.

(CAUTION: EARLY FOR MEANINGFUL DATA)

Plums													
Exports by Season to date													
	Volume KG (season to date)			MAT	MAT	Value \$ Million AUD (season to date)			MAT	MAT	Average price per KG		
Country -	October to Nov-11	October to Nov-12	Change to LY	Dec-11 Nov-12	Share %	October to Nov-11	October to Nov-12	Change to LY	Dec-11 Nov-12	Share %	October to Nov-11	October to Nov-12	Dec-11 Nov-12
TOTAL PLUMS	202,789	80,938	-60%	2,760,655	100%	0.57	0.22	-62%	7.12	100%	2.81	2.68	2.58
Hong Kong	73,105	12,830	-82%	1,554,106	56%	0.22	0.03	-85%	4.50	63%	3.00	2.61	2.89
Singapore	34,548	24,920	-28%	649,179	24%	0.08	0.07	-11%	1.55	22%	2.33	2.89	2.38
United Arab Emirates	43,344	15,825	-63%	243,005	9%	0.10	0.03	-74%	0.27	4%	2.31	1.62	1.11
Malaysia	4,000	66	-98%	132,485	5%	0.01	0.00	-99%	0.25	3%	3.30	2.70	1.86
Indonesia	5,635	840	-85%	30,799	1%	0.02	0.00	-93%	0.12	2%	4.23	2.00	3.77
Thailand	16,742	0	-100%	-	0%	0.06	-	-100%	-	0%	3.86	-	-
Kuwait	10,520	13,777	31%	24,212	1%	0.02	0.04	108%	0.06	1%	1.92	3.06	2.63
Vietnam	0	480	-	15,788	1%	-	0.00	-	0.06	1%	-	1.20	3.76
United Kingdom	0	0	-	20,280	1%	-	-	-	0.05	1%	-	-	2.48
Russia	150	0	-100%	13,033	0%	0.00	-	-100%	0.05	1%	2.22	-	3.80
New Caledonia	3,860	5,355	39%	19,175	1%	0.01	0.02	31%	0.05	1%	3.62	3.43	2.45
all other	10,885	6,845	-37%	58,593	2%	0.03	0.02	-31%	0.17	2%	3.06	3.36	2.95
TOTAL Plums	202,789	80,938	-60.1%	2,760,655	100%	0.57	0.22	-62%	7.12	100%	2.81	2.68	2.58
		2.9%					3.0%						
source : ABS data, Fresh Intelligence analysis				This data is funded from project MTI 2009									

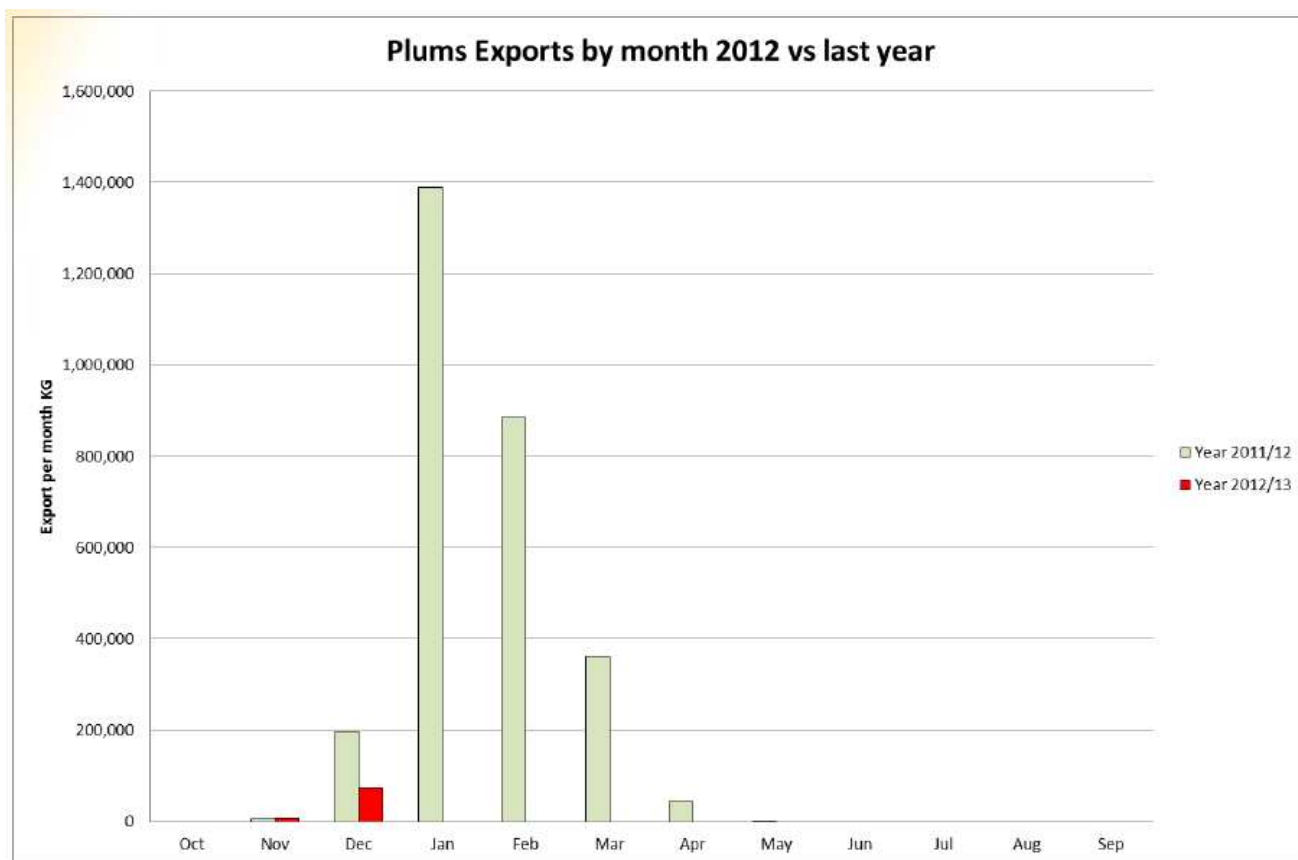
source : ABS data, Fresh Intelligence analysis

This data is funded from project MT1 2009



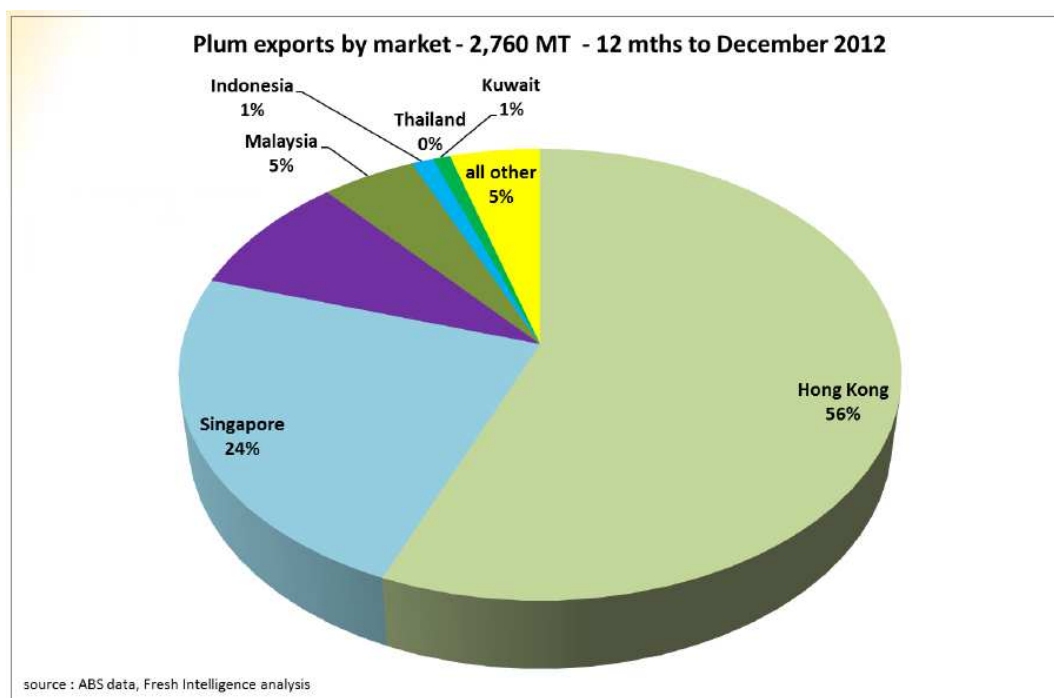
CURRENT SEASON INDICATORS

PLUM exports should peak in January. December exports were low compared to previous year albeit traditionally low volumes. Hong Kong is pulling results down, also Thailand is closed.



ANNUAL SNAPSHOT

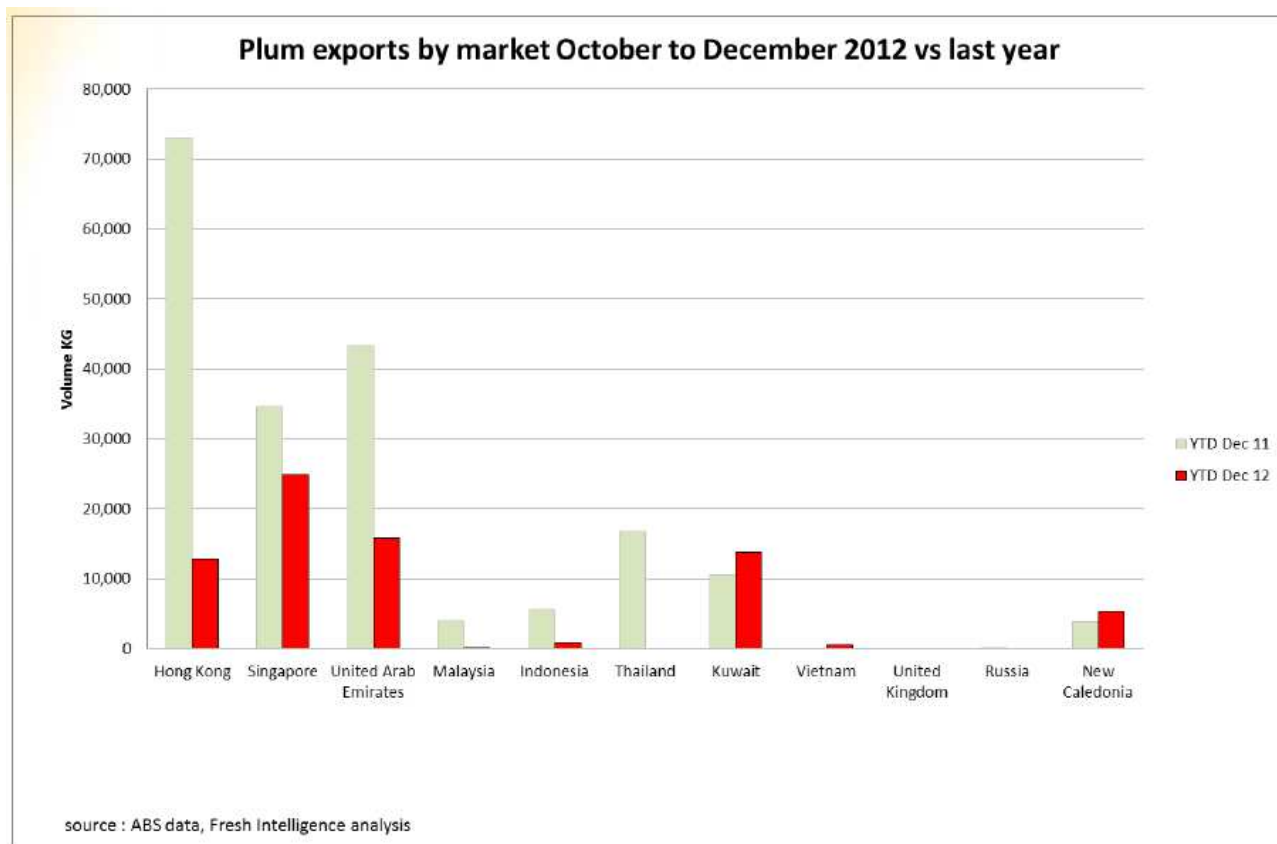
PLUMS – Hong Kong, Singapore, and UAE are the main drivers accounting for 88% of plum exports over last 12 months.





CURRENT SEASON INDICATORS

PLUM exports results are low compared to last year for Hong Kong and UAE although early in season to predict this will be the trend. Thailand is closed.



LONG TERM TREND ANALYSIS

PLUMS – 5 Year Trends – Annual Trade – Comparative data for calendar years shows Hong Kong and Singapore lead with no growth, United Kingdom is largest contributor to decline and all other markets decline at varying rates. Overall plums are declining on average 8 per cent per year.

		Australia - Exports 080940 Plums Quantity January - December					Compound % annual growth
Rank	Country	2008	2009	2010	2011	2012	
1	Hong Kong	1,587,277	1,704,735	1,924,063	1,714,647	1,554,106	0%
2	Singapore	663,331	617,427	691,583	591,127	649,179	0%
3	United Kingdom	806,470	608,400	709,800	286,080	20,280	-52%
4	United Arab Emirates	213,482	334,848	252,327	476,697	243,005	3%
5	Malaysia	303,829	165,834	225,773	161,827	132,485	-15%
6	Thailand	98,570	68,017	68,387	54,561	0	-14% to 2011
7	Indonesia	57,390	78,724	25,010	52,344	30,799	-12%
8	India	84,453	39,165	34,856	18,570	8,206	-37%
9	New Caledonia	56,428	62,431	12,412	23,440	19,175	-19%
10	Kuwait	50972	22,992	14,700	39,520	24,212	-14%
11	Vietnam	45,150	13,049	18,730	21,057	15,788	-19%
12	Saudi Arabia	67,934	17040	5,880	11,089	7,925	-35%
13	Qatar	21,696	33,604	7,556	13,047	5,405	-24%
14	Bahrain	29,811	20,034	4,329	755	3,211	-36%
15	Sri Lanka	8,800	7,800	12,480	9,360	6,240	-7%
	all other	91,926	44,662	47,127	20,766	40,638	-15%
	TOTAL PLUMS KG	4,187,519	3,838,762	4,055,013	3,494,887	2,760,654	-8%
			-8%	6%	-14%	-21%	
Source of Data: Australian Bureau of Statistics, Fresh Intelligence Analysis							
This data is funded by Horticulture Australia MT12009							



APRICOT – Exports by market volume and value

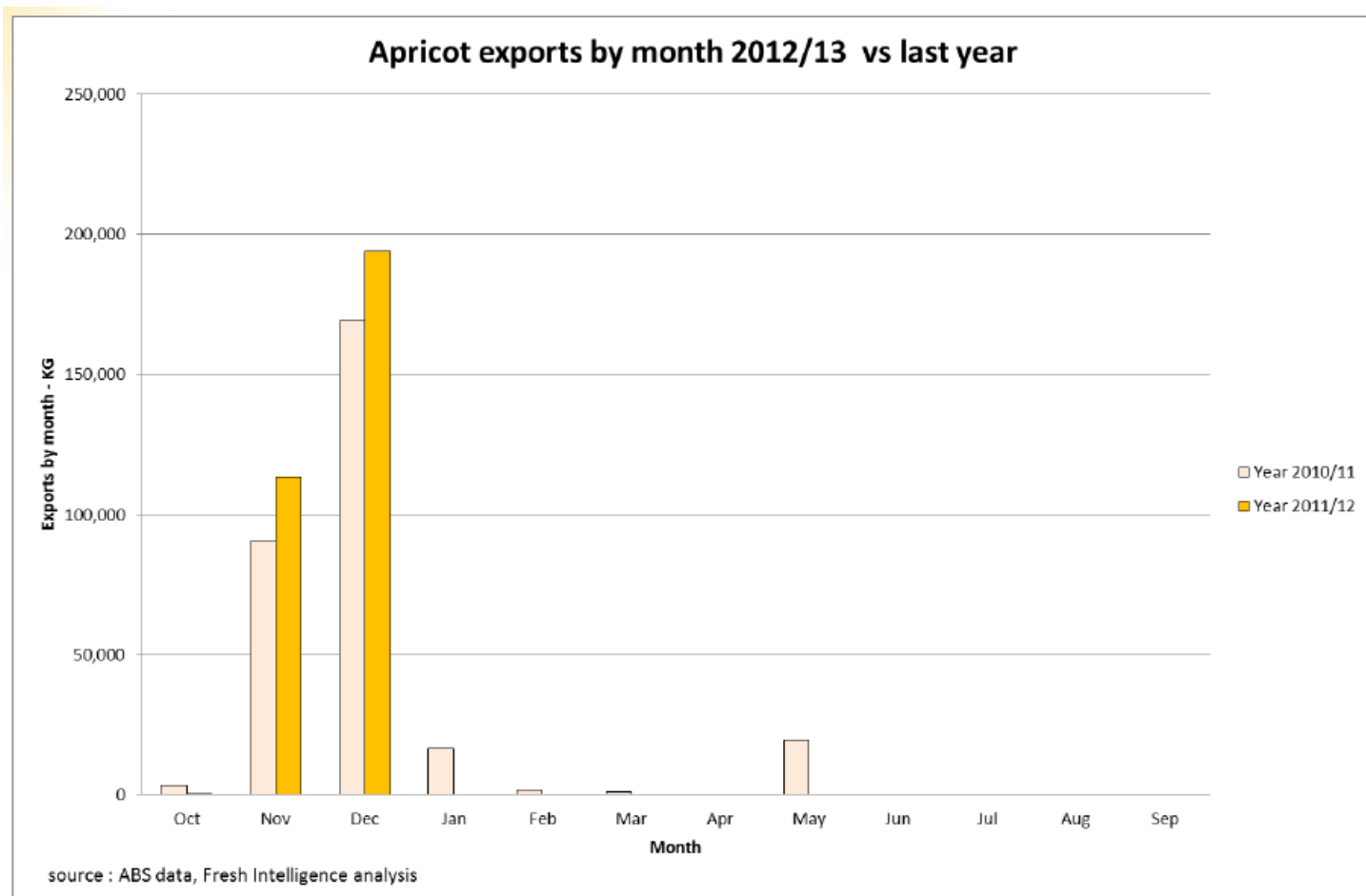
Volume growth has been driven from Singapore while UAE is the leading destination with low growth and Hong Kong dipped 14 per cent Volume is 307 MT, which is 17% ahead for 88% of season

Apricots													
Exports by Season to date		Volume				Value				\$ per KG			
	Volume KG (season to date)			MAT		Value \$ Million AUD (season to date)			MAT		Average price per KG		
Country	October to Dec-11	October to Dec-12	Change to LY	Jan-12 Dec-12	Share %	October to Dec-11	October to Dec-12	Change to LY	Jan-12 Dec-12	Share %	October to Dec-11	October to Dec-12	Jan-12 Dec-12
APRICOTS	263,022	307,696	17%	346,567	100%	1.25	1.20	-4%	1.32	100%	4.74	3.91	3.82
United Arab Emirates	116,790	119,309	2%	122,051	35%	0.69	0.58	-16%	0.60	45%	5.94	4.88	4.93
Hong Kong	83,801	71,764	-14%	82,659	24%	0.23	0.18	-21%	0.21	16%	2.76	2.55	2.52
Singapore	8,144	40,954	403%	41,414	12%	0.03	0.11	326%	0.12	9%	3.30	2.80	2.84
France	6,545	5,806	-11%	5,806	2%	0.06	0.05	-2%	0.05	4%	8.52	8.20	8.20
Saudi Arabia	14,720	21,455	46%	22,975	7%	0.05	0.05	-2%	0.06	5%	3.64	2.44	2.60
Netherlands	1,918	6,005	213%	6,005	2%	0.02	0.05	135%	0.05	4%	11.19	8.40	8.40
Russia	8,148	5,878	-28%	7,111	2%	0.04	0.03	-21%	0.04	3%	4.75	5.17	5.26
New Zealand	0	0		19,500	6%	-	-		0.05	4%			2.41
Bahrain	2,484	3,501	41%	3,601	1%	0.02	0.02	27%	0.02	2%	6.98	6.27	6.24
Kuwait	5,130	8,015	56%	8,351	2%	0.01	0.03	99%	0.03	2%	2.58	3.28	3.32
New Caledonia	4,230	5,935	40%	5,985	2%	0.02	0.01	-33%	0.01	1%	4.70	2.25	2.30
all other	11,112	19,074	72%	21,109	6%	0.08	0.08	5%	0.09	7%	6.81	4.17	4.25
TOTAL Apricots	263,022	307,696	17.0%	346,567	100%	1.25	1.20	-4%	1.32	100%	4.74	3.91	3.82
		88.8%					90.8%						
source : ABS data, Fresh Intelligence analysis			This data is funded from project MT12009										

source : ABS data, Fresh Intelligence analysis

This data is funded from project MT12009

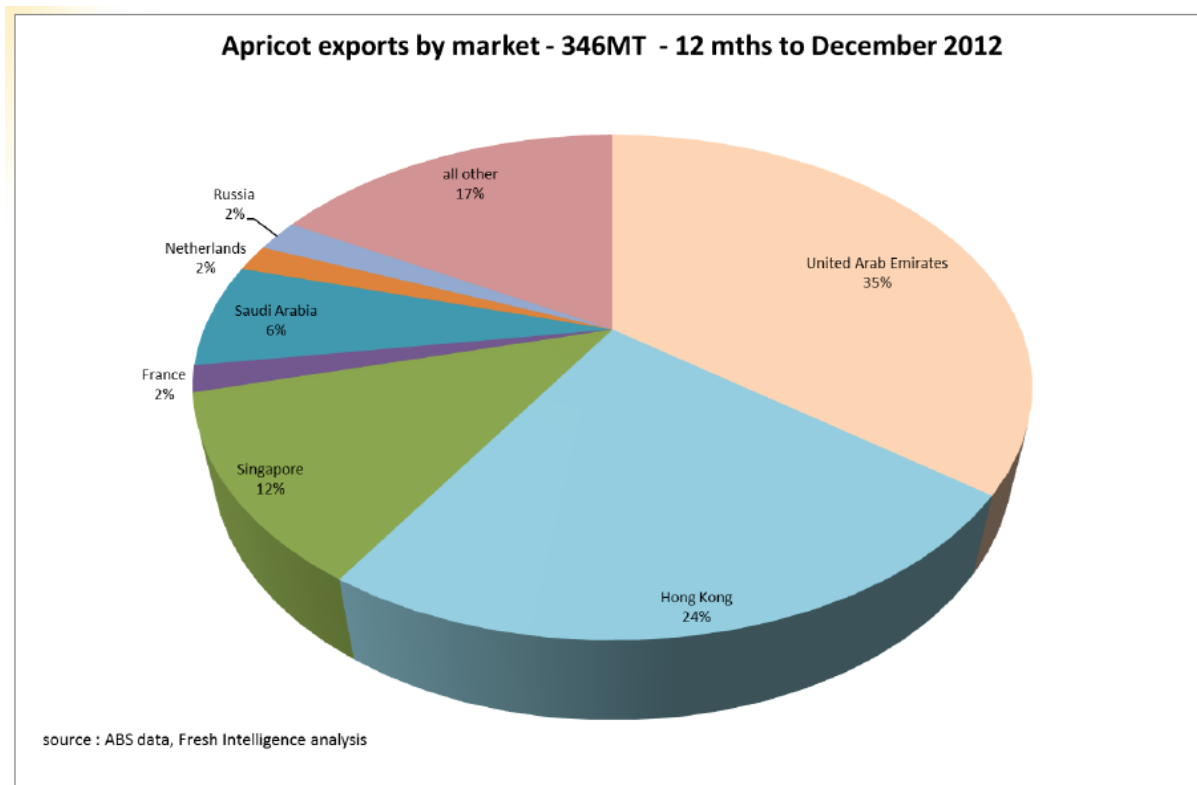
APRICOT – Exports by month vs last year showed a 17 per cent increase for the season to date.





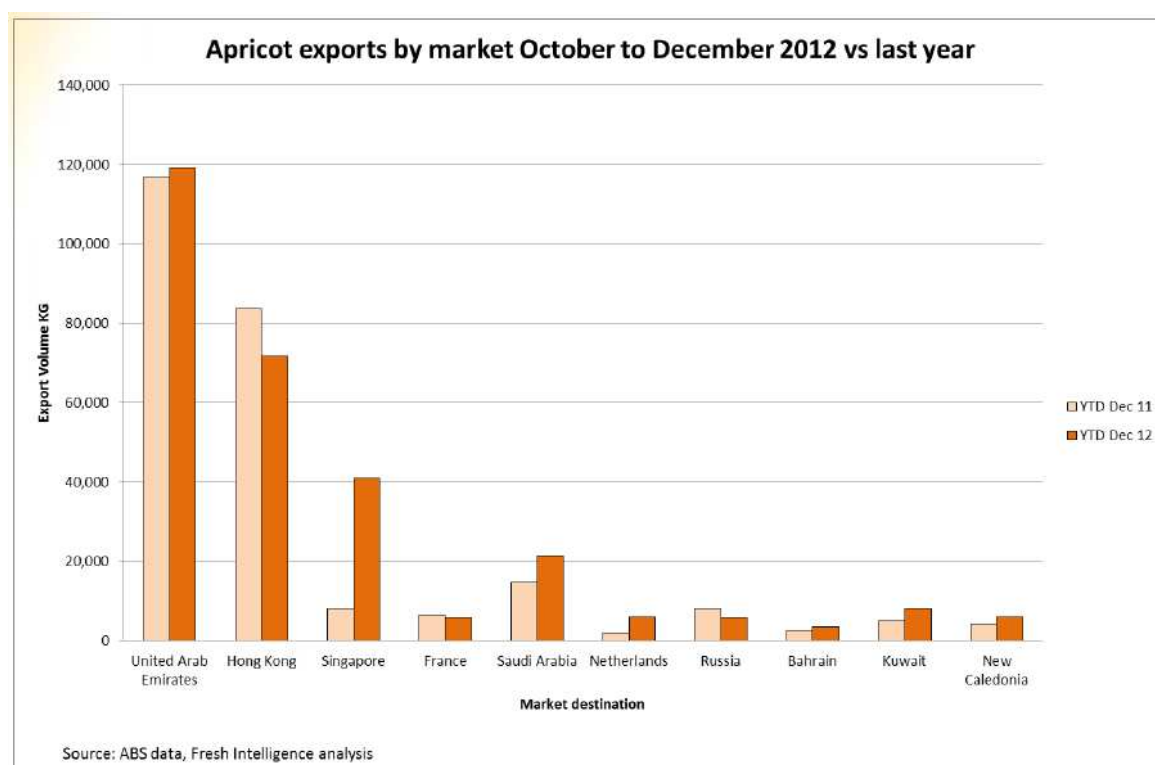
ANNUAL SNAPSHOT

APRICOT – UAE and Hong Kong are the main drivers accounting for 59% of apricot exports while Singapore has increased.



CURRENT SEASON INDICATORS

APRICOT exports are leading market while Singapore has increased significantly.





LONG TERM TREND ANALYSIS

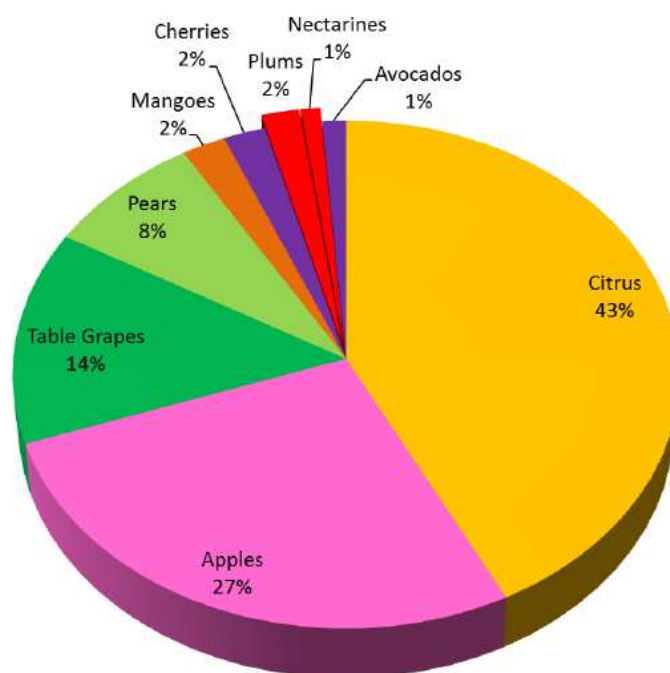
APRICOTS - 5 year trends – Comparative trade for last 5 years calendar years.

			Australia - Exports					
			080910 Apricots					
			Quantity					
			January - December					Compound %
Rank	Country	2008	KG Oct08-Feb09	KG Oct09-Feb10	KG Oct10-Feb11	KG Oct11-Feb12		annual growth
1	United Arab Emirates	121,344	115,568	65,833	208,046	122,051		0%
2	Hong Kong	43,335	33,195	84,385	132,299	82,659		14%
3	Saudi Arabia	26,172	37,504	15,749	16,560	22,975		-3%
4	Singapore	6,504	508	8,320	20,363	41,414		45%
5	France	8,041	13653	10,035	6,553	5806		-6%
6	Qatar	5,787	14,029	1,860	2,120	8,330		8%
7	Netherlands	14,810	3,149	2,520	2,828	6,005		-17%
8	Kuwait	6,635	3,510	1,175	5,880	8,351		5%
9	Russia	1870	4261	2389	8,283	7,111		31%
10	New Caledonia	1,515	5,184	650	7,960	5,985		32%
11	Malaysia	2298	3053	4650	4195	4530		15%
12	Bahrain	4210	3340	901	3009	3601		-3%
13	Thailand	1730	2064	5458	2216	570		-20%
14	Turkey	0	0	0	8996	0		
15	Canada	0	1586	1086	5410	0		
	all other	9,363	11,541	5,146	7,360	27,179		24%
TOTAL	APRICOTS KG	253,614	252,145	210,157	442,078	346,567		6%
			-1%	-17%	110%	-22%		
Source of Data:Australian Bureau of Statistics, Fresh Intelligence Analysis								
This data is funded by Horticulture Australia MT12009								

ASIAN INSIGHTS

Summerfruit accounted for just 3% of all fruit imported to Asia in 2011 – citrus, apples and table grapes are the main fruits imported.

Share of Fruit imported to Asia in 2011 (excl Bananas)

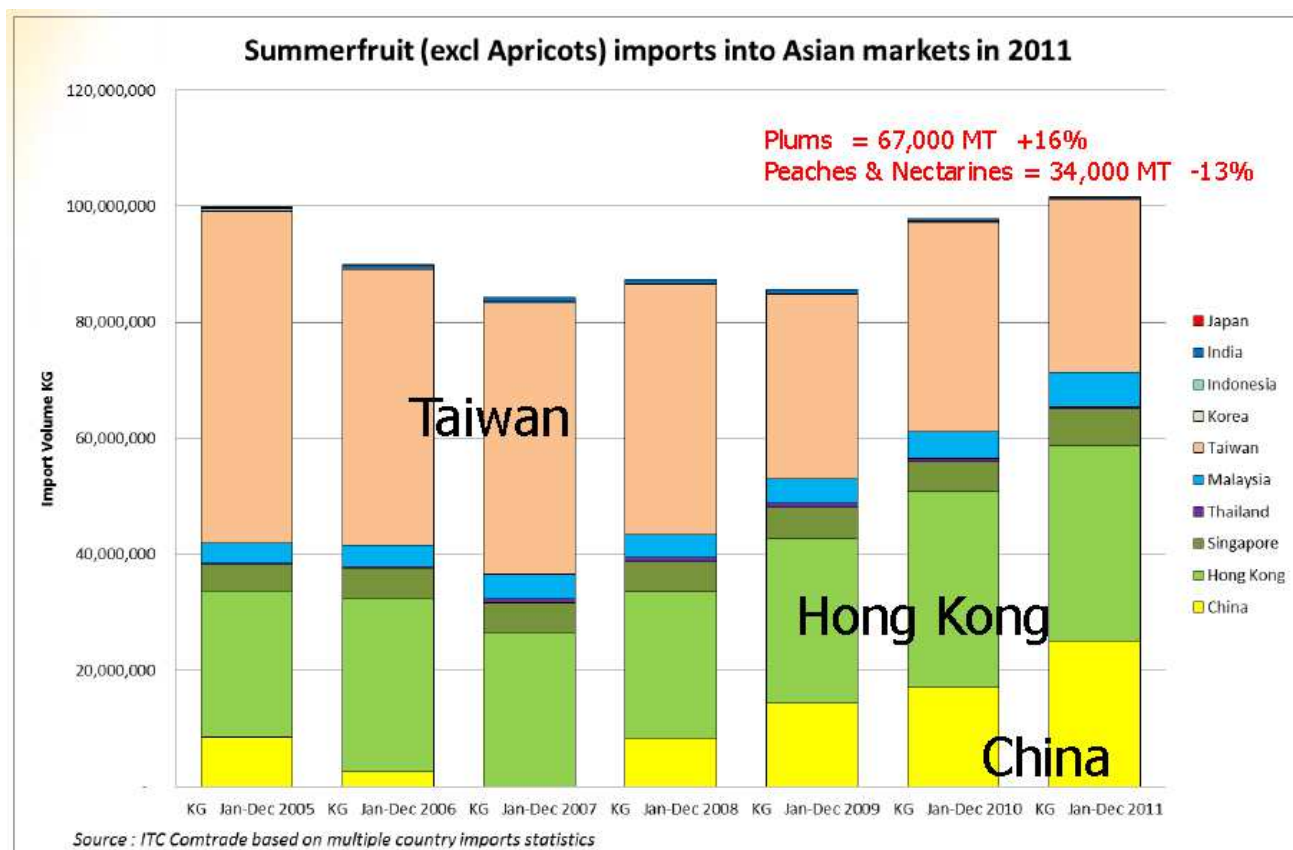


Source : SHAFTE data



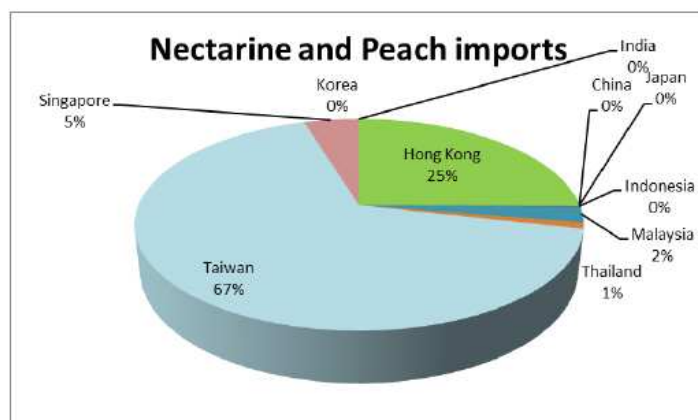
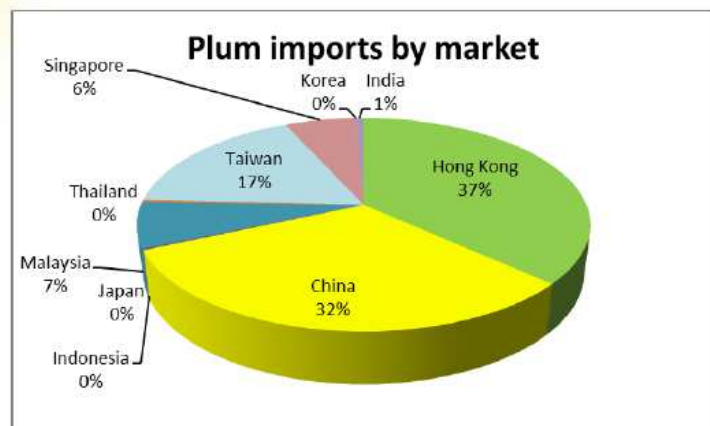
ASI AN I NSI GHTS

There were 101,000 metric tonnes (MT) of peaches, nectarines and plums imported to Asia in 2011 from all sources – Australia accounted for 6,200 MT or 6% of these imports. China (plums only) Hong Kong and Taiwan are the volume markets.



ASI AN I NSI GHTS

Summerfruit is not evenly distributed – In 2011 Taiwan was the largest Nectarine market while Hong Kong and China takes most of the plums.



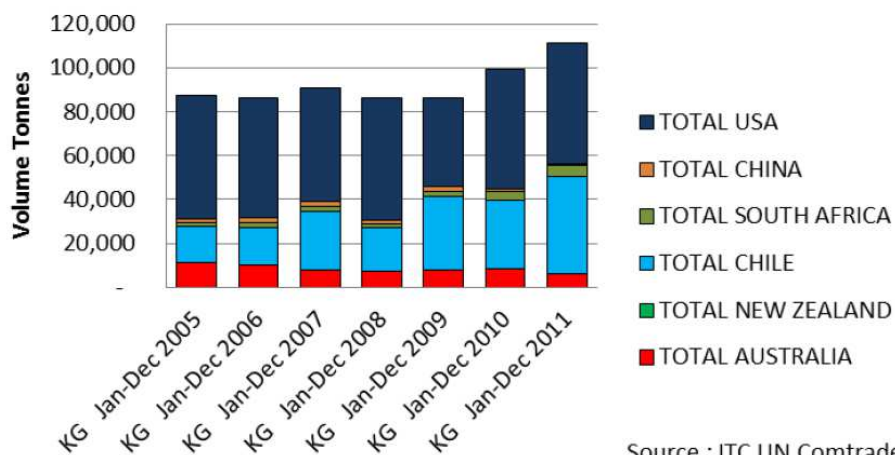
Source: World Trade Atlas, Fresh Intelligence Analysis



ASIAN INSIGHTS

Summerfruit suppliers to Asia are dominated by Chile in southern season and USA in northern season. Australia supplied 6 per cent of the total Summerfruit in 2011 compared to 13% in 2005.

Summerfruit supplier growth to Asia

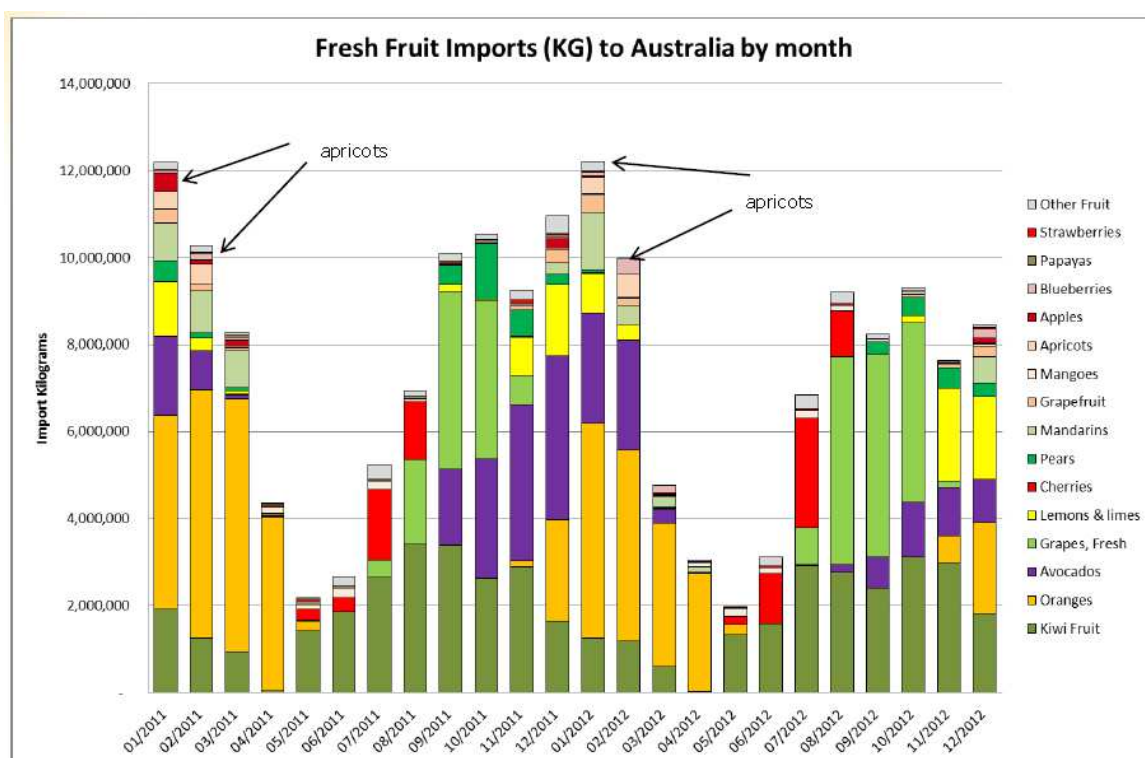


Source : ITC UN Comtrade

AUSTRALIAN IMPORTS

Fresh Fruit Imports to Australia by month.

Summerfruit imported 850 MT of apricots in January – March period last year and 939 MT apricots in Jan – Feb 2012.



For more information - Wayne Prowse - *Fresh Intelligence Consulting*

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This report is intended for use by the Australian Summerfruit industry to assist in understanding and measuring export performance

The information is provided as part of MT12009 Export Market Intelligence project.

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