

Final Report

Dried Grape Industry Development Project – Stage 1 and Stage 2

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Dried Fruits Australia Inc

Project code:

DG13001

Project:

Dried Grape Industry Development Project – Stage 1 and Stage 2 – DG13001

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Summary

To take full advantage of an improved terms of trade in the Dried Grape industry this project, through the employment of an Industry Development Officer (IDO), has sought to address the following objectives:

- Restoring the Australian industry's production base by actively facilitating the adoption and 'fine tuning' of best practice production systems & technologies and thus assisting to increase grower viability by increasing crop yields, lowering costs & improving fruit quality
- Encouraging grower investment in new technologies & practices so that 90% of the national crop was trellis dried by 2015/16
- Ensuring that the latest R&D results and other relevant best practice management information are extended to growers and other stakeholders for adoption, enhancing the industry's skills base.
- Improving communication with growers and other stakeholders through the use of a wide range of communication tools (including magazines, press articles, e-newsletters, training workshops, field walks and face to face meetings)
- Supporting industry projects related to the evaluation and development of new dried grape varieties with desired traits, enabling Australia to produce a high value differentiated product sustainably under a range of conditions
- Using monitoring and evaluation to continuously improve the project, best management practices and communication to ensure that any improvements are rapidly disseminated and adopted

The project commenced 6 January 2014 and ended on 31 Dec 2017 (in line with the contract approvals and contract variation). Through this project the industry has:

- Kept up to date with national and international research relating to dried grape production, best practice irrigation management and other new technologies and undertook extension of the latest findings.
- Maintained networks with researchers and other extension officers within relevant State & Federal agencies and worked collaboratively in presenting information at workshops and field walks.
- Conducted grower meetings, field walks, training workshops & face to face meetings on growers' properties.
- Regularly prepared e-newsletters and media articles detailing best management practices as required.

The project has delivered a significant extension program comprising

- 27 field walk presentations
- 5 fact sheet which includes an extensive three-part best management practice guide

- Responding to 520 grower enquiries
- 239 farm visits
- Development and distribution of spray diaries
- 30 new businesses trained in the Dried Grape Approved Supplier Program

This has been underpinned by a strong communication program that delivered:

- 23 media articles
- 55 editions E-News
- 3 live stream Facebook events
- 17 cross industry networking meetings with the Horticulture industry network
- 12 DFA branch meetings and
- 7 industry wide grower forums.

Direct links with the Dried Vine Fruit Diversification and Sustainability Initiative has contributed to that project achieving 220 Ha of new developments of new varieties of 'sultana type' grapes, which is likely to produce between 1,600 - 1,900 tonnes of dried grapes.

Analysis of 113 targeted evaluations during the project has clearly demonstrated that the project has:

- Delivered high quality information and presentations at all events.
- Improved participants knowledge and skills as a result
- Resulted in the likely adoption of best practice by participants

Keywords

Dried grapes

Best Management Practice

New varieties

Adoption

Management systems

Irrigation efficiency

Mechanisation

Investment

New technologies

Evaluation

Introduction

The Australian dried grape industry has been through difficult times during the past decade due to a number of influencing factors. These include drought, reduced water availability, periods of low returns, the high Australian dollar and high labour costs.

However the industry has shown resilience in working through these challenging situations with growers adopting management systems to improve irrigation efficiencies and allow the mechanisation of harvest and some pruning operations to reduce the reliance on high cost labour inputs.

These innovations have been widely adopted by the industry's leading growers due to a willingness of the innovators and early adopters of the industry to share their knowledge and experiences with their peers.

In more recent times, the industry outlook has improved significantly due to improved water availability, the weakening of the Australian dollar and higher returns for dried grapes due to a firm global market situation.

To take full advantage of the improved situation, the industry, through this project and the employment of an Industry Development Officer (IDO), sought to address the following objectives:

- Restoring the Australian industry's production base by actively facilitating the adoption and 'fine tuning' of best practice production systems & technologies and thus assisting to increase grower viability by increasing crop yields, lowering costs & improving fruit quality
- Encouraging grower investment in new technologies & practices so that 90% of the national crop was trellis dried by 2015/16
- Ensuring that the latest R&D results and other relevant best practice management information are extended to growers and other stakeholders for adoption, enhancing the industry's skills base.
- Improving communication with growers and other stakeholders through the use of a wide range of communication tools (including magazines, press articles, e-newsletters, training workshops, field walks and face to face meetings)
- Supporting industry projects related to the evaluation and development of new dried grape varieties with desired traits which will enable Australia to produce a high value differentiated product sustainably under a range of conditions
- Using monitoring and evaluation to continuously improve the project, best management practices and communication to ensure that any improvements are rapidly disseminated and adopted

Throughout the period of this project, the Industry Development Officer:

- Developed half yearly work plans with clear objectives, activities and expected outputs and outcomes, that reflected industry priorities
- Kept up to date with national and international research relating to dried grape production, best practice irrigation management and other new technologies and undertook extension of the latest findings.
- Maintained networks with researchers and other extension officers within relevant State & Federal agencies and worked collaboratively in presenting information at workshops and field walks.
- Conducted grower meetings, field walks, training workshops & face to face meetings on growers properties.
- Regularly prepared e-newsletters and media articles detailing best management practices as required.

The day to day management of the project was overseen by the Dried Fruits Australia CEO with project guidance provided by a Project Management Committee (PMC), otherwise known as the Drying for Profit Committee.

The PMC initially comprised a membership including representatives from Dried Fruits Australia, CSIRO and the industry processors:

- Dried Fruits Australia – Jenny Treeby, Stephen Bennett, Ivan Shaw
- Processors – David Swain (Sunbeam Foods)
- CSIRO – Peter Clingeffer
- IDO – John Hawtin
- The HAL Industry Services Manager for Dried Grapes, (while in position) and Dried Fruits Australia CEO were ex-officio members of the PMC.

The main outcome from this project was to facilitate an increase in the productive base and sustainability of the Australian dried grape industry through the continuing adoption of continuously improved production systems and practices which assist growers to be productive, sustainable and profitable.

The IDO worked with all dried grape growers located mainly in the Sunraysia region of NSW/Victoria with smaller numbers in the Riverland region of South Australia.

In November 2016 the project was extended for another year allowing the development of a further 2017 work plan that was delivered by a part time (2 days per week) Industry Field Officer. Over this last year the PMC, along with other industry representatives, provided input to the Field Officer to ensure the delivery of valuable new and innovative R&D information to dried grape growers.

Methodology

This project focused on lifting growers' production and management skills by using a range of extension techniques including field walks, workshops, and various communication tools such as the industry magazine, timely strategic emails and e-Newsletters.

The methods used by the Industry Development Officer in pursuing the project's objectives were:

- Extension of latest research findings relating to dried grape production and new technologies
- Consultation & liaison with growers using face to face meetings, field walks and workshops.
- Communication with growers by preparing different material, e-news and press articles.
- Networking with other IDO's and researchers and attending joint horticulture industry meetings to exchange information and knowledge & increase skills.
- Ensuring food safety by supporting the Dried Grape Approved Supplier Program (DGASP) and monitoring of chemical registrations.

In implementing these methods, the IDO's activities were focused on:

- Working closely with leading growers to identify and promote 'best practice' production methods.
- Promoting use of world's best practice & providing technical support to growers.
- Using field walks, workshops & similar methods to develop growers skills & knowledge base.
- Encouraging the planting of new varieties, with higher yields, resistance to rain damage and suitability for mechanisation to spread the risk throughout the harvest period.
- Facilitating 'demonstration blocks' and on farm trials with plantings of new varieties and rootstocks or the latest technologies amongst interested growers willing to share information/experiences with other growers.
- Communicating regularly with growers by various means including quarterly preparation of articles for The Vine magazine, e-newsletters on a fortnightly basis or as required and other materials as required.
- Ensuring food safety by facilitating grower participation in the Dried Grape Approved Supplier Program (DGASP) and annual updating of the DFA Chemical Spray Diary and associated chemical registration information.

Outputs

Activity	Outputs	Outcomes
Objective 1- Training Program: Development & Implementation		
Training program	5 Dried Grape Approved Supplier Program training courses were run at the DFA offices in Mildura (16/10/2014, 31/05/2015, 30/11/2015, 31/05/2016, 30/11/2016) 30 participants completed the course.	Participants completed the program to meet the quality assurance requirements of dried fruit processors
On farm field walk	27 presentations: New varieties (12/02/2014, 18/01/2015, 17/01/2016) Finish drying of fruit (15/04/2014) Cane fruitfulness (24/05/2014) Top working vines (28/11/2014) Cordon Bunch removal (16/11/2015) Botrytis (29/09/2015) Sunglo planting (3/02/2016) Hail Recovery (22/11/2016) Mildura Filed day display (23/04/2014, 23/02/2015, 21/05/2016) Vertical trellis cutter bar demo (3/02/2017) Bizmod business planning software (18/04/2017, 09/05/2017, 11/05/2017) Cane stripper demonstration (5/05/2017) Mildura field days display (20/05/2017)	Participants improved their skills and knowledge in techniques discussed. Allowing them to make decisions about the adoption of these practices in their business. Analysis of the 2017 evaluation data collected at these events demonstrated: <ul style="list-style-type: none"> • High quality information was presented at all events. • Participants developed new knowledge and skills as a result • Participants were very likely to adopt discussed practices into their business

Activity	Outputs	Outcomes
	Pruning technique for new varieties (21/06/2017) Irrigation management Water trading (27/07/2017) Powdery and Downey Mildew Hail recovery research (14/08/2017) Managing Cordon Bunches (15/09/2017) Chemical removal of cordon bunches (12/10/2017) Vineyard Redevelopment (21/11/2017) 416 participants across all events.	
Research facility tours.	2 tours: Agribio and Monash University tour (24/05/2017) CSIRO, University of Adelaide, and University of South Australia (15-16/12/2017) 14 Participants across both events	Participants gained a better understanding of the research facilities and skills available to the Dried Grape industry.
Dried Grape Processor's field days.	2 presentations: Irrigation Management <ul style="list-style-type: none"> ○ 01/11/2017 Sunbeam receival site Koorlong Ave, Irymple. ○ 12 participants Vine Nutrition <ul style="list-style-type: none"> ○ 15/11/2017 SuniTAFE Farm Dairtnunk Ave Cardross. 	Ensured coordination between Processor's and this DFA, Hort. Innovation funded program. Participants improved their skills and knowledge in techniques discussed. Allowing them to make decisions about the adoption

Activity	Outputs	Outcomes
	<ul style="list-style-type: none"> ○ 20 Participants <p>The IDO attended and coordinated with Sunbeam’s field day program.</p>	of these practices in their business.
Objective 2- Research & on farm trial activities		
Chill measurement trial.	Annually specific Chill days data was collected and distributed to growers for the 2014,2015,2016 seasons.	Growers better able to determine the need for application of chemical to promote even budburst.
Dormex Trial	A trial on the effectiveness of Dormex application on improving more even bud burst was run in 2014 and 2015, particularly in year where there is a poor chill factor (Low number of chill days)	Neither 2014 or 2015 season had poor chill factors making it difficult to determine if the application of Dormex improved the evenness of budburst
Investigation of instances of dieback in Sunmuscat. cordons	During 2015 and 2016 sample of affected vines were analysed for trunk diseases and nematode status	<p>Following the results of the analysis of the trunks, roots and soil, growers are being advised to be cautious planting vines on Paulson rootstock especially where there has been a history of vine or citrus production having left large populations of Root Knot and citrus nematodes.</p> <p>Growers planting Sunmuscat are advised to undertake a nematode survey/analysis before planting</p>
Dried Vine Fruit Diversification & Sustainability	The IDO participates on the Project Management Committee (PMC) and receives most of the Expressions of Interest (EOI) from growers. The IDO works closely with the project manager, Wayne Street. The IDO has a role in verifying	The project has fully committed the funds for subsidies to growers amounting in 220 Ha of new developments of new varieties of

Activity	Outputs	Outcomes
Initiative.	<p>that contracted investments have been completed.</p> <p>Sunglo has been promoted as the preferred variety and its positive characteristics of high consistent yields and not splitting due to pre-harvest rain was promoted.</p> <p>The IDO dealt with 46 enquiries for new varieties.</p>	'sultana type' grapes, which is likely to produce between 1,600 - 1,900 tonnes of dried grapes.
Bud fruitfulness.	Annually specific bud fruitfulness data was collected for the 2014,2015,2016 seasons across a sample of dried grape vineyards. Information was disseminated to growers at that time for seasonal relevance.	Growers used information to guide decisions involving the amount and length of canes to kept during pruning
Propagate & Multiply Lider rootstock cuttings from suckers from 1 vine.	Vines recovered from a previous rootstock trial site and 20 plants successfully grown in pots in preparation for virus removal process and subsequent multiplication for commercial release.	Lider 187-24 rootstock, a highly productive and drought resistant stock, will be a commercially available alternative rootstock for the dried grape industry after it has been virus "cleaned" and multiplied in a nursery situation.
Objective 3-Consultation & Liaison with growers		
Liaise with the Dried Grape Evaluation Project (DG13004) Project Officer	The IDO participated as member of the Project Management Committee for this project and assisted in the evaluation and testing of the dried grape samples.	Potential new varieties for dried grapes coming through the evaluation program have been shown at the 2014-2016 Mildura Field Days.
Attend grower forums and branch meetings	<p>12 DFA Branch Meeting attended by project officer.</p> <p>Project officer presented research outcomes and seasonal review information at 7 DFA forums.</p>	<p>Improve communication channels within the industry.</p> <p>Input to the development of 2017 work</p>

Activity	Outputs	Outcomes
		<p>program.</p> <p>Review of 2017 program and input to preparation of next project funding application</p>
<p>Visit growers in Sunraysia & Riverland of South Australia.</p> <p>(2014-16)</p>	<p>239 farm visits were made to growers in in the Sunraysia and Riverland regions</p>	<p>Issues discussed and answered have ranged from:</p> <ul style="list-style-type: none"> • Information on licensed new varieties Sunglo, Black Gem and Bruce’s Sport. • Information on other new varieties Diamond muscat, Summer muscat, Selma Pete, Merbein seedless and Sunmuscat. • The Dried Vine Fruit Diversification & Sustainability initiative (20% subsidy on capital development costs). • Disease and pest identification and their management. • Vine training and management. • Advice about all aspects of harvest • Trellising and vine training.
<p>Respond to phone enquiries from growers and agencies requiring information.</p> <p>(2014-16)</p>	<p>520 grower phone enquiries were responded to</p>	<p>Issues discussed and answered have ranged from:</p> <ul style="list-style-type: none"> • Information on licensed new varieties Sunglo, Black Gem and Bruce’s Sport. • Information on other new varieties Diamond muscat, Summer muscat, Selma Pete, Merbein seedless and Sunmuscat.

Activity	Outputs	Outcomes
		<ul style="list-style-type: none"> • The Dried Vine Fruit Diversification & Sustainability initiative (20% subsidy on capital development costs). • Disease and pest identification and their management. • Vine training and management. • Advice about all aspects of harvest • Trellising and vine training.
Objective 4- Preparation of materials, press articles & interviews		
Vine Magazine articles.	15 articles were published in “The Vine” http://www.driedfruitsaustralia.org.au/the-vine	Written information supported growers’ decision-making process regarding adoption of new varieties and best management practices.
E news publications. (2014-16)	55 “E-News” issues were emailed via industry wide database. http://www.driedfruitsaustralia.org.au/member-news	Written information supported growers’ decision-making process regarding adoption of new varieties, specific disease out breaks, best management practices and promotion of project events.
Media releases.	8 print media articles were released http://www.driedfruitsaustralia.org.au/member-news	Written information supported growers’ decision-making process regarding adoption of new varieties, specific disease out breaks, best management practices and promotion of project events.
Prepare a range of	5 information sheets were produced and distributed.	Written information supported growers’

Activity	Outputs	Outcomes
information sheets on production management systems.	http://www.driedfruitsaustralia.org.au/resources <ul style="list-style-type: none"> • Dried Grape Best Practice Guide Part 1 • Dried Grape Best Practice Guide Part 2 • Dried Grape Best Practice Guide Part 3 • New Varieties fact sheet • Hail Recover fact sheet • Cordon Bunch removal 	decision-making process regarding adoption of new varieties and best management practices.
On-Line notice board. (2017)	<p>Three of workshops listed above were videoed and streamed live to Facebook.</p> <p>Video edited and put up on DFA You tube channel</p> <p>https://www.youtube.com/channel/UCX0YH4NFH8Jxh1pJoMu493A</p>	<p>All Australian Dried Grape growers were able to access the information from the presentations. At the time of this report, cumulatively, these three videos have been viewed 454 times.</p> <p>Growers able to liaise with DFA share comments about the presentation on the Facebook page</p>
Objective 5 - Networking with other IDOs, joint horticulture meetings		
Attend HIN/Victorian DEDJTR meetings.	IDO attended 15 HIN meetings and 2 DEDJTR IDO meetings	<p>Shared experience between similar extension work across horticulture industries.</p> <p>Improved IDO skill and understanding in:</p> <ul style="list-style-type: none"> • Biosecurity incursion management • Program evaluation • OH&S Systems and requirements

Activity	Outputs	Outcomes
Objective 6 - Food safety & monitoring of chemical registrations		
Review and amend 'Recommended Agrichemicals' booklet from AWRI and produce industry Spray Diary. (2014-16)	4 annual spray diaries (2014,15,16,17) were developed and distributed to Dried Grape growers	Dried Grape growers able to meet the quality assurance specifications of Dried Grape processors
Emergency Planning	The dried grape industry has created an emergency plan as an action plan if a catastrophic event such as heavy rain that causes splitting of grapes occurs. The emergency plan was reviewed each year and contact details of key personnel were confirmed or changed where required. The plan ensures that the industry can act quickly and effectively if necessary, with growers being alerted in a clear and timely manner.	Emergency plan ready for implementation should events occur.

Outcomes

The project has aimed to achieve the following outcomes for the industry:

1. Restoring the Australian industry's production base by actively facilitating the adoption and 'fine tuning' of best practice production systems & technologies and thus assisting to increase grower viability by increasing crop yields, lowering costs & improving fruit quality
2. Encouraging grower investment in new technologies & practices so that 90% of the national crop was trellis dried by 2015/16
3. Ensuring that the latest R&D results and other relevant best practice management information are extended to growers and other stakeholders for adoption, enhancing the industry's skills base.
4. Improving communication with growers and other stakeholders through the use of a wide range of communication tools (including magazines, press articles, e-newsletters, training workshops, field walks and face to face meetings)
5. Supporting industry projects related to the evaluation and development of new dried grape varieties with desired traits which will enable Australia to produce a high value differentiated product sustainably under a range of conditions
6. Using monitoring and evaluation to continuously improve the project, best management practices and communication to ensure that any improvements are rapidly disseminated and adopted

With respect to the first outcome, the project has delivered a significant extension program comprising

- 27 field walk presentations
- 5 fact sheet which includes an extensive three-part best management practice guide
- Responding to 520 grower enquiries
- 239 farm visits
- Development and distribution of spray diaries
- 30 new businesses trained in the Dried Grape Approved Supplier Program

All of these activities have been focused towards supporting Dried Grape growers' development of skills and knowledge necessary to adopt the latest best management practices and systems. Evaluation data from across the life of the project has clearly demonstrated that growers in particular are highly likely to adopt the messages delivered through these events.

Adoption of trellis drying is now at a high for the industry. It is now considered the normal operation for the industry with older rack drying systems being an exception or limited to specific production of Gordo Raisins. Discussion with processors indicates that 90% their intake of fruit is now coming from vineyards that Trellis Dry.

Through ongoing collaboration with the research community, there has been successful delivery of on-farm field walks along with five major research and on farm trial activities undertaken in this project. These projects and events have clearly ensured that the latest research and development has been made available to Dried Grape growers.

Achieving improved communication amongst growers and stakeholders has been a strength of this project through the delivery of and participation in:

- 23 media articles
- 55 editions E-News
- 17 cross industry networking meetings with the Horticulture industry network
- 12 DFA branch meetings and
- 7 industry wide grower forums.

Links with projects supporting the evaluation and development of new dried grape varieties has been extensive. Promotion of potential new varieties at the Mildura field day has built awareness across the whole industry, from growers to processors and retailers, of the traits of these developing varieties. Direct links with the Dried Vine Fruit Diversification and Sustainability Initiative by the IDO has contributed to that project achieving 220 Ha of new developments of new varieties of 'sultana type' grapes, which is likely to produce between 1,600 - 1,900 tonnes of dried grapes.

Evaluation and discussion

Analysis of the targeted evaluation data collected during the 2017 field day program has clearly demonstrated that the project has:

- Delivered high quality information presented at all events.
- Improved participants knowledge and skills as a result
- Resulted in the adoption of best practice by participants

This backs up data collected previously during the project indicating that as a result of attending on farm field days, 92 % of growers surveyed would adopt specific dehydration practices and that 60% would adopt new cordon bunch removal practices while the remaining 40% would adopt after gaining further experience.

A compilation of the 2017 evaluation data collected from 113 evaluation surveys collected across 14 presentations has some important messages.

Figure one demonstrates how significant “E-News” is as an industry communication tool with a great majority of the evaluation participants citing it as the way that they found out about the event. However, it also clearly demonstrates that it is important to put event notifications out through a variety media channels

Figure one “Event Notification”

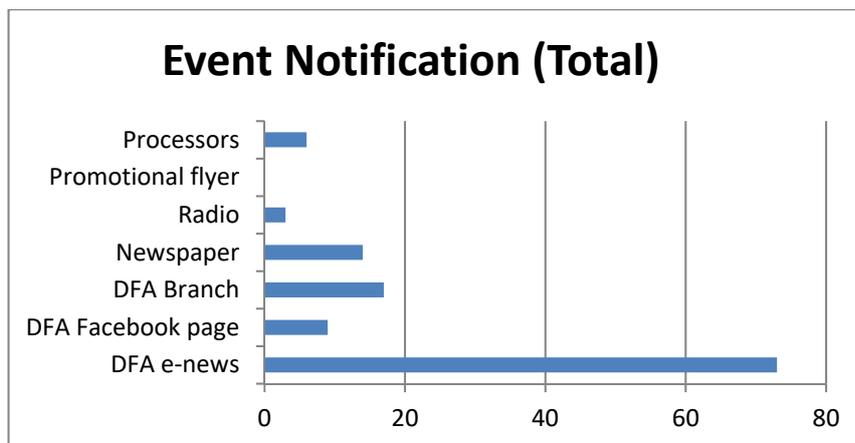


Figure 2 provides us with an understanding of the age profile of the dried grape industry. While the peak may be in the 50 – 59 age group there are a significant number of participants below that age who will represent the future of the industry. Older growers in the industry are obviously still actively managing their businesses as evidenced by their participation in these learning events.

Figure 2 "Age distribution of participants"

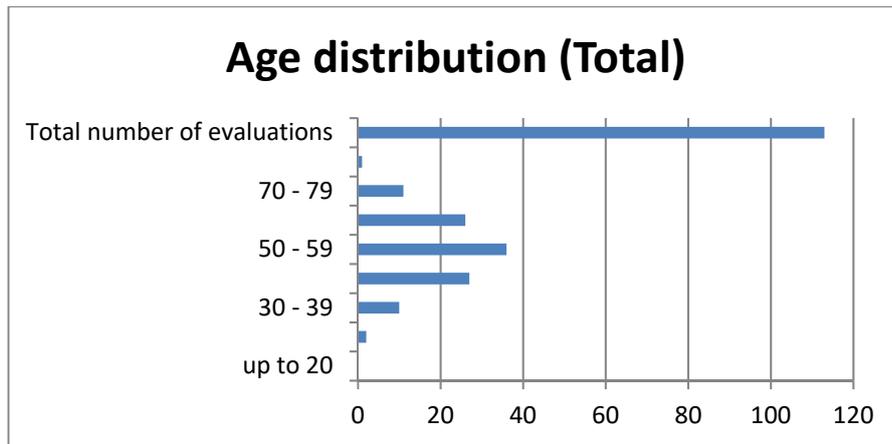


Figure 3 shows that the project has engaged strongly with growers of dried grapes and it is being supported by field staff from the major processors. Other participants have been industry supply businesses, such as labor hire providers, and agri-journalists

Figure 3 "Industry Role"

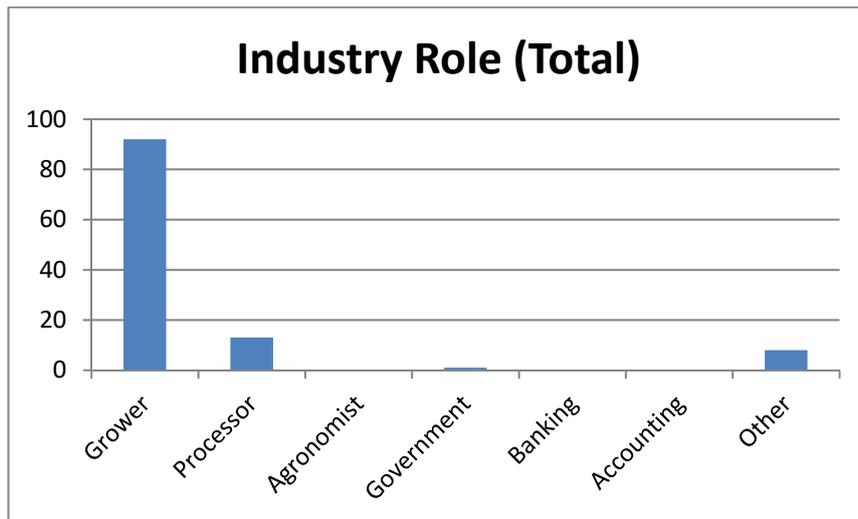
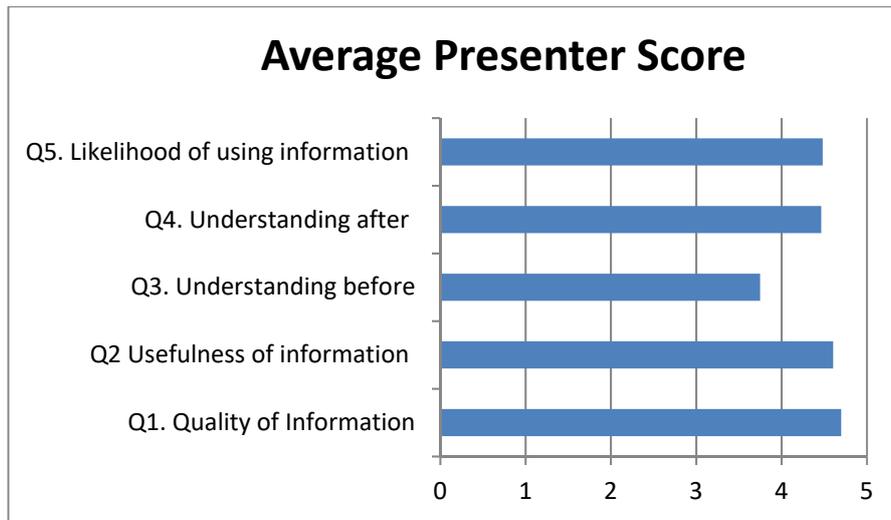


Figure 4 presents the most important results. All the questions have been posed on a 5 point scale with 1 being low or poor and five being high or good. On average across all of the presenters the information is of a high quality (scoring 4.7). The average usefulness score is also very positive at an average of 4.6. The slightly lower score here represents the fact that not all topics were of high interest to all participants. Given the variations in growers' experience and business structures then this small dip is probably unavoidable. The jump in scores between the answers for "Understanding Before" (3.7) and "Understanding afterwards" (4.5) represents the perceived gain in knowledge. Finally the average score against "likelihood of using information" is a very strong 4.5 indicating that in the majority of cases participants were going to use some of the information presented in their business

Figure 4 "Average Presenter scores"



Individual evaluation data for each of the presenters evaluated has been given to them so that they can better understand the impact of their presentations and identify if any improvements are required.

The evaluation clearly demonstrates that this project is helping Dried Grape growers adopt best practice technologies and skills into their businesses. Note that all 113 individual evaluations are available but will not be published because of privacy concerns with regard to the presenters.

Recommendations

The Dried Grape industry is actively seeking new information as demonstrated by the participation level in these events. With the stabilization of price in recent years it is clear that there is a growing confidence to invest in redevelopment and expansion of the industry.

Recommendations include:

- Continue to build industry confidence and investment through an ongoing industry development project which focuses on thorough consultation ensuring refinement, demonstration and promotion of best practices.
- Consult with industry to ensure that activities included within the industry development project clearly demonstrate how they significantly assist growers' in building their skills and knowledge.
- The best value for money impact seems to be derived from the on-farm, field walk program supported with links to current researchers, their research experiments and, an on-farm trial program. This combination has allowed growers to share information with other growers as well as interact with the leading researchers while still remaining in the farm business context.
- Maintaining consistent and high quality communication processes across the industry will also be a vital component of any future success in project activities similar to those delivered in this project. One such example is the publication of on farm presentation in a live link Facebook video format. This communication channel has resulted in a 10-fold increase in the access to this information.

Scientific refereed publications

None to report

Intellectual property/commercialisation

No commercial IP generated

References

N/A

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Mr John Hawtin – former Industry Development Officer

Mr Phil Chidzey – former CEO Dried Fruits Australia

CSIRO – Dr Peter Clingeleffer

Victorian Department of Agriculture – Horticulture Industry Network

Appendices

Appendice 1: Communications Activities 2017

- Excerpts from e-news Industry Development 2017

Appendice 2: Communications Activities 2017

- Excerpts from The Vine

Red Cliffs grower meeting

Dried grape vine nutrition will be discussed at a Dried Fruits Australia Red Cliffs Branch meeting tomorrow night.

Growers are invited to attend the 11 May meeting, which kicks off at 8pm at the Red Cliffs Club.

Speakers will include Michael Treeby, who will cover vine nutrition; and DFA field officer Stuart Putland, who will talk about what's happening within the organisation and planning branch events for the rest of the year.

Local dried fruit takes world stage

Quality Australian dried fruit is on show at the largest baking industry tradeshow in the world.

Dried Fruits Australia, Murray River Organics and Sunbeam Foods are representing Mildura at Bakery China 2017, which is expected to attract more than 100,000 visitors between May 10 and 13.

Held annually since 1997, Bakery China gathers industry professionals together in Shanghai to share the latest innovations and trends in research and development, manufacturing, distribution, food service and retail.

DFA Chairman Mark King said the delegates would be meeting with government representatives and processors, and exploring how to get our premium product into the market.



This project has been funded by Horticulture Innovation Australia Limited using the Dried Grape Industry research levy and funds from the Australian Government.

Disclaimer:

Dried Fruits Australia provides this information in good faith and of a general nature. Growers should make their own decisions regarding individual situations and property conditions.

Prepare to prune

Dried grape growers are invited to attend a field walk focused on sharing pruning techniques and experiences.

Organised by Dried Fruits Australia's Merbein branch, with support from Horticulture Innovation Australia, the event will be held at 3pm on Wednesday 21 June.

It will also include discussions with CSIRO researcher Peter Clingeffer and dried fruits industry innovator Ivan Shaw.

Pruning vines makes up almost 30 per cent of the cost of producing dried grapes, and the quality of the job done now will significantly impact production for this and following seasons.

New varieties such as sunmuscat and sunglo add another level of complexity, as different pruning techniques are required for these and the old industry standard variety, sultana.

All dried fruits growers from across the region, including non-DFA members, are encouraged to attend and join in the discussion around these issues.

Please RSVP to DFA on 5023 5174 or projects@driedfruitsaustralia.org.

Event details

Date: Wednesday 21 June
Time: 3pm – 5.30pm
Where: Start at 209 Calder Highway, Merbein
Finish at 229 Main Avenue, Merbein



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Growing dried fruit partnerships in China

Dried Fruits Australia will receive a \$11,500 funding grant to expand export opportunities for premium dried grapes at the China Fruit and Vegetable Trade Fair in November.

The Federal Government grant, awarded under the Australia-China Agriculture Cooperation Agreement, was announced this week by Deputy Prime Minister Barnaby Joyce.

Read the full media release and other news on the [DFA website](#).

Vine-pruning field walk on tomorrow

Growers, don't forget about tomorrow's opportunity to view vine pruning in the field.

The field walk, organised by DFA's Merbein branch with support from Hort Innovation, will be held at 3pm in Merbein.

All dried grape growers are invited to attend and share pruning techniques and experiences. The event will also include discussions with CSIRO researcher Peter Clingeffer and dried fruits industry innovator Ivan Shaw.

Please RSVP to DFA on 5023 5174 or projects@driedfruitsaustralia.org.

Event details

Date: Wednesday 21 June

Time: 3pm – 5.30pm

Place: Start at 209 Calder Highway, Merbein
Finish at 229 Main Avenue, Merbein

Join the Rural Women's Network

Rural and regional Victorian women are invited to register for the Rural Women's Network, which is starting up again on 1 July. The network first operated from 1986 to 2013, and at its peak had 11,000 subscribers.

The new network will work with Victoria's rural women's groups and individuals to share ideas and information. It will also encourage women to have a more active voice in government and community decision-making.

Find out more and sign up [here](#).



This project has been funded by Horticulture Innovation Australia Limited using the Dried Grape Industry research levy and funds from the Australian Government.

Disclaimer:

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Vineyard irrigation workshop

Irrigation is the biggest – and arguably the most important – input growers have into the production of dried fruit.

But our recent history of drought and low water allocation, coupled with new varieties and more expansive growing systems, means some growers may not have been watering vineyards to their full potential.

DFA and Agriculture Victoria will be working with growers on a range of irrigation issues at a workshop on Thursday 27 July.

Discussion topics will include: vine irrigation needs after cutting, managing water during heatwave events, and the amount of water required to maximise irrigation and production.

Ruralco's Peter Morrish will also advise growers on the best way to structure a water portfolio to ensure irrigation water is available when needed.

All dried grape producers are invited to attend the event, which will be held at Daryn Gardner's property – 181 Euston Avenue, Irymple. It will start at 3.30pm and conclude at 6.30pm with a barbecue.

Contact the DFA office to register on 5023 5174 or admin@driedfruitsaustralia.org.au.



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Applications open for US study tour

Dried grape growers can now apply for an opportunity to learn from the biggest and best-resourced player in the industry.

Dried Fruits Australia will take a group of growers and processors on an industry study tour to California in September.

During the 10-day tour, participants will talk to leaders in research, on-farm production, processing and packaging with the aim of identifying new ideas that could improve the productivity of our industry

Funding from Hort Innovation has allowed DFA to offer a subsidised study tour to dried fruit producers, but participants will be asked to contribute to some of the costs.

Growers are encouraged to register as soon as possible, as places are limited. Applications close 5pm, Tuesday 1 August.

For more information and to apply, contact DFA on 5023 5174 or admin@driedfruitsaustralia.org.au.

Improving safety on the farm

The number of people losing their lives from on-farm incidents has significantly decreased in the past 25 years, but there is more work to be done to make farms safer.

This is the message from the National Farmers' Federation (NFF) and Farmsafe Australia during Farm Safety Week 2017, which runs from July 17 to 21.

The yearly average of lives lost from farm incidents has decreased from 146 in 1991 to 63 in 2016. This year there has been 32 tragic deaths, with the highest number resulting from injuries sustained in quad bike and farm machinery incidents.

Farmers can take practical steps to improve farm safety:

- Develop a safety plan that identifies potential hazards, and take actions to fix them.
- Always be on the look-out for new hazards and fix them as soon as possible.
- Set clear safety procedures for risky work.
- Ensure everyone who works on the farm understands and uses the safety procedures.
- Develop and communicate an emergency plan in case of any incidents.
- Fit a crush protection device to quad bikes and always wear a helmet.

**Hort
Innovation**

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Disclaimer:

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US study tour applications closing soon

Dried grape producers have less than a week to apply for the 2017 Californian Raisin Industry Study Tour.

Dried Fruits Australia will take a group to the USA in September to identify new ideas that could improve the productivity of our industry. During the 10-day tour, participants will talk to leaders in research, on-farm production, processing and packaging.

Funding from Hort Innovation has allowed DFA to offer a subsidised study tour to growers, but participants will be asked to contribute to some of the costs.

Applications close 5pm, Tuesday 1 August. Places are limited.

For more information and to apply, contact DFA on 5023 5174 or admin@driedfruitsaustralia.org.au.

Horticulture travel scholarship available

Young horticulturists passionate about developing their skills can apply for an overseas travel scholarship.

BBM Youth Support and the Australian Institute of Horticulture are offering the \$8000 horticulture scholarship to a person between the ages of 16 and 23 with an interest in development opportunities in the UK.

The award is designed to help the recipient develop specialist skills and widen their networks. Upon their return, they are encouraged to share these skills, enriching communities as role models, mentors, teachers and employers.

The award funds airfares and cash to cover other expenses, including accommodation and living costs.

Applications close 1 August, and all applications will be sent to a judging panel for assessment.

Visit the [BMM Youth Support website](#) for more information and to apply.



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Irrigation field day wrap-up

Irrigation management and water trade were the topics covered at our July field day, which was attended by about 25 growers and industry staff.

Agriculture Victoria's Jeremy Giddings spoke about balancing the vines' significant demand for water between cutting and harvest, and applying water without causing fruit to darken. Jeremy also said that well-positioned and maintained real-time soil moisture probes were critical to understanding the changing irrigation needs of vines.

Additionally, Peter Morrish from Ruralco Water provided insight into the water market and trading options available to individual irrigators, and offered guidance on how to make trades.

Many thanks to Daryn Gardner for hosting the event and for the impromptu guided tour of his property and machinery shed.

Pump efficiency workshop

As the cost of energy rises, having an efficient pump is becoming more important. However, pump testing in many regions of Australia, including Sunraysia, found that about half were not performing efficiently.

A workshop will be held in Mildura on Tuesday 8 August to demonstrate simple measures irrigators can use to determine their pump's efficiency level and address poor performance.

Presenter Peter Smith, formerly of NSW DPI, will cover the following topics:

- Types of pumps
- Basic principles, understanding pump curves and specifications
- Determining pump performance in the field
- Calculating cost benefit of correction
- Pump selection
- The benefits of variable speed drives

The workshop will be held from 2pm to 5pm at the corner of Koorlong Avenue and Eleventh Street, Irymple. For more information and to register, contact Jeremy Giddings on 5051 4566 or at jeremy.giddings@ecodev.vic.gov.au.



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Controlling disease in the vineyard

Dried Fruits Australia is hosting a field day on Monday 14 August to help growers manage grapevine infections, powdery mildew and downy mildew.

Making just one mistake in disease management can have devastating results at harvest for dried fruit growers, and there are huge differences in how to prevent and manage these two infections.

Plant pathology expert Peter Magarey will be on hand to discuss the latest management strategies.

The event will be held at Michael Dubois' property, 630 Coorong Avenue, Red Cliffs. It will begin at 3.30pm and conclude at 6.30pm with a barbecue.

People interested in attending should contact DFA on 5023 5174 or admin@driedfruitsaustralia.org.au.

Pruning hail damaged vines

Information about the impact last year's hail storm had on vines is now available for dried grape growers. Agriculture Victoria has assessed canes for bud fruitfulness and this week completed analysis of the data collected.

While the team is still writing up the results, Michael Treeby will present the information at Monday's field walk. Come along to see how the research can help you plan pruning strategies for damaged vines.

For those who can't make the full session, Michael's presentation will begin at about 4.45pm.

Bud burst coming soon

Almond trees across Sunraysia have started to flower, which means vine bud burst isn't far away.

This also serves as a reminder to growers to finish pruning before bud burst occurs to allow plenty of time for vineyard floor management to reduce the risk of frosts.

**Hort
Innovation**

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Red Cliffs field day wrap-up

An interactive workshop held in Red Cliffs on Monday focused on helping dried grape growers manage critical grapevine infections.

Plant pathology expert Peter Magarey built on the participants' knowledge of downy and powdery mildew by discussing their current management strategies.

During the second part of the event, Michael Treeby from Agriculture Victoria shared the results of a hail recovery trial conducted following the 2016 Remembrance Day storm.

He also spent time answering questions about what the research meant for participants' individual situations.

More information will be published in the October–December issue of *The Vine*.

Smartphone apps for farmers

Information to help with everyday farm work could be right at your fingertips.

A resource developed by the Ag Excellence Alliance includes a list of smartphone apps and how they can benefit farmers. While many of the apps are specific to broadacre or livestock farming, many are relevant to horticulture businesses.

Download the [Smartphone Apps for Smart Farmers](#) resource, and let us know if any of your favourites aren't on the list so we can share them.

Agricultural chemical training

SuniTAFE is running a two-day chemical user program in Mildura and Robinvale.

The short course is the industry standard for training in chemical use, storage and handling for people applying agricultural chemicals.

The course will be held at the Robinvale campus on August 21 and 22. It will also run at Mildura on September 12 and 19, and November 6 and 13.

The course cost is \$310. Contact SuniTAFE for more information on 1300 478 648.

**Hort
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Let's talk about cordon bunch removal

Dried grape growers will need to decide how to deal with cordon bunches in the next month. Removing them is critical to efficient mechanical harvesting of dried fruit on swing-arm trellis.

Growers have two options – remove the bunches early in the season, or harvest them by hand during the time between cutting vines to dry fruit and the final harvest. Chemical removal minimises the summer pruning operation as there is no need to pay for bunches to be hand-removed and placed on the trellis during harvest.

DFA is bringing industry experts Ashley Johnstone, Rodney Trigg and Ivan Shaw together to discuss removal techniques at a field day on Friday 15 September.

The event will be held from 5pm at the Lloyd's property – 838 Benetook Avenue, Irymple. It will finish with a barbecue. Contact DFA to register on 03 5023 5174 or admin@driedfruitsaustralia.org.au.

A follow-up event will be held in a few weeks to demonstrate spray application techniques and machinery for chemical removal of cordon bunches.

DFA Board nominations close tomorrow

Nominations to join the DFA Board must be in by 5pm tomorrow.

Nomination forms are available from the DFA office and must be signed by two financial producer members and the candidate.

Four producer members will be elected at the DFA Annual General Meeting. Visit the [DFA website](#) for details about the AGM and Annual Growers' Forum.

Upcoming events

Tuesday 3 October

DFA Annual Conference

1pm – AGM

2pm – Growers' Forum

Mildura Grand Hotel

www.driedfruitsaustralia.org.au/annual-conference-2017

**Hort
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Cordon bunch removal demonstration

Dried Fruits Australia is holding a demonstration of spray techniques and machinery for chemical removal of cordon bunches tomorrow.

Sunraysia growers are about to begin this process for the 2017–18 growing season.

Removing cordon bunches is critical to efficient mechanical harvesting of dried grapes on swingarm trellis. It removes the need to pay for bunches to be hand-harvested and placed on the trellis prior to mechanically harvesting dried fruit from the vine.

Design and set up of spray machinery is critical to the proper removal of cordon bunches.

Local contractor Rodney Trigg will help growers with their set up at tomorrow's event, which will be held from 5.30pm at the Lloyd's property – 838 Benetook Avenue, Irymple.

People interested in attending should contact DFA to register.

**Hort
Innovation**

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Never miss a DFA field day

Couldn't make the cordon bunch removal demonstration earlier this month? A [video](#) from the event is now up on our YouTube channel.

It features local contractor Rodney Trigg discussing the process and machinery for chemical removal of cordon bunches. You can also see the cordon sprayer in action.

We know it's not always possible to attend the field days, so we'll be filming more of them for you. It's the next best thing to being there.

You'll be able to watch events live on our [Facebook page](#) and a condensed video later on our [YouTube channel](#). Be sure to follow us there to stay in the loop!

News bites

- Farming together has released an extensive list of funding opportunities to help producers grow their farming enterprise. [The list](#) includes national and state grants.
- Applications for the 2018 AgriFutures™ [Rural Women's Award](#) close on 29 October. Women who want to make a difference in rural and regional communities are encouraged to apply.
- Women in the farming sector can also apply for grants of between \$3,000 and \$8,000 to participate in a range of leadership development programs. The Women and Leadership Australia initiative aims to support the development of female leaders across Australia. [Expressions of interest](#) close 15 December.
- MADEC will run two horticulture courses by demand in November and December. The two-day Auschem Chemical Users Certificate is \$280 and the Refresher AusChem is \$200. Enquiries: contact MADEC Community College on 03 5023 7233 or education@madec.edu.au.



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Vineyard redevelopment field day

Replacing less productive older vines is a vital part of running a successful dried fruit enterprise. Vineyard redevelopment offers producers a valuable opportunity to lift production levels.

Decisions made as part of an ongoing business plan will affect your operation and outcomes for the next 10 to 15 years. To help with some of these decisions, DFA is running a redevelopment field day on Tuesday 21 November from 5.30pm.

The event coincides with the first National Agriculture Day. All growers are welcome to attend and stay on for a barbecue.

It will be held at Ashley Johnstone's property – 2880 Sixteenth Street, Irymple (near the corner of Karadoc Avenue).

Contact the DFA office to register your interest. Learn more about National Agriculture Day, including the #AgDay photo competition, [here](#).

News bites

- DFA representatives, including our CEO Anne Mansell and members of the board, have recently returned from networking and marketing events in the USA and China. A couple of photos are up at our [Facebook page](#), and more information will be included in next issue of *The Vine*.
- New ideas and opportunities to advance Australia's dried grape industry were uncovered during DFA's study tour to the USA in September. See the [media release](#) for more information, and stay tuned for a full report in the January 2018 edition of *The Vine*.
- An article on the history of the dried fruits industry has been published in *Locale* journal. Download the story, entitled Bottled Sunshine, [here](#).



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Join DFA research tour

World-class research and development is critical to the future success of the dried fruits industry. Some of our biggest steps forward have come from growers adopting and adapting new ideas generated by some of the best researchers in the world.

Dried Fruits Australia will lead a tour across the border next week to look at some of the industry research programs being conducted by the CSIRO, University of Adelaide and University of South Australia.

The tour, made possible with funding from Hort Innovation, will leave Mildura early on Friday 15 December. We will return the next day via the Riverland, visiting a couple of dried grape properties on the way home, and aim to be back by mid-Saturday afternoon.

If you're interested in coming along, please contact DFA consultant field officer Stuart Putland by Tuesday 12 December at projects@driedfruitsaustralia.org.au.

Participants will need to cover their own accommodation costs.

Mark King elected to NFF board

Dried Fruits Australia chair Mark King has been elected to the National Farmers' Federation board.

It is the first time someone from a horticulture industry has been appointed to a director role. The move comes as the NFF looks to establish a horticulture council.

Mr King, who was asked to put his hand up for the role, said horticulture would now have more of a voice in Canberra. He said he would draw attention to issues such as the Murray Darling Basin Plan, workplace relations, biosecurity, and marketing.

During the NFF annual general meeting, president Fiona Simpson was also elected for a second term. [Read more](#) about the AGM.

**Hort
Innovation**

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New Field Officer

Stuart Putland has joined Dried Fruits Australia as the new Consultant Field Officer. His main role will be visiting growers, processors and service providers to identify the priority issues for the industry as part of its Hort Innovation-funded Industry Development project.

DFA Chief Executive Anne Mansell said Mr Putland was charged with providing growers relevant information on the latest R&D, new varieties and industry matters. "To help improved industry knowledge and adoption he will facilitate a number of industry events including field walks, grower forums, seasonal review and the DFA Annual Conference."

Mrs Mansell said the industry was fortunate to have someone of Stuart's calibre and experience working for it.



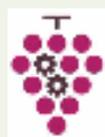
"Stuart has gained a thorough understanding of both horticulture and agriculture through his previous employment and is particularly good

at liaising with farmers. He was at the Victorian Department of Primary Industries for nearly 20 years where he worked in Analysis and Strategy, Horticultural Services and Sustainable Irrigated Agriculture and Land Management.

"He was more recently the Executive Manager of Mallee Sustainable Farming, a farmer-driven organisation delivering research and extension services across the Victorian, New South Wales and South Australian Mallee."

Mr Putland is looking forward to working with dried fruits producers over the course of the year and will be providing further reports through *The Vine* on his activities.

Italy to host 8ITGS



Italy will host the 8th International Table Grape Symposium, the leading scientific event for the sector.

The symposium kicks off on 1 October in Puglia with 5 days of scientific sessions, tours and a round table on logistics and market issues before moving to Sicily for further scientific sessions and tours of facilities and orchards on 6-7 October.

Italy was chosen as host nation because it is a major producer of table grapes and because of its contribution towards innovation in this sector.

The international symposium concept was actually developed in Italy in 1991.

Since then, the scientific community and professionals from all over the world meet every 3-4 years in a table grape-producing country. The last symposium took place in Australia in 2014.

In addition to being an occasion to discuss issues within the table grape sector, the event is also an occasion to talk about the progress achieved and compare results obtained by international research.

Experts from around the world have joined the Organising Committee to ensure an exciting program. The following topics will be discussed:

- production types, economy and marketing;

- ecology, biology and physiology of productions;
- genetic resources and propagation;
- traditional and innovative crop techniques;
- postharvest and processing;
- pest and disease control.

English will be the official language of the symposium, with simultaneous translation into Italian.

The draft programme, first two circulars, subscription links and deadlines are available from the 8ITGS website.

For further information contact:
Il Comitato Promotore,
E: info@8itgs2017.it **W:** 8itgs2017.it

Diary 2017

APRIL

- 5-8** 14th Food & Hotel Indonesia 2017, Jakarta International Expo Centre, Kemayoran, Indonesia. **W:** foodhotelindonesia.com
- 23-27** Australia Made Expo 2017, Shangri-La Hotel in Guangzhou, China. **W:** australiachinaexpo.com
- 25-27** 9th Food and Hotel Vietnam, Saigon Exhibition and Convention Center, Ho Chi Minh City, Vietnam. **W:** foodnhotelvietnam.com/en/home

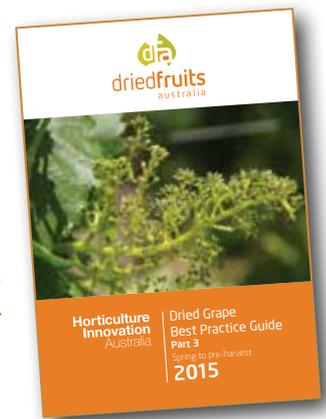
MAY

- 8-11** HOFEX, Hong Kong Convention and Exhibition Centre, Hong Kong. **W:** hofex.com
- 12-13** Riverina Field Days, Griffith Showgrounds. **W:** riverinafielddays.com
- 15-17** Hort Connections, Adelaide Convention Centre, Adelaide. **W:** hortconnections.com.au
- 16-18** PMA Fresh Connections 2017, Adelaide. **T:** (03) 9320 8665, **E:** info@pmafreshconnections.com.au **W:** pmafreshconnections.com.au

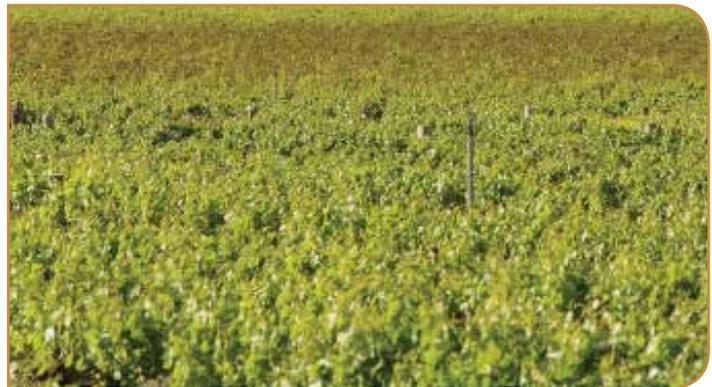
- 16-19** Seoul Food & Hotel 2015, Korean International Exhibition Center, Korea. **W:** seoulfoodnhotel.col.kr
- 18-20** SIAL China, Shanghai New International Expo Centre, Shanghai, China. **W:** sialchina.com
- 19-20** Mildura Field Days, TAFE campus Benetook Avenue, Mildura. Contact: Field Days Coordinator, **M:** 0487 021 122 **E:** info@mildurafielddays.com.au, **W:** mildurafielddays.com.au
- 19-21** XXXVI World Nut and Dried Fruit Congress, Chennai, India. **W:** nutfruitcongress.org

Spring to Pre-Harvest

In spring, the buds and protective scales along grapevine canes swell to reveal brown, woolly hairs (“woolly buds”). As the bud further swells, the tips of young green shoots emerge. In Sunraysia, this is usually around the second week of September. When 60% of the nodes have progressed to this stage the phase is known as budburst. Green shoots become clear and the leaves are completely free about two weeks after budburst; this is referred to as leaf emergence. Careful management is required throughout this spring and early summer period to ensure good shoot growth and cluster and berry development.



Frost damage on vines



A frost-path in a vineyard

Frost Prevention

Although the weather is warming in early September, the risk of frost remains high, with the potential for significant damage to the emerging and tender leaves and fruit buds. The ambient temperature increases by about 1°C for every 30 centimetres above ground level.

Although Swingarm trellis is considered a tall trellis, canes rolled onto the bottom wire may, in fact, be lower than the traditional Tee trellises – hence there is risk for considerable damage if growers are not attentive to frost mitigation management practices during the spring period (roughly from early September until early November).

The soil conditions that most suit the uptake of heat during the day and aid its release at night are:

- A clean inter-row area free of weeds or cover crops (vegetation shades the soils and reduces available moisture, thereby limiting heat uptake during the day)
- Moist soils (which have a greater heating capacity than dry soils)
- Compact, rather than aerated soils (compact soils have a greater mass and are quicker to heat and store heat better. The air in recently-cultivated soils acts as an insulating

layer which limits warming during the day and the release of heat at night.)

- A clean undervine space prepared by killing weeds with herbicides and sweeping debris off the undervine area.

Cultivated soils therefore need to be rolled immediately after cultivation and then irrigated.

Any cover crop or weed cover on uncultivated soils should be slashed as close as possible to the soil surface in August.

Best Practice

Remember to be a good neighbour – your vineyard management practices in spring not only affect your property, but also, potentially, your neighbours’.

So do not undertake management practices that will induce frost. Cold air (and thus frost) wherever it is induced, will move to the lowest spot, and this may be your neighbours’. For example, premature working up of the soil may cause pockets of cold air to form on your property, and these may flow on to your neighbours’ land.

Soil Moisture

Even though the vines are dormant in winter, it is important to maintain adequate soil moisture. If the winter has

been dry, it may be necessary to apply an irrigation during pruning.

An irrigation before leaves begin emerging is critical, because it sets up the vines for a strong budburst. But remember that vines use less water during the spring than during the height of summer when they have a full canopy of leaves, so take care not to over-irrigate.

Sultana fruitfulness

Too much irrigation can cause an excessive ‘grand flush’ of cane and leaf development especially in sultanas. The excessive flush of growth creates long internodes on replacement canes, which will eventually shade developing canes and result in less fruitful buds – ultimately it reduces crop and causes a downward spiral in production.

Best Practice

Soil moisture should be monitored through visual inspection of the vineyard and with the use of soil moisture monitoring equipment. Irrigations should be controlled to provide adequate, but not excessive water, until pre-flowering. Establishing and maintaining the correct balance can be difficult. The States’ Primary Industry departments offer appropriate irrigation training in their regular farming skills workshops and training courses.

New extension program for dried grapes



Stuart Putland
DFA Consultant Field
Officer

The Dried Fruits Australia extension program is now in full swing, with members of the DFA branches driving the agenda.

In setting up the program, the branches worked to define what they want to investigate during 2017.

This is the list of activities they set out for the year. Some of you might have seen it on one of our posters at Mildura Field Days.

Mildura

- Making strategic management decisions
- Making the most of web based tools
- Meeting crop water use needs
- Options for sharing plant and equipment

Merbein

- Implementing best pest and disease control programs
- Developing fertiliser programs
- Experience with cordon bunch removal
- Study of current innovative pruning practices
- Experience with redevelopment

Red Cliffs

- Best practice pruning options
- Outcomes of 2016 hail damage research
- Managing new varieties
- Experience with cordon bunch removal
- Benchmarking production

Not a member of one of these branches?

The 2017 activities will be hosted by the DFA branches and are open to all dried grape growers and other industry participants. The invitation is also out there for branch members to participate in activities not hosted by their branch.



Dried Grape industry representatives Peter Jones, Alison Kelly, Stuart Putland and Mark King listened keenly to the presentations at the AgriBio during a recent visit.

When are the events on?

We are planning the events as they become relevant throughout the year, so please keep an eye out for dates, times and locations in the DFA e-news and on our Facebook page.

What's happened so far?

In the initial round of branch meetings, apart from working to set the agenda for the rest of the year, Michael Treeby from Agriculture Victoria discussed the latest research information on the nutrition requirements of vines.

From the most relevant research, Mr Treeby drew together clear information about the timing, combination and amount of fertiliser application required for producing dried fruit in our Mallee soils. See the DFA Facebook page for a link to his presentation slides.

In a separate event, DFA collaborated with Hort Innovation to organise a visit for DFA Board Members to AgriBio, the world-class agricultural research facility operated by Agriculture Victoria and LaTrobe University. This was combined with a visit to the Monash University Food Innovation Centre. Both visits revealed the level of science and marketing knowhow that DFA has the potential to tap into.

The day finished with a session discussing the future research requirements for the dried fruits industry. While this will be an ongoing discussion, it was fascinating to get a perspective on the impacts of previous research.

In recent memory, three phases of innovation have distinctly helped keep the dried fruits industry moving forward. The first development and application

of rootstocks boosted productivity throughout the 1970s. Mechanisation of harvest significantly reduced costs during the 1990s and early 2000s, and the introduction of new varieties in the last 15 years has given the industry improved yield reliability.

While I'm the first to admit that each of these steps has had to overcome significant challenges, the real question for the industry is – what is the next innovation that can help meet the challenge of improving productivity?

Resources for DFA members

As a newcomer to DFA, I want to point out some of the great information that DFA members have available to them.

A question was raised at a DFA branch meeting about the suitability of new solar drying technology developed by the prune industry in Chile. A quick investigation of the DFA Online Library revealed some significant local research on solar drying. Some of you may remember the 1990 report on the production of dried sultanas using solar greenhouse tunnels.

While the research is reasonably dated, it contains quality information about solar drying in our environment that is helping us ask important questions about the potential performance of this new technology. My point is, having this information available in an online library is a massive asset to the industry and can help save us time in assessing some of our seemingly new ideas.

I encourage you to get in and have a look at what is on offer. Members can log in via the DFA homepage (**W**: driedfruitsaustralia.org.au) or contact our office to organise access.

Cultivating the future of the dried grape industry



Destined to be a farmer, Fabian Chevlin is based at South Mildura.

Two young dried grape growers have been awarded scholarships to attend an overseas industry study tour.

Marcus Pye, 35, and Fabian Chevlin, 43, will take part in Dried Fruits Australia's Californian Raisin Industry Study Tour to observe the practices and technologies used by one of the world's leading dried grape producers.

The 10-day study tour will be held in September, during harvest, and will investigate all areas of the raisin industry. Participants will look at new varieties that could be imported into Australia, visit farms and processors to observe and discuss best practices, review research projects on water use, and make new industry contacts.

As the recipients of an Albert Heslop Memorial Travelling Bursary, Marcus and Fabian will each receive \$4,500 to attend the tour and extend their knowledge of the industry.

The bursary is awarded annually to people who want to advance themselves, their enterprise and their industry. It was established by the Murray Darling Foundation in memory of viticulturist and Swan Hill councillor Albert Heslop, and is now awarded through SuniTAFE.

Get to know our growers

Marcus Pye

A third-generation grower from Tresco West, Marcus has been farming on and off for the past 19 years. He started working full-time at the farm in 2010, and he and wife Aleisha purchased the property in 2015. They grow dried fruit, table grapes and wine grapes, with dried fruit taking up most of their 28 hectares (70-acres).

Fabian Chevlin

With a name that means 'bean grower', Fabian was destined to be a farmer. He was raised in Cardross on a dried fruit property, and was growing fruit and vegetables – and selling them to the neighbours – from a young age.

Fabian has been cultivating dried fruit for more than 10 years, and now grows Sunglo, sultanas and raisins over four properties. He is based at South Mildura with wife Laura and six-year-old son Brandon, who loves being on the farm as much as his father.

Q. What attracted you to the dried grape industry?

A. Marcus: I watched my father manage the farm from a young age, and he seemed to be able to make anything happen. If he needed a new implement or had to modify a

piece of equipment, he did it himself. I loved that the opportunity and potential to create whatever was needed was right at my fingertips. I also loved the possibilities that redeveloping and diversifying the farm offered.

Fabian: I love growing things – farming is in my blood and has always been my passion. Due to low wine grape prices, we went into vineyard contracting – we put posts in, do harvesting, spraying, and everything associated with setting up and maintaining vineyards. I'm normally away for eight to 10 months of the year putting in vineyards around Australia, but this is the first year I've been home. We removed all our wine grapes in 2016 and now only grow dried fruit.

Q. Why are you passionate about the industry?

A. Marcus: At 16 years old, I came back to the farm to complete my apprenticeship with a passion for dried fruit. The Ivan Shaw swingarm trellis was the latest thing, and we made a decision to convert old table grape blocks into swingarm, with sultana H5 as our new vine of choice. We went from producing 14 tonnes a year using the rack drying system, to about 85t.

It was scary diving into a new practice of cutting and drying on the vine and introducing a wetting machine. But it

was an innovative risk that allowed us to become more productive and less labour intensive.

Fabian: I don't believe in shares or stock markets, they're too volatile. Bricks and mortar and farms – you can control all that yourself; there's no one else pulling the strings and making bad calls. At the end of the day, there's nothing better than being able to see what you've achieved. It's also interesting to see how the industry has changed over the years. Advancements in technology have made farming a lot easier.

Q. **What role do you hope to play in the future of the industry?**

A. **Marcus:** I believe there is a big demand for Australian dried fruit – not only here in our country, but also from the rest of the world. We would love to buy more land and have the opportunity to plant more dried fruit and expand our capacity for production.

Fabian: With the prices of dried fruit picking up, there's a lot of scope for growth. Last year the district produced 21,000t, but I think we need to be up in the 30–40,000t bracket to give us some real pull in the overseas markets.

Everyone around the world loves the quality of Australian fruit – we're clean and green and we do a really good job of keeping to that high standard – and that's why our fruit sells for a premium. But we need bodies like DFA and the research that's coming out of CSIRO if we're going to grow the industry.

My end goal is to be the largest family-owned company supplying dried fruit. We're hoping to plant more dried grapes in the near future.

Q. **What can Australia learn from the Californian dried fruit industry?**

A. **Marcus:** I am on the hunt for any new early varieties that are more weather tolerant. In Tresco West, we sometimes have the disadvantage of being about two weeks later than our friends in Mildura, so with an early variety we could get our fruit cut and dried during the early year heat waves.

I'm also hoping to learn more about water management. As our water is becoming more expensive, I would love to know how to control and conserve water without compromising the quality or taste of our dried fruit.

But really, I would be happy to learn any new information from the Californian industry that I could implement on my farm to make us more productive. Just to see the industry and be around other growers will be an amazing experience. Looking forward to seeing how the big boys play it over in the US!

Fabian: The US study tour will be a great opportunity to expand my knowledge of the dried fruits sector. I'm looking forward to picking their brains and coming back with a greater understanding of trellising, watering systems, growing practices, machinery and large-scale farming.

It will be exciting to see what another country does differently and hear ideas we might not have thought of. At the end of the day, I hope to be a bloke who people can drop in on and share ideas with. I want to pass on my knowledge and love of growing dried fruits to future generations.

Dried grape growers can register their interest to attend the Californian Raisin Industry Study Tour. All attendees will have their travel costs subsidised. For more information, contact the DFA office on T: (03) 5023 5174 or E: enquiries@driedfruitsaustralia.org.au.



Marcus Pye, a third-generation grower from Tresco West.

Trellis drying



The adoption of trellis drying allows growers to commit large areas to drying quickly, and allows the more effective management of the process following rain events during harvest. The development of trellis drying as the most efficient and cost-effective technique for dried fruit harvesting has required the implementation of summer pruning techniques.

The planning and completion of an efficient summer pruning operation at the optimum time is a key factor in maximising the quality of the dried fruit crop. It is important that everything possible is done to maximise the speed of drying, in order to minimise the time that drying fruit is exposed to the elements.

Cordon bunch removal

Removing the unwanted cordon bunches that are not attached to the severed canes is an integral step in trellis drying. It reduces contamination of the grapes as some harvesters remove both dried and undried fruit.

Cordon bunch removal is particularly required for varieties with canes that are fruitful from the base bud to the end of the canes (Sunmuscat, carinas and, to a lesser extent, Sunglo). However, cordon bunch removal is also recommended in the management of sultanas that will be summer-pruned.

Not having to deal with cordon bunches at harvest allows a better chance of concentrating on timely cutting and wetting.

Chemical cordon bunch removal vs crown picking

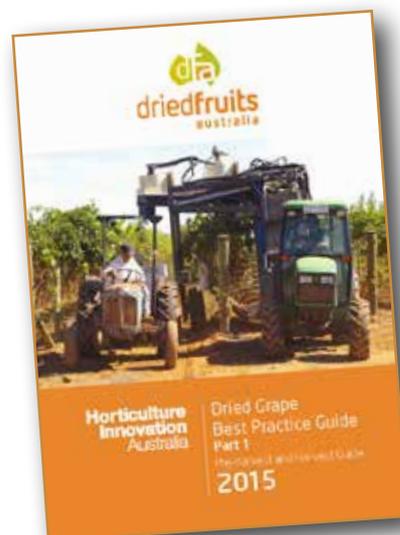
The removal of cordon bunches can be done by the use of chemical or by hand.

Chemical cordon bunch removal minimises the summer pruning operation, as there is no need to pay for bunches to be hand-removed and placed on the trellis during harvest. It is estimated that the cost of hand removal at harvest is about equal to the value of the fruit – resulting in no nett gain in returns.

Due to the draping of the picked cordon bunches over trellis wires, fruit from these bunches generally dry slower and thus darker than the natural hanging summer pruned fruit remaining on the fruiting canes. In most cases, this will reduce the colour quality of the harvested fruit resulting in a lower grade and thus lower returns.

In the event of rain, this fruit is also more vulnerable to mould infestations due to its inability to shed water unlike the naturally hanging bunches, which will most likely still turn a dark colour but will not be as susceptible to mould infections.

Because of the difficulty in seeing cordon bunches for picking, and the nature of being draped over the wire, drying of this fruit is slower than the rest of the crop. This can cause a bottleneck in the harvesting of the crop because of its higher moisture content possibly delaying harvest while waiting for this fruit to dry. This delay waiting



for picked cordon bunches to dry could jeopardise the whole of the remaining crop if adverse weather occurs.

Chemical application

Traditionally, ammonium nitrate was used to remove cordon bunches, but security concerns have heavily restricted the use of the chemical.

As a replacement for ammonium nitrate, calcium nitrate applied at a rate of 2.6% (w/v) can be used. Calcium nitrate is effective in burning off the unwanted cordon bunches.

Target the area above the cutting zone, also spraying the replacement canes where unwanted bunches are developing. Spray when the developing bunches are at pre-bloom at the 6 to 8 leaf stage.

Field days for dried fruit growers



**DRIED
GRAPE NEWS**

Stuart Putland
DFA Consultant Field
Officer

Best-practice pruning, optimising irrigation, getting powdery and downy mildew management right, managing hail-damaged vines, and dealing with the water market were the focus of recent field days for dried grape growers.

The events, held since the last issue of *The Vine*, were all part of Dried Fruits Australia's Hort Innovation funded extension program.

Timing is everything, so while these events all happened within a short time, our key aim is to get these discussions happening before the work in the vineyard begins. The workshops delivered many important take-home messages for growers:

- Jeremy Giddings from Agriculture Victoria spoke about balancing the vines' significant demand for water between cutting and harvest, and applying that water without causing fruit to darken. He also pointed out that well-positioned and maintained real-time soil moisture probes were critical to understanding the changing irrigation needs of vines.
- Peter Morrish from Ruralco Water provided insight into the water market and the trading options available to individual irrigators. While it is common for dried fruit growers to own all the water they need, a number of options are available.
- Industry expert Ivan Shaw talked about pruning on Swingarm trellis systems. He made two main points – maintain the integrity of the cordon, and don't create more work than necessary by being too neat with the positioning of canes.
- Recovering from the 2016 Remembrance Day hail storm was one of the key issues raised at the beginning of this program. While hail damage has been an issue many times in the past, for the first time this year, DFA was able to assist Agriculture Victoria in delivering some clear research on the impact



Ivan Shaw discusses pruning techniques with growers.

of a hail event on bud fruitfulness. Field day participants heard the study results first-hand in August, and they're also available in this edition of *The Vine*. See page 4.

These messages were just the tip of the iceberg in terms of what participants learned during these sessions. Having experts talking alongside growers at these events has been a really positive approach, with all participants giving the days a resounding tick of approval in terms of the quality and usefulness of the information presented.

Input from growers who hosted the events has been another critical part of making these events a success. Each of them gave an overview of their block, and sometimes a run through of the interesting stuff parked in the machinery shed. Thanks to all those growers.



Michael Treeby from Agriculture Victoria presents the latest findings on the recovery of hail-damaged vines.

More events are planned for the rest of the year. As you read this article, we should have just about completed a couple of sessions on how to deal with cordon bunch removal. We also have sessions on redevelopment options for vineyards and a tour of South Australian research facilities in the pipeline. So, if you think these sound interesting, get involved and come along.

All DFA members are notified directly through our weekly newsletter of coming events. Non-members are welcome as well – just keep an eye on our Facebook page and the local papers, and an ear to the radio.

BizMod for dried grape growers

BizMod for Dried Grapes is a business planning model available to existing and potential dried fruit growers to test management strategies, operational performance and financial feasibility of the dried grape enterprise consisting of sultanas, currants, Sunmuscat and/or raisins.

Anyone interested in investigating this model should contact DFA. The program is freely available to dried grape growers. It can be set up on most computers, but it will take some time to match the detail in the model to the operations on your block.