

In A Nutshell

Winter/ Spring 2018

2018 Australian Almond Conference Program and sponsors

**Select Harvests enter agreement
with Pepsico - Greater China region**

**Two new methods for measuring
almond kernel moisture content**

**5 minutes with...
Abigail Quirke**

Administration and Compliance Officer, ABA

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FOR FURTHER INFORMATION, CONTACT YOUR HAIFA TEAM

Trevor Dennis, Managing Director
E: trevor.dennis@haifa-group.com

M: 0400 119 852

Jon Corona, Agronomist
E: jon.corona@haifa-group.com

M: 0408 568 605

Peter Anderson, Qld Sales Agronomist
E: peter.anderson@haifa-group.com

M: 0459 488 850

Jason Teng, Customer Service/Logistics
E: jason.teng@haifa-group.com

M: 0488 036 528

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Years of Growth





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The Official Newsletter of the Australian Almond Industry

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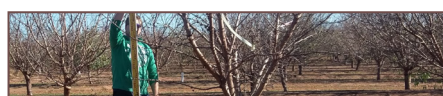
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In A Nutshell

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1801 Bookpurnong Road , PO Box 1507, LOXTON SA 5333
+61 8 8584 7053 admin@australianalmonds.com.au www.australianalmonds.com.au

The Almond Board of Australia is the peak industry body representing the interest of almond growers, processors and marketers in Australia. In a Nutshell is published by the ABA to bring news to all industry contacts and members.

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australian
almonds

ALMOND BOARD OF AUSTRALIA

ABA Membership Why become a member?

The ABA is the peak representative body for the Australian almond industry and as such addresses many issues that impact on all participants in the industry including growers, processors and marketers and those that supply inputs. These impacts can be positives such as free trade agreements or promotion to stimulate demand and hence prices or they can involve minimising negative situations such as food safety issues, market access problems, chemical registrations etc.

The ABA develops and drives the implementation of the Australian industry's strategic plan which is done to benefit all producers and other industry participants. The strategies involve building domestic and export markets, the key to strong grower returns, addressing a wide range of risks from the availability of production inputs to government policies that impact on costs and yields. These matters effect on the bottom lines of almond enterprises. The ABA's whole of industry strategies have been successful and have worked to ensure the large increases in production have been cleared.

The ABA operates a number of activities that support industry and generate revenue to fund its operations and keep membership fees at a low and affordable cost. Being an ABA member provides crucial support for your industry body that we need and appreciate. A strong membership base provides added force in our representation of industry to government and in the wider community.

Join the ABA today, in the knowledge you are assisting the industry and yourself to move forward as Australia's most valuable horticultural industry.

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Exec U

Varroa Destructor, the mite that attacks European honey bees, arrived in Australia at the Port of Melbourne recently but it is being treated as an interception rather than an incursion. The diligence of the ship's crew and Victoria's biosecurity staff appears to have successfully contained and eliminated the bees that were carrying a small number of mites.

The monitoring of sentinel hives at the port and sweeps of the area continued after the mop up to ensure the eradication was complete. This event as an interception and not an incursion will not lead to the industry having to contribute to a cost sharing arrangement for the eradication program as has been the case with the Varroa Jacobsoni incursion in Townsville a couple of years ago.

The timing of the Port of Melbourne interception advice was interesting. The Australian Bee Congress had just got underway with around 800 honey bee industry stakeholders in attendance including the Chair and CEO of the ABA as we had been invited to attend and present on what the growth in the Australian almond industry meant for bee keepers in terms of delivering pollination services. The interaction between the ABA and the Australian Honey Bee Industry Council on the issue was excellent and thanks is given to Ian Zadow for his efforts in liaising with us. Ian, as a member of the ABA's Pollination Committee, knows the threat posed to the almond industry by Varroa in terms of hive health and hive

numbers together with the implications of restrictions on hive movement that might occur should an incursion spread.

The winter timing of the first case of Varroa Destructor making it to Australian shores was a salient lesson on what might have occurred to our pollination season if borders were shut halting the migration of hives along the Eastern seaboard into Sunraysia, the Riverland and Riverina. A strong case can be made for the AHBIC proposal to have a single biosecurity area for bees encompassing Southern Queensland, New South Wales, Victoria and South Australia excluding Kangaroo Island. The establishment of this prior to an incursion would provide certainty in what may be a time sensitive issue if current biosecurity arrangements acted to stymie the movement of hives in July as the almond pollination season was about to get underway.

During the Bee Congress, we were subjected to numerous claims that the almond industry is not paying enough for hives for pollination. The USA fee of \$200 a hive was repeatedly quoted as the desirable benchmark. What was failed to be mentioned by those advocating this figure was the challenge the US beekeepers face in building hive numbers due to Varroa mites and diseases; the testing of hives by independent authorities to ensure hives are strong before going into the orchard; and the generally far higher level of service provided by American beekeepers in accompanying the hive trucks with four wheel drive vehicles used to distribute small hive lots evenly throughout orchards and collect them at the conclusion of bloom. It is a

tive pdate

case of comparing apples and oranges.

In researching the ABA's presentation, it was found that during the period since 2002, hive costs have increased 260% at an average of 16% a year whilst inflation over the period averaged 2.5%. It was also interesting that beekeeper presenters at Congress had graphs showing strong profits from the pollination side of their businesses compared to marginal profits as a percentage of revenue from honey production. It seemed to lead to a conclusion that the vocal bee keepers kept wanting more from pollination services to support low profit honey operations. Whatever the case may be, it is hoped the market will decide a fair price for pollination services and those that offer the better service are paid accordingly.

The reports from a number of growers indicate that the trees were loaded with buds and there is a strong potential for a large crop that would be an excellent outcome after the 2018 crop was our smallest production since 2014.

In closing, industry growers and stakeholders are urged to register for the 2018 Australian Almond Conference to be held at the Pullman Albert Park Hotel in Melbourne from the evening of October 30 to November 1. A strong group of international and Australian presenters are already arranged covering the supply chain and global conditions impacting supply, demand and returns.



Neale Bennett, Chairman

Ross Skinner, CEO

Neale Bennett

Ross Skinner



October 30 - November 1
Pullman Hotel, Albert Park
Melbourne

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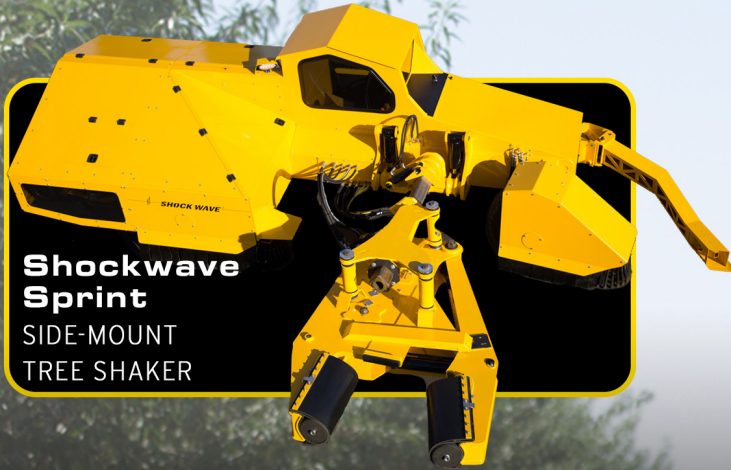
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Cowanna Almond Harvesting
Mildura, Victoria
Tel: 03 5025 3700
Mobile: 0418 990 391
Email: neale@cowanna.com.au

HEADQUARTERS

2700 Colusa Highway
Yuba City, CA 95993 USA
Tel: +1 530 673 2822
Fax: +1 530 673 0296
Email: sales@shakermaker.com



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Agriculture Victoria's Experimental Orchard and associated research

The almond industry is fortunate to have two experimental orchards: one located near Loxton, operated by the Almond Board of Australia, and one located near Mildura, managed by Agriculture Victoria. This article provides insight into the Mildura experimental orchard and the research trials being undertaken.

Agriculture Victoria's Mid Area temperate nut experimental orchard taking shape

The experimental orchard near Mildura is being developed by Agriculture Victoria as part of the larger temperate nut research project funded by the federal government's Rural R&D for Profit program that includes SARDI, the ABA and NSW DPI.

The Agriculture Victoria orchard is about nine kilometres south of Mildura and known as the Mid Area. The landform and soils are typical of the Mallee: dunes with light textured free draining sands and sandy loams interspersed by swales with heavier soil types. The focus of work on the Mid Area is productivity and efficiency while being mindful of the industry's strategic aim to move to more intensive production systems. Before planting took place, a detailed soil survey including the physical and chemical properties of the whole site was carried out. The aim being to allow an assessment of the impact of current and alternative nut production practices on soil quality over the longer term. That survey also identified large differences in the amount of readily available water that can be held in the rootzone, and that knowledge needs to be considered when planning the layout of any trial

Nitrogen and rootstocks effects on tree establishment and precocity trial

Aim: Identify appropriate fertigation practices for different scion varieties on different rootstocks planted in a standard ("H1") planting layout with respect to establishment and precocity.

Across many horticultural crops the same scion growing on different rootstocks will have differing mineral nutrient levels in the leaves. Despite this, rootstock is not a factor considered in fertigation programs. The issue to be addressed in this trial is whether the ability of different almond rootstocks, particularly those recently introduced into Australia, to take up and transport mineral nutrients to scions grafted on to them is important in establishing and producing their first significant crop.

This trial also serves to provide a study platform for the future assessment of new technologies to assist orchard management, and to assess the impact of management and weather patterns on kernel development.

The major outcome sought from this trial is more appropriate fertigation regimes for trees on different rootstocks across the industry.

Higher densities trial

Aim: To assess the impact of dwarfing rootstocks and planting density on the establishment of new almond varieties in a 2-dimensional tree shape/fruiting space and the distribution of fruiting sites.

A strategic aim of the industry is to move toward shake-and-catch harvesting, driven by the need to avoid some of the weather-related nut quality issues that have dogged the industry in the past. The shake-and-catch engineering solution will be much simpler if the fruiting space is 2-dimensional (i.e. a more-or-less a thin hedge) as compared to the 3-dimensional fruiting space currently used. The industry standard varieties and the newer varieties being made available to industry, were selected for their suitability for the 3-dimensional H1 production system. The vigour and growth habit that made them suitable for H1 planting densities do not necessarily make them suitable for a production system geared toward shake-and-catch harvesting. These varieties differ marginally in their growth habit, and it is possible that one or more of these varieties will be more suited to a closer spaced hedged row production system than other varieties.

The outcomes sought are rootstock/scion combinations better suited to the 2-dimensional fruiting space concept, and, perhaps more importantly, a clearer understanding of what tree growth habit (i.e. architecture) might be preferable.



Figure 1. Closely planted 12-month old plum trees trained to two vertical shoots. Variants on this configuration using almond varieties with different growth habits and on different rootstocks are to be assessed with respect to the number and location of flower bearing structures.



Figure 2. Young trees in the H1 planting on the Mid Area. The 5 Ha planting consists of Nonpareil, Monterey and Carmel trees on Garnem, Nemguard or RootPac 40. Three different nitrogen fertiliser treatments are being supplied in the irrigation water.

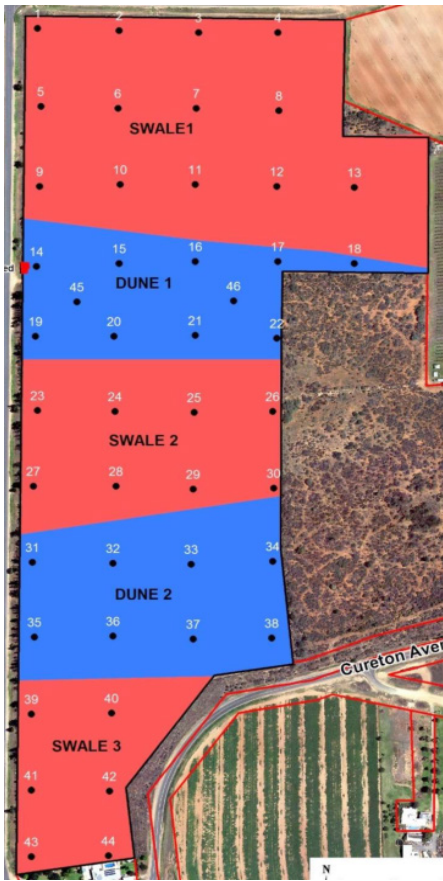
Tree training trial

Aim: To assess radical spacing and training configurations with respect to maximising the reproductive potential per metre of tree row, encompassing a range of new Australian almond genotypes on different rootstocks imparting different degrees of scion vigour.

Radical tree spacings and training configurations are being trialled for other *Prunus* crops such as pears and plums (for example see Figure 1).

While the drivers for those trials in those crops are different to the drivers the almond industry contends with, some of the issues that need to be solved or managed are the same — viz. maximising reproductive capacity and managing tree shape — although harvesting methods are likely to be very different. Irrespective of the way nuts are removed from the tree, the industry's aim to avoid dropping the nuts on the ground will probably necessitate some form of catching system, most likely catcher plates deflecting around tree trunks. Minimising the number of times that those plates may need to be deflected would make detached nut capture more efficient. The goal here then is to try to reconcile the need to maximise yield potential with the need to minimise potential inefficiencies in the nut catching system. The aim is to have the same number of vertical shoots per metre of row to maximise the number of potential fruiting sites, but to vary the number of tree trunks. This means that each vertical shoot may arise from a single tree (i.e. a central leader), or from a horizontally trained shoot. The ability of each rootstock to supply enough water and mineral nutrients will be critical here because demand for water and nutrients will increase as the number of vertical shoots each root system is trying to support increases. It goes without saying that row and tree shape will be maintained by hedging. The natural tendency of each variety to throw new shoots following pruning, and for those shoots to produce spurs or terminal flowers will be important responses.

Two outcomes are sought. Firstly, an assessment of the 2-dimensional fruiting space concept, and what may be required mechanically to remove nuts. Secondly, more insight into the balance between each variety's natural growth and fruiting habit and the vigour imparted by each rootstock.



“Sundial” experiment

Aim: To quantify the relationship between light and spur fertility.

There is strong awareness of the relationship between the amount of light intercepted by a tree canopy and that tree’s likely productivity, other limitations notwithstanding. Quantifying the amount of light a spur needs to intercept is a little more difficult. Knowing the quantity of light needed by a spur could, however, be an important orchard design parameter.

Two rows of trees will be planted perpendicular to each other with one orientated perpendicular to the path of the sun during the period of floral bud initiation. The trees will be trained to a 2D central leader, and lateral shoots will be trained horizontally on wires spaced approximately 50 cm apart and supported by posts four metres apart down the row (similar to modern high-density apple orchards). The tree row width will be maintained with careful pruning to minimise the canopy depth. The aim is to maximise the amount of light reaching spurs on either side of the trees in the row perpendicular to the path of the sun. The spurs on the trees in the row that will more-or-less be parallel to the sun’s path during the period of floral bud initiation will be predominately shaded during this period. In addition, by artificially shading parts of the canopy to varying degrees, the amount of light incident on individual spurs can be manipulated allowing the relationship between light and spur fertility to be quantified.

The outcome sought from this experiment is an objective basis for orchard layout, particularly row spacings and directions.

For more information contact Dr Michael Treeby at Irymple on 03 5051 4500.

Figure 3 (above) Land form zones on the 20 Ha of cleared land that will host the experimental orchard on Agriculture Victoria’s Mid Area site. The swales and dunes can hold 29 mm and 47 mm of readily available water in the rootzone, respectively. The numbered black dots indicate the location of soil pits dug on a 75 m grid. Pits 45 and 46 were additional pits prepared for demonstration purposes.



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5 minutes with...

Abigail Quirke

This edition of “5 minutes with ...” is with Abigail Quirke, the ABA’s new Administration and Compliance Officer, who began work recently at the Loxton Office.

Tell us a little about yourself and your background.

I grew up on our orchards here in the Riverland. After secondary school, I started working in the wine industry and stayed there for five years. I came away with a lot of knowledge and insight into that industry. I then moved into aged care and stayed there for four years whilst learning all things administration and finance.

What does your role with the Almond Board of Australia involve?

My role with ABA is a diverse role which I am very enthusiastic about. While my title is "Administration & Compliance" I have taken over the 2018 Conference organising. I know as soon as the Conference is completed I will be straight into the compliance side of my role, working closely with the Almond Centre of Excellence.

“The evolving technology and machinery that is making our lives easier is something that makes the future of agriculture very bright. ”

Do you have any experience in Agriculture?

Yes, definitely. I planted my own fruit trees six years ago, and then three years ago my two brothers and I planted more trees and started a dried fruit processing company. We have all been working full time whilst trying to get that business off the ground. I know the challenges that come with agriculture and trying to build a brand on a budget. Most importantly I understand the benefits of working in agriculture.

Describe the challenges you see for agriculture in the next 3-5 years.

As a young business owner, my biggest concern for agriculture is water!

What do you find exciting about the future of agriculture?

I am excited about the high quality produce we grow here in Australia and I can't wait for increased global recognition. The evolving technology that is making our lives easier is something that makes the future of agriculture very bright. I have a passion for all Australian produce and show casing how great it is.

What interests do you have outside of work?

Quite a lot, but a few are my German Shepherd, travelling (when I can), and the river in summer, when we aren't harvesting!

SELECT HARVESTS ENTER AGREEMENT WITH PEPSICO- GREATER CHINA REGION



Select Harvests Ltd (“Select Harvests”) and PepsiCo Foods (China) Co., Ltd (“PepsiCo China”) have entered into a Trademark License & Distribution Agreement to distribute and market the *Lucky* branded nuts, seeds and blends in China. These products will be produced and supplied by Select Harvests. PepsiCo China will be responsible for marketing, sales and distribution. Select Harvests will be co-investing with PepsiCo China in marketing to support the launch of the *Lucky* brand in China, with both parties making significant commitments to an advertising and marketing program over the first 18 months of the agreement, which has an initial term of five years.

Select Harvests General Manager- Consumer, Mark Eva, is looking forward to being a part of Select Harvest's new endeavor.

"Entering the China market in partnership with PepsiCo is extremely exciting for Select Harvests and the *Lucky* brand. *Lucky* has been a favourite brand of nuts and seeds in Australia for over 60 years. This allows Select Harvests to participate in the increased consumption of plant-based foods, nuts and seeds in China, which is accelerating as consumers become more affluent and knowledgeable about the nutritional benefits of nuts and seeds. Our partnership with PepsiCo, who are globally recognised for their marketing, sales

and distribution capability, creates a remarkable opportunity for *Lucky*. PepsiCo is one of the largest food & beverage businesses in China and their extensive network and existing presence and expertise in snack foods provides a significant leverage opportunity for both businesses. “

Ram Krishnan, President and CEO of PepsiCo Greater China, said “With the continued development of the Chinese economy, consumers have ever-more demand on healthy and nutritious products. Entering into China’s Nuts and Seeds market is a crucial piece of our growth strategy and we are delighted to be collaborating with Select Harvests to deliver this to China’s consumers.”

Paul Thompson, Managing Director of Select Harvests, said “Beyond the initial investment, the successful launch of *Lucky* into China is expected to create additional value to our business in the long term”.

Launching in September, the range includes a wide number of product items across several packaging formats, and will skew to almonds but will include several additional items. Distribution will be across several channels including e-commerce and physical retail outlets and is expected to build as the marketing investments by both parties takes effect.

MARKETIN

Domestic Update

The Nielsen Homescan research for the full year ending in June 2018 reported that the number of Australian households buying almonds remained steady when compared to the previous year at 46.6%. Almonds' household penetration is the highest in the nut category compared to 'All Mixed Nuts' at 44.7%, Cashews at 41.8% and Peanuts at 38.0%.

The Homescan reports also look at trends between the different consumer segments. The two older consumer segments – "Established Couples" and "Senior Couples" – are our heaviest buyers of almonds with household penetration rates of 51.3% and 49.9% respectively. These two segments have the leading Average Annual Spend of \$31.40 and \$32.40.

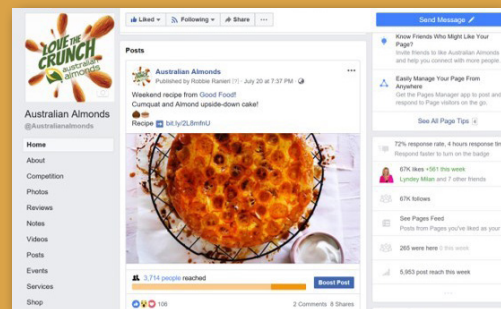
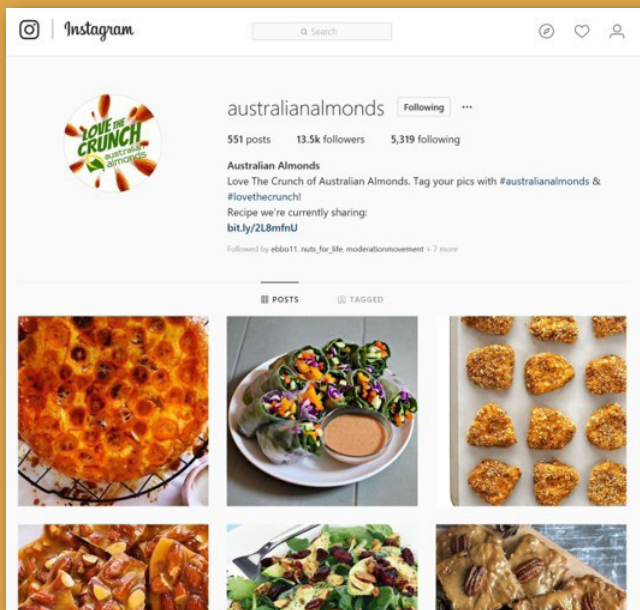
The 'family' segments by comparison have lighter Average Annual Spend figures. The segment we

are particularly interested in is the "Bustling Family". These are households with teenage children at home. The Homescan research reports that these "Bustling Families" spent on average \$27.10 during the past year. There is significant opportunity to increase almond consumption by encouraging parents to give almonds to their growing teenagers.

A related segment to "Bustling Families" is the "Young Transitionals". These are households of 25 to 34 year old Australians with no children. The key metric with this segment is the household penetration of only 41.9%. The consumers in this segment are the parents of tomorrow.

This Homescan research highlights a significant opportunity to drive consumption growth of Australian almonds by targeting the 'Gen Y parent' and 'Gen Z teenage' segments.

Social media marketing



Our Australian Almonds social media marketing program continues to grow with more than 68,000 people engaged on our Facebook site and more than 12,000 people following our Instagram platform.

To continue growing our core audience of food and almond lovers, we engaged a number of food bloggers and social media influencers to promote the use of almonds in a range of recipe ideas.

| SOCIAL MEDIA | |
|---|--|
| <p>15 June 2018 Followers: 53.7k Handle: organised_house</p> | <p>15 June 2018 Followers: 509k Handle: The Organised Homemaker</p> |

| SOCIAL MEDIA | |
|--|--|
| <p>14 June 2018 Followers: 90.9k Handle: thefitfoodieblog</p> | <p>14 June 2018 Followers: 54.8k Handle: betterbeingsteph</p> |

G MATTERS



VANILLA BLISS BALLS

A simple recipe for healthy and nutritious almond and date balls

Serves: 20

INGREDIENTS (PER PERSON)

- 1 cup natural almonds
- 2 cups stoned dates, chopped roughly
- 1 cup mixed pepitas (pumpkin seeds), sunflower seeds and pine nuts
- ½ cup shredded coconut plus another ¼ cup for decoration (if desired)
- 1.5 teaspoons vanilla bean essence
- 2 tablespoons water

INSTRUCTIONS

1. In a processor, blitz almonds for about 20 seconds.
2. Add dates and then blitz again until resembling rough sand.
3. Add mixed seed mixture and ½ cup shredded coconut and blitz again until well combined.
4. Add vanilla and water and blitz again until fully combined.
5. Use a spoon to scoop out spoonfuls of the mixture and roll and press between palms to form small, walnut-sized balls.
6. Roll into reserved coconut if desired or leave as is.
7. Store in an air-tight container in the refrigerator for up until a week.



TOM MITCHELL'S ALMOND RECIPE OF CHOICE

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'Hard Nut' promotion

During the past three months, our domestic Australian Almonds marketing program featured two promotional programs aimed to grow the profile of almonds as a healthy and great tasting food: our 'Hard Nut' promotion with the AFL Players Association and the Mid-Year All Australian team competition with Fox Footy TV and SEN radio.

This year, our Hard Nut promotion with the AFL Players Association featured five new player ambassadors: AFLW players Richelle Cranston (Melbourne Football Club) and Tiarna Earnst (Western Bulldogs Football Club), current AFL players Tom Mitchell (Hawthorn Football Club) and Travis Boak (Port Adelaide Football Club) and also a retired AFL player, Andrew Carazzo (Carlton Football Club).

The key messages our AFL Players Association ambassadors communicated were that almonds are a great sports recovery food that is delicious to eat. One of our ambassadors, Andrew Carazzo, who has had triplet daughters since retiring from football, spoke about giving his girls almonds after school.

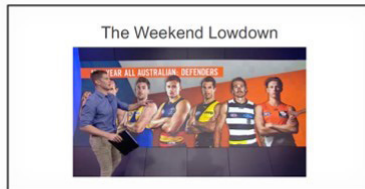
Each of our AFL Players Association ambassadors were featured in individual videos and also on recipe cards with a favourite almond recipe. These communication assets were promoted via the AFL Players Association social media, the players' own social media and also via Australian Almonds' Facebook and Instagram platforms. In addition, Travis Boak promoted his role as an Australian Almonds ambassador during a segment on Channel 9 (Adelaide) and Tom Mitchell during an interview with TripleM radio.

Another major feature of our marketing program was a promotion with Fox Footy TV and SEN radio around the Mid-Year All Australian Team competition. Entry for this competition was online via a website developed by a specialist online promotions agency. More than 1500 people entered this promotion which focused on the three bye-weeks of the AFL season. Australian Almonds featured in sponsored spots on Fox Footy with a reach of 407,000 people and on SEN radio with a reach of 206,000 people. Our Australian Almonds SEN advertisements voiced by Garry Lyon and Nick Dal Santo were promoted over 300 times during the competition period.

THE FOX FOOTY INTEGRATION



| On the Couch Viewership | | | |
|-------------------------|-----------|--------|--------|
| | First Air | Replay | Total |
| June 4 | 65,000 | 27,000 | 92,000 |
| June 11 | 61,000 | 37,000 | 98,000 |
| June 18 | 53,000 | 32,000 | 85,000 |



| The Weekend Viewership | | | |
|------------------------|-----------|--------|--------|
| | First Air | Replay | Total |
| June 7 | 25,000 | 28,000 | 53,000 |
| June 13 | 15,000 | 21,000 | 36,000 |
| June 21 | 23,000 | 20,000 | 43,000 |

CROC MEDIA
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GARRY & DAL'S ALL AUSTRALIAN SEGMENTS

- Monday 4th June – Garry's Backline
- Wednesday 13th June – Garry's Midfield
- Wednesday 13th June – Dal's Midfield
- Monday 18th June – Dal's Forward line & Interchange

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MARKETING MATTERS

Export Update

The key feature of our Australian Almonds Export Development program for the last three months has been to grow our China market. We have exhibited at two important trade events: Sial China held in Shanghai in May and the China Tree Nut Conference in Zhuhai in early August.

Sial China

China's almond market is the Californian almond industry's fourth largest at 165 million pounds for the period August 2017 to June 2018. The top three are the US domestic market at 675 million pounds, India at 190 million pounds and Spain at 189 million pounds.

With the tariff and trade dispute between the United States and China, the tariff on Californian almonds directly into mainland China has been increased to 50%. By comparison, the Free Trade Agreement between China and Australia has set the tariff on Australian almond kernels into mainland China at 2%. This tariff will reduce to zero in January next year. There is an additional VAT of 10% on all almonds into mainland China from all growing regions including both California and Australia.

One issue our Australian almond marketers face in China is the uncertainty around these hyper-increased tariffs on Californian almonds. Buyer uncertainty normally has a negative impact on market behaviour.

Nevertheless, during this period, there has been an increased interest in Australian almonds by Chinese nut and almond traders. To meet this interest, we exhibited at Sial China. This trade event was held in Shanghai from May 16 to 18 in Shanghai. Our Australian Almonds exhibition was located within the total Australian pavilion which was one of the ten largest country pavilions at the expo. There were over 3,300 exhibitors from more than 70 countries participating in this year's Sial China trade event which had over 110,000 professional buyers visiting.

Four Australian marketers exhibited at our Australian Almonds stand: Almondco, Nut Producers Australia, Olam and Select Harvests.

China Nut Tree Conference

The China Nut Tree Conference trade exhibition was held in Zhuhai from August 1-3. This conference covered all the major nut industries growing or selling into the Chinese market. More than 500 Chinese traders participated in this event.

We promoted our Australian Almonds brand via an exhibition booth and also by presenting as part of the Almond session. Damien Houlahan from Olam provided an overview of our industry's plantings, production and export statistics and Joseph Ebbage from the ABA presented some insights from our domestic market's growth with application to the Chinese almond market.

As expected in an almond session that featured both Californian and Australian almond industry presentations, many of the questions from the audience related to tariff and pricing issues.

Port Adelaide vs Gold Coast AFL match

For the second year, Australian Almonds leveraged the additional interest in Australian product created by the Port Adelaide versus Gold Coast AFL football match in Shanghai. This year, the AFL match took place on the day after the Sial China trade exhibition finished.

Our Port Adelaide sponsorship provided for brand promotion, in both Chinese and English, on the LED signage around the ground.

The game was telecast in both Australia and China. The combined total of viewership in Shanghai and Channel 7 and Fox Footy in Australia was over 3.7 million.

While game day was impacted by rain, Port Adelaide reported more than 10,000 people in attendance.





18th Australian Almond Conference

October 30th - 1st November, 2018

Pullman Hotel Melbourne, Albert Park, Victoria

30th October

6.00 to 8.00 pm. *Welcome Function*

31st October

8.00 to 9.50 am. *Conference Registration.*

8.30 to 9.20 am. Almond Board of Australia Annual General Meeting. Presenters: Neale Bennett & Ross Skinner.

9.20 to 9.50 am. *Morning Tea and Exhibition Session.*

9.50 to 12.30 pm. *Production Technology Session.*

9.50 to 10.00 am. Conference Opening. Neale Bennett and Peter Hayes.

10.00 to 10.25 am. Orchard Renewal, Lessons from California. Presenter Brent Holtz - University of California.

10.25 to 10.45 am. Controlling Carpophilus Beetle. Presenter Paul Cunningham - Agriculture Victoria.

10.45 to 11.00 am. Carob Moth, the Forgotten Grub. Presenter Blair Grossman - Agriculture Victoria.

11.00 to 11.15 am. Practical Farm Processes to Conquer Orchard Pests. Presenter Scott McKenzie.

11.15 to 11.40 pm. US Experience with Orange Navel Worm. Presenter David Haviland.

11.40 to 12.00 pm. Orchard Diseases in Australia. Presenter Jacky Edwards - Agriculture Victoria.

12.00 to 12.15 pm. Panel Discussion led by Greg Buchanan - Almond Board of Australia.

12.15 to 12.25 pm. Word from the Signature Sponsor. Presenter Trevor Dennis - Haifa.

12.25 to 12.30 pm. Word from the MC. Peter Hayes.

12.30 to 1.30 pm. *Lunch, Exhibition and Poster Session.*

1.30 to 3.00 pm. *Market Development Session.*

1.30 to 1.40 pm. Word from the Platinum Sponsor. Richard Emery - Stoller Australia.

1.40 to 2.10 pm. Market Access Challenges and being Trumped. Presenter Julie Adams - Almond Board of California.

2.10 to 2.20 pm. The Indian Market (Video). Presenters Aman and Amit Bhatia.

2.20 to 2.40 pm. The Indian Trade Strategy. Presenter Paul Myler - Department of Foreign Affairs and Trade

2.50 to 3.00 pm. Australian Free Trade Agreements. Presenter Chris Joyce - Australian Nut Industry Council.

3.00 to 3.30 pm. *Afternoon Tea and Exhibition Session.*

3.30 to 5.00 pm. *The Global Almond Industry Session.*

3.30 to 4.00 pm. Navigating A Changing Australia. Presenter Bernard Salt - KPMG.

4.00 to 4.25 pm. The Californian Almond Industry 2018 to 2025. Presenter Richard Waycott - Almond Board of California..

4.25 to 4.50 pm. The Global Economy, Almonds and Other Horticultural Industries. Presenter Hayden Higgins- Rabobank. 4.50 to 5.00 pm. Word from the MC. Peter Hayes.

6.30 to 10.00 pm. *Pre Dinner Canapes / Gala Dinner Function / Hall of Fame Induction at The Park.*

1st November

9.00 to 9.10 am. *Day 2 Opening.*

9.10 to 11.00 am. *Times Will Get Challenging.*

9.10 to 9.30 am. Taking Control of Water and Energy. Presenter Gavin McMahon - National Irrigators' Council.

9.30 to 9.50 am. Choke or Bottleneck on Development. Presenter Mark Bailey - Goulbourn Murray Water.

9.50 to 10.10 am. Pollination Services Worth Paying For. Presenter Danny Le Fleur - Australian Bee Services.

10.10 to 10.30 am. Recycling a Requirement of the Right to Farm. Presenter Stephen Richards - Farm Waste Recovery.

10.30 to 11.10 am. *Morning Tea and Exhibition Session.*

11.10 to 1.00 pm. *The Upside.*

11.10 to 11.20 am. Export Market Development. Presenter Joseph Ebbage - Almond Board of Australia.

11.20 to 11.40 am. Cognitive Research and Other Health Benefits. Presenter Alison Coates - University of SA.

11.40 to 11.55 am. Heart Health Claims for Almonds. Presenter Beth Scholes - Nutrition Australia.

11.55 to 12.15 am. The Market for Australian Almonds. Presenter Tim Jackson - Almondco Australia.

12.15 to 12.25 pm. 1 Kg and Rising. Presenter Joseph Ebbage - Almond Board of Australia.

12.25 to 12.50 pm. Deep Dive into Australian Almonds. Presenter Chanel Day - Nielsen.

12.50 to 1.00 pm. *Word from the MC. Peter Hayes.*

1.00 to 1.45 pm. *Lunch, Exhibition and Poster Session.*

1.45 to 3.00 pm. The Future

1.45 to 1.50 pm. The Almond Centre of Excellence Experimental Orchard - Video.

1.50 to 2.10 pm. Characterising Constraints to Alternate Production Systems. Presenter Tim Pitt - SA Research and Development Institute.

2.10 to 2.30 pm. AgVic's Field Laboratory; a Platform for Current and Future Production Systems. Presenter Michael Treeby - Agriculture Victoria.

2.30 to 2.50 pm. Next Generation Growing and Handling Systems for Almonds. Presenters Grant Thorp & Michael Coates - Plant and Food Research.

2.50 to 3.00 pm. *Closure Peter Hayes & Neale Bennett.*



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The Almond Board of Australia

Pullman Hotel Melbourne, Albert Park, Victoria

October 30th - 1st November, 2018



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R&D ROUNDUP

Annual Rootstock and Variety Trial update

Joshua Fielke, Industry Development Officer

Data described in this article is to be considered preliminary as the rootstock trial is ongoing and a larger data set is required before commercial decisions can be undertaken with confidence. Note in graphs * = planted a year later (Cornerstone).

The Hort Innovation funded project AL16006 is progressing well with the rootstocks now showing physical differences in the scions. This season saw additional tree phenology data being collected which included: light interception, canopy volume, nematode evaluation, nutritional and flowering data. The data was then compiled to evaluate several factors such as canopy stress and canopy efficiency. Canopy stress was measured by Mickey Wang from SARDI, who identified the temperature differentials between the various rootstocks from UAV thermal imaging. From the data it seems to show a trend that the larger trees hold a lower temperature, therefore assuming a lower stress level.

Using the aerial images collected during the flights, canopy area was able to be measured. This data was then used against the dimension data collected on the ground to provide information on canopy volume. Hansen is currently producing the biggest canopy volume with an average size of 16.71m³, while Krymsk 86 produces an upright open canopy with an average canopy of only 9.76m³. This data when used against the yield data produces the canopy efficiency results.

Canopy efficiency will become useful at the end of the project where recommendations will be made in relation to planting tree densities. Krymsk 86 may be the smallest tree but its efficiency might be important when planted at higher densities per hectare to enable

potential yields greater than or equal to the more vigorous rootstocks. In Figure 1 the canopy efficiency can be seen against the total yield. Looking at the yield data this way provides a greater perspective in relation to tree size, demonstrating that while large trees can produce a high yield they can be relatively inefficient.

Nutrient evaluation of leaves, fruit and soil was conducted to compare the uptake of various nutrients to determine the variation between rootstocks. Where nutrient usage in the soil and in the leaf showed some small differences, further seasons will provide a better basis for data distribution.

Sampling for nematodes showed extremely low nematode levels in all samples. Species of nematodes found at the site included; root-lesion nematode, ring nematode, stubby-root nematode and root-knot nematode. Populations will continue to be monitored throughout the trial.

In summary for the 2018 harvest, Adafuel produced the highest yield (2400Kg/Ha) followed closely by Nemaguard (2365Kg/ha), GF749 (2360Kg/Ha) and Monegro (2330Kg/ha). Other strong performers were Garnem (2230Kg/Ha) and Felinem (2240Kg/Ha). Cumulatively over the last three harvests, Monegro, GF749 and Bright's Hybrid are leading the way as seen in Figure 2.

Figure 1

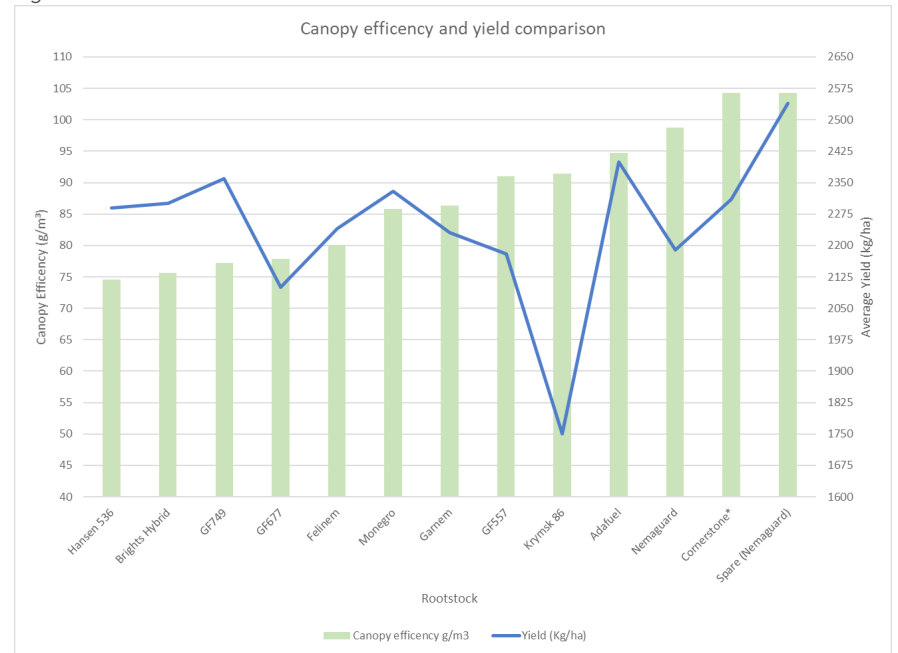
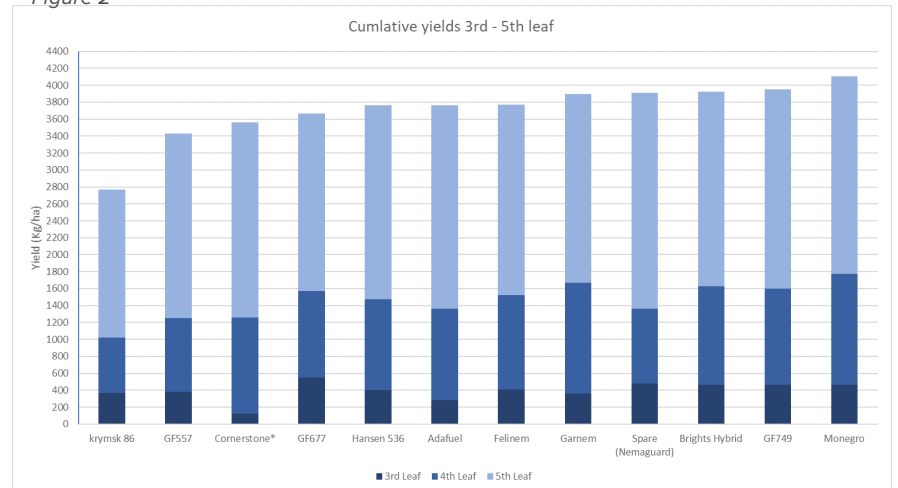


Figure 2



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Two new methods for measuring almond moisture content

Professor John Fielke, School of Engineering, University of South Australia



Almond quality and processability is highly dependent on almond moisture content. Too wet and the almonds can lose quality and too dry the almonds are easily chipped and scratched during processing. Currently, the determination of kernel moisture content requires a sample of almonds to be collected, shelled and about 100 kernels placed into a moisture test machine. This process is time consuming to crack out the sample and gain a reading.

Two new methods are being developed that can measure an almond's kernel moisture content even without taking the kernels out of their hulls or shells.



Top: John Fielke with 2 metre moisture spear ready to insert into stockpile of almonds.

Bottom: 1 metre moisture spear inserted into a bin of kernel.

Equilibrium humidity method

Almonds over time will reach equilibrium with the air around them. For example, a Nonpareil almond (kernel, inshell or inshell) at 20°C with a 6 percent kernel moisture content will not gain or lose moisture when the air around them is at 65 percent relative humidity. At a lower humidity the kernel will lose moisture and at a higher humidity the kernel will gain moisture. This moisture moves through both the shell and hull.

Each variety of almond has a unique relationship of its kernel moisture content



Methods for measuring almond kernel moisture content

with its temperature and surrounding air humidity. So long as almonds are no longer wetting up or drying this relationship for kernels is the same for loose kernels and kernels still in their shell and/or hull.

Hence, kernel moisture content can be determined by inserting a temperature and humidity sensor into (1) a stockpile of in-hull almonds, (2) a bag of inshell almonds or (3) a bin of shelled kernel and measuring the temperature and relative humidity of the air in the voids between the almonds. If the bulk almonds have been in place for many days a stable reading of moisture content can be gained within minutes. However, if the sample is not yet at equilibrium it can take several days for the sample to equilibrate and provide an exact measure of kernel moisture content.

The company Ag-IQ Australia has developed a stainless steel spear with one and two metre length options. The one metre spear suits in-factory tests of processed almonds whilst the two metre spear is better for insertion into stockpiles of almonds. The moisture spears have a covered digital temperature and humidity sensor on one end and insertion handles and a digital display on the other. The display has the ability to select the almond variety and give a reading of kernel moisture content equivalent to the air conditions surrounding the almond. The unit currently uses previously published calibrations for Nonpareil and Monterey almonds from work at UC Davis in California. In the coming months, additional varieties will be added to cover the most common almond varieties ready for 2019 harvest. The unit is calibrated against oven drying of kernels and the unit

will have the ability to tweak the calibration to match any calibration standard.

The digital sensors do not need recalibration and will provide an accuracy of measurement of $\pm 0.2\%$ kernel moisture content when the air near the almond is in equilibrium with the kernel. It also has a very high level of repeatability of $< 0.1\%$ moisture content for measurement of the same sample.

The advantage of the equilibrium humidity method is that the sample being tested can be a mix of any proportion of loose kernel, inshell or in-hull almonds. The unit can be supplied with a digital display and can have the option for the sensors to be connected wirelessly via the internet to give remote access to moisture readings at any time from anywhere. This remote access is particularly valuable for monitoring and control of the dehydration of almonds or monitoring changes during long term storage. The current retail price of the moisture spear is \$1,350 and \$1,400 (excluding GST) for one and two metre spears, respectively.

Microwave method

Most people are familiar with using a microwave oven to heat food. It is the water in the food absorbing the microwaves that does the heating. In a similar way, if a microwave is passed through a layer of almonds the amount of absorption of the microwave signal can be calibrated to give a measure of the total amount of water in the sample. Whereas the power of a home microwave oven is generally above 800 Watts, the

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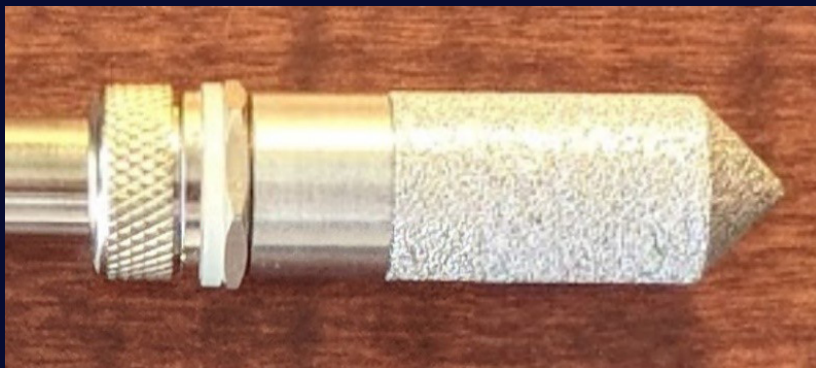
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Microwave antenna with sample of in-hull almonds to measure kernel moisture content



Close up of porous filter that protects the temperature and humidity sensor



Typical display showing variety and kernel moisture content

power of the microwave signal for moisture measurement is only 0.03 Watt. Hence, this low powered microwave will not heat the almonds nor be a safety risk to users.

The big advantage of microwave moisture measurement is that it is a transmission process that looks through the almonds and measures the total amount of water in the sample. Hence, even if the almond is still drying or has just been wet by rain, the measure will give an indication of the final moisture if it were to reach equilibrium.

The sample of almonds for microwave moisture measurement must be all of the same form of either all in-hull, all in-shell or all kernel and there is an individual calibration for each of these forms. To use the microwave moisture measurement method, the sample must be placed in a uniform thickness between a transmitting and receiving antenna. The current version of the technology uses a sample thickness of 100 mm. Work is planned to be undertaken at the University of South Australia to increase this thickness to at least one metre so that moisture of a whole bin or large bulker bag can be tested without the need for taking a sample or inserting antennas into a sample.

A microwave moisture meter could have the transmitting and receiving antennas fitted on each side of almonds being conveyed during processing or they could be fitted into the hopper of an almond pickup and/or runner. This method can give an instantaneous reading of almond moisture content which could provide both whole fruit moisture content or equivalent kernel moisture content.

The microwave moisture measurement method should be ready for testing in the 2019 almond harvest. Using currently available components the estimated retail price of a microwave moisture meter is \$6,000 (excluding GST) plus installation requirements.

Note: Ag-IQ Australia is a private company owned by John Fielke. This activity is being undertaken as a private activity and the University of South Australia is not involved in this activity in any way.

Ag-IQ Australia can be contacted on john.fielke@bigpond.com and 0407 676190.



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**Hort
Innovation**

The investment in the Almond R&D program is guided by Hort Innovation staff and the Strategic Investment Advisory Panel comprising the following members: Claude Gauchat (Chair), Ben Brown, Domenic Cavallaro, Paul Martin, Troy Richman, Brendan Sidhu, Craig Simes, Ross Skinner, and Toby Smith.

Corrine Jasper has been promoted to be a team leader within Hort Innovation and her position as Relationship Management for almonds has been filled by Dumisani Mhlanga. Dumi was born in Zimbabwe where he started his farming career helping his father growing maize and cattle farming close to Bulawayo. After graduating from school, he decided on horticulture as a career and went to Bulawayo Polytechnical College to undertake a Diploma in Horticulture in 1993. Since then he has done several Production Horticulture, Business, Innovation and Commercialisation and Project Management Courses in Australia. In 2016, he graduated from the University of Melbourne in Masters of Agribusiness. Over a 24 year career he has managed horticultural enterprises in Australia, Zimbabwe and South Africa across a range of crops including avocados, herbs, vegetable seedlings, cut flowers, walnuts, stone fruit, apples, pears, cherries and native flowers.

Corrine will still be involved with almonds as Dumi is within her team.

Other Hort Innovation staff that help guide the project investment process are the R&D Project Managers that review and contract projects and Neil Burgess, who manages the almond fund investment assessment process.

Following are all the projects funded by Hort Innovation using the almond R&D levy paid by growers and contributions from the Australian Government. In some projects, additional funding sources are also used. In many instances industry partners are providing in kind contributions.

- Market development program – Europe (AL16010)
- Educating health professionals (AL16007)
- An integrated pest management program for the Australian almond industry (AL16009)
- Advanced processing of almonds (AL12003)
- Almond productivity: Tree architecture and development of new growing systems (AL14007)

- Identifying factors that influence spur productivity in almond (AL14005)
- Evaluation of potential prunus rootstocks for almond production – stage 2 (AL16006)
- Almond industry statistics and data collection 2017-2019 (AL16003)
- Managing almond production in a variable and changing climate (AL14006)
- An integrated disease management program for the Australian almond industry (AL16005)
- Better tree performance and water use efficiency through root system resilience (AL13009)
- Australian almond variety evaluation and commercialisation program (AL12015)
- Development of high health status mother planting for new Australian almond varieties (AL16004)
- Australian almond industry innovation and adoption program (AL16001)
- Australian almond industry communications program (AL16000)
- Almond minor use permit program (AL16002)
- Australian almond industry conferences and field days 2017-2021 (AL16700)
- Enhanced National Bee Pest Surveillance Program (MT16005)
- Almond study tour (AL16701)
- 10th Australasian Soilborne Disease Symposium sponsorship (MT17022)
- Management of Carpophilus beetle in almonds (AL15004) – COMPLETED. This project began in 2016, in response to industry concern about the impact and management of Carpophilus beetles in almond production – after confirmation that the beetles were present in almost 70 per cent of almond plantings. The primary aim of the work was to clarify which of the many species of Carpophilus is responsible for damaging almonds, and to investigate the use of an attract and kill system (as used in stone-fruit orchards) in reducing kernel damage by the pest.



See your levy at work with the latest HORTLINK!

Get an update on all new, current and recently completed levy-funded activity with the new edition of Hort Innovation's Hortlink. Just released, you can check out the almond section at

www.horticulture.com.au/hortlink-2018-edition-1/almond.

As well as easy-to-read project updates, results and resources you can use in your business, Hortlink includes case studies, industry contacts and more. Don't miss the Faces of Horticulture section, which includes a closer look at Hort Frontiers activity, scholarship opportunities and other handy info!

Stay in the loop with your levy by becoming a member of Hort Innovation, the grower-owned, not-for-profit research and development corporation for Australian horticulture. Paying a levy doesn't automatically make you a member, but signing up is free at www.horticulture.com.au/membership.

IN THE orchard

Brett Rosenzweig,
Industry Development Officer

How long will an almond orchard last before it needs replanting? This question is frequently asked of the IDO staff and the answer is complex. Botanically, almonds can be long lived with an age of greater than 50 years. Agronomically, almonds can be productive up to 40 years with some Riverland orchards reaching 42 years old before being replanted. Financially, almond orchards may need to be replaced much earlier as disease or missing trees dictate the orchard may be uneconomical. When is the best time to replant an orchard?

Traditional Plantings to Now

Traditional orchards planted in the 1970s and 1980s was mostly sprinkler irrigated and planted on a spacing of 24 feet by 24 feet (7.3m x 7.3m). Nonpareil was the main variety with pollinators like Neplus, Mission, Fritz, Peerless and some Carmel were used. Earlier plantings used Almond stock with newer plantings using Nemaguard.

The almond boom in the mid 2000s saw predominately Nonpareil, Price and Carmel planted on Nemaguard with a row spacing of 7.3m and a tree spacing of 5 to 6.5m. Orchard densities increased from 188 trees per hectare to 274 trees per hectare. Orchards being planted during the current boom are largely keeping the 7.3m row width (or 7m) and tree spacing has now reduced to 4 to 4.5m which results in orchard densities greater than 300 trees per hectare. There is also a smaller trend of a 6m x 3m resulting in 555 trees per hectare.

Management practices of orchards have also significantly improved with industry average yields increasing from 2.5T/Ha to 3.2T/Ha with some management regimes producing 4T/Ha each year and in some cases upper yields of 6T/Ha have been reported. This has been achieved through daily irrigations using a 'consumptive water use' model i.e. meeting the daily tree demand and efficient fertigation practices. These management practices have also seen the bearing age of trees reduce so it is now possible to get commercial yields in the third growing season. Along with higher tree densities, the first crop can now be significant. Modern orchard developments typically also use GPS equipment for ripping, adding soil ameliorants and marking out irrigation infrastructure and tree spacings. Whilst still a large undertaking, planting an orchard is currently a lot easier than in the past.

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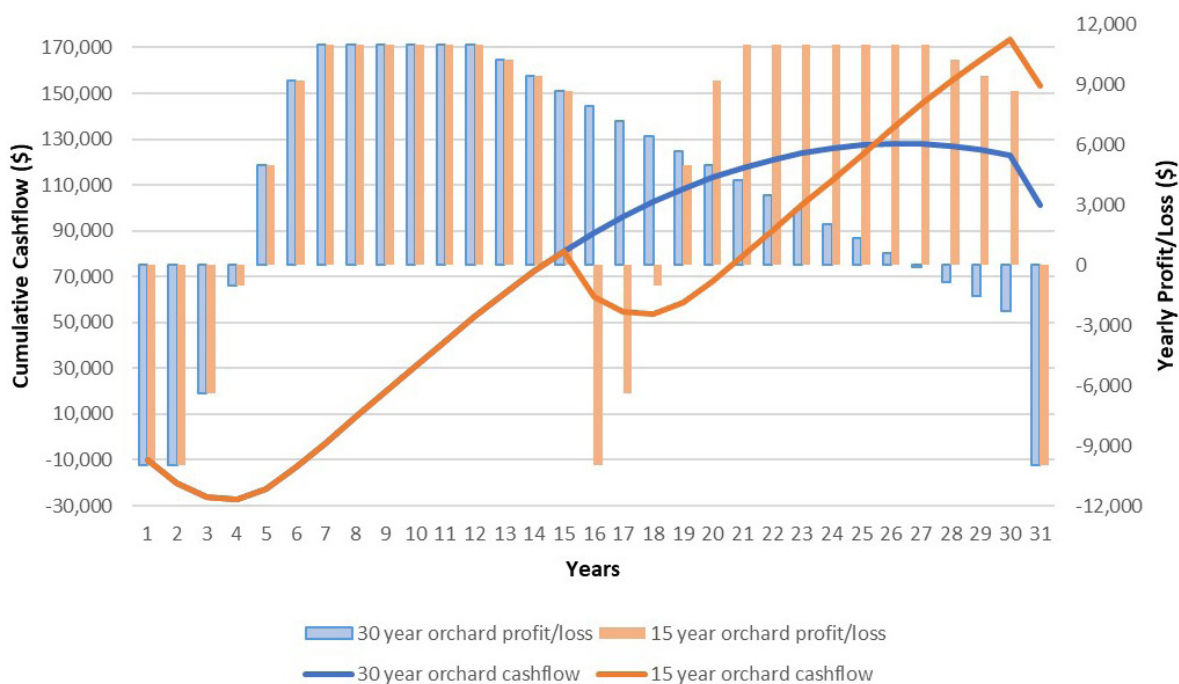
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Cost Benefit Analysis: 15 year orchard vs 30 year orchard



Redevelopment Costs

One of the major expenses in redeveloping an orchard is the cost of trees and irrigation, assuming mainlines and headworks are reused. Using an example of a 20-year-old 10Ha orchard undergoing redevelopment, the cost per hectare equates to approximately \$12,000 per hectare. Note: the following example only considers orchard removal and replacement. It doesn't include the cost of growing the trees until bearing. Trees and associated costs (stakes, guards and No-Gall) amount to 43% of the total cost. The tree cost can vary according to the following factors:

- A spring budded one year old is cheaper than a dormant budded two-year tree
- Nemaguard rootstock is cheaper than a public hybrid rootstock which is cheaper than a PBR'd hybrid rootstock
- A traditional public variety is cheaper than a newer PBR'd variety.

Irrigation (submains, dripper hose) is the next largest expense at 26% of the total cost. The next largest cost is the removal of the old orchard at 16%. In this case, an excavator was used to clear the trees, dig the stumps out of the ground and push them into burn piles for burning. This is a significant expense and quite a logistical exercise for trees that can be 8-10m tall with heavy structural limbs. In this example the cost of clearing the orchard is greater than the cost of getting the orchard ready again for planting. It is usual practice (and highly recommended) to add soil ameliorants before planting occurs. Usually the ameliorants are in the form of organic matter i.e. composted animal manure or composted green waste, gypsum, superphosphate and a high source of carbon like brown coal. All of these aims to boost soil health before planting as addition later can be difficult to incorporate. In this example the expense of soil ameliorants amounts to 10% of the total cost. The last major expense is deep ripping and incorporation of the soil ameliorants which is 5% of the total redevelopment cost. Deep ripping is generally done with GPS guided equipment and may involve only ripping the tree line or the whole row width. Incorporation of soil ameliorants is usually done with a speed tiller and a GPS equipped tractor with the final marking out of irrigation and tree layout also done with a GPS equipped tractor with tines mounted on a toolbar. There is usually a surveyor's cost to mark out the orchard and provide a plan for the contractor to use with their GPS equipment.

Cost-Benefit Analysis

Using the example redevelopment costs, a simple cost-benefit analysis can be constructed to determine if replanting early can have a positive benefit. There are some simple assumptions that have been followed for the analysis:

- As the orchard gets older, it gets harder to shake the crop from the tree and efficacy of pest and disease control is reduced
- Industry average yield of 3.5T/Ha is reached in the 7th year and continues to year 12
- From year 13 onwards, yields decrease by 2.5% annually due to increased Hull Rot and less 'A grade' kernel resulting from increased insect damage
- From year 13 onwards, costs increase by 2.5% annually due to extra orchard hygiene requirements, slower harvesting and spraying timeframes etc
- The price of almonds is the long-term average of \$6/kg
- Orchard replacement costs are \$10,000 per Ha for replanting at 15 years
- Orchard replacement costs are \$12,000 per Ha for replanting at 30 years.

The resulting cost-benefit analysis is shown in the above graph. Whilst the figures used are generic and individuals should use their own production and financial figures, it does paint an interesting picture. If an orchard's productivity declines over time and management inputs become more difficult (dead trees, missing limbs, increased disease pressures etc) and costly, it may be worth replanting earlier. This is especially true if the redevelopment cost of the orchard is less with a younger orchard compared to an older orchard. It is also true of the orchard containing older, lower yielding varieties that can be replaced with higher yielding varieties or an orchard with a density of 188 trees per hectare replaced with a density of 300 trees per hectare.

In the end, all orchards will need replacing at some stage and this debate will continue just like the other multifaceted industry question; Do I prune, when do I prune, do I need to prune at all?

Vale Tony Read

Tony Read contributed to the Australian industry in several leadership roles during periods of transition for the industry and its representative bodies. He was a significant figure in the pioneering of large broadacre almond orchards, on which much of the modern Australian industry is based.

Tony was highly regarded for his commercial acumen and management skills relating to both organisational governance and to project development and implementation. Irrigators have benefitted from his engineering skills in designing orchard systems and from his commitment to sound management of the Murray Darling Basin's water resources throughout his 20 year involvement as a consultant to, and director of, Murray Irrigation Limited in NSW.

Tony gained experience with irrigation projects working for consulting engineering company Kinnaird Hill de Rohan and Young, later to become Kinhill and more recently KBR. Tony was involved in a number of projects in the Riverland including Sunlands, Golden Heights, Tolley Scott and Tolley, Cottes and Angoves before moving to almond projects.

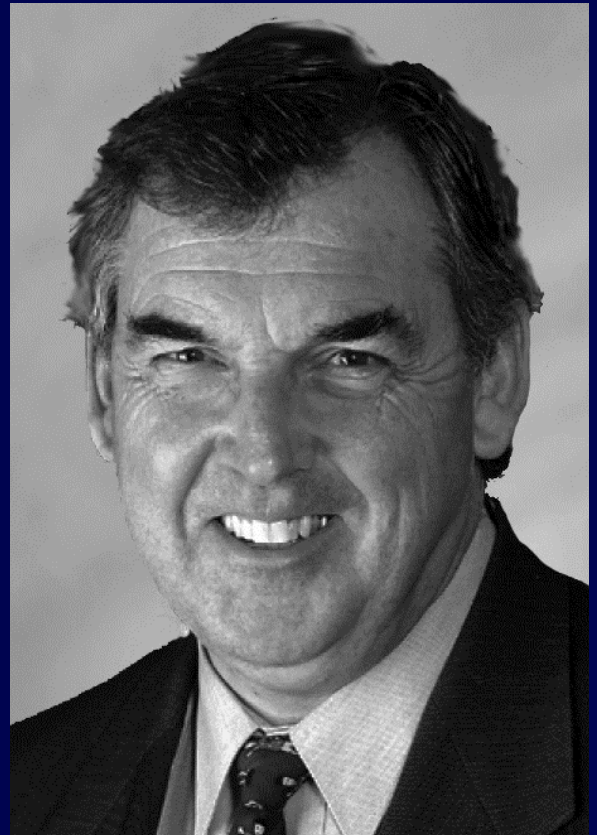
In 1972, Tony became associated with the almond industry through establishing the irrigation infrastructure for new orchards at Lindsay Point for the Almond Co-op. This ignited his interest in almond production. In 1985, Tony and Paul Martin reviewed the lessons learnt from the Lindsay Point development and commenced plans for a major project that developed into Jubilee Almonds in 1987. Tony's role in the Jubilee Almonds project involved him as an investor, project manager for the 464-hectare planting, and Chair of the Jubilee Almonds Board for 27 years from its inception until October 2013.

He was also heavily involved in the establishment of Century Orchards, a company operating an almond and wine grape enterprise of 650 hectares located at Loxton. He was Chair of the Century Orchards Board from 1997 until 2013.

The almond hulling and shelling facility at Lindsay Point, known as Laragon, started with humble beginnings and expanded as Jubilee Almonds and Century Orchards became members. Tony became a director in 1978, and in 1990 became Chairman.

Tony has played a major role in the Australian almond representative bodies, serving as a Director of the Australian Almond Growers Association from its inception in 1996, and held the position of Chair from September 1998 until 2002.

Tony, together with the AAGA Committee Chairs, developed the Almond



Board of Australia Constitution and saw it successfully adopted in November 2002. This moved the almond peak body from a grower organisation to one that represents the entire Australian almond industry, including processors and marketers.

During his period of leadership, the statutory almond research levy was passed by growers and government, the Market Development Committee with the voluntary marketing levy for generic promotion was established. He recognised the need for export market development and linkages to international nut bodies. The first full time staff were employed by the industry representative body and research capacity put in place. The foundations for the Almond Board of Australia and the expanded role in industry development were also put in place under Tony's period of stewardship.

Known for his humble manner and altruistic nature, Tony Read's commitment to the industry was both long and productive.

In 1962, Tony married Jenny whom he always acknowledged played a major role in his achievements.

Tony Read was inducted into the Australian Almond Industry Hall of Fame in October 2013.



2018 Events

AUGUST

| SUN | MON | TUES | WED | THU | FRI | SAT |
|-----|-----|------|-----|-----|-----|-----|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

August

- 29** ABA Market Development Committee & Production Committee Meetings, Mildura
- 30** ABA Board Meeting, Mildura

SEPTEMBER

| SUN | MON | TUES | WED | THU | FRI | SAT |
|-----|-----|------|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

September

- 5** Asia Fruit Logistica begins, Hong Kong
- 7** Asia Fruit Logistica ends, Hong Kong

OCTOBER

| SUN | MON | TUES | WED | THU | FRI | SAT |
|-----|-----|------|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | 1 | |

October

- 21** Sial Trade Fair begins, Paris
- 25** Sial Trade Fair ends, Paris
- 30** 18th Australian Almond Conference, Pullman Hotel, Melbourne (October 30 - November 1)



Fig & Honey Custard Tartlets

INGREDIENTS

Shortcut pastry

- ½ cup rice flour
- 1 cup almond meal
- 1 free-range egg
- 2 tbsp olive oil (any oil will work)
- 1 tbsp honey

Filling

- 2 free-range eggs
- ½ cup milk or cream
- 1 tbsp vanilla essence
- 2 tbsp honey
- 2 fresh figs, sliced
- 2 tablespoon lime juice

METHOD

1. Pre-heat oven to 180°C fan forced. Using a food processor, combine rice flour, almond meal, egg, honey and oil. Blitz until the mixture comes to a ball.
2. Divide pastry into four portions, rolling out each to 1cm-thickness.
3. Transfer pastry into tart tins pressing into edges and trimming excess pastry hanging over the edges. Bake in pre-heated oven for ten minutes.
4. To make custard, combine eggs, milk, vanilla and honey in a mixing bowl and whisk until well combined.
5. Remove tart shells from oven. Evenly divide custard mixture into shells and gently float fig slices on top of custard filling.
6. Place tarts back into the oven to bake for a further 30-40 minutes or until custard has set. Allow to cool slightly, drizzle with honey and serve with natural or Greek yoghurt.

Recipe source: Dietitians Association of Australia

