

Final Report

Communication and adoption program for the Australian Chestnut industry

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Delivery partner:

Chestnuts Australia Inc.

Project code:

CH16000

Project:

Communication and adoption program for the Australian Chestnut industry CH16000

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Summary

The aim of this project was to assist the ongoing development of the Australian chestnut industry through a range of communication and adoption programs. This project has been developed to support implementation of the Australian Chestnut Industry Five Year Strategic Plan 2015-2020 and is designed to support the Australian Chestnut industry by providing a mechanism to transfer information and technology to all stakeholders, including growers, other industry partners and consumers.

The broad activities to support the chestnut industry development within this project included:

- technical input into field days, regional grower meetings and workshops,
- the facilitation of technology exchange between growers and industry stakeholders,
- updating and disseminating a range of information through a range of mechanisms,
- effective collection of national planting and production statistics,
- prioritisation of R&D, chemical and pests/disease management issues and develop appropriate scoping briefs,
- identifying appropriate service providers to deliver the projects,
- Collaboration on biosecurity issues and managing exotic pests and disease outbreaks.

The Australian chestnut industry aspires to;

- be a growing, sustainable, innovative and profitable industry,
- deliver a consistent high-quality product underpinned by quality standards and levels of accreditation,
- increase demand and consumption through smart marketing and promotion and consumer education.

The ultimate goals are to ensure that...“Australian chestnuts are recognised for their versatility, unique flavour and health attributes and, as a fresh product, are sought after in their season” and“achieve overall increasing consumption of fresh and processed Australian chestnuts. This will be achieved in part through the following key areas:

1. Increasing the profitability for Australian chestnut producers.
2. Maximising the quality of Australian chestnuts.
3. Up-to-date production tools being accessible to producers.
4. Transferring of industry research and development.
5. Well-resourced industry structures.
6. Vibrant and profitable chestnut industry.

To achieve the industry aspirations and implement the broad key areas Chestnuts Australia Inc (CAI) has been an active participant in chestnut research, development and extension. Over the past 25 years CAI has undertaken projects through the Horticulture Research and Development Corporation (HRDC), Horticulture Australia Limited (HAL) and Horticulture Innovation Australia Limited (HIAL).

As the service provider CAI was best placed to deliver the all aspects of the project not only within the context of the project but as part of its ongoing role as a grower membership-based organisation.

Keywords

chestnut, newsletter, website, field day, technical bulletin, nut rot, chestnut blight, phytophthora, cool chain, communications officer, technical adoption officer, best practice, www.chestnutsaustraliainc.com.au, CH16000, LoP (life of project)

Introduction

The Australian chestnut industry is a small but expanding national industry. There are approximately 300 chestnut growers in Australia: 70-80 % of these are in NE Victoria, with other growers in NSW, Tasmania, SA and WA. Prior to 2006 the industry lacked a formal plan for communicating issues and technical information. Effective communication and technical support are necessary for the transfer of technical understanding and up-skilling of the industry, key elements to the growth and development of the chestnut industry. This project was designed to continue to support the Australian Chestnut industry by maintaining and expanding the transfer of information and technology to all stakeholders, including growers, other industry partners and consumers.

Since 2006, Chestnuts Australia Inc. (CAI), and its R&D and Marketing Committees have undertaken well planned and highly successful communications and technology transfer through these capable human resources:



- Tanya Edwards (Communications Officer)



- Trevor Ranford (Technical Adoption Officer)

This has been undertaken through a range of projects - CH06004, CH09003, CH12000 and CH13003 – which have provided a formal mechanism within the industry for dissemination of information. Results, reported in milestone and final reports, together with the findings from the Industry Development Needs Assessment (CH08002) indicate that these projects were extremely effective.

Industry members now have an up-to-date website with links to other sites of interest, a comprehensive newsletter, a range of technical bulletins and a focal contact point for all industry enquiries.

The industry has had a simple communication plan in place that has been directed toward growers and broader industry stakeholders. This plan distributed information describing best practice post-harvest handling, tree management and production inputs (water, fertiliser, soils) and supported this information with field days and workshops.

Other information concerning biosecurity, chemical usage and regulatory requirements was also distributed using this plan.

A major outcome of the CH08002 was the recognition of the value of maintaining a simple and effective means of interacting with all growers so that changes occurring in the industry could be advised in a timely fashion.

Project CH16000 aimed to effectively build on this past work and to take the industry communications and adoption to a new level.

This project supported implementation of the Australian Chestnut Industry Five Year Strategic Plan 2015 - 2020. Developed in January 2015, this plan focused on the Chestnut Industry's position within six key priority areas:

1. Market Opportunities
2. Product Value
3. Efficient and Sustainable practices
4. Supportive Operational Environment
5. Technology Transfer
6. Managing Industry Effectively

Activities conducted through this project were closely aligned to the Chestnut R&D program and build upon past projects and the Australian Chestnut Growers' Resource Manual.

Methodology

Maintaining and updating the Chestnuts Australia industry website including hosting copies of the industry communication outputs (for example, industry newsletters and technical bulletins). The website will incorporate the findings of the CH12000/CH13003 review survey.

As part of the updating of the Chestnut industry website and to implement a process whereby different services can be accessed by different stakeholder's CAI will establish a three-tiered website:

- (1) Chestnut Levy Payers
- (2) CAI members
- (3) General community/consumers.

In relation to the Chestnut Levy Payers area all relevant material that is prepared as part of past, current and future chestnut levy funds will be include in this section.

Levy payers will be required confirm that they pay Chestnut levies and to request access. On acceptance they will receive their own specific log-in code.

Within the first three months of this project the Technical Adoption Officer will prepare all relevant findings from CH12000 and CH13003 projects into an agreed format for incorporation into the relevant parts of the CAI website by the Communications Officer.

All future technical material will then be prepared in an agreed format and posted onto the website on a regular basis.

The Technical Adoption Officer will be responsible for the collection of the material and then supplying that to the Communications Officer for up-loading onto the website.

Producing and distributing at least three issues per year of the industry newsletter 'Chestnut Industry News' both printed and electronically. The newsletter will include technical articles on current issues and updates on relevant R&D.

The Communications Officer will investigate the alternative methods of preparing and distributing a new style 'Chestnut Industry News'. The use of Mail Chimp or a similar newsletter format will be considered and where practical the built-in monitoring and evaluation programs will be used to track and record how stakeholders are utilising the newsletter.

CAI, through the Communications Officer, will prepare three issues of 'Chestnut Industry News' in August, December, and April utilising both general information and technical/scientific material sourced and supplied by the Technical Adoption Officer. The majority of the newsletters will be distributed electronically but where there are growers with no email/internet then hard copies will be posted.

Providing quarterly updates for the Australian Nutgrower Magazine and managing chestnut industry subscriptions to Australian Nutgrower.

The Communications Officer will have responsibility for:

- (1) Preparing the quarterly Chestnut report for the Australian Nutgrower Magazine.
- (2) Maintaining the data base of growers who have paid their subscription to the Australian Nutgrower as part of their membership to Chestnuts Australia Inc.

Conducting at least 2 industry field days per year; and regional grower meetings and workshops as required.

CAI will undertake the organisation of two field days per year through the following program:

- o November 2016
- o February and September 2017
- o February and September 2018
- o February 2019

The Technical Adoption Officer will have responsibility for the development of the technical components of each Field Day including the organisation of the speakers.

The Communications Officer will have the responsibility of organising venues, program material, distribution and registration for each Field Day.

CAI will encourage and support ‘industry organised’ regional grower workshops and meetings in the major regions.

Where appropriate the Technical Adoption Officer will assist by organising specific topics for some of these meetings.

Aspects to be covered in the Field Days will include:

- o the adoption of best practice production and handling guidelines;
- o assisting growers to improve farm productivity;
- o assisting growers in the implementation of quality standards;
- o assisting growers to improve orchard sustainability;
- o adoption of market preferred varieties;
- o working with supply chain partners in optimising product quality and presentation;
- o adoption of on-farm production pest and disease management through IPM and on- farm biosecurity;
- o chemical and biological agent availability and use;
- o Chestnut industry biosecurity processes, including addressing grower education and awareness, reinforcing the messages from the biosecurity project on chestnut blight and other relevant exotic pests and diseases.

The Field Days will use the learning and expertise from:

- (1) Plant Health Australia,
- (2) NSW Temperate Nut Officer, Jacquelyn Simpson,
- (3) Victorian Nut Officer, Michael Treeby,
- (4) State agencies and research facilities,
- (5) Victorian Horticulture Industry Network,
- (6) Overseas growers, researchers and scientists from Europe, USA, China, Chile and New Zealand,
- (7) CSIRO and other national agencies and departments.

Developing alternative methods of communication via email blasts and mini newsletters to subsidise the “Chestnut Industry News” and ensure relevant and time sensitive news is effectively communicated.

In between the months that the ‘Chestnut Industry News’ is prepared and distributed CAI will prepare and distribute a technical newsletter in February, June and October. This newsletter will be prepared by the Technical Adoption Officer and distributed by the Communications Officer.

Over and above this, regular email blasts, of general industry information and/or technical nature will be sent to the grower base.

Again, the information distributed will be sourced by the Technical Adoption Officer and distributed by the Communications Officer.

Manage stakeholder and website enquiries, including dissemination of relevant information.

CAI through the Communications Officer will have responsibility for managing and directing the stakeholder and website enquiries. Where technical matters are requested through the enquiries, they will be dealt with by the Technical Adoption Officer.

The Communications Officer will have responsibility for maintaining both the industry website and the grower database and will then disseminate all relevant information as and when required.

Maintenance of an industry contact point for other industry stakeholders seeking information about or collaboration with stakeholders of the chestnut industry

Weekly phone calls and emails requesting assistance and information are received and need to be addressed and responded to

Collect, collate and disseminate annual industry statistics, detailing the national planting and production statistics for the industry.

CAI recognises that data collection is an important part of the role in assisting the development and expansion of the industry; assist in planning technical programs, responding to industry, government and community enquiries and allocation of industry resources. CAI also recognises that collecting data from growers is extremely difficult particularly if growers wish to protect their information and not supply it to CAI or any other service provider.

CAI will continue to collect industry data through all possible means including:

- o Directly from growers,
- o Transport companies and market agents,
- o Wholesale markets (nut prices)
- o ABS
- o Government agencies – export and import figures
- o ANIC.

CAI will also look at other ways of collecting and collating the data using SurveyMonkey and or an industry online platform.

CAI will implement an appropriate ‘incentive program’ for growers to encourage them to complete the annual survey forms.

The responsibility of managing the data collection will be with the Adoption/Technical Officer.

Annually conduct survey to evaluate stakeholder satisfaction with industry services including communications and adoption services.

As part of the project work plan CAI will conduct annual surveys to evaluate project activities.

Assist industry to identify R&D priorities, in addressing on-farm production issues and in identifying potential, qualified and appropriate service providers to deliver projects on an as needs basis. Procure the required R&D services in consultation with Horticulture Innovation Strategic Investment Advisory Panel (SIAP) for Chestnuts.

The Strategic Planning, R&D Investment strategies and the Nut Rot program puts CAI in a very strong position to drive the necessary industry R&D both through HIAL (as part of this project) and other research organisations.

The level of scientific and technical information held by CAI and the overseas contacts and collaborators now working with CAI, ensures CAI is in the best position to take these issues forward for and on behalf of the Australian Chestnut Industry.

Outputs

Maintaining and updating the Chestnuts Australia industry website including hosting copies of the industry communication outputs (for example, industry newsletters and technical bulletins). The website will incorporate the findings of the CH12000/CH13003 review survey.

A review of the outputs of projects CH12000 and CH13003 was undertaken and a range of information was collated and distributed to stakeholders via mailchimp on the 26th July 2017 and this report was uploaded in the Levy Payers area of the industry website www.chestnutsaustraliainc.com.au under Research Projects/CH16000 Activities on July 27, 2017

Attachment A - A review of the outputs of projects CH12000 and CH13003

All industry newsletters produced – news/technical were distributed to stakeholders via mailchimp (those not on email were posted out hardcopies) and have been uploaded to the Levy Payers area of the industry website www.chestnutsaustraliainc.com.au under Newsletters

Attachment B – List of Newsletters produced over the life of Project CH16000

Attachment C – Example of newsletter produced - Technical Edition 2, 2019 – Chestnut Industry Newsletter

Attachment D – Example of newsletter produced - Edition 2, August 2019 – Chestnut Industry News

All technical bulletins produced have been uploaded to the Levy Payers area of the industry website www.chestnutsaustraliainc.com.au under Technical Bulletins

Attachment E – List of Technical bulletins produced over the life of Project CH16000

Attachment F – Example of Technical bulletin produced - Chestnut Pest and Disease technical bulletin - Biology and Management of Nut Rot

Website

The chestnut industry website upgrade was completed during the life of the project and went live on 7th September 2018 under its own domain name www.chestnutsaustraliainc.com.au

As well as undertaking regular updates, part of the overall upgrade a dedicated Levy Payers area was created providing access to chestnut levy funded activities. 11 areas were created and populated

Producing and distributing at least three issues per year of the industry newsletter ‘Chestnut Industry News’ both printed and electronically.

CAI, through the Communications Officer, three issues of ‘Chestnut Industry News’ were prepared and distributed in August, December, and April utilising both general information and technical/scientific material sourced and supplied by the Technical Adoption Officer. The majority of the newsletters were distributed electronically but stakeholders with no access to email/internet hard copies were posted. 9 in all were produced.

Refer to Attachment B – List of newsletters produced over the life of Project CH16000

Some of the topics covered in ‘Chestnut Industry News’ included:

- Grower interviews/profiles/snapshots;
- Best practice production and handling guidelines;
- Farm productivity, quality, sustainability and adoption of market preferred varieties;
- Grower and supply chain product quality and presentation;
- On-farm production pests and diseases;
- Chemical requirements including chemical registration and permits;
- Industry biosecurity, including addressing grower education and awareness;
- Chestnut blight eradication

Providing quarterly updates for the Australian Nutgrower Magazine and managing chestnut industry subscriptions to Australian Nutgrower.

A chestnut industry report was submitted to the Australian Nutgrower magazine quarterly during the life of the project - March/June/September/December

Quarterly reviews and updating of the mailing list were undertaken and forwarded to the Editor

9 stand-alone articles over the life of the project were also submitted for publishing

Attachment G – List of Stand-alone articles published in the Australian Nutgrower journal

Conducting at least 2 industry field days per year; and regional grower meetings and workshops as required.

CAI undertook the organisation of 6 field days over the life of the project, through the following program;

- **November 2016**

Field Day – 19th November, 2016 – “Managing Threats to our Industry” – Stanley NE Victoria



Darren Cribbes discusses open soil pit with attendees

A survey was conducted at the Field Day held 19th November, 2016. 31 responses from attendees were gathered.

- **February 2017**

Field Day – 18th February, 2017 – “Over 30 years’ experience let’s talk what not to do” – Bright NE Victoria



Peter Guest in the orchard with attendees

A survey was conducted at the Field Day held 18th February 2017. 43 responses from attendees were gathered.

- **September 2017**

Regional Field Day – 16th September 2017 – “Postharvest & Packaging” – Tumbarumba NSW



David Phillipot – Sydney Market agent – presenting on the supply chain

A survey to evaluate Industry adoption was conducted at the Field Day held 16th September 2017. 24 responses from attendees were gathered

- **February 2018**

Regional Field Day – 17th/18th February 2018 – “Phytophthora – Getting to the root of the problem!” – Beechworth NE Victoria



Trevor Ranford presenting

A survey to evaluate Industry adoption was conducted at the Field Day held 17th /18th February 2018. 31 responses from attendees were gathered

Attachment H – Example - Chestnut Growers Invitation - Over 30 years’ experience let’s talk “What not to do!”

- **September 2018**

Conference and Field Day – 7th – 9th September 2018 – Tri-Nut Conference – Beechworth NE Victoria



Chestnut grower Tom Robertson (left) discusses machine harvesting with Jodie & Allen Morgan (Monchiero)

A survey to evaluate Industry adoption was conducted at the Field Day component held 9th September. 27 responses from attendees were gathered

- **February 2019**

Regional Field Day – Saturday 9th February 2019 – “Chestnuts – Future Proofing” - Stanley NE Victoria



David McIntyre in the orchard with attendees

A survey to evaluate Industry adoption was conducted at the Field Day held 9th February. 21 responses from attendees were gathered

Developing alternative methods of communication via email blasts and mini newsletters to subsidise the “Chestnut Industry News” and ensure relevant and time sensitive news is effectively communicated.

In between the months that the ‘Chestnut Industry News’ was prepared and distributed CAI prepared and distributed a technical newsletter in February, June and October. This newsletter was prepared by the Technical Adoption Officer and distributed by the Communications Officer via Mailchimp. The majority of the newsletters were distributed electronically but growers with no access to email/internet hard copies were posted. 9 in all were produced.

Refer to Attachment B – List of newsletters produced over the life of Project CH16000

Some of the topics covered in the technical bulletin included:

- best practice production and handling guidelines;
- farm productivity, quality, sustainability and adoption of market preferred varieties;
- grower and supply chain product quality and presentation;
- on-farm production pests and diseases;

- chemical requirements including chemical registration and permits;
- industry biosecurity, including addressing grower education and awareness;
- Chestnut blight eradication.

Over and above this, a total of 14 trackable email of specific industry information and/or technical nature were sent to the grower base.

The information distributed was sourced by the Technical Adoption Officer and distributed via Mailchimp by the Communications Officer.

Attachment I - List of Emails Circulated on Specific Chestnut Industry Information

Over and above this, a total of 156 non trackable emails of general industry information were sent to the grower base. Examples; Issues of Growing Innovation – Hort Innovation/Freshcare/Conference Invitations/Nuts for Life/Chemical Updates/HARPS Training/Harvest Trail/Quad Bike Safety/ PMA A-NZ Updates/Media releases etc..

This information distributed was sourced by the Technical Adoption Officer and Communications Officer and distributed via email by the Communications Officer.

Manage stakeholder and website enquiries, including dissemination of relevant information

Over the life of the project no less than 168 industry website enquiries were received and followed up on.

Maintenance of an industry contact point for other industry stakeholders seeking information about or collaboration with stakeholders of the chestnut industry

Weekly there are many stakeholders enquiring via phone or email, providing a timely conduit to respond to these enquiries is vital for all stakeholders.

Collect, collate and disseminate annual industry statistics, detailing the national planting and production statistics for the industry.

A review and analysis of industry data for the period 2015-2017 was undertaken

A SurveyMonkey survey was undertaken in January 2019 to collect annual industry statistics

Information on market prices and transported volumes was collected during the 2017/2018/2019 chestnut season

All results can be accessed in the Levy Payers area of the industry website under Market Data

A weekly market report emailed to stakeholders during the season enabled greater control of when to send product to market and advising prices in 5 Wholesale Markets in Australia

Annually conduct survey to evaluate stakeholder satisfaction with industry services including communications and adoption services.

As part of the project work plan CAI conducted six monthly surveys to evaluate project activities.

A survey was undertaken at the end of each **field day** to continually monitor and evaluate stakeholder satisfaction – industry services/communication and adoption

Assist industry to identify R&D priorities, in addressing on-farm production issues and in identifying potential, qualified and appropriate service providers to deliver projects on an as needs basis. Procure the required R&D services in consultation with Horticulture Innovation Strategic Investment Advisory Panel (SIAP) for Chestnuts.

R&D priorities identified over the life of the project;

Phytophthora

Chestnut Blight

Nut Rot

Chemicals - The TAO maintained a watch and brief on chemical requirements and liaised with Jodie Pedrana of Hort Innovation when necessary

The TAO maintained a watch and brief and assisted the Chestnut Nut Rot Working Group with technical and scientific information when required. This has resulted in the group preparing and continually reviewing the list of R&D priorities. The relevant information has been presented to the CAI R&D Committee

A previously prepared technical document on Nut Rot was redistributed to stakeholders as a lead into the 2018 and 2019 season, to reinforce the relevant messages relating to harvest and post-harvest activities

Other R&D Activities

While outside of this project and through the work of the TAO and CO 2 further R&D grants were obtained for specific industry project (outside of levy funds)

A) North East Catchment Management project – Chestnut Mentor Farm Project \$4,750.00

In kind and financial contributions amounted to \$6,220.00. Total project funding \$10,970.00

B) In 2017/18 a grant in the amount of \$103,000.00 was awarded to CAI from the Farming Together organization. The project was based around the supply chain and looking at new packaging options for fresh chestnuts. The project had a number of subsets including – packaging – cool chain – non-invasive microwave technology. Packaging trials were carried out by Hazel McTavish-West and she presented her findings at 3 chestnut industry field days held in September 2017, February 2018 and September 2018. CSIRO carried out non-invasive microwave trials and the results of these were presented at a field day held in September 2018

Outcomes

Industry had access to up-to-date industry news through a newsletter Chestnut Industry News published in April, August and December of 2016/2017/2018/2019 and can be accessed in the Levy Payers area of the chestnut industry website under Newsletters

Industry had access to up-to-date technical information through a newsletter Chestnut Industry Technical published in February, April and June of 2016/2017/2018/2019 and can be accessed in the Levy Payers area of the chestnut industry website under Newsletters

A total of 14 trackable emails of specific industry information and/or technical nature were sent to stakeholders over the life of the project

Refer to Attachment I - List of emails circulated on specific chestnut industry information

A total of 156 non trackable emails of general industry information were sent to stakeholders over the life of the project

13 Technical bulletins were prepared delivering vital technical information to growers and stakeholders over the life of the project and can be accessed in the Levy Payers area of the chestnut industry website under Technical bulletins

Refer to Attachment E – List of Technical bulletins produced over the life of Project CH16000

Field Days were held in the major growing region North East Victoria in November 2016, February 2017, September 2017, February 2018, September 2018 and February 2019. One field day was held outside of North East Victoria at Tumbarumba NSW in September 2017

- November 2016

Field Day – 19th November, 2016 – “Managing Threats to our Industry” – Stanley NE Victoria

Over 40 people attended, with growers coming from as far afield as Young and Batlow in NSW. The program attracted 6 growers new to the industry, looking for support and opportunities to network.

Conference presentations x 3 put up in the Levy Payers area of the industry website – 17/1/17

1. Drone Arial Imaging - The Technology Challenge - Phillip Lyons - Falcon UAV
2. Soil Health Testing - Darren Cribbes
3. Nut Rot – Trevor Ranford

A survey was conducted at the Field Day held 19th November, 2016. 31 responses from attendees were gathered with over 46% rating the usefulness of the day a 10. 3 responses indicated growers are planning to update cool rooms and 5 growers indicated a review of cool chain practices for 2017. 2 growers indicated they wanted to install irrigation

- February 2017

Field Day – 18th February, 2017 – “Over 30 years’ experience let’s talk what not to do” – Bright NE Victoria

Over 60 people attended, with growers coming from as far afield as Young and Batlow in NSW and Pearsondale in Victoria. The program attracted a further new 6 growers new to the industry, looking for support and opportunities to network.

Conference presentations x 6 put up in the Levy Payers are of the industry website – 3/3/17

1. 2017 Season Launch Marketing Presentation - Tanya Edwards - CAI
2. Chestnut Blight Update - Lavinia Zirnsak - Agriculture Victoria
3. Nut Rot Working Group Update - Trevor Ranford - CAI
4. TAFCO Weather Station Website Presentation - Cindy Lucas - FarmSmart Project Officer
5. Nut Rot - Microwave Processing and Non-Invasive Detection - Dr Marla (T.V.) Gamage & Dr Tanoj Singh - CSIRO
6. Improved Management of Chestnut Rot - Dale Griffin - Crop Protection Research P/L

A survey was conducted at the Field Day held 18th February 2017. 43 responses from attendees were gathered with over 54% rating the usefulness of the day a 10. 11 responses indicated growers are planning to implement nut rot protocols presented immediately. 6 growers noted that they were going to purchase various pieces of equipment showcased on the day – sorting table, nut rake, sweeper. 2 growers indicated they wanted to engage in value added processing, 1 noted in 3-5 years

- September 2017

Regional Field Day – 16th September 2017 – “Postharvest & Packaging” – Tumbarumba NSW

33 people registered to attend, with growers coming from as far afield as Orange in NSW and Dandenong North in Victoria. The program attracted prospective growers, looking for information and opportunities to network

Conference presentations x 6 put up in the Levy Payers area of the industry website – 10/10/17

1. Improving Chestnut Quality – Retail – Dr H MacTavish-West
2. 2017 Season Update - Trevor Ranford – CAI TAO
3. 2017 R&D Report – Richard Guthrie – CAI R&D Chair
4. 2017 Chestnut Marketing Report – Luciano Cester – CAI Marketing Chair
5. Chestnut Supply Chains – David Phillpot – FPG – Sydney Markets
6. ANIC Presentation – A Hall – CAI ANIC Representative

A survey to evaluate Industry adoption was conducted at the Field Day held 16th September 2017. 24 responses from attendees were gathered with over 55% rating the usefulness of the day a 10. Six growers noted that they were going to adopt practices showcased by purchasing various pieces of equipment featured on the day – water bath/packing machine/cool room

- **February 2018**

Regional Field Day – 17th/18th February 2018 – “Phytophthora – Getting to the root of the problem!” – Beechworth NE Victoria

40 persons registered to attend. All the big issues facing the industry were discussed, Phytophthora, Nut Rot and Chestnut Blight. Participants came as far as Lilydale in Tasmania and Laggan in NSW

Conference presentations x 5 put up in the Levy Payers area of the industry website – 26/2/18

1. Phytophthora - Getting to the Root of the Problem! - Dr Femi Akinsanmi
2. Chestnut Blight Update - Martin Mebalds - Agriculture Victoria
3. Marketing Report - Adam Gatford - CAI Marketing Subcommittee Representative
4. Improving Chestnut Quality - Retail - Dr Hazel MacTavish West
5. Nut Rot Report - Trevor Ranford - CAI TAO

A survey to evaluate Industry adoption was conducted at the Field Day held 17th /18th February 2018. 31 responses from attendees were gathered with 55% rating the usefulness of the day a 10. 10 growers noted that they were going to adopt practices relating to butt drenching for phytophthora and 10 growers noted they were starting on a program to improve soil condition immediately. Attendees traveled from as far afield from Launceston, Tasmania to Laggan, NSW. The weekend was attended by 4 new stakeholders to the industry

- **September 2018**

Conference and Field Day – 7th – 9th September 2018 – Tri-Nut Conference – Beechworth NE Victoria

150 persons registered to attend. All the big issues facing the industry were discussed, Phytophthora, Nut Rot and Chestnut Blight.

Conference presentations x 15 put up in the Levy Payers area of the Industry website:

1. Overview of the Hazelnut Industry – Daren Baguley
2. Overview of the Australian Nut Industry – Jolyon Burnett
3. Overview of the Chestnut Industry – Brian Casey
4. Transition to Soil Health – Darren Cribbes
5. Xylella fastidiosa: a nearly ideal pathogen of plants – Dr David Dall
6. Managing safety in agriculture – Christine Dax
7. New opportunities – AgriFutures – Duncan Farquhar
8. Australian Biosecurity – Past, Present and Future – Greg Fraser

9. Use of Microwave Processing as a Disinfestation Technique – Dr Marla Gamage
10. Impacts of Irrigation on Quality in Walnut – Dr. Bruce Lampinen
11. Walnut Industry Snapshot – Michael Lang
12. Improving Chestnut Quality – Retail – Dr Hazel MacTavish-West
13. Insights from my 2018 EuroVeg Odyssey – Dr Hazel MacTavish-West
14. Fertilization study on Hazelnut by observation - Agri Australis PTY
15. Sap flow monitoring –results of the growing season 2017-2018 - Agri Australis PTY

A survey to evaluate Industry adoption was conducted at the Field Day component held 9th September. 27 responses from attendees were gathered with 67% of those surveyed rated the usefulness of the days a 9 & 10 - Excellent. 9 growers noted that they were going to adopt practices relating to pruning, spraying /Leadership training/Watering and nutrition/Health and workplace safety/Orchard floor management/Rootstock management/Drip irrigation. The weekend was attended by 4 new stakeholders to the industry

- **February 2019**

Regional Field Day – Saturday 9th February 2019 – “Chestnuts – Future Proofing” - Stanley NE Victoria

40 persons registered to attend

Presentations x 2 put up in the Levy Payers area of the industry website – 4/4/19

1. Diseases of Chestnuts – T Ranford
2. Chestnut Marketing Update – L Cester

A survey to evaluate Industry adoption was conducted at the Field Day held 9th February. 21 responses from attendees were gathered with 48% of those surveyed rated the quality of the program 9 & 10 – Excellent. 10 growers noted that they were going to adopt practices relating to Fungal treatments/Wood chipping/Carbon replenishment of soil – immediately/Cool room Filter – 2 – 5 years/Cool room air purifier/Improve cool room set up/Disease identification/Refrigeration techniques/Horticulture techniques/Mould prevention. Attendees traveled from as far afield from Preolenna, Tasmania. The weekend was attended by 5 new stakeholders to the industry

Collect, collate and disseminate annual industry statistics, detailing the national planting and production statistics for the industry.

A review and analysis of industry data for the period 2015-2017 was undertaken

Results were published in CH16000 MS105 and can be accessed in the Levy Payers area of the industry website under Project Reports/CH16000 Activities

Attachment J - Review and analysis of industry data for the period 2015-2017

Data collection is an important part of the role in assisting the development and expansion of the industry; assists in planning technical programs, responding to industry, government and community enquiries and allocation of industry resources

A SurveyMonkey survey was undertaken in January 2019 to collect annual industry statistics

The results of the survey to collect, collate and disseminate annual industry statistics were published in Edition 1 Technical Industry Newsletter – March 2019

An incentive to undertake the survey was offered by way of a discount to the next industry field day

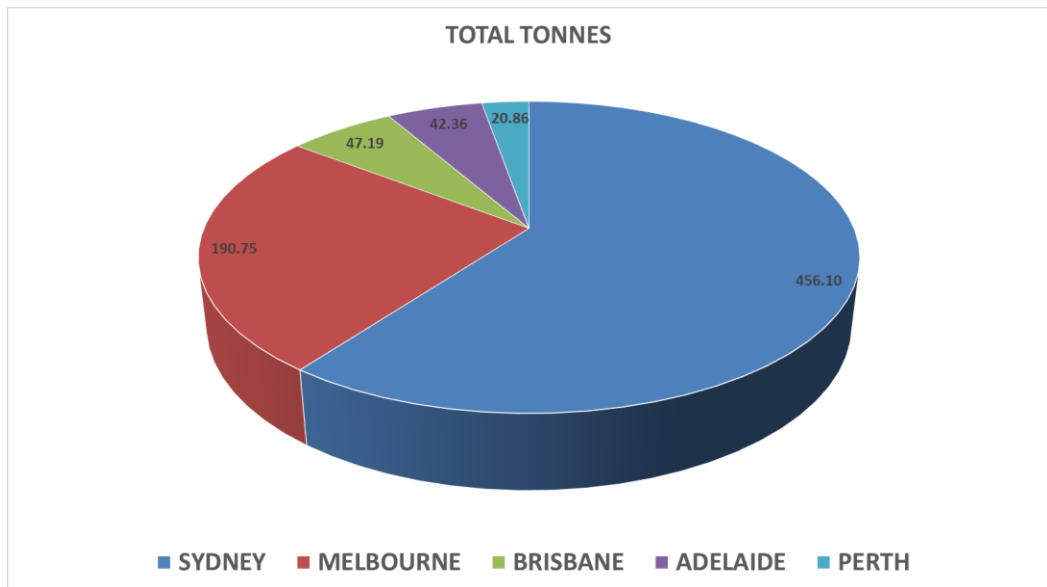
Attachment K – Results - Collection of Annual Statistics 2019

Information on market prices and transported volumes was collected during the 2017/2018/2019 chestnut season

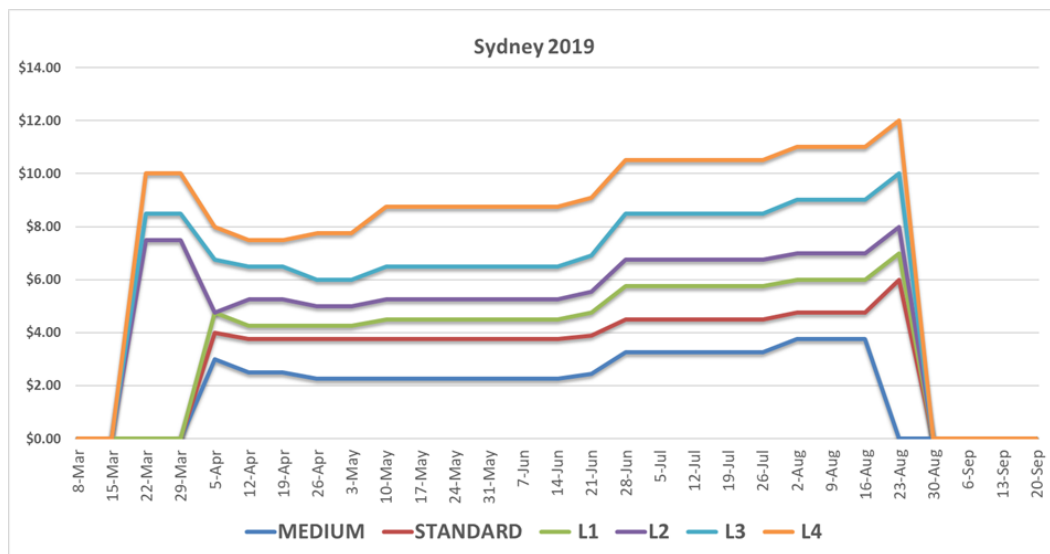
All results can be accessed in the Levy Payers area of the industry website under Market Data

A weekly market report emailed to stakeholders during the 2017/2018/2019 season enabled greater control of when to send product to market and advising prices in 5 Wholesale Markets across Australia

The following graphics are 2 examples of data collected;



Transported Volumes out of NE Victoria 2019 22nd March – 16th August 2019



Sydney Wholesale Market prices 2019

Yearly results over the life of the project on chestnut market prices (5 Wholesale Markets across Australia) and transported volumes of chestnuts from NE Victoria have been placed in the Levy Payers area of the industry website under Market Data. This has enabled stakeholders to establish long term trends within the markets on price and volume.

Statistical information was supplied for the Nut Handbook produced by Hort Innovation for the years 2017/2018/2019

Statistical information was supplied to Australia Nut Industry Council in the development of the Growing For Success – Australia’s tree nut industry 2017 and 2019 statistical handbook

Website was successfully updated with relevant industry communications throughout the life of the project – newsletters/technical bulletins/media releases/coming events/market data/scientific papers/chemical registrations/field day-conference presentations

The chestnut industry website upgrade was completed during the life of the project and went live on 7th September 2018. Chestnut Levy Payers now have a state-of-the-art current website

The addition of a dedicated Levy Payer area was created providing access to chestnut levy funded activities – the following 11 areas were created and populated;

- Internal Rot
- Strategic Plan
- Research Projects
- Chemical Permit Registrations
- Conference/Field Day Presentations & Scientific Papers
- Market Data
- Technical Bulletins
- Biosecurity
- Newsletters
- Horticulture Award
- HIA Annual Chestnut Fund Reports

Website Enquiries

Over the life of the project no less than 168 industry website enquiries were received and followed up on.

These were answered by the CO and TAO and enquirers could have confidence they are getting the relevant information in a timely manner. Information on rootstock, varieties, sourcing trees, sourcing chestnuts, advice on planting, tree health, nut rot, phytophthora and bubbly bark were responded to

Contributions were made to the Australian Nutgrower publication along with photos for the March/June/September/December editions over the life of the project

The addition of material supplied to the Australian Nutgrower provided another source for stakeholders to access relevant information in between regular industry communications

Quarterly industry reports and contributions were made to the Australian Nutgrower publication along with photos over the life of the project

Nine stand-alone articles over the life of the project were also submitted for publishing

Refer to Attachment G – List of Stand-alone articles published in the Australian Nutgrower journal

Maintenance of an industry contact point for other industry stakeholders seeking information about or collaboration with stakeholders of the chestnut industry

Weekly there are many stakeholders enquiring via phone or email;

- re planting orchards
- purchasing chestnuts
- purchasing trees
- technical questions

The enquiries come from:

- Growers seeking wholesalers
- Importers looking for information
- Various industry agencies – HIA/Nuts for Life/PHA/NECMA/ANIC/Agriculture Victoria
- Newspapers & Magazines/Freelance journalists
- Conference organizers and presenters
- The Australian Nutgrower
- Freshcare
- Growers
- Wholesalers
- General public

CAI prepared 6 monthly Milestone Reports along with KPI's the period 1st September 2016 – 31st August 2019

5 Milestones reports for Project CH16000 can be accessed on the industry website under Project Reports/CH16000 Activities. Levy Payers are able to access this information when the need arises

Outputs of reviewed projects CH12000 and CH13003 was circulated via Mailchimp in July 2017 to all Chestnut Industry stakeholders and uploaded to the industry website Levy Payer area under Project Reports/CH16000 Activities

The information collated was used by the CO/TAO to modify programs and/or activities to further engage growers
Collated information was also communicated to Stakeholders through regular Industry Communications

Assist industry to identify R&D priorities

R&D priorities identified over the life of the project;

- Phytophthora
- Chestnut Blight
- Nut Rot

While industry has a priority list, due to a lack of available R&D funds no new projects were considered by the HIA SIAP during the life of the project.

The TAO continued to liaise with the Chair of the CAI R&D Committee as required and the Committee continued to review the priorities and considered funding options both through the levy and outside the levy

A range of Nut Rot, Phytophthora and chestnut blight priorities have been developed but again, due to a lack of resources nothing has been taken through to concept stage but other sources of funding outside the levy were accessed to undertake complimentary projects/programs

Presentations

T Edwards and T Ranford attended and participated in the Australian Nut Conference (ANC) 2017 and 2019 with T Ranford presenting on behalf of the chestnut industry in 2017 and T Edwards presenting on behalf of the chestnut industry 2019

Attachment L - Presentation ANC 2019 - T Edwards

Monitoring and evaluation

Stable or improved grower's returns

Without returns to growers there is no industry, and returns are directly linked to quality produce in the marketplace

Stakeholders were continually reminded at field days, conferences, emails, technical bulletins and newsletters of the need to only send quality produce to market and these regular and consistent messages has added to maintaining consistent returns for growers

Overall improvement in the average quality of product presented to the market

The Chestnut Quality Standards Guide technical bulletin was turned into a large pictorial poster. This visual guide assisted growers in identifying quality produce. This was made available to attendees of field days and conferences. Stakeholders could also request a copy to be posted to them

Attachment M – Chestnut Quality Standards Guide Poster

Ongoing productivity gains at the farm level and along the supply chain

Field days were a major component of delivering update to date information at the farm level and along the supply chain (growers/wholesalers/retailers). The Chestnut Cool Chain technical bulletin was turned into large pictorial poster to assist growers in their obligations as to post harvest best practice. This was made available to attendees of field days and conferences. Stakeholders could also request a copy to be posted to them

Attachment N - Chestnut Cool Chain Poster

Adoption of best practice production, harvest and postharvest handling techniques are essential to achieve productivity gains

Best Practice Post Harvest information was reinforced prior to every harvest in 2017/2018/2019 through newsletters and specific emails to stakeholders

Better industry data is required to inform decision-making

A disturbing outcome of the 2019 production harvest survey was the incidence of tree loss due to Phytophthora. Industry rates Phytophthora at the top of the R&D priorities list, this survey reinforced that conclusion

Innovative and resourceful R, D & E

Prior to 2016 newsletters were printed, collated and posted to Stakeholders taking up a considerable amount of time and money. Since implementing email-based newsletters utilizing Mailchimp considerable savings to industry have been achieved

Delivery of strong and viable strategies from the 2015 - 2020 Chestnut Industry Strategic Plan

The industry has had a simple communication plan in place that has been directed toward growers and broader industry stakeholders. This plan distributed information describing best practice post-harvest handling, tree management and production inputs (water, fertiliser, soils) and supported this information with field days and conferences

Demonstrate a strong ROI of levy funds to meet the expectations of levy payers and government

Industry stakeholders now have an up-to-date website with links to other sites of interest, a comprehensive newsletter, a range of technical bulletins and a focal contact point for all industry enquiries

Need for continuous improvement in industry service delivery

The industry website was completely updated during the life of the project and serves as an up to date means to communicate with Stakeholders. To build on this success continuous updating will be required

Messages on the cool chain, post-harvest practices and packaging will need to be reinforced regularly by a central body to maintain a healthy and productive industry

Hort Innovation Milestones – 103/104/105/106/107

All Milestones produced as per the project requirements are available for Stakeholders to view on the Levy Payers area of the industry website under Project Reports/CH16000 Activities

Website – www.chestnutsaustraliainc.com.au

A full list of website statistics of use is contained within 6 monthly milestones available in the Levy Payers area of the industry website under Research Projects/CH16000 Activities

It was not previously possible to get accurate statistics for either the Consumer or Industry site as they were under one domain

SSL statistics have been collated since the new Consumer site was built (2017) and show a large amount of traffic since the rebuild

Website traffic statistics from July 2017 to December 2017

SSL

Month	Unique visitors	Number of visits	Pages	Hits
Jul 2017	2,868	3,781	17,635	117,008
Aug 2017	2,624	3,299	16,193	86,533
Sep 2017	1,907	2,501	9,535	53,231
Oct 2017	1,863	2,382	10,928	55,207
Nov 2017	1,728	2,094	12,789	50,227
Dec 2017	2,642	3,276	14,857	84,592

Month	Unique visitors	Number of visits	Pages	Hits
Jul 2017	1,086	1,352	5,038	6,341
Aug 2017	364	591	3,813	4,383
Sep 2017	319	611	1,524	1,807
Oct 2017	131	412	1,317	2,102
Nov 2017	59	350	876	1,362
Dec 2017	61	336	1,084	2,036

Note SSL Statistics (below) have improved dramatically since the Industry website transferred to its own domain 7th September 2018

Month	Unique visitors	Number of visits	Pages	Hits
Jan 2019	1,119	1,923	6,235	15,293
Feb 2019	840	1,469	5,846	14,727
Mar 2019	1,716	2,239	9,837	21,518
Apr 2019	1,424	2,186	9,742	21,395
May 2019	1,147	1,452	8,304	15,801
Jun 2019	879	1,610	9,978	17,166

Newsletters

Chestnut Industry News/Technical Newsletter - statistics to evaluate the effectiveness of information transfer is contained within 6 monthly milestones available in the Levy Payers area of the industry website under Research Projects/CH16000 Activities

Monitoring over the life of the project to evaluate the effectiveness of newsletters is combined on a single document below.

On the 20th July 2017 a survey was circulated to chestnut industry stakeholders with the aim of improving industry communication and engagement through industry newsletters both the technical and news editions

Attachment O - Monitor and Evaluate Industry Newsletters - Technical/News– Open/Click/Bounce

Attachment P - Industry communication and engagement plan improving industry through newsletters survey results 20/7/17

Trackable emails/Non trackable emails

A total of 14 emails of specific industry information and/or technical nature were sent to the grower base over the life of the project- statistics to evaluate the effectiveness of information transfer is contained within 6 monthly milestones available in the Levy Payers area of the industry website under Research Projects/CH16000 Activities

A total of 156 of general industry information were sent to the grower base over the life of the project – these are listed within 6 monthly milestones available in the Levy Payers area of the industry website under Research Projects/CH16000 Activities

Monitoring over the life of the project to evaluate the effectiveness of emails is combined on a single document below.

Attachment Q - Monitor and Evaluate Project Activities – Emails

Field days

A total of six field days were held over the life of the project - statistics to evaluate the effectiveness of information transfer and adoption is contained within 6 monthly milestones available in the Levy Payers area of the industry website under Research Projects/CH16000 Activities

It is clear from repeated comments expressed in the survey that field days are an extremely effective way to transfer knowledge, inform growers of new technologies, update growers in all areas of chestnut production and gives an outstanding opportunity for growers to network

At each field day a survey was undertaken by attendees to continually monitor and evaluate stakeholder satisfaction of industry services/communication and adoption

Surveys undertaken over the life of the project to monitor and evaluate the effectiveness of field days are combined on a single document below.

Attachment R - Monitor and Evaluate Project Activities - Field Days

Collection of Industry Statistics

Yearly results over the life of the project on chestnut market prices (5 Wholesale Markets across Australia) and transported volumes of chestnuts from NE Victoria have been placed in the Levy Payers area of the industry website under Market Data. This has enabled stakeholders to establish long term trends within the markets on price and volume

Technical bulletins

A total of 13 were prepared over the life of the project and placed in the Levy Payers area of the industry website under Technical Bulletins.

Stakeholders have easy access to this range of technical information produced over the life of the project

<p>List of KPI's</p> <p>6 Monthly KPI Activities</p>	
<p>COMMUNICATIONS & ENGAGEMENT</p> <p>Maintenance of Plan through continuous C&E</p>	<p>This took place through regular communications with Stakeholders – newsletters/technical bulletins/emails/website uploads and updates/industry contact person</p>
<p>MONITORING & EVALUATION</p> <p>Maintenance of M&E Plan</p>	<p>Through continuous M&E – surveys – market data/industry communications/collection of statistics – website use/crop/volumes</p> <p>Survey after each industry event – took place November 2016/February and September annually</p>
<p>FIELD DAY/WORKSHOPS</p> <p>The delivery of six field days</p>	<p>Preparation – a large amount of time was spent by the CO and TAO organising the day/day's – sourcing presenters/preparing presentations/sourcing venues and caterers</p> <p>Field Day – on the day – set up/present/coordinate/network/pack up</p> <p>Evaluation – an evaluation survey was taken at the end of each field day</p>
<p>WEBSITE - R&D - STAKEHOLDER</p> <p>Maintenance Levy Payer section of Website</p>	<p>A new Levy Payers area was created on the industry website</p> <p>A complete upgrade of the website was achieved and went live on the 7th September 2018</p> <p>Ongoing M&E of usage – statistics of use were recorded in 6 monthly milestones and can be accessed in the Levy Payers area of the industry website under Research Projects/CH16000 activities</p>
<p>NEWSLETTERS</p>	<p>Industry issue - production and distribution - April/August/December</p> <p>Technical issue production and distribution - February/June/October</p>

<p>EMAIL BLASTS</p> <p>Distribution of specific Chestnut material</p>	<p>The information distributed was developed and sourced by the Technical Adoption Officer and distributed via Mailchimp by the Communications Officer. 14 emails of a specific nature were emailed over the life of the project</p> <p>A further 156 emails were sent out to Stakeholders of a general nature over the life of the project</p>
<p>AUSTRALIAN NUT JOURNAL</p> <p>Preparation of industry report</p>	<p>A total of four per year were prepared</p> <p>Maintain membership list – this was reviewed 4 times per year and updated information was forwarded onto the Nutgrower mailing department</p>
<p>GROWER DATABASE</p> <p>Maintenance Levy Payer database</p>	<p>This has been carried out continuously over the LoP</p>
<p>STATISTICS</p> <p>Ongoing collection of industry/grower data – maintaining accurate records of stakeholders on a continuous basis</p>	<p>Update of Chestnut Industry statistics – Review and analysis of the 2015 chestnut industry data collected/ SurveyMonkey survey was undertaken in January 2019 to collect annual industry statistics</p> <p>Collection/collation of weekly Market Report during the season – a total of three comprehensive market reports sourcing information on market prices and transported volumes was collected and were collated over the life of the project – the results of which have been published in the Levy Payers area of the industry website under Market Data</p>
<p>TECHNICAL PAPERS</p> <p>Two per calendar year to be produced</p>	<p>Eleven Technical bulletins were prepared over the life of the project and can be accessed in the Levy Payers area of the chestnut industry website under Technical bulletins</p>
<p>BIOSECURITY</p> <p>Chestnut Blight Program</p>	<p>The TAO has participated in the relevant CCEPP and NMG meetings, as they pertain to Chestnut Blight, as the Chestnut Industry representative</p> <p>This has included regular communication with representatives of the Biosecurity section of Agriculture Victoria</p> <p>Biosecurity R D & E - The TAO has continued to liaise with Plant Health Australia - this included attending a</p>

	<p>range of Plant Health Australia meetings over the life of the project</p> <ul style="list-style-type: none"> • Joint meeting of PHA and Animal Health Australia (AHA) • PHA Industry Member meetings • EPPRD Meetings • PHA Annual General Meetings • NMG meetings <p>Biosecurity meetings on specific industry needs were also attended</p>
<p>RESEARCH & DEVELOPMENT</p> <p>Review of current research gaps and suggestion of proposals</p>	<p>This took place on a continuous basis by the TAO. Information was accessed via networking with Stakeholders at field days and conferences/visiting growers on farm;</p> <p>For example, the TAO visited some dozen growers during the milestone 106 period to discuss major issues including Phytophthora, chestnut blight, nut rot and general harvest conditions</p> <p>Liaise with Chestnut R&D Committee – the CAI R&D Committee met bi-annually to discuss industry priorities – Phytophthora/Nut Rot/Chestnut Blight/Chemical Usage/Cool Chain/Post Harvest Handling</p> <p>Liaise with Hort Innovation – this was done on a need’s basis and through 6 monthly KPI’s and Milestone reports. While industry has a priority list, due to a lack of available R&D funds no new projects were considered by the HIA SIAP during the life of the project.</p>
<p>PROJECT STEERING COMMITTEE</p> <p>The Project Steering Committee met bi-annually to undertake the following actions;</p>	<p>Review of 6 monthly KPI’s</p> <p>Sign-off on 6 monthly KPI’s</p> <p>Review of next 6 monthly KPI’s</p> <p>Agreement of next 6 monthly KPI’s</p> <p>Annual Work Plan for 2017/2018/2019 developed</p> <p>Progress against Annual Work Plan for 2017/2018/2019 reviewed</p>
<p>PROJECT REPORTS</p> <p>Preparation of Final Report 190</p>	<p>A minimum of 30 hrs have been spent preparing the Final Report for submission</p> <p>Submission of Final Report – 5/9/19</p>

Recommendations

The Chestnuts Australia Inc. Executive Committee with the wide support of industry, recommended that a communications program continue for another three-year period at the conclusion of CH16000 retaining the services of Trevor Ranford and Tanya Edwards and advanced this concept through the Hort Innovation funnel 26th September 2018.

It was clear from project CH16000 that the joint role of delivering outcomes for industry through technical bulletins and field days rated highly with growers

Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report.

Acknowledgements

Trevor Ranford – Technical Adoption Officer – Project CH16000

Chestnuts Australia Inc. Project Steering Committee;

Brian Casey

Andrew Hall

Richard Guthrie

Tom Robertson

Chris Dikkenberg

Appendices

Attachment A - overviewCH12000andCH13003

Attachment B - list of newsletters produced over the life of project

Attachment C - technical newsletter june 2019

Attachment D - chestnut industry news august 2019

Attachment E - list of technical bulletins produced over the life of project

Attachment F - biology-and-management-of-nut-rot

Attachment G - list of stand-alone articles published in the Australian Nutgrower journal

Attachment H - chestnut growers invite 18-2-17

Attachment I - list of emails circulated on specific chestnut industry information

Attachment J - review and analysis of industry data for the period 2015-2017

Attachment K - collection of annual statistics 2019

Attachment L - presentation ANC 2019 - T Edwards

Attachment M - chestnut quality standards guide

Attachment N - the chestnut cool chain

Attachment O - monitor and evaluate – newsletters - technical and chestnut industry news

Attachment P - industry communication and engagement plan improving industry through newsletters survey results 20-7-17

Attachment Q – monitor and evaluate project activities - emails

Attachment R – monitor and evaluate project activities - field days

CHESTNUTS AUSTRALIA INC

As part of Project CH12000 and during the period from 1st August 2012 to the 31st July 2016 a number of grower events were undertaken.

The following are brief overviews of each of the events:-

1. Field Day – “Looking to the Future” - 10th & 11th November, 2012

- Tumberumba, NSW
- 26 persons in attendance.
- Postharvest presentation by G Bliss on product Nylate.
- 2 Farm walks and a machinery demonstration were a highlight.



Attendees viewing chestnut harvester at the field day – November ‘12

2. Information Session – 2nd March, 2013

- Held at Beechworth, Victoria
- 34 persons in attendance.
- Growers availed themselves on the latest information on how to use the broad spectrum post harvest fungicide Scholar, which has now been approved for use on Chestnuts. Presented by David Loxley, Post Harvest Manager, E.E. Muir & Sons.

3. Truck Curtain Launch – 2nd March 2013



Group shot of attendees on the day

- This highly successful launch took place at Beechworth, Victoria

- 45 persons in attendance.
- Local Member of Parliament Bill Sykes was invited to speak and launch the truck curtain. Local media identity Barbara Lowery also attended.
- Print media coverage of the event was significant in the local area and beyond.

4. Information Sessions – 7th September, 2013

- **Latest On Chestnut Blight/PIC's (Victoria)**

On the 7th September 2013 CAI conducted industry meetings which included an update from DEPI on Chestnut Blight and the next steps for the Chestnut industry in the introduction of a PIC database for groves in Victoria.

28 persons in attendance.



*Martin Mebalds Exotic Plant Biosecurity and Planning Coordinator
Department of Environment and Primary Industries – providing Blight
& PIC Update to attendees 7th September, 2013*

- **Wholesale Market Visit Report**

Jenny Ekman of Applied Horticulture Research addressed attendees on outcomes of visits to the Sydney and Melbourne Wholesale Markets during the 2013 season.

5. Quality Standards & Consumer Confidence - Field Day – 8th September 2013

- On the 8th September 2013 CAI held a Field Day in Stanley NE Victoria.
- 33 persons in attendance.
- **Postharvest Handling**
Jenny Ekman of Applied Horticulture Research addressed attendees on outcomes of visits to NE Victoria during the 2013 season, determining the latest postharvest practices and communicating these to industry.

- **Orchard Walk/Shed Visit**



Attendees enjoyed examining the orchard and shed of grower Brendon Thompson

6. **Field Day 8th February, 2014 – Harvest & Beyond**

- Held Saturday 8th February, 2014 at the Old Priory, Beechworth.
- 53 persons registered their attendance
- The success of the day was put down to the diversity of the program and a first time visit to the Nightingale orchard at Stanley
- **SARP Review for Chestnut**
A follow up to the Chestnuts Australia Strategic Agrichemical Review Process (SARP) first held during the 2013 annual meetings was conducted. The SARP was facilitated by Dale Griffin of Crop Protection Research Pty Ltd who used an open forum to involve all of the delegates who attended the meeting

7. **Biosecurity – Protecting our Future - Conference - Information Sessions – 15th November, 2014**

- Held at the Quality Hotel Wangaratta Gateway
- 27 persons in attendance
- **Latest On Chestnut Blight/Property Identification Code (PIC) (Victoria)**
Update from VicDEPI on Chestnut Blight and the next steps for the Chestnut industry and the outcome on PIC database for groves in Victoria.



Amy Moore from VicDEPI addresses attendees – 15/11/14

- **Cooling Project**

Jenny Ekman of Applied Horticultural Research presented on Project CH13005 dealing with cooling rates that was undertaken during the 2014 harvest.



Jenny Ekman engages attendees – 15/11/14

- **Biosecurity**

Industry Development Officer (Chestnut IDO) T Ranford delivered information regarding all aspect of on farm biosecurity. A series of Fact Sheets were created for the Chestnut Industry by T Ranford and handed out to attendees on the day.



Trevor Ranford discusses biosecurity with attendees – 15/11/14

8. **Biosecurity – Protecting our Future - Field Day 16th November, 2014**

- Held at the Nightingale Orchard, Stanley North East (NE) Victoria.
- 32 persons registered their attendance.

- **Grafting Workshop**

A grafting workshop was undertaken by experienced nurserymen Don Arden & Richard Guthrie. This was undertaken from responses gathered from the previous field day surveys.



From left; Richard Guthrie, Don Ardern

- **Machinery Demonstration and Farm Walk**

Monchiero Australia Pty Ltd were invited to showcase a harvester suitable for harvesting chestnuts



Field Day - 16/11/14

9. Conference 21st February, 2015 – Season Launch

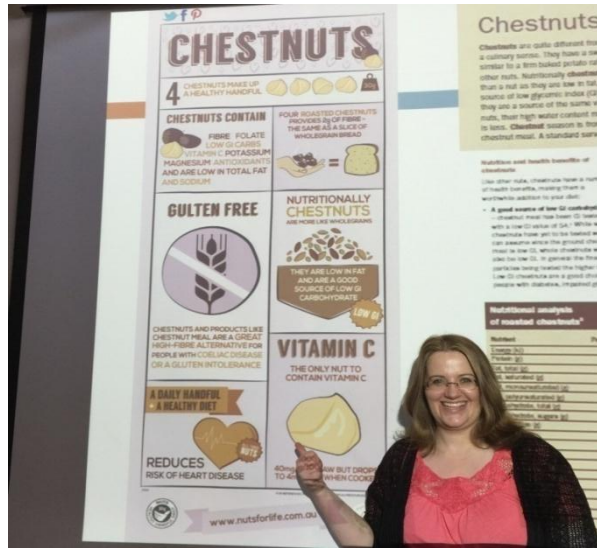
- Held Saturday 21st February, 2015 at the George Kerford Hotel, Beechworth.
- 41 persons registered their attendance.
- **Export61 – Export Essentials Workshop**
Chestnut growers were particularly interested in this subject and at previous field day surveys this was mentioned as an item that growers were looking for more information on.



Joseph Zaritski – Export 61

- **Nuts for Life**

Lisa Yates was invited to attend to present on the health benefits of chestnuts. Lisa also explained what is involved in packaging – nutritional panels/health messages. Lisa’s presentation was very well received.



Lisa Yates – Nuts for Life – Info graphic

- **Sydney Markets**

Sue Dodd, Retail Support Manager at Sydney Markets was invited to present to growers, to raise awareness of barriers to sales, cost effective marketing tools and social media opportunities



Sue Dodd – Retail Support Manager – Sydney Markets

10. New horizons, Innovation & Change - Conference – 12th September, 2015

- Held Saturday 12th September, Wild Cattle Creek Estate, Seville, Victoria.
- 42 persons registered their attendance.
- R&D and Marketing Updates were given.
- **Bird Control**
Phillip Valencia of CSIRO gave a presentation on Autonomous Vertebrate Pest Detection and Detering and was very well received.



Phillip Valencia - CSIRO

- **Cool Chain**

Jenny Ekman of AHR discussing her 2015 research and findings (CH13005) on maintaining the cool chain from the grower to retailer



Jenny Ekman presenting her findings to Conference attendees

11. New horizons, Innovation & Change - Field Day – 13th September, 2015

- Held at Fumina, Victoria.
- 46 persons registered their attendance.
- **Machinery Display and Farm Walk**
A video of Chris Dikkenberg doing a mulching demonstration has been uploaded to the @chestnutsaustralia Instagram account



Field day attendees viewing machinery – Fumina

- **Growing Shiitake Mushrooms**

Robert Wertheimer was invited to discuss growing shiitake mushrooms on chestnut wood; this was a very interesting presentation.



Robert Wertheimer

12. Workshop – 6th February, 2016

Held Saturday 6th February, 2016 at Bright, Victoria.

20 stakeholders present.

Prepare and present Marketing Overview 15/16

13. Quality Nuts to Market – Field Day – 7th February, 2016

Held at various locations, at Porepunkah and Wandiligong, Victoria.

40 persons attended during the course of the day.

Photos for Instagram.



Field day attendees in the orchard- Porepunkah

Prepared by:

Tanya Edwards, Communications Officer

Chestnuts Australia Inc

Part of the KPI's for Project CH1600 – “Communication and adoption program for the Australian Chestnut Industry”.

PROJECT CH13003

Facilitating Development of the Australian Chestnut Industry – Industry Development Officer

Introduction

This project was designed to support the Australian Chestnut industry by providing a mechanism to transfer technology to all stakeholders, including growers, other industry partners and consumers, the Chestnut IAC, Chestnuts Australia Inc. (CAI), and both the R&D and Marketing Committees.

Project CH13003 was undertaken during the period 1st August 2013 to the 27th June 2016 and from 1st January 2014 there was collaboration between the Communications Officer, Tanya Edwards and the Industry Development Officer, Trevor Ranford. This gave CAI an extremely important resource to ensure maximum results from limited financial resources and made CAI a stronger and more effective organisation in communicating and delivering technical outcomes for the Australia Chestnut Industry. They have collaborated across all areas including Field days, Conferences, Newsletter content, technology transfer and the dissemination of information to growers on a wide range of topics. The two roles compliment and support each other and Trevor and Tanya have communicated regularly regarding venues, locations, speakers, presenters for upcoming Field days, Workshops and Conferences. In this way by pooling resources the Industry has been able to host many successful Industry events, presenting a diverse range of topics that have been useful to the entry level grower, up to the established large chestnut grower.

The appointment of an Industry Development Officer has enabled enhanced technical support for growers and facilitated the collection of industry information.

The report below details the outputs of the project and the work of the Industry Development Officer commencing on the 1st January 2014.

Outputs

As part of Project CH13003 and during the period from 1st August 2012 to the 31st July 2016 the Industry Development Officer undertook a wide range of activities and the following is a brief overview of each of the **OUTPUTS:-**

INDUSTRY DEVELOPMENT

The broad output was to promote the adoption of best practice production and handling guidelines to assist:

a) **Growers in improving farm productivity, quality, sustainability and adoption of market preferred varieties**

(1) **VARIETAL EVALUATION:**

Technical data has been and continues to be collected from within Australia and overseas. Past information on nut quality has been collected and adapted into an A3 Nut Quality Standards poster.

(2) **DEVELOPMENT OF A CHESTNUT QUALITY PARAMETERS DOCUMENT:**

As part of the process of developing a Chestnut Quality Parameters manual the IDO has undertaken the following:-

- (a) Held ongoing discussions with the Chair of the CAI R&D committee in relation to the concept and material for a Chestnut Quality Parameters manual and it is proposed that a small group of grower's workshop this topic in September 2016.
- (b) Obtained the reports from projects CH13005 – "Assess post harvest handling and cooling" and CH14005 – 'Chestnut Supply Chain' and extracted relevant material for use in industry technical bulletins and ultimately drawn into a quality parameters manual.
- (c) Continued to source information from the Michigan State University and the University of California to gather relevant technical information around quality parameters used overseas.
- (d) Held meetings with retailers – Coles on the 21st August 2015 and IGA on the 24th August 2015 - to discuss quality issues and their particular quality parameters and food safety requirements. Information continues to be supplied to the retailers to keep them abreast of the cool chain R&D being undertaken.
- (e) Visited the Wholesale markets and met with Agents to discuss and review quality issues as per the following itinerary:-
 - Sydney Market – Wednesday 13th April 2016 and met with representatives of Fresh Produce group and visited other agents selling chestnuts
 - Melbourne Market – Friday 15th April 2016 and met with representatives of Premium Fruit and visited other agents selling chestnuts.
- (f) Visited growers during June 2016 to discuss specific quality issues as they relate to Nut Rot.

Utilising the relevant information a Chestnut Quality Parameters template document has been prepared and made available to the CAI Executive Committee and the CAI R&D Committee for further development and distribution to the industry.

3) **CHESTNUT GROWERS HANDBOOK**

The IDO obtained a copy of the new Chestnut Growers Handbook that was released at the Chestnuts Australia Inc Field Day in February 2014.

A number of pages from the Growers Handbook have been extracted out by the IDO and used as quality assurance material to distribute to the market agents and growers.

b) Supply chain partners in optimising product quality and presentation

The IDO attended the following markets as part of a coordinated Chestnuts Industry development visit:-

- Sydney Market – 9th April 2014
- Melbourne Market – 5th May 2014
- Adelaide Market – 7th May 2014

One of the major issues reviewed was the variance in packaging and the information on the packaging.

As part of the visits we prepared and distributed an A3 quality poster utilizing two pages from the Chestnut Grower Booklet. This was printed, laminated and was supplied to agents in each of the markets.

The IDO visited the following markets in 2016 as a coordinated Chestnut quality assessment visit:-

- Adelaide Market – Tuesday 5th April 2016
- Sydney Market – Wednesday 13th April and Tuesday 3rd May 2016
- Melbourne Market – Friday 15th April 2016

As part of improving chestnut quality, within the supply chain, the IDO:-

- (a) Collected and collated information on nut storage throughout the supply chain.
- (b) Using that information prepared and printed an A3 laminated poster titled "The Chestnut Cool Chain" which detailed the cool storage requirements throughout the supply chain.
- (c) Prepared and distributed a media release on the importance of maintaining the cool chain to ensure high quality nuts are available to the consumer.
- (d) Distributed this poster and other information to growers, processors, wholesalers and retailers.
- (e) Presented the poster and media release to CAI for inclusion on the website.
- (f) Accessed market reports and has commenced the compilation of the data to assist with developing an understanding of what nuts go to the wholesale markets and a good set of chestnut statistics for 2015 and beyond.

In addition contacts were made with the relevant chestnut managers within Coles, Woolworths and the IGA to discuss issues relating to the storage and displaying of chestnuts to ensure good shelf life. Relevant information including 'The Chestnut Cool Chain' poster was sent to the relevant representatives. Follow-up meetings were held in August 2015.

c) Assist industry in addressing on-farm production pest (including disease) issues

(a) Phytophthora

The IDO worked with the HAL ISM Anna-Louise Cross and the Chestnut R&D Committee to prepare a brief for a literature search on Phytophthora.

The brief was put out to tender and three tenders received.

The IDO was part of a project team to review the tenders and select the provider for approval by the Chestnut IAC. A teleconference of the project team was held on Monday 21st July 2014.

(b) Xylella fastidiosa - a biosecurity threat to Australia

The IDO attended and participated in the Xylella fastidiosa Workshop held on Wednesday 1st June 2016 to learn more about this high priority disease and to ensure the Chestnut Industry has an awareness of the disease and the need for good national, state and property biosecurity.

(c) Gall Wasp:

Technical data has been and continues to be collected from overseas and a technical bulletin was presented at the CAI Chestnut Conference on the 12th September 2015.

d) Assist industry to identify R&D priorities

1) R&D Committee

- (a) The IDO serviced the CAI R&D sub-committee by assisting with the
- organising of the sub-committee teleconference meetings,
 - reporting on the relevant chestnut R&D Projects,
 - acting as the secretary and preparing agendas, minutes and relevant discussion papers, and
 - development of R&D priority rankings.
- (b) The IDO assisted in developing the R&D components of the DRAFT Chestnut Strategic Plan and also assisted in developing proposed investment strategies for 2016 onwards.
- (c) The IDO assisted with the review of project CH13003 and the preparation of a variation application to HIAL for the extension of the project until May 2016.

The Chestnuts Australia Inc R&D Committee

- (1) Met face-to-face on Saturday 8th February 2014 at Beechworth.
- (2) Conducted a teleconference on Wednesday 23rd July 2014.
- (3) Conducted a teleconference on Monday 4th August 2014.
- (4) Met face-to-face on Saturday 15th November 2014 at Wangaratta.
- (5) Conducted a teleconference meeting on the 16th February 2015.
- (6) Conducted a teleconference on the 14th July 2015.
- (7) Conducted a teleconference on the 5th January 2016

2) R, D & E topics being managed by the IDO

The IDO has collected, collated and distributed, through articles, fact sheets and face-to-face meetings, relevant information where appropriate on the following topics

- Pests and Diseases
- Rootstock trial
- Post harvest handling
- Nursery sanitation
- Orchard sanitation
- Retailer handling
- Retailer liaison
- Weather analysis
- Packaging
- Storage and handling
- Quality Parameters

e) Assist industry by identifying potential, qualified and appropriate service providers to deliver projects

The IDO worked with the HAL ISM Anna-Louise Cross and the Chestnut R&D Committee to prepare a brief for a literature search on Phytophthora.

f) Assess future industry chemical requirements and provide support for chemical registration and permitting processes.

The IDO undertook a range of activities including:-

- 1) Liaise with APVMA:
Regular e-mails and phone conversations have been held with representatives of APVMA. Letters have been sent to APVMA indicating issues with the current permit for Scholar and liaison with APVMA continues to ensure the maintenance of the permit.
- 2) Chemical Registration:
Ongoing review of current chemicals and consideration of what new chemicals might be required by industry.

- 3) Permits – maintenance - Glyphosate/Phosphoric Acid/Chlorine:
Action is being undertaken to ensure the renewal of current permits are achieved at the appropriate time.
- 4) Permits – new – Rovral:
Collation of appropriate information is being undertaken and is ongoing.
- 5) SARP Report:
The SARP report has been prepared and was reviewed by Chestnuts Australia Inc and the Chestnut IAC and continues to be utilized by the industry.
- 6) Permit management:
Liaison with HIAL is maintained to ensure that the permit information is current and being regularly reviewed.
- g) At the request of CAI the industry has relinquished the permit PER11731 – Spray seed / chestnuts & pistachio / weeds.
- h) Collected and collated industry information on chemical requirements and presented them to both HIAL and the AgVet Chemical Collaborative Forum for inclusion in the 2015 chemical priority list.
- i) Attended the AgVet Chemical Collaborative Forum in Canberra on the 9th and 10th of June 2015 on behalf of Chestnuts and assisted in the inclusion and finalization of the relevant chestnut chemical requirements for 2015.
- j) Prepared and submitted to HIAL a permit application for Rovral. Subsequently HIAL has submitted the application to the APVMA.
- k) Prepared and submitted to HIAL the following information to assist in the preparation of a project tender for residue and efficacy work on Rovral and Scholar:
*"In relation to treatments the trial should look at a number of treatments. The two major techniques are dipping and flood-spray over the conveyor.
Industry would suggest:-*
 - *IN/OUT*
 - *30 seconds*
 - *60 seconds*
 - *2 minutes*
 - *5 minutes*
 - *Flood-spray over conveyor"*
- l) Continued to collect relevant data and information from appropriate sources to ensure there are no MRL breaches.
Chestnut samples were tested for chemicals and the relevant information supplied to the APVMA, in relation to industry concerns with the use of Scholar, in June 2014.

g) Support Chestnut industry biosecurity processes, including addressing grower education and awareness, reinforcing the messages from the biosecurity project on chestnut blight (CH11000)

Across the life of the project the IDO has:-

- 1) Presented technical information on Chestnut Blight and other biosecurity issues to the Biosecurity Roundtable held on the 5th March 2015 in Canberra.
- 2) Presented technical input into the review of the National Biosecurity R, D & E program at a meeting in Melbourne on the 20th May 2015.
Specific areas of concerns tabled where:-
 - Chestnut Blight eradication
 - Chestnut Gal Wasp (as an exotic pest)

- National listing of ALL Australian Chestnut growers
 - National surveillance program including inputs from growers assessing their orchards directly or through consultants
 - Lack of chemicals available to small/emerging industries
 - Lack of control of external contractors entering and working of grower properties,
 - Vertebrates – damage to trees and nuts as well as moving of other pests around the orchard.
- 3) Gained access to the Plant Health Australia/Animal Health Australia Farm Biosecurity videos. Links to the videos have been placed on the CAI website.
- 4) Participated in national biosecurity programs including:
- Attended a Department of Agriculture Biosecurity roundtable meeting on Thursday 3rd April 2014 in Melbourne.
 - Meeting with the Department of Agriculture on the 24th November 2015 to discuss a range of issues including those relevant to the chestnut industry
 - Attendance at the PHA/AHA joint industry forum held in Canberra on the 24th November 2015.
 - Attendance and acted as the CAI proxy to the range of PHA meetings held in Canberra on the 25th November 2015.
- At appropriate times in these meetings relevant issues were raised relating to the industry's dealings with the eradication of Chestnut Blight including:-
- Informing them of the Minister's decision to approve the request to implement the EPPR Deed Levy for Chestnuts,
 - Making PHA Management aware of some of the technical issues relating to the eradication of Chestnut Blight.
- A number of times PHA Management highlighted the positive approach CAI had taken in dealing with and managing the Chestnut Blight outbreak.
- 5) Participated in a teleconference, organised by the Victorian Department of Agriculture, in relation to pest and disease surveillance programs and industry requirements that need to be implemented by the Victorian Department. This teleconference was held on 29th October 2015.
- 6) Responded to the national NMG and CCEPP on specific pests and disease matters on behalf of CAI.
- 7) Assisted with technical responses to the Chestnut Blight CCEPP.
- 8) Assisted the Victorian DEPI with technical information in relation to information for inclusion in the Chestnut Blight eradication program material to growers. The IDO also participated in a Blight teleconference on the 11th December 2015.
- 9) Obtained copies of the PHA 'Farm Biosecurity Planner' and posted a copy to each member of CAI.
- 10) Assisted CAI with technical information for the application to the Victorian Department in relation to growers applying for involvement with the Victorian Property Identification Code (PIC) legislation.
- 11) Gathered technical information for inclusion in the review of the Nut Industry Biosecurity Plan to be undertaken on the 25th August 2015.
- 12) Assisted the Victorian DEPI with technical information in relation to nurseries for inclusion in the Chestnut Blight eradication program.
- 13) Managed compliance with Plant Health Australia (PHA) through attendance at meetings in March/May 2014, November 2014, December 2014, March and May 2015, November 2015 and March and May 2016. The IDO has represented the Chestnut Industry at a number of PHA Forums and meetings throughout the period including.
- Member Engagement Forums and Regional Meetings,

- Meeting with Minister Joyce to discuss broad plant industry matters,
- Joint meeting of Plant Health Australia Industry members and Animal Health Australia Industry members,
- PHA Member Industry Forum,
- EPPRD meeting,
- PHA General and Annual General Meetings,
- Torres Island Fruit Fly Meeting,
- Meeting with Greg Fraser to discuss aspects of the EPPR Levy and how it might be better implemented to undertake biosecurity work,
- Meeting with Rod Turner and Michael Milne to discuss the On-farm biosecurity Manual costs and production, and
- Joint meetings of Plant Health Australia Industry members and Animal Health Australia Industry members.

- 14) At appropriate times in these meetings relevant issues were raised relating to the industry's dealings with the eradication of Chestnut Blight including:-
- Informing them of the Minister's decision to approve the request to implement the EPPR Deed Levy for Chestnuts,
 - Making PHA Management aware of some of the technical issues relating to the eradication of Chestnut Blight.

A number of times PHA Management highlighted the positive approach CAI had taken in dealing with and managing the Chestnut Blight outbreak.

In Addition the IDO has been undertaking work in the following areas:-

- Owner Reimbursement Costs (ORC)
 - Data has been collected and the template for ORC is being prepared for consideration by PHA.
- Nut Industry Biosecurity Plan and Pest and Disease List - refinement and update
 - The list of Chestnut Pests and Diseases within the Nut Industry Biosecurity Plan has been reviewed and was refined as a part of the full review of the Nut Industry Biosecurity Plan.
 - Gathered technical information on relevant pests and diseases for inclusion in the review of the Nut Industry Biosecurity Plan.
 - Sourced input from members of the CAI Executive Committee and the Chestnut R&D Committee on the major exotic pests and diseases.
 - Attended the PHA/ANIC planning session that was undertaken on the 25th August 2015 in Sydney and represented the Chestnut industry during the session.
 - Through the IDO, Chestnuts Australia Inc gave final sign-off to the revised Nut Industry Biosecurity Plan on 9th November 2015.
 - The Nut Industry Biosecurity Plan was launched by Plant Health Australia in May 2016.
- Grower Training
 - A biosecurity session was held as part of the November 2014 Chestnut Field Day.
- On-Farm Biosecurity Manual
 - A draft Chestnut On-farm Biosecurity Manual has been prepared and will be released to the industry once agreement is reached with Plant Health Australia.
- Emergency Plan Pest Response Deed (EPPRD) Committee

The IDO has represented Chestnuts Australia Inc on the Chestnut Blight Consultative Committee on Emergency Plant Pests (CCEPP) and the National Management Group (NMG) and has participated in a number of CCEPP teleconferences.
- Finalisation of proposed changes to the EPPR LEVY.

The IDO assisted in preparing an industry technical brief for Chestnuts Australia Inc, who subsequently submitted it to the Minister of Agriculture, Barnaby Joyce on the 8th April 2015 seeking the activation of the EPPR Levy to assist in the eradication of Chestnut Blight. Additional technical information on the value of the chestnut crop, chestnut prices and chestnut sizes was supplied to representatives of the Department of Agriculture to assist in the finalisation of the review of the documentation by the Department and the Minister.

The EPPR Levy was enacted by the Federal Government in 2015 for commencement on the 1st January 2016. This Levy will assist in the finalization of the eradication program due to be completed by July 2016.

h) Investigate and proactively seek additional income / funding streams to support implementation of the Australian Chestnut Industry Strategic Investment Plan 2011 – 2016.

The IDO

- 1) Assisted the CAI in the development of a DRAFT Strategic Position Paper that was further discussed at the 2015 CAI Conference in February 2015 with the aim of finalising the development of the Chestnut Industry Strategic Plan.
- 2) Assisted with the 2016 Annual Investment Planning Workshop held on Saturday 6th February, 2016 at the Uniting Church Hall, Ireland Street, BRIGHT, VICTORIA
- 3) Prepared and submitted an application to the Australia China Agricultural Cooperative Agreement (ACACA) for a visit to China to assist in the development of export market opportunities.
(The application was unsuccessful).

TECHNICAL FACILITATION

Ensuring that important results and outputs from R&D projects were communicated and made available to the Chestnut industry in a complete and timely manner by:

a) Facilitating the development and delivery of technical transfer activities for growers such as field days, open days and workshops

The IDO has participated in the following field days, open days and workshops throughout the period including.

1) FEBRUARY 2014

The IDO attended the Chestnuts Australia Inc Field Day on Saturday 8th February 2014 at Beechworth, Victoria.

A short presentation on the IDO and aim of the project was presented to the attendees.

In addition the IDO worked with Dale Griffin from Crop Protection Research to facilitate a session on the review of the Chestnut Industry SARP.

2) NOVEMBER 2014

The IDO attended the 2014 Annual General Meeting/ Special General Meeting of Levy Payers/ Conference & Field Day titled "*Biosecurity - Protecting Our Future*" held on Saturday & Sunday 15th/16th November 2014 at Wangaratta/Stanley NE Victoria
The IDO attended and participated in the following activities:-

- (a) Annual General Meeting,
- (b) Industry Forum,
- (c) Special Levy Meeting
- (d) Farm Walk

As part of the activities

- (a) Presented a session on On-Farm Biosecurity and Orchard Sanitation,
- (b) Facilitated a strategic planning session,
- (c) Facilitated the master class on grafting and the other aspects of the Farm Walk

In addition support was given to the Communications Officer in setting up and dismantling of both the forum and the farm walk.

3) FEBRUARY 2015

The IDO assisted with the technical components of the CAI Conference held on Saturday 21st February 2015 at Beechworth, Victoria.

As part of the program the IDO:-

- Attended as a delegate
- Facilitated the Strategic planning session
- Presented a paper on the results of the Review of Phytophthora Root Rot of Chestnuts Project.

4) SEPTEMBER 2015

The IDO attendance the one day industry symposium and the one day farm walk in September 2015.

In conjunction with the Communications Officer, the IDO undertook the following:-

- a) assisted with the sourcing of technical topics and presenters for the symposium and farm walk,
- b) assisted with the planning of both the symposium and the farm walk,
- c) assisted with the set-up and dismantling of both the symposium and farm walk,
- d) attended both the symposium and farm walk,
- e) facilitated components of both the symposium and farm walk with particular emphasis on the Panel session covering nut rot, quality assurance and the 2015 harvest and associated problems,
- f) presented a technical paper for and on behalf of Peats Soil and Garden Supplies titled 'Bring your soil to Life'.
- g) maintained and manned a display of technical reports/documents for the delegates to collect and/or read at the symposium,
- h) met with individual growers to discuss technical topics of concern,
- i) input into relevant discussions, including asking specific questions to generate grower participation in topics of interest at both the symposium and the farm walk.

5) FEBRUARY 2016

The IDO attended the 2016 Pre Field Day Dinner & Season Launch Field Day held on Saturday & Sunday 6th & 7th February, 2016 held at Bright/Porepunkah/ Wandiligong, Victoria.

In conjunction with the Communications Officer, the IDO undertook the following:-

- a) Assisted with the sourcing of appropriate venues,
- b) Attended as a delegate
- c) Facilitated the Field Day activities and introduced the speakers and special guests, generated discussion and directed questions.

b) Prepare technical articles for inclusion in Chestnut newsletters, Australian Nutgrower and Nuts and Burrs Newsletter or as e-mail blasts.

The IDO has prepared and distributed the following technical articles throughout the period including.

- 1) Obtained access to a 'Tech note on Copper Sulphate – degradation' for distribution to chestnut growers.
- 2) Technical bulletins have been developed and have been finalized and distributed to the industry and/or ready for review by the R&D Committee and then designed and distributed to the growers.
The technical bulletins include:-
 - (a) Cool chain requirements on farm
 - (b) Cool chain requirements through the supply chain
 - (c) Cool chain requirements in the retail sector

- (d) Biology and Management of Nut Rot of Chestnuts
- (e) Chestnut Quality Assurance
- (f) Chestnut Nut Rot matters
- (g) Chestnut Gall Wasp (as detailed above)
- (h) Current Chemical Options for Australian Chestnut Growers
- (i) Chestnut Bubbly Bark Technical Bulletin

INDUSTRY COMMUNICATIONS: (utilizing 'tools' including the Newsletters and CAI website)

a) Provide briefing material, industry development updates, fact sheets and articles.

1) Fact sheets and articles:

The IDO has prepared and distributed the following technical fact sheets and articles throughout the period including as per the details above.

In addition the IDO prepared a range of other reports including:-

- (a) Due to the September Newsletter being constructed around the Conference and Farm Walk no specific IDO report was included. Instead the IDO offered technical assistance with the articles included in Issue No 3/2015, 'Special Post Conference Edition – Nuts & Burrs'.
- (b) IDO reports were prepared for the December 2015, February 2016 and the June/July 2016 editions of Nuts & Burrs.

In addition a technical paper on "Progress made in addressing chestnut Gall Wasp" was utilised in the February 2016 edition.

- (c) In an endeavour to spread the message about the technical issues on the cool chain of chestnuts a media release was prepared and distributed broadly.
- (d) An article was prepared for and distributed by Fresh Plaza news in relation to the upcoming season.

2) General briefing and industry development

The following are the general briefing and industry development undertaken through the life of the project:-

- Assisted the Communications Officer on technical issues/items.
- Reported on the project to the CAI Executive Committee during their teleconference meetings on the 13th October and 8th December 2014.
- Attended the CAI R&D sub-committee meeting on 25th November 2014 and reported on the relevant chestnut R&D Projects. In addition acted as the secretary to this sub-committee.
- Supplied relevant technical articles to the Communications Officer for inclusion in 'Nuts and Burrs'
- Assisted the Communications Officer by supplying a number of specific items including a report from the Bureau of Meteorology on Climate and Water Outlook for placement on the website.
- Assisted the CAI Marketing Committee with technical input into storage material important and relevant to the Chestnut supply chain as part of a teleconference on the 14th January 2015 resulting in the preparation of the Chestnut Cool Chain poster.

- Reported to the project steering committee on a number of occasions during other Chestnut industry events on the 20th February, 23rd May and during a teleconference on the 27th July 2015.
- Reported on the project to the CAI Executive Committee during their teleconference meeting on the 10th March, 15th June and 27th July 2015.
- Supplied relevant technical articles to the Communications Officer for inclusion in the 'Preseason' and 'Winter' editions of 'Nuts and Burrs' including:-
 - Chemical Permit
 - Quality from Orchard to Consumer
 - Report from the IDO (both editions)
 - Australian Chestnut Industry Strategic Review
 - Microwaves control brown rot in chestnuts?
- Maintained a linkage with the Michigan State University Extension service and sourced relevant technical information on chestnut gall, chemicals and orchard management for distribution to the industry.
- Assisted in the planning of the technical components of the September 2015 Conference and Field Day including sourcing speakers on bird management and compost. In addition planning is being undertaken for a session on R&D and Nut rot.
- Distributed technical bulletins and scientific papers to the chestnut growers including:-
 - Soil Microorganism paper
 - Chemical technical bulletin
 - AgChem update (as received from a HIAL across industry project).
- Distributed technical e-mail information to the CAI Executive and sub-committee members including:-
 - Tendrils (PHA Newsletter)
 - National Working Party on Pesticide Application (NWPPA) update newsletter
 - Plant Biosecurity Cooperative Research Centre news
- Through requests from growers for information on potential export information a linkage to MICoR - Manual of Importing Country Requirements - was established and distributed.

b) Communication & Liaison with growers, industry organisations, government agencies, researchers and scientists.

Throughout the life of the project the IDO has maintained strong communications with a wide range of industry representatives, researchers and technical people and organisations. Some of the specific communications are detailed:

1) Communications with Jenny Ekman.

The IDO has maintained communications with Jenny Ekman in relation to project CH13005 to consider the expansion of the project to cover topics relating to quality assurance in the wholesale supply chain and the retail network.

2) Communications with Researchers.

As part of maintaining linkages with relevant researchers and technical personnel the IDO participated in the Victorian Horticulture Industry Network on the

- (a) 2nd and 3rd December 2014 at the DPEI Centre at Attwood on behalf of the chestnut Industry and reported on the recent activities of CAI.
- (b) 2nd July 2015 at the DPEI Centre at Attwood on behalf of the Chestnut Industry. The IDO participated in a Biosecurity Industry Liaison Officer course facilitated by Department of Economic Development, Jobs, Transport and Resources. The aim of course was to have personnel prepared to represent industry in an Emergency Plant Pest response.
- (c) Wednesday 20th January 2016 held at the University of Melbourne. This offered the opportunity to liaise with researchers at the University undertaking work relevant to the chestnut industry including land use mapping for both biosecurity purposes and determining the location of orchards.

3) Liaise with Levies Revenue Service.

The IDO has maintained regular communications with Levy Revenue Services in relation to the Chestnut levy collection to obtain statistical data to build a new production database for the Australian Chestnut Industry.

4) ANIC.

The IDO

- (a) Participated on a working committee helping to plan the 2015 Nut Conference and ensured that CAI is in a position to give a presentation to up-date delegates on the Australian Chestnut Industry.
- (b) Attended the 2015 ANIC Nut Conference as a Chestnut Industry representative,
- (c) Assisted with representing the Chestnut industry at and on the CAI trade display booth, and
- (d) Prepared and presented the season report on the Australian Chestnut industry for and on behalf of Chestnuts Australia Inc. The presentation has been up loaded onto the CAI website.

Over the life of the project the IDO has continued to liaise with the ANIC Executive Officer, Chaseley Ross and has assisted with a range of information in areas including industry statistics, biosecurity and chemicals.

c) Work collaboratively with the Chestnuts Communications Officer.

The IDO maintained weekly communications with the Communications Officer via phone and/or e-mail resulting in the supply of a range of information/newsletters/reports being supplied and distributed to either the CAI Executive and/or the chestnut growers.

The material distributed included:-

- Monthly Plant Health Australia newsletters (Executive)
- Monthly CRC for Plant Biosecurity newsletters (Executive)
- Agriculture, Horticulture and Conservation Training package material (Executive)
- Emergency Plant Pest Response Levy notification (Growers)
- CAI DRAFT Strategic Plan (Growers)
- Climate reports from the Victorian Department (Growers)
- National Working Party on Pesticide Application quarterly report (Growers)
- ChemClear Newsletter (Growers)
- AgChem reports prepared and distributed by Kevin Bodnaruk (Growers)
- Horticulture Industry Network Newsletters (Growers)
- NRM on Farms Newsletters (Growers)
- Hort Innovation Newsletters (Executive)
- Biosecurity Matters Newsletter (Growers)
- Drought and About Newsletter (Growers)
- INC Newsletter (Growers)
- Biosecurity Legislation e-blasts (Growers)

In addition the IDO prepared articles titled "Report from the IDO – Trevor Ranford" for each of the editions of Articles for 'Nuts & Burrs' supplied to the Communications Officer for inclusion in Nuts and Burrs and/or on the CAI website.

d) Manage the collection, analysis and dissemination of industry statistics.

- 1) The IDO has undertaken the following:-
 - (a) Designing a production survey for the Chestnut Industry.
 - (b) Circulated the DRAFT Survey to the CAI Executive Committee and the Chestnut R&D Committee for input and final sign-off.
 - (c) Redrafted the Survey.
- 2) The survey was distributed to Chestnut growers via e-mail after the Christmas/New Year break with a closing date of the 29th January 2016.
The survey responses were very poor making the data collected of limited value.
A new survey is planned at the completion of the 2016 season with the aim of gathering much more information.

- 3) Data has been collected from AusMarket and this material is made available to growers through the CAI website. Below are the details of chestnuts transported to the major markets during 2015

WEEK ENDING	TRANSPORTATION OF CHESTNUTS BY STATE			HARVEST 2015			
	SYDNEY	MELBOURNE	BRISBANE	ADELAIDE	PERTH		
06/03/15	0.783	0	0	0	0		
13/03/15	7.434	3.88	0	0	0		
20/03/15	27.604	6.311	0	0	2		
27/03/15	30.688	14.385	3.875	4.9	3		
02/04/15	45.104	4.97	2.5	8.54	0		
10/04/15	32.577	18.74	3.47	3.54	1		
17/04/15	38.91	18.13	3.74	1.975	1		
24/04/15	31.368	8.735	1.49	2.205	0		
01/05/15	27.467	10.645	1.45	1.99	1		
08/05/15	22.081	9.28	1	0.815	0		
15/05/15	32.235	10.77	0	2.7	0		
22/05/15	11.025	7.92	2.22	2.86	0		
29/05/15	16.856	13.675	3.42	1.97	0		
05/06/15	16.06	10.39	3.36	0	0		
12/06/15	16.08	4	0.81	0	0		
19/06/15	16.67	2.33	1.04	1	0		
26/06/15	9.02	2.19	1.32	1.76	0		
03/07/15	12.03	1.425	1.79	0	0		
10/07/15	9.04	0	2.17	0	0		
17/07/15	9.73	1	0.9	0	0		
24/07/15	6.5	0	0.94	0	0		
	419.262	148.776	35.495	34.255	8		645.788

- 4) 2015 gross value of production, farm investment and export figures for the total industry were collected. Projections for 2020 and 2025 were also made. The information has been supplied to the Australian Nut Industry Council for inclusion in an all inclusive nut report/overview.

Estimated Australian Production of Chestnuts							
						% growth over period	
Area Planted, ha	2011	2016	2021	2025		2016	2025
Chestnuts	1,240	1,440	1,640	1,800		2.5%	2.4%
Production, tonnes	2011	2016	2021	2025		2016	2025
Chestnuts, inshell	2,000	2,500	3,000	3,200		1.6%	1.5%
Farm Gate Value \$m	2011	2016	2021	2025			
Chestnuts	\$ 10.00	\$ 12.50	\$ 15.00	\$ 16.00			
Domestic Consumption, tonnes	2011	2016	2021	2025			
Chestnuts, inshell	1,329	1,617	1,967	2,301			
(domestic consumption taken as average 2002/03 to 2004/05)							
Exports, tonnes	2011	2016	2021	2025			
Chestnuts, inshell	671	18	1,033	899			
Exports, value \$m	2011	2016	2021	2025			
Chestnuts	\$ 3.36	\$ 0.50	\$ 5.16	\$ 4.49			

e) Proactively build relationships with key stakeholders, research organisations and agencies, other service providers, and international networks to foster cooperation and partnerships which provide opportunities for the Australian chestnut industry.

1) Agriculture Competitiveness White Paper:

The IDO participated on behalf of Chestnuts (and other nut industries) in a Horticulture session held in Melbourne on Thursday 27th November 2014 to gather information relating to the Ag Competitiveness Green Paper

The IDO assisted with technical information to be included in the response to the Green Paper by CAI.

2) Manage compliance with HAL

(a) The IDO has represented the Chestnut Industry at a number of HAL Forums and meetings throughout the period including:-

- HAL Review Meeting – 21st February 2014
- ACIL Allen Meeting (Independent Consultants) – 4th March 2014
- HAL Members Forum – 28th May 2014.
- Members Meeting in relation to HAL Review – 16th May 2014.
- HAL Review Meeting – 23rd July 2014.

- (b) The IDO assisted the Communications Project Officer and the Chestnuts Australia Inc Executive Committee in preparing a Chestnut Industry submission to the Independent Consultant as part of the HAL Review.

f) Provide support to CAI Executive Committee members to liaise with industry stakeholders on key industry development issues.

1) Seasonal visits to growing regions:

(a) MAY 2014

The IDO visited the Myrtleford region of Victoria during the period 22nd to 25th May 2014 and

- (1) Visited a number of growers within the region to discuss the following issues of concern to the growers and the industry
 - Blight eradication
 - Dipping of nuts to control mould
 - Pests and Diseases, and
- (2) Attended the Chestnut Dinner at Gapsted Winery on Friday 23rd May 2014, and
- (3) Met growers at the Chestnut Display at the La Fiera Food and Wine Festival held in Myrtleford on Saturday 24th May 2014 and discussed a range of issues, including Chestnut Blight and chemicals, and
- (4) Met with members of the Project Team to discuss relevant issues.

(b) MAY 2015

During a visit to the Beechworth/Myrtleford region during the period – 22nd and 23rd May 2015 the IDO:-

- (1) visited a number of grower properties and discussed industry issues, and
- (2) held a meeting with the Chair of the CAI R&D Committee, and
- (3) discussed project matters with the project steering committee, and
- (4) discussed technical matters with a range of growers who visited the Chestnut Industry Display at La Fiera Food & Wine Festival, Myrtleford – Saturday 23rd May, 2015, and
- (5) Assist the Communications Officer with relevant chestnut events held during that period.

(c) MAY 2016

During a visit to the Beechworth/Myrtleford region during the period – 19th to 22nd May 2016 the IDO:-

- (1) visited a number of grower properties in Stanley and discussed industry issues, and
- (2) held a meeting with the Chair of the Project Team – Brian Casey, and
- (3) discussed project matters with the project steering committee, and
- (4) discussed technical matters with a range of growers who visited the Chestnut Industry Display at La Fiera Food & Wine Festival, Myrtleford – Saturday 21st May, 2016, and
- (5) Assist the Communications Officer with relevant chestnut events held during that period.

(d) JUNE 2016

During the period 21st to 23rd June 2016 the IDO visited the three major growing regions – Yarra Valley, Beechworth, Tumberumba and held one-on-one meetings with growers and/or a joint face-to-face meeting:-

- (1) 21st June – Yarra Valley
Met with Chris Dikkenberg and had a two hour discussion on a range of R&D issues and topics.

- (2) 22nd June - Stanley
Grower meeting at Stanley, hosted by Richard Guthrie at Nightingales Orchard.
 - 12 growers in attendance
 - The CO Tanya Edwards also in attendance.
 - Collected bur samples for testing
- (3) 23rd June – Tumbarumba
 - Met with Bill and Jan Connoley
 - Met with Malcolm Marshall
 - Collected bur and nut samples for testing

2) **General liaison with growers on industry issues:**

Throughout the life of the project the IDO has communicated with many growers about issues of concern and/or requests for information including:-

- (a) Input into the Chestnut R&D strategies within the Chestnut Strategic Plan review.
- (b) Communicated with in relation to export opportunities.
- (c) Pests and disease matters
- (d) Chemicals.

3) **Technical input into industry issues:**

Assisted in the preparation of the following broad horticulture and specific technical chestnut submissions including:-

- APVMA review of full cost recovery.
- Review of amendments to the APVMA legislation to reduce red tape.
- Senate Rural and Regional Committee Inquiry on the APVMA legislation to reduce red tape.
- Agriculture Competitiveness White Paper.

The submissions presented technical industry information with the aim of having any new processes and/or regulations being technically practical for growers to implement.

g) **Liaise with Minor Use Coordinator (MT10029) on SARP and other minor use / chemical issues and ANIC Coordinator (NT12001) and utilize the relevant outputs.**

The IDO

- 1) Participated in an AgVet Chemical Forum in Canberra on Friday 5th December 2014 on behalf of Chestnuts (and the other three nut industries) and have technical input into the chemical requirements for Australian Chestnut Growers.
The AgVet Chemical Forum is part of a project funded by RIDIC and it is looking at establishing a Forum to direct/manage minor use permits from mid 2015 onwards. Relevant papers from both the first and second forums were distributed to the CAI Executive Committee.
CAI believes that this was important that the Chestnut industry be involved particularly given the importance of minor use chemicals to the smaller/emerging industries.
- 2) Participated in the AgVet Chemical Collaborative Forum in Canberra on the 9th and 10th of June 2015 on behalf of Chestnuts and assisted in the inclusion and finalization of the relevant chestnut chemical requirements for 2015.

h) **Identify topics and guest speakers for industry workshops.**

The IDO assisted with organising the following topics/speakers for the industry workshops:-

- Strategic Planning – Varietal assessment parameters/Levies/5 year growth estimates/Chemicals/Biosecurity/Marketing/HIA
- Labour Hiring and employment requirements - Labour Solutions Australia
- Irrigation - Netafim Agronomist
- On-Farm Biosecurity Training – Trevor Ranford and Plant Health Australia
- Composting - Peats Soil & Garden Products
- Bird Control - Dr Ashley Tews, CSIRO

COMMITTEE WORK:

a) Support the Chestnut Industry Advisory Committee/Chestnut R&D Committee by attending meetings as required, providing technical information and implementing agreed actions

1) Initial Project Planning Meeting

A planning meeting was held on 17th December 2013 in Albury, NSW to discuss the project and commence the development of the Work Plan.

In attendance at the planning meeting were:-

Brian Casey, Chair Chestnut IAC
Adam Gatford, President, CAI
Tanya Edwards, Communications Officer, CAI
Trevor Ranford, Trevor Ranford Pty Ltd.

The following were agreed upon:-

Purpose of the position:

Research, develop and disseminate technical data/guidelines for the chestnut industry and promote awareness and uptake by the industry including:-

- Working closely with growers in improving farm productivity, quality, sustainability and adoption of market preferred varieties
- Assist industry to identify R&D priorities and identifying potential, qualified and appropriate service providers to deliver projects
- Assess future industry chemical requirements and provide support for chemical registration and permitting processes
- Support Chestnut industry biosecurity processes, including addressing grower education and awareness, reinforcing the messages from the biosecurity project on chestnut blight (CH11000)
- R&D projects – including the effective extension of results to growers and other stakeholders
- Collection and management of industry data
- Supporting the communications program
- Liaison with associated government departments, industry associations and groups.

Work Plan

An initial work plan was prepared in early January 2014 and agreed to by the Project Team.

2) PROJECT TEAM MEETINGS:

A Project Team teleconference was held on Wednesday 23rd July 2014 to review the project and assess the project against the original Work Plan.

In attendance at the planning meeting were:-

Brian Casey, Chair Chestnut IAC
Adam Gatford, President, CAI
Chris Dikkenberg, Chair, CAI R&D Committee
Tanya Edwards, Communications Officer, CAI
Trevor Ranford, Trevor Ranford Pty Ltd.

During the life of the project the IDO has:-

- (a) Reported to the Project Team through a face-to-face planning session held on the 14th November 2015 at Beechworth, Victoria.
- (b) Reported to the Project Team and to the CAI Executive Committee on the 7th September and 2nd November 2015. Both written and verbal reports were given on the project activities and other broad industry events attended by the IDO on behalf of the chestnut industry.
- (c) Reported to the Project Team and to the CAI Executive Committee on the 19th January and the 16th May 2016. Both written and verbal reports were given on the project activities and other broad industry events attended by the IDO on behalf of the chestnut industry.

List of Newsletters produced over the life of Project CH16000

Technical Edition 1, 2016 - Chestnut Industry Newsletter

Edition 3, December 2016 - Chestnut Industry News

Technical Edition 2, 2017 - Chestnut Industry Newsletter

Edition 1, April 2017 - Chestnut Industry News

Technical Edition 3, 2017 - Chestnut Industry Newsletter

Edition 2, August 2017 - Chestnut Industry News

Edition 3, December 2017 – Chestnut Industry News

Technical Edition 4, 2017 – Chestnut Industry Newsletter

Technical Edition 1, 2018 – Chestnut Industry Newsletter

Edition 1, April 2018 – Chestnut Industry News

Technical Edition 2, 2018 – Chestnut Industry Newsletter

Edition 2, August 2018 – Chestnut Industry News

Technical Edition 3, 2018 – Chestnut Industry Newsletter

Edition 3, December 2018 – Chestnut Industry News

Technical Edition 1, 2019 – Chestnut Industry Newsletter

Edition 1, April 2019 – Chestnut Industry News

Technical Edition 2, 2019 – Chestnut Industry Newsletter

Edition 2, August 2019 – Chestnut Industry News



Chestnut Industry Newsletter/*technical*

FROM HOME

Technical Adoption Officer Report

2019 Crop update

Based on the information prepared within the industry weekly market report the following are the comparisons of the crop sent from NE Victoria;

DATE CROP (Tonnes)

9th June 2017	551
8th June 2018	492
7th June 2019	531

Please note: Information gathered on tonnages transported to markets in this report are from the major transport company from NE Victoria ONLY. (This is not the complete numbers for Australia).

Consolidated climate threshold data for spatial tool

The North East Catchment Management Authority is managing a climate change project and has held a number of regional workshops. The following is an overview of the project: "Industry agricultural sector and local government participants were asked to indicate what climate variables were of interest. These variables were assessed against what was possible given the limitations of the climate data obtained from CSIRO.

A list of 20 climate variables for presentation in the spatial tool have been prepared. The initial long list of climate parameters requested by participants have been formatted, providing a response on whether the threshold was able to be fully included, included in part or not able to be included. Where climate thresholds were not included, reasons have been given so as to enable transparency of decision-making.

The rationale used to make decisions as to which variable are included are as follows:

- A core group of variables under the different broad grouping were agreed (ie. Extreme Temperature – based on Av Daily Maximum Temperatures), where it was noted that minor variations on this core group was not justified due to the considerable additional data processing requirements to accommodate:
- Forecast rainfall data is not reliable enough to support daily rainfall analysis (ie. number of consecutive days with a particular rainfall)
- Extreme weather events are poorly represented in forecast data (i.e. such as hail events, or days with rain greater than 100mm)
- No evapotranspiration information has been provided as part of the climate forecast data
- The relative humidity information provided as part of the climate forecast data appears

unsuited for the climate change analysis being undertaken

- The climate forecast data provided by CSIRO includes only daily information, and hence hourly increments cannot be applied."

The information as it relates to chestnuts is being extracted from the material available and will be presented to the industry at a later date.

For more information on the project contact:

Lachlan Campbell
Catchment Coordinator Regional
Agricultural Landcare Facilitator
North East Catchment Management
Authority
Telephone: 1300 216 513
Direct: 02 6043 7672
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SCIENTIFIC PAPER

Chestnuts bred for blight resistance depart nursery with distinct fungal rhizobiomes

Abstract

Restoration of the American chestnut (*Castanea dentata*) is underway using backcross breeding that confers chestnut blight disease resistance from Asian chestnuts (most often *Castanea mollissima*) to the susceptible host. Successful restoration will depend on blight resistance and performance of hybrid seedlings, which can be impacted by below-ground fungal communities.

We compared fungal communities in roots and rhizospheres (rhizobiomes) of nursery-grown, 1-year-old chestnut seedlings from different genetic families of American chestnut, Chinese chestnut, and hybrids from backcross breeding generations as

well as those present in the nursery soil. We specifically focused on the ectomycorrhizal (EcM) fungi that may facilitate host performance in the nursery and aid in seedling establishment after outplanting. Seedling rhizobiomes and nursery soil communities were distinct and seedlings recruited heterogeneous communities from shared nursery soil. The rhizobiomes included EcM fungi as well as endophytes, putative pathogens, and likely saprobes, but their relative proportions varied widely within and among the chestnut families.

Notably, hybrid seedlings that hosted few EcM fungi hosted a large proportion of potential pathogens and endophytes, with possible consequences in outplanting success. Our data show that chestnut seedlings recruit divergent rhizobiomes and depart nurseries with communities that may facilitate or compromise the seedling performance in the field.

Trevor M Ranford

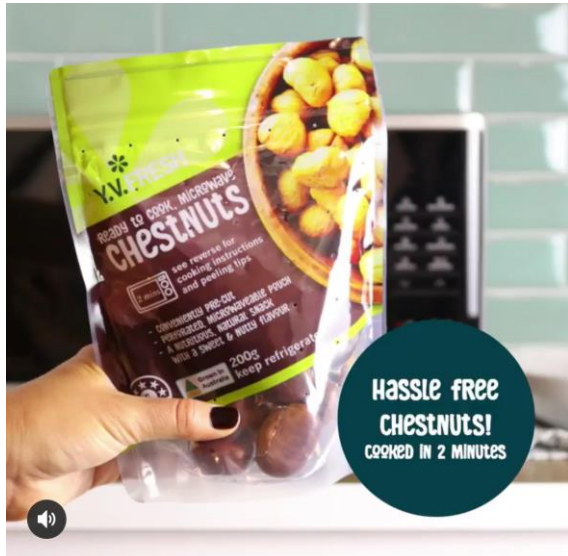
Technical Adoption Officer

Clever local innovation makes it to retail shelves!

Andrew and Joy Hall of Hall Stanley Premium Chestnuts in conjunction with Y.V. Fresh recently launched their new hassle-free microwavable chestnut pouches. The chestnuts are pre-cut, all you have to do is simply place the pouch in the microwave for 2 minutes and hey presto, you a delicious chestnut snack ready to go!

The new product was introduced to customers in early June with several instore demonstrations undertaken. To date the pouches have been picked up by 10 Coles stores in and around Melbourne. Early days but so far, the response has been very positive!

Innovation takes time and this concept has taken several years of research and trials to make it to shelves. Chestnuts being used are easier to peel and flavoursome De Coppi Marone. Well done Andrew & Joy!



Tanya Edwards
CAI Communications Officer

Calling all biosecurity champions

The Department of Agriculture and Water Resources released 'Country-Handle with Care', a biosecurity web series that calls on locals and visitors to do their part to protect Australia from the biosecurity risk of pest and disease.

Speaking at Cairns ECOFiesta, Head of Biosecurity, Lyn O'Connell, said the series features well-known television personalities who share the department's commitment to biosecurity.

"Biosecurity is everyone's business and now, more than ever, we must all learn to recognise the key threats as they occur and take action to stop them in their tracks," Ms O'Connell said.

"Country-Handle with Care shows that we all have a role to play.

"The seven-part series features biosecurity officers, scientists, and our Indigenous Rangers who work on the frontline to help safeguard Australia's environment, plant, animal and human health against pest and disease risks.

"Our biosecurity champions are supported by family favourites, Costa the Garden Gnome, dirtgirl and scrapboy. It also features horticulturists, farmers, fishers and tourism operators.

"The series tackles a wide range of pest and disease risks, including Asian honeybees, Queensland fruit fly and Asian green mussel, which all pose a significant risk for Australia.

"More importantly it highlights what visitors and locals can do to be better biosecurity aware, such as keeping an eye out and reporting potential biosecurity risks.

"I encourage everyone to get involved and view the web series so we can all do our part to keep Australia healthy and clean."

The series and more information on how you can be a biosecurity champion is available on the department's website at www.agriculture.gov.au/biosecurity/australia/northern-biosecurity/costa-and-dirtgirl

Farmers commit to community conversation on glyphosate

National Farmers' Federation President Fiona Simson said trust must be put in the regulator and the overwhelming, established science, in any legal matters considering the impacts of the use of chemicals including glyphosate.

Ms Simson said the independent, expert scientific advice from the

regulator, the Australian Pesticides and Veterinary Medicines Authority (APVMA) confirmed that glyphosate, the active ingredient in products such as Roundup, was safe to use.

"The same conclusion has been made by every regulator in world. No other chemical compound has been studied to the degree that glyphosate has," Ms Simson said.

"There is an extensive, international body of scientific work – spanning 40 years and 800 studies that affirms that glyphosate is not a cariogenic, and more precisely, that it does not cause Non-Hodgkin's Lymphoma."

"We simply have to base judgments on science and evidence and trust the regulator."

Ms Simson said many Australian farmers relied on safe tools such as glyphosate to produce healthy food and fibre, to control weeds, promote biodiversity and to nurture soil and water health.

"The NFF scrutinises the potential risks to farmers of any tool in the farm production cycle – whether it be it quad bikes, tractors or chemical tools such as glyphosate.

"There is not a more important priority for the NFF than the health and well-being of our farmers, their employees and the broader community.

"As farmers we understand the concerns, we appreciate the questions, we have asked them ourselves, but we remain confident in the science and the ability of the regulator to make informed decisions based on facts.

"For many years, the NFF has put the safety of glyphosate under scrutiny and we are more than satisfied with

the scientific rigour confirming its continued application."

This scientific rigour includes the National Cancer Institute-supported 2018 Agricultural Health Study. The study followed more than 50,000 farmers who used glyphosate for more than 20 years. The work found no association between glyphosate-based herbicides and cancer.

In 2017, the United States' Environment Protection Authority's cancer risk assessment examined more than 100 studies and concluded glyphosate was 'not likely to be carcinogenic to humans,' – it's most favourable rating.

Ms Simson said the NFF was committed to sharing the facts about glyphosate, including its proven safety for human use.

"We understand that, although not based on objective evidence, some Australians have concerns about the popular herbicide.

"As the peak body representing farmers, for which glyphosate is an indispensable tool, it is the NFF's role to have a conversation with the community about these concerns and to provide the objective-science based facts that confirm the safety of glyphosate.

"Farmers take very seriously their responsibility of producing safe food and fibre for the world. We want to have an open and clear dialogue with the community that puts at ease any concerns about how farmers grow what they grow."

Despite, recent disappointing legal decisions in the United States, Ms Simson said she had every confidence that, when considering the impact of glyphosate on human

health, Australian courts and indeed those in other global jurisdictions would see that science prevailed.

"The evidence is just too clear and too compelling for any other outcome," Ms Simson said.

On-farm energy grants program Farmers are now able to apply for an on-farm energy grants

Grants are now open

The on-farm energy grants are available to eligible primary producers until March 2020 or until available funding is exhausted (whichever comes first). Apply early so you don't miss out.

Grants will be provided on a "dollar for dollar" cash co-contribution basis. Recipients are required to contribute at least 50 per cent of the total cash costs of the project.

You will need an on-farm energy assessment, or an equivalent certified on-farm energy assessment conducted in the past two years, to access one of the grants under the Agriculture Investment Energy Plan (AEIP).

For more information go to;

<http://agriculture.vic.gov.au/agriculture/farm-management/agriculture-energy-investment-plan/grants>

Horticulture leads Australian agriculture in value and on-farm efficiency

A recent analysis of Australian agricultural industries has put horticulture at the forefront in sustainable practices.

A review of the latest data[i] from the Australian Bureau of Statistics identified the Australian horticulture industry to have the highest water efficiency of all agricultural industries returning \$6,200 of value per

megalitre used in Gross Value of Production (GVP) terms.

Horticulture generated the highest GVP per hectare of production land used at \$31,486, with the second highest (viticulture) trailing at \$7,720. Horticulture is now the second most valuable agricultural sector at \$10.2 billion.

And the horticulture industry also has the lowest total greenhouse gas emissions and lowest greenhouse gas emissions per \$ of GVP at 0.03 tonnes of CO₂-e.

Looking at the whole product lifecycle, horticulture can attribute low greenhouse gas emissions post-production to the high proportion of production located in peri-urban areas and surrounds.

Hort Innovation Research and Development Lead Dr Anthony Kachenko said the changing climate, high energy costs and the emergence of water-related issues such as salinity, water contamination, reduced environmental flows and supply security has brought greater attention to the importance of on-farm efficiency.

"With the increasing cost of agricultural inputs, such as water and energy, increasing the efficiency of these inputs remains an important issue for the industry," he said.

"What this data has shown is that while horticulture is intensive in terms of resource use, such as capital, labour, energy and water, it also a high value industry."

Dr Kachenko said horticulture had proved successful in its adoption of sustainable practices and moving forward, Hort Innovation would continue to support its industries to

adopt greater sustainability approaches that avoid negatively impacting the environment.

“Initiatives which increase on-farm efficiency will be critical to ensuring the horticulture industry can not only become more productive and profitable, but also improve environmental outcomes.”

Hort Innovation is working to develop a Sustainability Framework for the horticulture sector to continue the momentum in this space.

“Run the Rose”

The NSW Chamber of Fruit & Vegetable Industries is organising their upcoming industry race day – Run to the Rose. Members of Chestnuts Australia Inc are invited to attend.

This event serves to bring together all of those within the supply chain from Growers – Transporters – Wholesalers – Retailers etc.

For more information see the attached file or contact:

Nick Bensley
Communications Manager
The NSW Chamber of Fruit & Vegetable Industries Inc.
Sydney Markets
Ph (02) 9764 3244
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FROM OVERSEAS

DID YOU KNOW?

The 2018 Spanish chestnut crop reached 184,765 in-shell tonnes, 14.2% more than in the previous season, the planted area being static at around 32,600 hectares.

Heavy rain and investment against chestnut wasps, favour production.

Sales revenue of Chestnut Flour to surge in the near future owing to rapid adoption across key industries

In its latest report on ‘Chestnut Flour Market’, Persistence Market Research provides a concise analysis on the recent market trends. The report further includes statistics, market forecasts and revenue estimations, that in addition highlights its status in the competitive domain as well as expansion trends adopted by major industry players.

Chestnut Flour market outlook

Chestnuts are the group of a species of shrubs and deciduous trees of Castanea genus belonging to Fagaceae family. The nuts that these trees produce are referred to as chestnuts. The chestnut flour is made by grinding the dry and roasted chestnuts in powdered form. The chestnut flour is widely used for preparing varieties of food and bakery products.

The chestnut flour is a light brown color flour that provides a delicious characteristic nutty, and earthy flavor to the prepared food product to which the flour is incorporated. The chestnut flour is a flavourful and versatile ingredient and is used in the preparation of muffins, pies, loaves of bread, cakes, pancakes, polenta, pasta, porridge, biscuits, and many more dishes. The chestnut flour is used either alone or with some other flour to prepare baked goods.

Chestnut flour is also used as a thickening agent in products like soups, stews, and sauces to provide good consistency to the liquid products. Chestnut flour unlike other grain flour is gluten-free and have high water, protein and starch content and low-fat contents.

Chestnut nut flour provides nutritional and health benefits, the chestnut flour is a rich source of prebiotic fiber known as resistant starch that helps in nurturing probiotic bacteria, which exhibits health-improving activities.

Growing demand for baked goods is fueling the growth of Chestnut Flour

Around the globe, the bakery products are gaining a significant transaction due to higher consumer likability and inclination towards delicious bakery offerings. The increasing application of the chestnut flour for the preparation of bakery products is the primary driver for the growing demand of the different textured and flavored chestnut flour.

The second driver fueling the need for the chestnut flour is the increasing demand for the gluten-free products. Nowadays, there is growing number of people who suffer from gluten intolerance and digestive problems, according to a survey by the New York Times in 2014, over one-fourth of the American population is cutting down on gluten or preferably eliminating them. Thus a large number of people are shifting towards opting gluten-free products and ingredients.

The chestnut flour unlike other grain flour is gluten-free and therefore is also suitable for population having

dietary restriction because of gluten intolerance, thus making the demand for chestnut flour increase over the forecast period.

Editor's Note: This is excellent news for Australian flour and meal producers!

Steam-cooked peeled chestnuts now available as snacks

Agrimola from Casalfiumanese (Bologna), a company producing approximately 15 thousand tons of fresh chestnuts a year, has recently introduced a new product - steam-cooked peeled chestnut in 'stay-fresh' bags.

"It is one of the many products we commercialize all year round. The fresh chestnut season lasts from September to December, but these products enable us to work throughout the year. We use six sorting and 11 packaging lines and we also process PGI chestnuts from Castel del Rio," explains Alessandro Giannetti.

Website: www.agrimola.it

FULL ARTICLE LINK:

www.freshplaza.com/article/9105099/steam-cooked-peeled-chestnuts-now-available-as-snacks/



This project has been funded by Hort Innovation using the chestnut research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

August 2019

This newsletter is an output of HIA Project CH16000 - Communication and adoption program for the Australian Chestnut industry – (Final for this Project)



Chestnut Industry News

2019 COMING EVENTS

- **2019 Field Day/AGM/Conference & Dinner – Saturday 16th November – Tawonga, Kiewa Valley – NE Victoria – more to come as details are finalised!**

Technical Adoption Officer Report

Market Update

As at the 16th August 2019 the crop (based on nuts transported from NE Victoria) is tracking ahead of last year but slightly lower than in 2017.

DATE	TONNES
16 th August 2019	754
17 th August 2018	700
18 th August 2017	819

Based on these figures and extrapolating out using the rule that 70% of production comes from NE Victoria the current 2019 crop is estimated at 1077 tonnes.

Ag Chemical Update – June 2019

June 2019 addition of the Ag Chemical Update at can be found on their website on the below link.

<https://www.horticulture.com.au/globalassets/hort-innovation/resource-assets/mt17019-ag-chemical-update-june-2019.pdf>

Words of wisdom from the Latvian calendar

The Latvian calendar has never been a mere catalog of days, but also an encyclopedia and a compendium of advice on various matters of living, the specialists of the National Library of Latvia (LNB) told Latvian Radio on July 2. For example, the “Household Calendar of 1933” tells of “what our trees reveal about early winter”.

A fragment from the calendar – chestnut trees know how to observe and interpret their signs:

The chestnut is a wise tree and should be found at every farmstead as a guard and forecaster. In spring, it will never adorn itself with flowers before the night frosts are over. In autumn, it will never hurry to throw off its leaves if cold winds are not in the offing.

The chestnut saith: if the first snow touches my leaves in autumn, then rejoice – a rich year is coming. If my leaves fall in one or two days time, then the winter will be consistent. If the wind scatters far my falling leaves, then there will be little snow in winter. If the leaves remain thick about my trunk, then much snow will fall. If the year gave an abundance of chestnuts, then the coming summer will bring plenty of hazelnuts and a rich harvest of rye.

How interesting!

Changes to the Harvest Labour Services and National Harvest Labour Information Service

In the 2019-20 Budget, the Government announced its intension to make changes to the Harvest Labour Services (HLS) with the aim of encouraging more Australian job seekers to take-up seasonal work. Existing HLS and National Harvest Labour Information Service (NHLIS) contracts are due to end on 26 June 2020.

The Government is undertaking public consultation prior to implementing changes to HLS and NHLIS. The Department of Employment, Skills, Small and Family Business (the department) has released a Consultation Paper, ‘HLS – Reforms to encourage Australian job seekers to take up seasonal work’. You can provide feedback to the Consultation Paper from 31 July to 12 noon (Canberra time), 22 August 2019.

Links to the Consultation Paper and information on how to provide feedback can be found at the department’s website

www.employment.gov.au/Purchasing
AusTender (www.tenders.gov.au)

If you have any questions, please contact the Employment Services Purchasing Hotline on 1300 733 514 or email

espurchasing@employment.gov.au

Phytech information sessions

Learn why plant-based sensors and analytics are the ideal way to optimise irrigation decisions. Applicable irrigated crops: tree nuts, citrus, avocados, olives, table grapes, wine grapes, stone fruit, apples, mangoes, corn and sugar cane.

Phytech will be holding information sessions across much of South Eastern Australia in September.

“We typically hear that rising water and energy costs are currently the biggest issues facing growers. Now that we have gained economic viability of our agtech business with the corporate companies in the almond, walnut and citrus industries (25,000 hectares), we are extending the service to other industries and smaller growers.”

Select Harvests made this short testimonial video that shows how they benefit from the Phytech service:

<https://youtu.be/MuWRDZEJ934>

Download the Phytech Session Schedule here

For further information or register your interest go to www.phytech.com.au

Interesting new technology

How Do You Confuse a Sharpshooter?

Rodrigo Krugner, an entomologist with the Agricultural Research Service (ARS) in Parlier, California, has found an innovative way to control insect pests in California vineyards: tapping into the vibrational signals they use as mating calls.

Krugner's efforts have mainly focused on glassy-winged sharpshooters, which spread a bacterium that causes Pierce's disease in vineyards and costs the California grape industry an estimated \$104 million a year. Growers use chemical sprays to control the pests, but insecticides also kill beneficial insects, leave residues, and become less effective as the insects develop resistance.

Male and female glassy-winged sharpshooters produce mating calls by vibrating abdominal muscles, and they can detect each other's signals from at least 6 feet away when they're on the same vine. Krugner has developed a way to record those mating calls, study them, and turn them into sound waves that can be synthesized and played back to the sharpshooters in a vineyard—at a frequency that confuses the

insects and disrupts their mating.

In 2018, he published a paper showing the effectiveness of the technique in a California vineyard. “We found that playback of the right signal prevented insects from communicating, which resulted in no mating,” he says.

Krugner is now studying the vibrational signals of other insects that attack grapes so that the technique can be used to control them. At least 150,000 species of insects use vibrational signals as one method of attracting mates (some of them use pheromones combined with vibrations). Many of those insects, such as leafhoppers and stink bugs, attack grapes. The approach may hold its greatest potential for controlling vineyard pests, because grapevines have trellis networks that can be used as transmission lines for the signals, says Krugner, who works at ARS's San Joaquin Valley Agricultural Sciences Center.

Each type of insect sends out a unique signal, but sound technology has advanced to a level where almost any vibration at any frequency can be replicated in a digital format, he says. The trick is being able to decipher the biological meaning of specific frequencies of the insect's vibration and then synthesize it.



A custom made, prototype vibration emitter is placed on a trellis during field trials at the Crop Diseases, Pests and Genetics Research Unit in Parlier California. Rodrigo Krugner (D4202-1)

“Most of the effort involves finding the right disruptive signal, similar to cracking a code in a different language, and then making a synthetic version of it,” Krugner says.

So far, he has characterized the vibrations used by the variegated leafhopper, which also attacks grapes. He has started to work on the vibrations emitted by the blue-green sharpshooter, another insect that spreads the Pierce's disease bacterium in northern California and coastal vineyards.

The prototype “shaker” device Krugner uses to send signals through grapevines is suitable for use in fields, and while it isn’t widely available for commercial use, that may change. As Krugner and others develop disruptive signals for more insect pests, it should increase interest in the approach among growers—who are already very interested in cutting back on insecticide use. Once growers begin to want shakers of their own, manufacturers are likely to start producing them for commercial use, he says. - *ARS Office of Communications*.

Embedding climate adaptation in agriculture

Wed 28 August 2019, 8.45am - 5pm Savoy Club, 252 - 254 Myrtle St, Myrtleford - FREE!

You are invited to attend the launch of the Embedding Climate Adaptation in Agriculture project. The five-year project aims to increase the capacity of agriculture systems, related communities and support local government to adapt to significant changes in regional climatic conditions.

To find out more and register go to

<https://www.necma.vic.gov.au/News-Events/Events/ArtMID/461/ArticleID/521/Embedding-Climate-Adaptation-in-Agriculture-Project-Launch>

Chinese chestnut production volume declines by 40%

The surface area devoted to Chinese chestnut plantations expanded in many production areas in recent years. Beijing, Hebei, and Shandong are good examples of this development. The overall surface area devoted to chestnut plantation in these areas expanded by around 5% per year.



However, the overall production volume of chestnuts this year decreased by around 40% in comparison with last year. The main reason for this development is poor weather. The chestnut trees bore less fruit than usual." This is according to manager Yue, a holder of the frozen chestnut trademark.

To read the full article go to <https://www.freshplaza.com/article/9126371/chinese-chestnut-production-volume-declines-by-40/>

Article courtesy of © FreshPlaza.com

Publication date: 15/7/2019

The European and Japanese Chestnuts in the eastern United States

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

The book was originally written in December 1898.

Download the book here

TAO Comment: Enjoy the read.

Trevor M Ranford

Technical Adoption Officer

Chestnuts Australia Inc.

Position funded as part of Project CH16000



2020 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry - Apply for a \$22,000 grant now!

Grants to realise big ideas for agriculture from young innovators

Applications are now open for the Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry, a competitive annual grant program recognising and supporting young Australians aged 18-35 by funding projects that will benefit Australia's primary industries.

Since 2001, the Science and Innovation Awards have helped more than 250 young researchers, innovators and scientists turn their ideas into reality through more than \$4 million in grant funding. We invite you to put your hand up and be part of something big.

- Are you eligible?
- Are you working or studying in an agriculture, fisheries or forestry related industry?

- Are you aged between 18 and 35?
- Do you have an original research project idea and need \$22,000 to make it a reality?

Check the full list of eligibility requirements on the website.

<http://www.agriculture.gov.au/abares/conferences-events/scienceawards>

There are 11 industry category grants worth up to \$22,000 (incl. GST) each.

Applications close - Friday 4 October 2019



The new way forward for horticulture's RDC

Launched on 1 July 2019, the Hort Innovation Strategy 2019-2023 represents a strong new way forward for your grower-owned research and development corporation – and for Australia's horticulture sector as a whole. It lays out Hort Innovation's focus, goals and key activities for the next four years, all of which are closely aligned to the industry's needs, now and into the future.

You can see the new strategy and what it means for you at www.horticulture.com.au/strategy-2019-2023/

Just some of the highlights include...

- A new focus on extension and adoption – one important change under the strategy is the development of a new Extension & Adoption function. This and other initiatives will be focused on getting practical investment outcomes, resources and knowledge directly to growers.
- A sustainability framework for horticulture – under the new strategy, Hort Innovation will be building a sustainability framework for Australian horticulture, to help the sector proactively manage emerging issues now and in the future.
- A sharpened focus on delivering consumer insights and improving the understanding of domestic and international markets – this is all about

helping industry influence consumers, and expand and strengthen presence in markets.

- More collaborative, across-horticulture investments – while this won't reduce the importance of investing in issues for single industries, Hort Innovation will work to deliver more multi-industry collaboration in RD&E, marketing and trade. This will support more effective and efficient outcomes for growers and the wider horticulture sector.

The Hort Innovation Strategy 2019-2023 was developed with vital input from growers and other horticulture participants, which was sought through consultation workshops in 20 locations across regional Australia, and via an online feedback mechanism. All up, more than 350 participants contributed to the thinking behind the strategy.

Defending Australia against the number 1 crop killer

What has been dubbed the number one plant biosecurity threat to Australia is now under the spotlight through a new Hort Innovation funded project aimed at building Australia's capability to quickly and effectively detect and keep the threat at bay.

Xylella fastidiosa, a bacterium transmitted by common sap-sucking insects such as spittlebugs and sharpshooters, is one of the most harmful plant pathogens worldwide.



Glassy Winged Sharp Shooter

The impact of *Xylella* overseas has been catastrophic, infecting more than 200 million citrus trees in Brazil, destroying 1 million olive trees in Italy and devastating the Californian grape sector – causing annual losses in excess of US\$100 million.

The pathogen, not yet present in Australia or New Zealand, can cause significant disease to several agriculturally important crops including grapevines, olives, nuts, citrus, stone fruit, blueberries and cherries, as well as numerous ornamental hosts.

In fact, over 500 cultivated and uncultivated herbaceous and woody plant species are known hosts of *Xylella*.

A new collaborative research project managed by Hort Innovation under the Hort Frontiers strategic co-investment program will be led by Dr. Rachel Mann from the Victorian Department of Jobs, Precincts and Regions (JPR) and is additionally supported by Western Australian, NSW and Queensland state based primary industries and the Ministry for Primary Industries in New Zealand.

This collaborative effort ensures that major diagnostic labs in Australia and New Zealand that currently provide diagnostic capability to state and national biosecurity agencies and industry are prepared.

Hort Innovation Research and Development Manager Dr Penny Measham said the project, which supports the delivery of the Department of Agriculture's National Action Plan for *Xylella*, was looking at new methods for detection and surveillance through the development of innovative diagnostic tools.

"Currently, detection is difficult as the pathogen has a long latent period and not all plant hosts exhibit symptoms," she said.

"Furthermore, the different strains of *X. fastidiosa*, classified into subspecies, can behave like different diseases in different hosts."

Dr Measham said the value of subspecies identification was paramount during incursion mode. "Along with international collaboration, the project aims to establish an Australian based *X. fastidiosa* genome database to assist with design and validation of *X. fastidiosa* subspecies specific diagnostic tools that are both rapid and accurate," she said.

"The fast turn-around of this information could be the difference between eradication and moving to management of this devastating pest."

Project lead, Dr Rachel Mann said the current National Diagnostic Protocol (NDP) for Australia is for the detection and identification of *Xylella* and is focused specifically on Pierce's disease.

"This project will review and adopt world's best practice diagnostic methods for the detection and identification of *Xylella* and its' subspecies, and ensure diagnosticians are trained and proficient in using the revised National Diagnostic Protocol," she said.

"In the event of a suspect sample being identified, our state diagnostic laboratories will be the first to deal with these samples, so it is essential that our capacity to handle these samples be developed and tested now and not during a potential incursion."

Dr Mann said adoption of the *Xylella* NDP would be immediate. She said the NDP will be used to screen plant material entering Australia, support active surveillance programs and as the key diagnostics reference standard for diagnostic labs it will be used during an incursion or during the detection of the exotic vector, the Glassy-Winged sharpshooter.

Hort Innovation Media Release – 31/7/19

New cultural insights for export markets

Did you know that fruit is a traditional element in Vietnamese gift-giving? Or that in Chinese culture, rounded fruits are believed to provide good fortune, luck and prosperity? For Australian horticulture businesses that export, Austrade has recently developed a suite of market insight reports with info on how fruit and nuts feature in cultural events.

<https://www.horticulture.com.au/growers/help-your-business-grow/news-media/market-insight-reports-cultural-festivals-and-events/>

Hort Innovation

Campaign which championed industry nominated for win

Hort Innovation's Hailstorm Heroes campaign has been recognised as an industry champion with marketing manager Olivia Grey named a finalist for the 2019 PMA and Produce Plus Marketer of the Year Award.

All five finalists will be showcased in the winter edition of the Produce Plus Magazine, with the award presentation taking place at the 2019 Hort Connections Gala Dinner in Melbourne on June 26.

The campaign, a result of noteworthy collaboration across industry and stakeholders, helped to promote the sale of hail affected fruit in South Australia and the Northern Territory after extreme weather impacted around 85-90 per cent of South Australia's apples and pear crops in 2018.

The objective of the campaign was to generate consumer awareness and drive the retail purchase of hail affected fruit by urging consumers to overlook superficial marks on the exterior of the fruit, which did not affect the taste or texture of the fruit inside.

Specially marked Hailstorm Hero apple and pear packs were sold at Coles, Foodland, IGA and ALDI. Woolworths sold Hailstorm Heroes apples and pears as part of its "Odd Bunch" range, and the fruit was also sold in packs and loose at some independent grocers.

Ms Grey said the nomination cemented the important role that the campaign played in helping growers to recover after the significant losses they suffered.

"The Apple and pear industry in South Australia is still adding up the full cost of damages from the 2017/18 hailstorm but estimates place losses at around \$32 million," she said.

"The Hailstorm Heroes campaign helped mitigate some of that loss by supporting the sale of hail affected fruit to ensure a return for growers that was greater than alternative options, such as juicing - which has a lower return than the sale of whole fruit or dumping the fruit altogether.

"The response to the campaign from growers, retailers, media and consumers has been overwhelmingly positive."

The public relations campaign achieved 106 media clips, reaching an audience of 4.5 million people, and included feature news segments during primetime segments on all three major TV networks.

The radio portion of the campaign resulted in over 250,000 impressions to listeners and social media achieved a reach of over 285,000 unique people in South Australia and the Northern Territory.

Hort Innovation's Harvest to Home market analysis tool "Home Scan" has shown value sales for apples had grown +5.3 per cent, and value sales for pears had grown +13.7 per cent as a result of campaign success.

The Hailstorm Heroes campaign was delivered by Hort Innovation using apple and pear marketing levies, with assistance from the South Australian Apple and Pear Association, retailers, Primary Industries and Regions SA (PIRSA) and Brand South Australia. The agencies used to help execute this campaign were Ikon, Bite communications, D2C and Elevencom.

Listen up, because Growing Matters!

Hort Innovation is thrilled to launch their pilot podcast program, Growing Matters. The trial series is an exciting new way to access information from levy-funded projects, research teams and your fellow growers – and you can listen whenever, wherever for advice and tips to use on farm and help your business grow. Initial episodes include information on cover cropping, protected cropping and waste management.

Stream or download each episode from our website now. Make sure to leave feedback at the bottom of the page, too – we want to know what you think, so we can shape the future of the Growing Matters series! If you prefer, the series is also available on SoundCloud.

<https://www.horticulture.com.au/growers/help-your-business-grow/news-media/2019/podcasts/>

Complete your Annual Levy Return + secure Hort Innovation voting entitlements

For Hort Innovation members that pay a statutory or voluntary industry levy, completing an Annual Levy Return form is the way to secure voting rights for the company's Annual General Meeting (AGM), which this year is being held on Friday 22 November 2019. This year the AGM will see members elect one Director to the Hort Innovation Board.

Paying a levy doesn't automatically make you a member of Hort Innovation.

If you're not currently a member but do pay a levy and wish to sign up for the opportunity to secure voting rights in time for the AGM, don't delay! Make sure you submit a free membership application at

www.horticulture.com.au/membership by no later than Thursday 12 September 2019.

You'll then receive all the necessary Annual Levy Return information from Link Market Services, the independent provider that's managing the process.

If you're already a member, you should have recently received a letter and email with full details from Link Market Services. If you'd like to follow this correspondence up, please contact Link on 1800 660 083 (free call within Australia).

Your completed Annual Levy Return must be received by Friday 27 September 2019. It can be submitted online or by post. For more information, visit www.horticulture.com.au/agm-2019 or call Link on 1800 660 083.



List of Technical bulletins produced over the life of Project CH16000

Chestnut Quality Standards Guide

Chestnut On Farm Biosecurity Bulletin July 2018

Bubbly Bark Info Bulletin

Chestnut Pest and Disease technical bulletin - Biology and Management of Nut Rot

Chestnut Pest and Disease technical bulletin – New fungus

Chestnut Pest and Disease technical bulletin – Chestnut Gall wasp

Chestnut Chemical Options information bulletin

Quality Standards – Chestnut Growers Handbook – Packaging

Quality Standards Guide – Chestnut Growers Handbook

Chestnut Quality Assurance Requirements

The Chestnut Cool Chain

Preventing mould post-harvest: Guidelines for storage and sanitizing of Chestnuts

Managing your Climate for Chestnut Production

PEST AND DISEASE INFORMATION BULLETIN



Chestnut Rot is a significant problem facing the Australian chestnut industry. Symptoms manifest as brown lesions on the kernel of the chestnut. The disease is often not visible externally, providing a challenge for growers and consumers alike.

A fungus named *Gnomoniopsis smithogilvyi* sp. nov. was identified living on decaying chestnut burrs and branches, was isolated from diseased chestnut kernels, and was isolated as an endophyte from asymptomatic chestnut flowers, leaves and stems.

Orchard sanitation is key to Chestnut Rot management. Targeting infected burrs by removal or placing a thick layer of organic mulch over top to block ascospores are options. Growing a range of varieties is recommended to spread out the flowering times of the chestnut trees and reduce the risk of floral infection.

The findings of this study show the key to reducing the incidence of Chestnut Rot is through improved orchard hygiene. Perithecia and ascospores of the Chestnut Rot organism were found growing as a saprophyte on decaying burrs on the orchard floor. Ascospores were determined as the primary source of inoculum in the infection of chestnut flowers, leaves and stems in December. Targeting the perithecia and ascospores on burrs is therefore critical for controlling the disease.

Recommendations for targeting infected burrs include:

Removal of burrs from the orchard floor

Removing and disposing of the primary source of inoculum will reduce the infection of chestnut flowers during the flowering period.

Mulching over top of burrs

Placement of a thick organic compost layer over top of the burrs to provide a physical barrier to ascospores. Organic mulches have also been found to contain antagonistic microbes that reduce the activity of pathogens such as *Phytophthora cinnamomi* Rands (You and Sivasithamparam 1995). This method has been particularly successful with *Persea americana* Mill. (Avocado) (You and Sivasithamparam 1995). Perithecia and ascospores are microscopic, and can exist on very small fragments of decaying burrs and branches. Therefore the layer of mulch would have to be thick enough and evenly spread enough over top of burrs to have a significant effect on blocking ascospore movement.

Watering burrs during non-conductive periods

Watering dead burrs on the orchard floor during non-infective periods may be an option for growers to reduce ascospore frequency during the flowering period. Research by Mondal et al. (2003) with *M. citri* found that ascospore release can be advanced by irrigating frequently during dry, non-infective conditions stimulating ascospore release when environmental conditions are unfavourable for infection.

Biological control

Biological controls and antagonistic fungi such as *Trichoderma* and *Gliocladium virens* Mill. Giddens and Foster have been found to reduce the activity of chestnut diseases such as *Cryphonectria parasitica* (Chestnut Blight) (Arisan-Atac et al. 1995) and *Phytophthora* Root Rot (Chambers and Scott 1995). *Trichoderma* based products are available in Australia including 'Tri-D25' which is a mix of *Trichoderma koningii* Oudem. and *Trichoderma harzianum* Rifai. (Zadco 2011). There is future scope to test the effectiveness of these control agents on *G. smithogilvyi*.

Variety selection

The results of this study show the selection of one variety over another is not the key to solving Chestnut Rot, even though variety selection has been previously advised (Rinaudo et al. 2009). The important commercial varieties (Decoppi Marone, Purton's Pride, Red Spanish) sampled in the 2008 and 2009 orchard and market surveys were all affected by Chestnut Rot. A more effective method is to plant a diversity of varieties that flower during different periods. This staggers the receptivity period of chestnut flowers and reduces the probability of an epidemic. If only one variety is grown, or varieties that flower at the same time, there is potential for the pathogen to infect all trees if the environmental conditions are conducive, for example, heavy rainfall during the critical period of flowering. This strategy spreads the risk of infection to achieve an overall reduction, rather than eliminating the risk completely.

Fungicides

The use of fungicides on perithecia and ascospores is not recommended for several reasons. The environmental impact of fungicides on the microflora of the soil could potentially make the conditions more favourable to pathogens by reducing the presence and action of antagonistic and beneficial micro-organisms (Jenkins 2005; Schreiner and Bethlenfalvay 2005). Fungicides also place the pathogen under high selective pressure, with surviving offspring possessing fungicide resistance genes quickly being selected and passing the genes on to their offspring (Dekker 1986; Ma and Michailides 2005). The presence of the teleomorph indicates the potential for sexual recombination, a higher genetic diversity and hence a greater probability of resistance genes occurring in Chestnut Rot fungus populations.

The use of these recommendations will hopefully reduce incidence to the target of <10%.

FIGURES

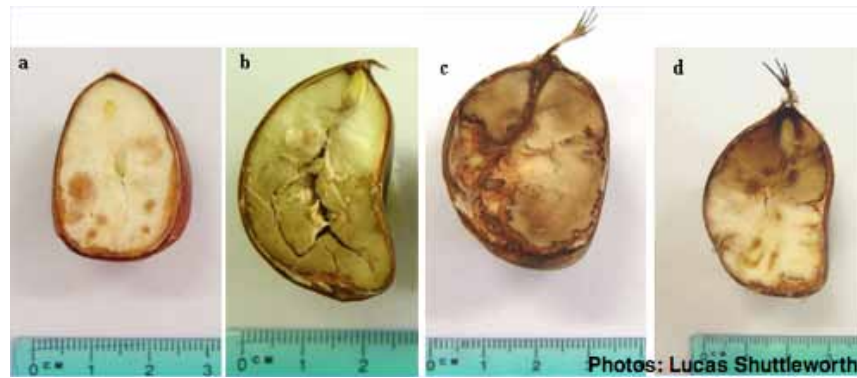


Fig. 1 Chestnut Rot symptoms. a=light brown spotting, b, c=medium brown rot, d=medium and dark brown rot.

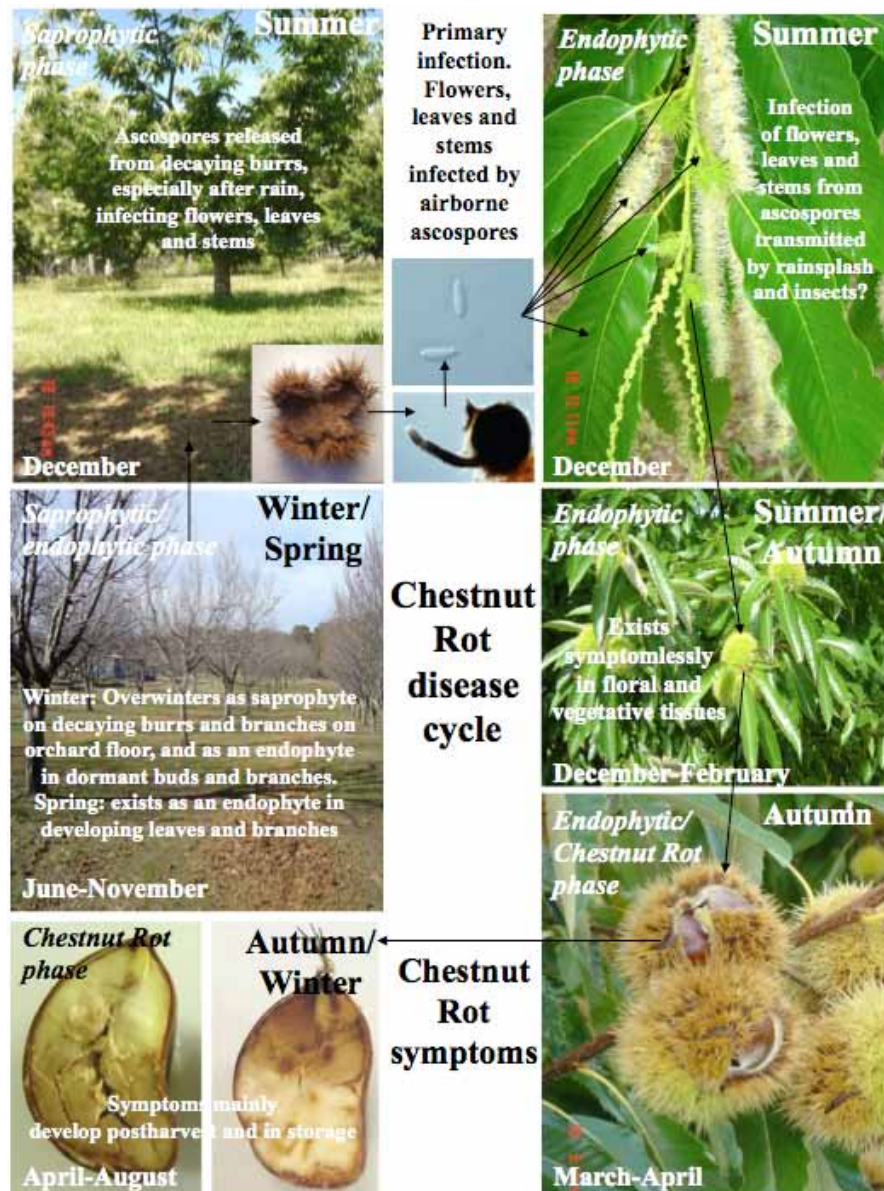


Fig. 2 The disease cycle of Chestnut Rot in *Castanea* sp. in South-Eastern Australia (Washington et al. 1999, Ogilvy 1998, Smith and Ogilvy 2008).

ACKNOWLEDGEMENT:

The information in this Technical Bulletin was extracted from the report *Biology and Management of nut rot of chestnut* prepared as part of Project CH07007
 Authors: David Guest and Lucas Alexander Shuttleworth, The University of Sydney, New South Wales, December 2011.

List of Stand-Alone articles published in the Australian Nutgrower Journal

Field days fundamental to learning – December 2016



Chestnuts Day – January 2017

Gardening Australia Promotes Chestnuts – January 2017

Large attendance at latest Chestnut Industry Field Day – March 2017

Call to Chestnut Growers – March 2017

May Chestnut Festival Time – June 2018

Buying back the family farm – March 2019

February Field Day Update – March 2019

Report on ANC 2019 Chestnut Industry presentation – T Edwards – June 2019

Best Management Practice Management for Chestnut Rot – A
Year-Round Approach

- 3:30 pm** *Close*
- 5:30 pm Wine tasting with Ringer Reef
- 6:30 pm** *Informal dinner*
 Pizza on the deck!

***Registrations close and payments due
Friday 10th February***

Note: Catered event please register and pre-pay/please also bring BYO chair, hat, water

Limited food choices for dinner - please advise of any special dietary requirements

Biosecurity foot bath in place – please wear closed footwear (no thongs or sandals☺)

Payment Details:

To Tanya Edwards, Chestnuts Australia Inc., PO Box 472, Myrtleford,
VIC 3737

Name

Address

.....

Phone Number.....

Email address.....

Registration Field Day - **Fee \$25.00 (GST Inc.)** (Includes Morning Tea, Light
Lunch)

Registration Dinner - **Fee \$30.00 (GST Inc.)** (Includes Wine Tasting, Pizza,
Salad, Dessert) (Ringer Reef wine will be available for purchase, please BYO beer and
soft drinks only)

EFT: Account Name: Chestnuts Australia Inc/BSB:803 070/Account
No:74674

All cheques make payable to Chestnuts Australia Inc

(If you need any further information please email Tanya in the CAI
Office admin@chestnutsaustralia.com.au or phone 03 5751 1466)

List of Emails Circulated on Specific Chestnut Industry Information

Email Blast 1 2017 Nut Rot - March 8th, 2017

Email Blast 2 2017 Scholar - March 20th, 2017

Email Blast 3 2017 Rovral/Tsunami – April 3rd, 2017

Email Blast 4 2017 Chestnut SIP – April 28th, 2017

Email Blast 5 - Nuts & Burrs Survey - Technical/Regular July 2017 – July 14th, 2017

Email Blast 6 - Nuts & Burrs Survey - Technical/Regular July 2017 Reminder – July 19th, 2017

Email Blast 7 - The European Chestnut Meeting – July 19th, 2017

Email Blast 8 - Review of the outputs of projects CH12000 and CH13003 – July 26th, 2017

Email Blast 9 - Seasonal Work Incentives Trial - August 30th, 2017

Email Blast 10 - Season Launch Conference, Dinner and Field Day – January 15th, 2018

Email Blast 11 - 2018 Nut Rot – January 26th, 2018

Email Blast 12 - Chestnut Industry Technical Bulletins – July 11th, 2018

Email Blast 13 - 2019 Nut Rot – March 18th, 2019

Email Blast 14 - Chestnut Industry Technical Bulletins – 3rd September 2019

Statistics

Review and analysis of Industry data for the period 2015-2017

The collection of chestnut industry data has been a difficult process over a number of years but all of the past and current information available (from some 40 commercial growers) has been used to prepare the following information:

Estimated number of trees

Utilising a range of sources, the estimated number of commercial chestnut trees is 250,000 across 1,200 hectares

Production 2017

Through the collection of the weekly transport data from NE Victoria the project team has been able to obtain a better understanding of how the season is developing

The 2017 transport data indicated that 832 tonnes moved from the NE region of Victoria. Given that this is estimated that NE Victoria producers 70% of production then the volume extrapolates out to 1190 tonnes

The actual volume based on levy collection of 1309 tonnes indicates that the extrapolation process is reasonably accurate

Utilising the 2017 data and spreadsheet and then feeding in the 2018 data, the project team will be able to compare aspects including:

- o Season commencement
- o Monthly movements
- o Specific market volumes
- o Total year volume

It must be understood that the transport data is supplied by one company and does not include what nuts might be transported by individual growers

Production – 2010 to 2017

Year	2017	2016	2015	2014	2013	2012	2011	2010
Production (tonnes)	1309	845	917	947	929	1019	1209	920

The data highlights the difficult time the industry had particularly in the period 2014 to 2016 with the incidence of Nut Rot. This losses in 2016 which were approximately, 40% of the crop is highlighted by the low figure

2017 was a strong production year with the level of crop loss to Nut Rot being less than 5%. This increase in crop can in part be attributed to the seasonal/environmental conditions but also in part to the efforts of the industry to promote good orchard management and post-harvest techniques to reduce the incidence of Nut Rot

NOTE: The collection and collation of this data occurred across the 2017 harvest. Market Data statistics can now be accessed in the Levy Payers Area www.chestnutsaustraliainc.com.au/marketdata

Varieties

The top six chestnut varieties are:

- o Red Spanish
- o Purtons Pride
- o Buffalo Queen
- o Premium Delight
- o Bouche de Betizac
- o De Coppi Marone

Export

Utilising figures collected from the ABS and analysed by the Australian Nut Industry Council (ANIC) the following are the export figures for the period 2014 -2017

YEAR	2014	2015	2016	2017
Volume (Kg)	9445	14000	18000	15060
Value (\$)	27,464	35,000	44,250	18,351

Chestnut Industry Collection of Annual Statistics 2019

Q1 What was the volume (in tonnes) of your 2018 crop?

Total responses collated

269.5t

Answered: 100%

Q2 What is your crop estimate (in tonnes) for 2019?

Total responses collated

292t

Answered: 100%

Q3 What % of Nut Rot did you have in 2018?

Total responses collated

Range 0 - 10%

Majority of those surveyed - not sure/less than 1%/zero

Answered: 100%

Q4 What number of trees were lost to Phytophthora in 2018?

Total responses collated

155 trees+

Answered: 100%

Q5 What number of trees were removed in 2018?

Total responses collated

102 trees

Answered: 100%

Q6 Are you planning to plant a new orchard in 2019?

Answered: 99%

0 – 100 101 – 500 501 – 1000 Over 1000 trees

0 - 100

78.95%

101 - 500

10.53%

501 – 1000

10.53%

Over 1000 trees

0.00%

Q7 Are you doing a self-inspection of your orchard/s for chestnut blight?

Yes

75.00%

No

25.00%

Answered: 100%

Q8 Are you recording your inspections for chestnut blight

Yes

31.58%

No

68.42%

Answered: 99%



Chestnuts The COOL 🧐 Nut

*Keep 'em Cool – Keep
'em Fresh!*

Tanya Edwards

2019 AUSTRALIAN NUT
CONFERENCE

25 - 27 March 2019
Dockside Convention Centre, Sydney



Presentation Focus

- Industry
- Challenges
- The Good Stuff
- Education

Industry



2019 AUSTRALIAN NUT
CONFERENCE

25 - 27 March 2019

Dockside Convention Centre, Sydney



Industry

- The Australian chestnut industry operates principally in the southern states of Australia



Industry

- Approximately 70% of the national crop is grown in north-east Victoria
- The main varieties grown are Red Spanish, Purtons Pride and De Coppi Marone
- Many chestnut orchards are small family-owned orchards, but there are several large-scale commercial plantings, and the average size of new orchards is increasing

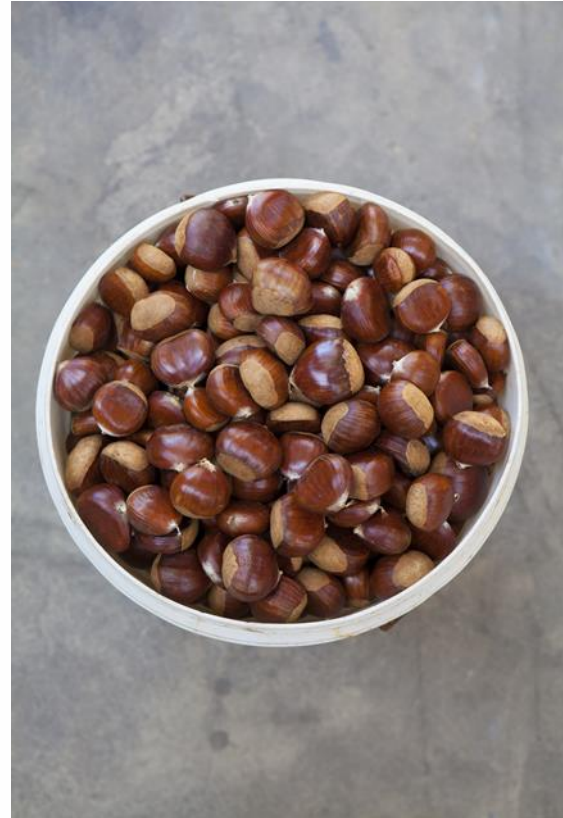
Industry

- Chestnuts flower during November and December
- Chestnuts are harvested from March through May



Industry

- In 2018, chestnut production was valued (farm gate) at \$9.4 million based on a production of 1,100 tonnes.
- In 2018 the industry comprised around 250,000 chestnut trees grown on approximately 1,500 hectares.
- The industry estimates that with more trees being planted, farm gate value will increase to approximately \$12 million by 2021.



Industry

- The industry is primarily focused on the domestic market with approximately 2% exported, mainly to Asian markets.
- Production, based on a 2-year average, is about 1,200 tonnes a year of fresh chestnuts. (2017 - 1,300 tonnes and 2018 - 1,100 tonnes.)
- Chestnut production is expected to increase to 1,400 tonnes by 2021 as young orchards come into production.



The Good Stuff



2019 AUSTRALIAN NUT
CONFERENCE
25 - 27 March 2019

Dockside Convention Centre, Sydney



The Good Stuff

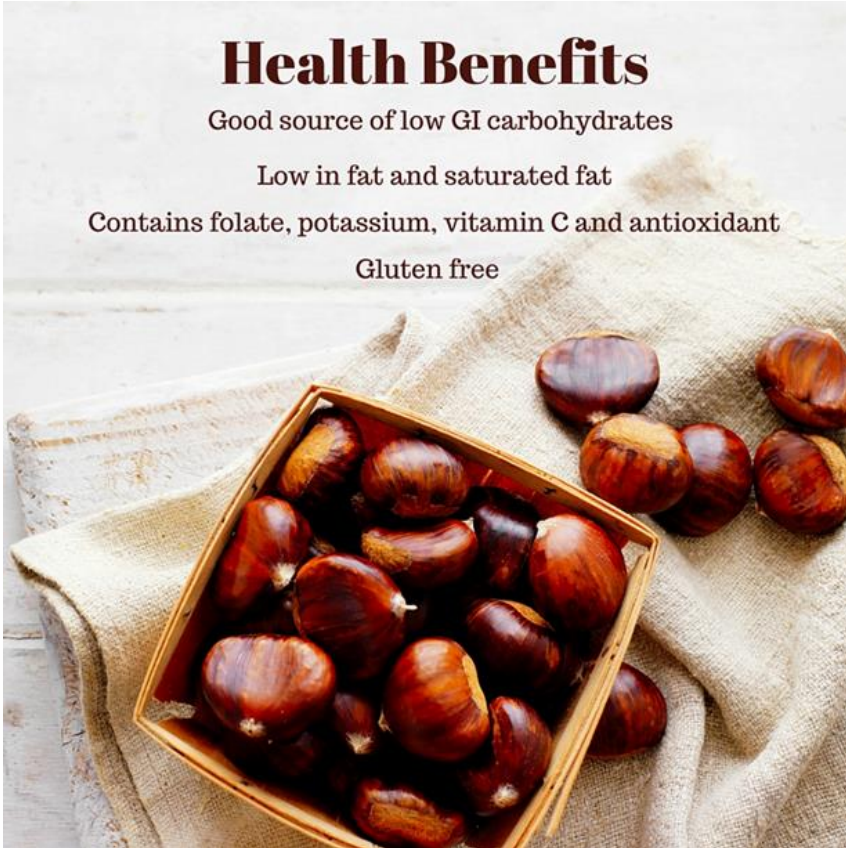
Health Benefits

Good source of low GI carbohydrates

Low in fat and saturated fat

Contains folate, potassium, vitamin C and antioxidant

Gluten free



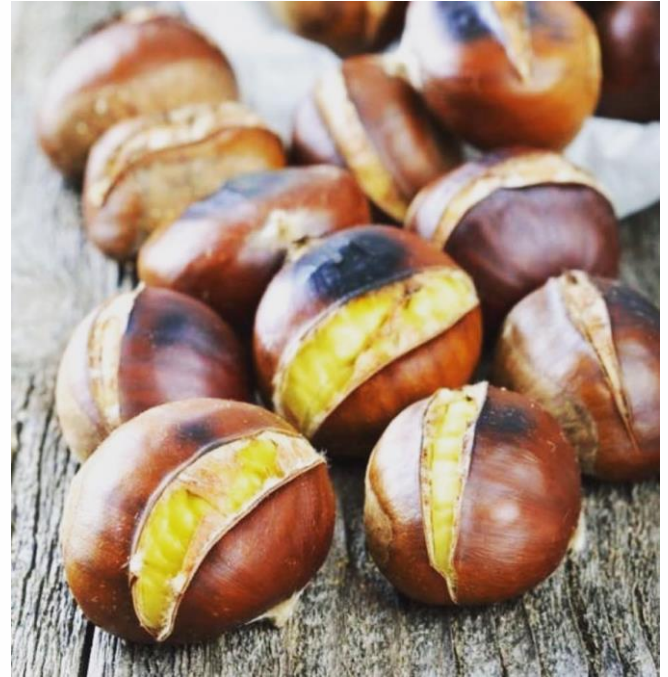
The Good Stuff

- Most growers sell their crop through the fresh wholesale markets and sales are satisfied by domestic production.
- A few growers have delved into value adding – frozen peeled chestnuts, chestnut meal, flour, puree and more recently cooked and peeled vac packed chestnuts
- These value-added products are now being successfully marketed locally and overseas and have the potential to expand the overall market for chestnuts.



The Good Stuff

- Australia's pest-free status means chestnuts are produced without insecticides.
- The Australian chestnut industry is consumer focused and the latest tree varieties being selected are based on ease of peeling and superior flavour.



Challenges



2019 AUSTRALIAN NUT
CONFERENCE

25 - 27 March 2019

Dockside Convention Centre, Sydney



Challenges

Chestnuts

The COOL  Nut

Keep 'em Cool –
Keep 'em Fresh!

Challenges

THE CHESTNUT COOL CHAIN



POST-HARVEST:

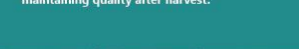
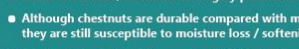
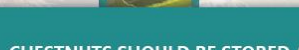
CHESTNUTS MUST BE STORED IN COOL ROOMS AT 0°C.

- Forced air cooling is extremely effective at reducing temperature of chestnuts without increasing moisture loss.
- Warm chestnuts should NEVER be placed in lined bins.

SUPPLY CHAIN - TRANSPORT - WHOLESALE:

MAINTAIN THE COOL CHAIN AT AS NEAR AS POSSIBLE TO 0°C.

- Chestnuts removed from cool storage, even for a short time, can warm up very fast (and are much slower to cool down again).



Challenges

- Chestnut Blight - currently under an EPPRD Eradication program
- Internal Nut Rot - difficult to detect
- Phytophthora - loss of trees



Challenges



Education



2019 AUSTRALIAN NUT
CONFERENCE

25 - 27 March 2019

Dockside Convention Centre, Sydney



Education

- Education about our product is key for our success.
- To assist growers, wholesalers, retailers and consumers on how to handle chestnuts the industry has invested quite a lot of resources to educate the supply chain and promote purchases of fresh chestnuts
- Providing beautifully illustrated recipes that consumers can use in everyday meals, we like to say, “make everyday meals special with chestnuts”.

Make everyday meals special with Chestnuts



Education



Welcome to the first Australian Chestnut Retailer E-Newsletter.

You're receiving this email as we understand you buy or sell Australian chestnuts when they are in season.

Our goal this season is to produce a quality crop and keep you well informed on how the chestnut season is progressing.

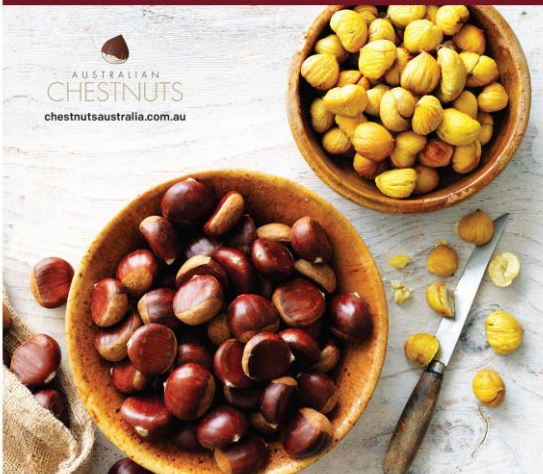
We will be sharing five newsletters with fabulous chestnut content to promote on your business website, newsletters and social media platforms.

You will also have access to stunning free point-of-sale material plus loads of tips and hints to help you sell more chestnuts this season and encourage your customers to go nuts for chestnuts!

Education

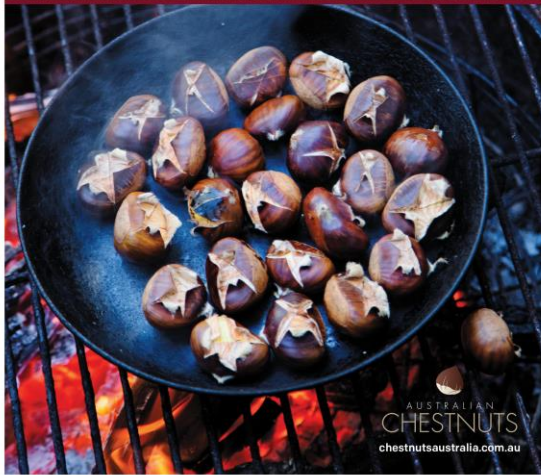
Chestnut Season
March - July

*You'd be nuts
not to try them!*



Chestnuts Roasted
on a Campfire

*You'd be nuts
not to try them!*



Freshly Roasted
Chestnuts

*You'd be nuts
not to try them!*



Education

Aussie-grown chestnuts



in season

Fresh chestnuts are available from mid-March to July. Delicious and versatile, chestnuts have a unique nutty taste and texture that makes them perfect for use in sweet and savoury dishes.



out of season

Ready-to-use peeled Australian chestnuts and other Australian chestnut products are available. Please visit www.chestnutsaustralia.com.au for more information.



to select

The freshest chestnuts have a glossy brown, firm shell and feel heavy for their size.



to store

Store uncooked chestnuts in a paper bag in the crisper section of your refrigerator for 2-3 days or in an airtight container for up to 10 days. Cooked chestnuts can be kept in an airtight container in the refrigerator for up to 4 days. For longer storage, freeze chestnuts. Cook and peel chestnuts, place in small freezer bags and freeze for up to 6 months.



preparation

Before cooking chestnuts it is important to firstly cut a shallow cross into the flat side of the shell. This prevents the nut from overheating and bursting while cooking. When boiling, cut the chestnuts in half across the width of the chestnut before cooking.



health benefits

Chestnuts are so nutritious!

- Good source of low GI carbohydrate
- Gluten-free
- Provide dietary fibre
- Low in total fat and saturated fat
- Contain folate, potassium, vitamin C and antioxidants
- A 30 gram serve provides 217 kJ (52 Cal)



Chestnuts

Make everyday meals special with chestnuts.



Spicy chestnut, pumpkin & pancetta soup

For more delicious recipes visit chestnutsaustralia.com.au

Cooking and peeling

Chestnuts are delicious roasted, boiled, microwaved, grilled or barbecued.



to boil

Cut fresh chestnuts in half across the width of the nut, then place in a pan of cold water and bring to the boil. Simmer for 15-20 minutes or until the flesh is tender and easily separates from the shell.



to microwave

Cut a shallow cross into the flat side of each chestnut shell. Place 6 to 8 chestnuts in a single layer on a microwave-safe plate. Cook, uncovered, on full power (850 watts or High) for 2-3 minutes or until the flesh is tender. Timing may vary depending on chestnut size.



to grill or barbecue

Cut a shallow cross into the flat side of each chestnut. Place chestnuts on a tray under a moderate to hot grill or place directly on a barbecue grill. Cook for approximately 15-20 minutes or until the shells blacken and split open, turning every few minutes.



to peel

Once cooked, remove chestnuts from the heat and wrap in a clean tea towel for 5-10 minutes and then quickly peel off the outer brown shell and papery thin skin underneath. Peel chestnuts while they are still warm as they can be tricky to peel when cooled. If boiled, simply remove the chestnuts from the water one at a time to peel. Some varieties are easier to peel than others, check with your greengrocer or visit www.chestnutsaustralia.com.au for more information.



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chestnutsaustralia.com.au



@chestnutsaustralia

Questions



2019 AUSTRALIAN NUT
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25 - 27 March 2019

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Australian Chestnuts - Quality Standards

Chestnuts sent to market should be mature, sound, clean, well formed and free of physical damage or rots and moulds. Chestnuts that have bird pecks or splits or are poorly formed, dried out or immature should be discarded.

High quality chestnuts are free of blemishes and well formed.



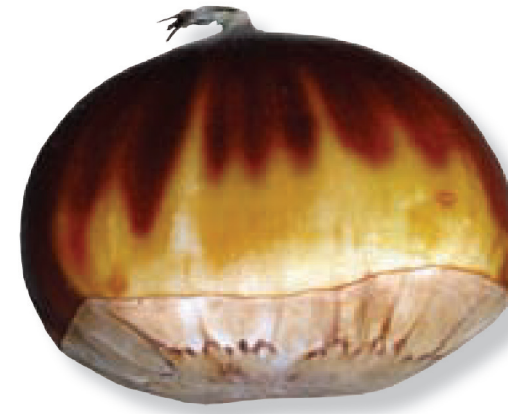
Growers who send defective fruit to market will not only have their own fruit rejected but may also damage the reputation of the industry as a whole. Particular care needs to be taken in years when rain has occurred during blossoming, potentially resulting in high levels of internal rot. In years when chestnut rot is prevalent, give strong consideration to not harvesting rot-prone varieties.

Preferably do not store chestnuts past August, as demand declines then. It is also not recommended to store fruit over summer for sale the following autumn; although these fruit may appear sound on removal from storage, quality will decline rapidly during transport and retail. Moreover, selling old fruit to inevitably disappointed customers reduces demand for new season product.

Below: (Left) Accurate grading into seven sizes. (Right) Reject poorly formed fruits such as these.



Australian Chestnuts - Quality Standards



Unmarketable fruits. (Far left): Immature fruits; (Left): Split shells.



Unmarketable fruits. (Far left): Bird pecks; (Left): Leaf, grass or other foreign material.



Unmarketable fruits. (Far left): Mixed sizes or varieties; (Left): Rot.



Unmarketable fruits. (Far left): Mould; (Left): Dried fruits.

THE CHESTNUT COOL CHAIN



POST-HARVEST:

CHESTNUTS MUST BE STORED IN COOL ROOMS AT 0°C.

- Forced air cooling is extremely effective at reducing temperature of chestnuts without increasing moisture loss.
- Warm chestnuts should NEVER be placed in lined bins.

SUPPLY CHAIN - TRANSPORT - WHOLESALE:

MAINTAIN THE COOL CHAIN AT AS NEAR AS POSSIBLE TO 0°C.

- Chestnuts removed from cool storage, even for a short time, can warm up very fast (and are much slower to cool down again).

CHESTNUTS SHOULD BE STORED AS NEAR AS POSSIBLE TO 0°C FROM 'Paddock to Plate'.

- Chestnuts have a thin skin and are encased in a shiny brown shell.
- Unlike most nuts, chestnuts are highly perishable
- Although chestnuts are durable compared with most other fruit, they are still susceptible to moisture loss / softening.
- Due to their high moisture content (50%) chestnuts can dry out even in a cool room if not stored correctly
- The best way to reduce moisture loss is to cool chestnuts quickly
- Cooling chestnuts quickly, and keeping them cool, is a key to maintaining quality after harvest.



CONSUMER:

CHESTNUTS SHOULD BE STORED AS NEAR AS POSSIBLE TO 0°C.

- Chestnuts are not like other nuts and can't be stored or cooked like other nuts
- Store chestnuts in an airtight container; paper bag or perforated plastic bag in the crisper section of the refrigerator.
- Properly stored chestnuts will feel hard when you squeeze them and last approximately 3 weeks.
- Roasted chestnuts (peeled or still in shell) can also be stored in the freezer year round.

RETAILER:

CHESTNUTS SHOULD BE STORED AS NEAR AS POSSIBLE TO 0°C.

- Chestnuts removed from cool storage, even for a short time, can warm up very fast (and are much slower to cool down again).
- When presented for sale chestnuts should ideally be in a refrigerated display case.
- Normal 'airflow' in retail stores rapidly dries chestnuts and the quality of the nuts will deteriorate within a day.
- If these facilities are not available it should be advised to ONLY present for sale quantities that are likely to be sold each day. When restocking displays new stocks should not be placed on top of older stock as the older stock will deteriorate.
- All other stocks of chestnuts should be refrigerated.
- Fresh chestnuts are firm to touch and have a glossy sheen. Any dry dull nuts should be removed from sale.

Monitoring & Evaluation Industry Newsletters

Technical/Regular – Open/Click/Bounce

Nuts & Burrs Technical Edition 2 2017 - February

Open Rate 48.5%

List average 46.4%

Industry average () 0.0%

Click rate 6.1%

List average 6.5%

48

Opened

6

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 241

Forwarded 0

Clicks per unique opens 12.5%

Total clicks 10

Nuts & Burrs Regular Edition 1 2017 - April

Open Rate 48.9%

List average 46.4%

Industry average () 0.0%

Click rate 6.7%

List average 6.5%

44

Opened

6

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 135

Forwarded 0

Clicks per unique opens 13.6%

Total clicks 6

Nuts & Burrs technical Edition 3 2017 - June

Open rate 45.4%

List average 44.3%

Click rate 3.1%

List average 3.7%

59

Opened

4

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 161

Last opened 7/9/17

Forwarded0

Clicks per unique opens 6.8%

Total clicks 6

Last clicked 6/20/17

Abuse reports0

Chestnut Industry News - Edition 2 2017 – August

Open Rate 46.6%

List average 41.0%

Click rate 9.0%

List average 5.5%

62

Opened

12

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 210

Last opened 12/1/17

Forwarded 0

Clicks per unique opens 19.4%

Total clicks 1,300.0

Abuse reports 0

Technical Edition 4 2017 – October

Open Rate 36.2%

List average 41.0%

Click rate 5.1%

List average 5.5%

50

Opened

7

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 120

Last opened 11/22/17

Forwarded 0

Clicks per unique opens 14.0%

Total clicks 900.0

Last clicked 11/20/17

Abuse reports 0

Chestnut Industry News - Edition 3 2017 - December

42.2%

List average 41.8%

Click rate 6.7%

List average 6.3%

57

Opened

9

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 200

Last opened 1/21/18

Forwarded 0

Clicks per unique opens 15.8%

Total clicks 10

Last clicked 1/21/18

Abuse reports 0

Technical Edition 1 2018 – February

Open Rate 38.1%

List average 41.7%

Click rate 7.5%

List average 6.4%

51

Opened

10

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 172

Last opened 4/4/18

Forwarded 0

Clicks per unique opens 19.6%

Total clicks 16

Last clicked 3/6/18

Abuse reports 0

Chestnut Industry News - Edition 1 2018 – April

Open rate 42.2%

List average 41.5%

Click rate 6.7%

List average 6.3%

57

Opened

9

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 168

Last opened 6/8/18

Forwarded 0

Clicks per unique opens 15.8%

Total clicks 11

Last clicked 5/7/18

Abuse reports 0

Technical Edition 2 2018 - June

Open rate 47.1%

List average 41.8%

Click rate 5.8%

List average 6.3%

65

Opened

8

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 164

Last opened 7/4/18

Forwarded 0

Clicks per unique opens 12.3%

Total clicks 14

Last clicked 7/4/18

Abuse reports 0

Chestnut Industry News - Edition 2 2018 – August

Open Rate 37.4%

List average 41.7%

Click rate 5.8%

List average 6.2%

52

Opened

8

Clicked

1

Bounced

0

Unsubscribed

0

Successful deliveries 139 99.3%

Total opens 156

Last opened 1/10/18

Forwarded 2

Clicks per unique opens 15.4%

Total clicks 1,400.0

Last clicked 4/9/18

Abuse reports 0

Technical - Edition 3 2018 – October

Open rate 48.2%

List average 41.6%

Click rate 10.6%

List average 6.5%

68

Opened

15

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 202

Last opened 1/10/19

Forwarded 0

Clicks per unique opens 22.1%

Total clicks 29

Last clicked 11/22/18

Abuse reports 0

Chestnut Industry News - Edition 3 2018 – December

Open Rate 40.4%

List average 41.6%

Click rate 9.9%

List average 6.5%

57

Opened

14

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 117

Last opened 12/17/18

Forwarded 0

Clicks per unique opens 24.6%

Total clicks 27

Last clicked 12/12/18

Abuse reports 0

Technical - Edition 1 2019 – February

Open rate 43.6%

List average 41.8%

Click rate 2.1%

List average 6.3%

61

Opened

3

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 147

Last opened 4/9/19

Forwarded 0

Clicks per unique opens 4.9%

Total clicks 3

Last clicked 3/15/19

Abuse reports 0

Chestnut Industry News - Edition 1 2019 – April

Open rate 51.1%

List average 41.9%

Click rate 15.6%

List average 6.5%

69

Opened

21

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 162

Last opened 6/9/19

Forwarded 0

Clicks per unique opens 30.4%

Total clicks 29

Last clicked 5/19/19

Abuse reports 0

Technical - Edition 2 2019 – June

Open rate 41.9%

List average 41.7%

Click rate 3.7%

List average 6.4%

57

Opened

5

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 119

Last opened 7/2/19

Forwarded 0

Clicks per unique opens 8.8%

Total clicks 7

Last clicked 6/20/19

Abuse reports 0

Chestnut Industry News - Edition 2 2019 – August

Open rate 42.0%

List average 41.6%

Click rate 5.8%

List average 6.3%

58

Opened

8

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 120

Last opened 8/30/19

Forwarded 0

Clicks per unique opens 13.8%

Total clicks 9

Last clicked 8/29/19

Abuse reports 0

Industry Newsletters Survey Results

A survey was circulated on 20/7/17 to chestnut industry stakeholders with the aim of improving industry communication and engagement through newsletters both the chestnut industry news and technical editions

Q1 Chestnut Industry News is published on a bi-monthly basis, could you rate its value?

50% Very useful

50% Sometimes useful

Q2 Technical newsletter is published on a bi-monthly basis, could you rate its value?

37.50% Very useful

62.50% Sometimes useful

Q3 Do you feel that articles published in the Chestnut Industry News is relevant?

Yes 100.00%

Q4 Do you feel that articles published in the Technical newsletter is relevant?

Yes 87.50%

Other 25.00%

Q5 Are bi-monthly editions adequate?

Yes 100.00%

Q6 What changes have you made as a result of information you have read in these newsletters?

Servicing the industry efficiently and informed

As indirect stakeholder read more for general industry update

None but they inform me of what is happening in the industry and reinforce what I am already doing

Higher quality cold chain standards

Q7 Do you like the current format of the newsletters?

Yes 100.00%

Q8 What else would you like to see in your Industry communications

More market research

Technical docs print is a bit small for me

More industry news stories

I'm happy with it as it is

List of emails circulated to stakeholders – 1/8/16 -31/1/17

Email – Agricultural Trade Matters - July 2016 – 1/8/16

Email - New on the HIN Website - July 2016 - Newsletter Update – 8/8/16

Email - NRM on Farms August 2016 – 8/8/16

Email - Current Chemical list for Chestnuts – 8/8/16

Email - Chestnut Blight Update - August 2016 – 10/8/16

Email – Chestnut Blight ‘Call to Action’ – 10/8/16

Email - August AgChem Update – 11/8/16

Email - Query about tree nuts and nut allergy warning statements – 12/8/16

Email - TRI-NUT CONFERENCE - EARLY BIRD CLOSING SOON – 12/8/16

Email - Farmers Guidebook – 15/8/16

Email - Tri-Nut Conference Value Add Product display – 24/8/16

Email – Notice of HIA SIP – 24/8/16

Email - 2017 Science and Innovation Awards - eNewsletter 2 – 8/9/16

Email - Upcoming Chestnut Grower field day - save the date! – 21/9/16

Email – Freshcare – Training Update – 23/9/16

Email - Cracking the News, September 22 2016 – 26/9/16

Email - IRC Review - Proposed Rural and Related IRC structures now available for comment – 26/9/16

Email - NRM on Farms October 2016 – 6/10/16

Email - VoH Director Nomination Reminder – 7/10/16

Email - Great opportunity for start ups/innovators to find funding & Hort innovators being asked to exhibit in Sydney – 12/10/16

Email - Public Forum: Control of Invasive Animals on Crown Land – 17/10/16

Email - Drought and About-Sep/Oct – 18/10/16

Email - Cracking the News, October 14 2016 – 18/10/16

Email - Chestnut Industry Field Day - Saturday 19th November, 2016 – 25/10/16

Email - Survey to develop a national view on plant pest contingency plans-DEDJTR-27/10/16

Email - Chestnut Industry Field day - Program/Registration form – 27/10/16

Email - Leaders' Corner – Issue 1 – 9/11/16

Email – Field Day Reminder – 9/11/16

Email - Release of the ACCC's business-to-business unfair contract terms law industry report – 11/11/16

Email – Call for industry articles – Nuts & Burrs – Festive Season Edition – 23/11/16

Email - Nut E-News November 2016 – 28/11/16

Email - November 2016 - HIN Newsletter Update – 28/11/16

Email - Infopest Newsletter 1 December 2016 – 2/12/16

Email - FoodLegal Country of Origin Labelling online training available now – 8/12/16

Email - 2017 Produce Executive Program: Dates, Discounts, Brochure – 8/12/16

Email - NRM on Farms December 2016 – 14/12/16

Email – Industry Update - Chestnuts from Around the World – 14/12/16

Email - How the new Backpacker tax affects you – 9/1/17

Email - Early bird reminder for 2017 PMA A-NZ Produce Executive Program – 11/1/17

Email - You're invited - Working holiday maker teleconference – 11/1/17

Email – Chestnut Industry Field Day Invitation – 20/1/17

Email - HIN December January 2017 - Newsletter Update – 24/1/17

Email - Infopest newsletter January 2017 – 31/1/17

List of emails circulated to stakeholders – 1/2/17 - 31/7/17

Trackable - communication sent via Mailchimp on specific Chestnut Industry related matters

Grower Information Package Nut Rot – 8/3/17

Open Rate 57.6%

List average 46.4%

Click rate 14.1%

List average 6.5%

57

Opened

14

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 221

Forwarded 0

Clicks per unique opens 24.6%

Total clicks 140

New Permit for Scholar – 20/3/17

Open Rate 50.5%

List average 46.4%

Click rate 6.2%

List average 6.5%

49

Opened

6

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 120

Forwarded 0

Clicks per unique opens 12.2%

Total clicks 9

NEW Permit Issued for Rovral/RENEWAL Permit Issued for Tsunami – 3/4/17

Open Rate 46.3%

List average 46.4%

Click rate 5.3%

List average 6.5%

44

Opened

5

Clicked

2

Bounced (soft) (resent 21/4/17)

0

Unsubscribed

Successful deliveries 97.9%

Total opens 91

Forwarded 0

Clicks per unique opens 11.4%

Total clicks 16

**Last chance to provide feedback on the Chestnut Strategic Investment Plan –
28/4/17**

Open Rate 51.1%

List average 46.4%

Industry average () 0.0%

Click rate 6.7%

List average 6.5%

46

Opened

6

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 146

Forwarded 0

Total clicks 6

Nuts & Burrs Survey – Invitation to participate with link to Survey - 14/7/17

Open rate 39.5%

List average 43.3%

Industry average () 0.0%

Click rate 9.3%

List average 5.2%

51

Opened

12

Clicked

2

Bounced

0

Unsubscribed

Successful deliveries 98.5%

Total opens 97

Forwarded 0

Clicks per unique opens 23.5%

Total clicks 15

Last clicked 7/18/17

Abuse reports 0

Nuts & Burrs Survey – 19/7/17 – Reminder to participate with link to Survey

Open Rate 46.6%

List average 43.3%

Click Rate 5.4%

58

Opened

7

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.2%

Total opens 88

Forwarded 0

Clicks per unique opens 12.1%

Total clicks 7

Last clicked 7/20/17

Abuse reports 0

The European Chestnut Meeting – 19/7/17

Open rate 50.0%

List average 43.3%

Click rate 7.7%

List average 5.2%

Industry average () 0.0%

65

Opened

10

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.2%

Total opens 136

Forwarded 0

Clicks per unique opens 15.4%

Total clicks 16

Last clicked 7/22/17

Abuse reports 0

Review of the outputs of projects CH12000 and CH13003 – 26/7/17 - (stats as of 31/7/17)

Open rate 43.5%

List average 43.2%

Industry average () 0.0%

Click rate 16.8%

List average 6.8%

Industry average () 0.0%

57

Opened

22

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.2%

Total opens 113

Last opened 7/30/17 7:42PM

Forwarded 0

Clicks per unique opens 38.6%

Total clicks 36

Abuse reports 0

Non-trackable emails – forwarding general horticulture information

Growers invited to apply for 2017 Churchill Fellowships – 2/3/17

NRM on Farms newsletter March 2017 – 21/3/17

Feb 2017 Ag Chem Update – 21/3/17

The 2017 Produce Executive Program is almost fully booked – 21/3/17

SafeWork SA Workshops for Horticulture - Loxton 3 May and Stirling 21 June – 18/4/17 (SA Stakeholders only)

Combined Nut Industry Orchard Visit to NSW – 19/4/17

457 visa information – 24/4/17

Early booking of Accommodation for Farm Walk – 26/4/17

Farm Walk Registration - May 2017 – 27/4/17

Farm Walk Registration - reminder May 2017 – 9/5/17

Sydney Royal Fine Food Show – Start spreading the news.....26/5/17

Nut activity in WA – 29/5/17

Funding Grants for Women's Leadership Development – 30/5/17

Free webinar for businesses on Country of Origin Food Labelling – 6/6/17

Info on value adding event – 5/7/17

Nuts & Burrs - Regular Edition – Request for content – 14/7/17

List of emails circulated to stakeholders – 1/8/17 - 31/1/18

Trackable - communication sent via Mailchimp

Information session on the Australian Government's Seasonal Work Incentives Trial – 30/8/17

Open rate

40.0%

List average 41.3%

Click rate 0.7%

List average 5.8%

54

Opened

1

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 92

Last opened 10/19/17

Forwarded 0

Clicks per unique opens 1.9%

Total clicks 1

Last clicked 8/30/17

Abuse reports 0

**Reminder to Register and Pay – Season Launch Conference, Dinner & Field Day –
15/1/17**

Open Rate 52.6%

List average 41.8%

Click rate 16.3%

List average 6.3%

71

Opened

22

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 161

Last opened 1/22/18

Forwarded 0

Clicks per unique opens 31.0%

Total clicks 33

Last clicked 1/21/18

Abuse reports 0

Non-trackable emails

CAI Conference/Field Day & Dinner – 7/7/17

Renewed Chemical Registration Permits – Sodium Hypochlorite / Chestnut / Surface Moulds – 25/8/17

REMINDER - 2 Weeks to register and pay - CAI Conference/Field Day & Dinner – 25/8/17

REMINDER - Registration closes Friday to register and pay - CAI Conference/Field Day & Dinner – 4/9/17

Risk Assessment for Pre-harvest Water - Webinar Wednesday 11th October – 4/10/17

USA the general principles of the Food Safety e-learning document – 9/10/17

Agriculture Victoria's On-Farm Energy Survey (Victorian Stakeholders only) – 19/10/17

Request for Stakeholders to contribute articles for Industry newsletter – December '17 – 15/11/17

Quad Bike Safety Issues Paper release – 15/11/17

Win A Trip to South East Asia - 15/11/17

Fact Sheet – Exotic Disease – Chestnut Blight – 16/11/17

Deer survey for rural landholders – 24/11/17

2018 PMA A-NZ Produce Executive Program – 7/12/17

Harvest Trail - Summer 2017-18 E-News – 13/12/17

Produce Executive Program brochure and early bird reminder - 17/1/18

List of emails circulated to stakeholders – 1/2/18 – 31/7/18

Trackable - communication sent via Mailchimp

Nut Rot – was redistributed to stakeholders as a lead into the 2018 season, to reinforce the relevant messages relating to harvest and post-harvest activities – 26/1/18 (results submitted with MS106 as stats were not able to be collated prior to submitting MS105)

Open Rate 53.3%

List average 41.7%

Click rate 11.9%

List average 6.4%

72

Opened

16

Clicked

0

Bounced

0

Unsubscribed

Successful deliveries 100.0%

Total opens 217

Last opened 3/13/18

Forwarded 0

Clicks per unique opens 22.2%

Total clicks 3,500.0

Last clicked 2/9/18

Abuse reports 0

Email Blast 12 - Chestnut Industry Technical Bulletins

Open Rate 50.4%

List average 42.2%

Click rate 6.6%

List average 6.2%

69

Opened

9

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 127

Last opened 7/17/18

Forwarded 0

Clicks per unique opens 13.0%

Total clicks 19

Last clicked 7/15/18

Abuse reports 0

Non-trackable emails

Freshcare strategic review – 28/2/18

Harvest Trail e-news – 13/3/18

Hort Innovation Independent Review of Performance - How to get involved – 13/3/18

The latest in irrigation & sustainability | Early Bird Ends in 5 weeks – 14/3/18

Hort Stats 2016/17 now live – 5/4/18

Irrigation Australia - Interested in productivity gains? | Early Bird Ends in 2 weeks – 10/4/18

Voice of Horticulture April Newsletter – 11/4/18

2018 PMA A-NZ Produce Development Program – 13/4/18

INC Health News – Edition 1 – April 2018 - Want your study open access? Apply now!
– 16/4/18

Food safety survey: have your say! - Fresh Produce Safety Centre Australia and New Zealand – 7/5/18

Produce Development Program Early Bird Reminder – PMA – A-NZ – 7/5/18

Modern Horticulture Award - Proposed amendments to over time for casuals – 7/5/18

HARPS Fact Sheet: Are you HARPS ready? – 9/5/18

Agriculture Victoria amps up for free on-farm energy assessments – 11/5/18

Freshcare Supply Chain Standard Edition 1 – Released – 16/5/18

Non-invasive detection of chestnut rot – 4/6/18

Do you sell food? New food labels mandatory from 1 July – 7/6/18

E-News: National Harvest – Growers – 7/6/18

Changes to Minimum Wages – 21/6/18

Hort Innovation Direction Nominations are now open – 25/6/18

Changes to Minimum Wages – 2/7/18

Voice of Horticulture - Check out what we've been up to – 2/7/18

Tri-Nut Conference Registrations – 12/7/18

Share your thoughts on Hort Frontiers by taking a short survey – 18/7/18

List of emails circulated to stakeholders – 1/8/18 – 31/1/19

Trackable - communication sent via Mailchimp

Nil

Non-trackable emails

Latest ABS stats for nut exports FYI - data cut various ways – 6/8/18

Nuts for Life - New look quarterly update – 6/8/18

Export industry update: Bi Bi OzDoc, hello NexDoc – 6/8/18

Freshcare Supply Chain Standard (SC1) launched & AGM details – 6/8/18

Tri-Nut Conference - Program and Registration – 9/8/18

Nut Research Review – 10/8/18

Murray Farm to Plate Program - Pilot program opportunities – 15/8/18

Reminder: secure your voting entitlements for Hort Innovation's 2018 AGM! – 2/9/18

Chestnut Strategic Framework Program - Registration Of Interest – 3/9/18

IPM MasterClass - SOIL FERTILITY Registration – 14/9/18

Last chance to RSVP for FPSC conference - register now – 18/9/18

2019 Science and Innovation Awards grants - started your application yet? – 21/9/18

Leadership Development Scholarships Now Available: Women In Horticulture – 2/10/18

Media release: New 2,4-D label instructions to reduce spray drift incidents – 5/10/18

Hazel McTavish West - Profitable Small Producers – 29/10/18

Food Safety Culture Webinar - Take It Seriously – 29/10/18

Chestnut Strategic Framework Program - Registration of Interest – 30/10/18

Nut for Life - Health Star Ratings – Feedback Required – 2/11/18

VoH Media Release - VoH welcomes the Federal Government's Backpacker Visa Changes – 6/11/18

Nuts for Life - New NutEResearch – 7/11/18

HARPS Training Dates - Melbourne & Sydney Dates – 13/11/18

PMA A-NZ - 2019 Produce Executive Program and More – 3/12/18

National Harvest Labour Information Service (NHLIS) E-Newsletters for Summer 2018/2019 – 19/12/18

Nuts for Life - December NutENews – 21/12/18

Nuts for Life – Quarterly Update - A nutty start to 2019 – 15/1/19

PMA A-NZ - Produce Executive Program Early Bird Reminder – 21/1/19

Reminder – Register to attend CAI Field Day – 18 & 23/1/2019 & 1/2/19

ANC 2019 Early Bird Registrations Are Now Open – 25/1/19

Strategic Framework Session - 10th & 11th February – 25/1/19

Nuts for Life - Dietitian Reference eBook – FREE Resource – 29/1/19

List of emails circulated to stakeholders – 1/2/19 – 4/9/19

Trackable - communication sent via Mailchimp

Preseason grower information package for reducing the incidence of Nut Rot in 2019 – 18/3/19

Open rate 50.0%

List average 41.7%

Click rate 7.1%

List average 6.4%

70

Opened

10

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 164

Last opened 5/20/19

Forwarded 0

Clicks per unique opens 14.3%

Total clicks 24

Last clicked 4/8/19

Abuse reports 0

Email Blast 14 - Chestnut Industry Technical Bulletins – 4/9/19

Open rate 46.7%

List average 41.6%

Click rate 11.7%

List average 6.3%

64

Opened

16

Clicked

1

Bounced

0

Unsubscribed

Successful deliveries 99.3%

Total opens 98

Last opened 9/5/19

Forwarded 0

Clicks per unique opens 25.0%

Total clicks 24

Last clicked 9/5/19

Abuse reports 0

Non-trackable emails

Agri-Fos 600 Label Extension (Phosphorous acid) Approved – 1/2/19

Attendance at Chestnut Strategic Framework workshop – 7/2/19

Freshcare Stakeholder Survey - We want your opinion – 6/3/19

Need Workers - Call The Harvest Trail – 12/3/19

Commencement of the labour hire licensing scheme – 29/3/19

Decision of FWC - Horticulture Award - 4 Yearly Review - Overtime for Casuals – 4/4/19

Health Star Ratings and promotional opportunities – 4/4/19

Decision of FWC - Horticulture Award - 4 Yearly Review - Overtime for Casuals - additional information – 5/4/19

Quad Bike safety - last opportunity to comment – 10/4/19

BIOCHAR ANZBI 2nd Autumn Webinar - Biochar in Regenerative Agriculture in one hour – 12/4/19

2020 Tri-Nut Conference venue? – 15/4/19

HARPS Training Dates - Melbourne, Sydney and Brisbane Dates – 16/4/19

MEDIA RELEASE: Manufacturers prove their environmental credentials by joining the drumMUSTER® program – 17/4/19

IPM MasterClass Program - 2019 to 2020 – 29/4/19

GROWING INNOVATION (May 2019) is here! – 1/5/19

Freshcare Update - 1 May 2019 – 2/5/19

Connex Global - Invitation - afternoon tea and discussion regarding improving orchard floor and nutrition for disease management – 6/5/19

VOH - 2019 Farm Workforce Survey – 6/5/19

Your Fresh Produce Safety Centre A-NZ Update - May 2019 - 10/5/19

GROWING INNOVATION (June 2019) is here! – 13/6/19

Ag-Chemical update from a Hort Innovation across industry project – 24/6/19

Chlorpyrifos: Proposed Regulatory Decision (24 June 2019) 24/6/19

IPM MasterClass - Advanced Tree Vine and Soil – 22/7/19

GROWING INNOVATION (August 2019) is here! -7/8/19

Nuts for Life - New website live today – 9/8/19

Water Efficiency Program Webinar 5 September 2019 – 28/8/09



**Participant Feedback Sheet – CAI Field Day 19th
November, 2016**

Please rate the following out of 10 by circling your choice - 1 represents very poor and 10 represents excellent.

Please rate the following out of 10 by circling your choice - 1 represents very poor and 10 represents excellent.

1) How useful was the day for you? 1 2 3 4 5 6 7 8 9 10

14 responses rated the usefulness of the day 10

4 responses rated the usefulness of the day 9

7 responses rated the usefulness of the day 8

2 responses rated the usefulness of the day 7

2 responses rated the usefulness of the day 6

1 response rated the usefulness of the day 5

<i>Why?</i>	
<i>Information presented on soil</i>	<i>Massive learning opportunity</i>
<i>Information presented on Nut Rot</i>	<i>Relevant to industry</i>
<i>Drone</i>	<i>Very informative</i>
<i>Industry discussing issues</i>	<i>Application to business</i>
<i>Answers to troubling questions</i>	<i>Orchard walk</i>

2) How would you rate the quality of the program? 1 2 3 4 5 6 7 8 9 10

17 responses rated the quality of the program 10

3 responses rated the quality of the program 9

7 responses rated the quality of the program 8

3 responses rated the quality of the program 7

1 response rated the quality of the program 6

<i>Why?</i>	
<i>Observing the orchard</i>	<i>All of interest to a new grower</i>
<i>Knowledge and openness of hosts</i>	<i>Well organised</i>
<i>Variety of presentations</i>	<i>Balance of field walk and presentations</i>
<i>Always learn something at a field day</i>	<i>Good food</i>

3) What you think were the best aspects of the Field Day?

<i>Nut Rot progress report</i>	<i>Specific topics</i>
<i>Talking to experienced growers</i>	<i>Drone</i>
<i>Quality and sharing of information</i>	<i>Soil Health</i>
<i>Contact with other growers</i>	<i>Discussion on soil testing</i>
<i>Listening to speakers</i>	<i>Shed inspection</i>
<i>Orchard walk</i>	<i>Opportunity to meet/discuss/listen to growers</i>
<i>Diverse range of topics covered</i>	<i>Plant health</i>

4) Is there anything you learnt at the Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

Drone – in future if finances permit
Irrigation – update 2016
Improve chilling harvested nuts – 2017
More sample testing and monitoring nuts – post harvest
Drones – for birds
Monitoring trees and applying different strategies to different trees
Try and develop more biodynamic processes
It has made me think of what I can do to improve my system
Range of issues impacting chestnut growers
Soil health
Always room to improve
Continue to invest in chestnut industry
More emphasis on orchard maintenance
Reinforce the cool chain
Possibly near infra red
Change storage method – 2017 season
Quality of processing equipment
Adopt information on Nut Rot as it comes to hand

5) How did you hear about this activity/event?

CAI email *Field day host*
CAI Communications Officer
CAI IDO
Nuts & Burrs newsletter
Email from Tanya
Email

6) What further information would have been helpful to know in advance?

Happy with information provided
All well
The information provided was perfectly sufficient
All good
All well covered

7) What was missing? Any suggestions for future events/activities?

Nothing
Chestnut beer
Grafting demonstration
Good day, very happy
Group trip to the new Melbourne Wholesale Market
IDO taking growers through the BMP
Information on Nut Rot as it becomes available
Ongoing information in the future for bird control
Ensure water available



**Participant Feedback Sheet – CAI Field Day 18th
February, 2017**

(43 responses were collected)

54% of those surveyed rated the usefulness of the day a 10

Please rate the following out of 10 by circling your choice - 1 represents very poor and 10 represents excellent.

1) How useful was the day for you? 1 2 3 4 5 6 7 8 9 10

23 responses rated the usefulness of the day 10

10 responses rated the usefulness of the day 9

6 responses rated the usefulness of the day 8

3 responses rated the usefulness of the day 7

1 responses rated the usefulness of the day 6

Why?

Learned much more about production systems

As new farmers, this was a great way to answer our questions

Interesting to see how others do their picking

Overall coverage of many issues

Understanding tree health issues in orchard – phytophthora/nut rot

Networking, where to start, ideas

Always good to see how others tackle common problems

Good info on the many aspects of industry challenges

Ideas from both shed and farm walk

Novice grower, all information is important

New information on microwave storage

Excellent information on harvesting using the sweeper and aluminium bins, weather stations, fabulous. Good networking

Opportunity to learn from operating farm

Nut rot updates and results

Able to compare conditions

Always a joy to visit another orchard and although we have been commercial growers for 20 years we always learn. Chestnut rot sessions, vital

A range of new trails were discussed

Engineering, people, new technology

2) How would you rate the quality of the program? 1 2 3 4 5 6 7 8 9 10

21 responses rated the quality of the program 10

10 responses rated the quality of the program 9

11 responses rated the quality of the program 8

1 response rated the quality of the program 7

Why

Plenty of depth

Socialising

Relevant for industry at this time

Excellent speakers

Good R&D presentations, good explanation of chemical use, good machinery demos

Very informative

Afternoon was a bit too long

Learnt a lot

The program was well planned

Open and honest sharing of knowledge – sharing, listening attitude

Good diversity of presentations

Learning, hospitality, mix of field walk, shed and equipment and presentations from experts

Covered all aspects of growing

Very well presented

Informative in a comfortable, informal setting

It's always excellent quality

Great range of topics, something for everyone

3) What you think were the best aspects of the Field Day?

Why?

Nut rot reports x 17

Microwave technology presentation x 14

Orchard walk x 17 (Guests property)

Having a look at how other nut growers grow and harvest their crop

Pleased the HIA Project CH16000 exists, it is vital!

4) Is there anything you learnt at the Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

Consultation

Yes, this harvest, treadmill sorting table

Pruning & maintenance of the trees – with 3 years

Maybe, 2 years, get a chestnut sweeper

Practical issues in field to combat phytophthora

Possible processing adaptations, ditto harvesting methods

Yes, processing techniques – 3-5 years

We are not alone, help is out there

Nut rot

Experimental rot treatments have been carried out on our farm for the past 2 years and will continue until something works

Fencing, bird scarer, adopting more comprehensive cutting of nuts

Definitely pruning in the next 5 months, cleaning under trees, straight away

Ideas on how to harvest and store

Biosecurity

Upgrade cylinders in our inspection table

Ongoing Trichoderma trails, results will be shared

Pruning, irrigation and info on chemicals

Seeing other process is always good, talking and mixing important

Implementation of planting program

Nut rake

Biological and chemical treatments

All in mix

Everything ASAP

Tighten up all aspects

Sorting table

Harvesting techniques – upgrade this harvest

Rot controls

Not until rot protocols are ?

Better farm cleanliness

Yes, invest in infrastructure which has been shown to work here

Harvesting

Maybe

5) How did you hear about this activity/event?

<i>Chestnuts Australia</i>	<i>Communications Coordinators</i>
<i>CAI email</i>	<i>Field day host</i>
<i>CAI Communications Officer</i>	<i>Family</i>
<i>CAI IDO</i>	<i>Email</i>
<i>Nuts & Burrs newsletter</i>	<i>Internet</i>
<i>Email from Tanya</i>	<i>Nutgrower</i>
<i>Email from Chestnuts Australia</i>	<i>Invitation from Tanya</i>
<i>Industry person</i>	<i>CAI Membership</i>

6) What further information would have been helpful to know in advance?

Nothing

That there was a wine tasting with a fee

Handouts in advance

Ongoing reports on results of the chemical approvals

Well covered

Well prepared by CO and IDO

Nil, was even given advice re the forecast and what to wear Saturday evening!

The event covered everything today

Nut rot information, but this will take time

I am very happy the way it was

Program overran time

7) What was missing? Any suggestions for future events/activities?

The day was very useful and will give us heart to proceed

Well done, everything was first rate

More growers need to be encouraged to attend

No suggestions, great day, very well organised

Too much sitting, switch between presentations and shed demo

Everything A1

None, all pertinent

Good to split the day between walks and lectures

Packaging issues would have been good to discuss

Nothing missing, look forward to more

Good mix of practical farming and presentations ie CSIRO

Something on machinery to sort and grade

Handouts on talks



**Participant Feedback Sheet – CAI Field Day 16th
September 2017**

(24 responses were collected)

55% of those surveyed rated the usefulness of the day a 10

Please rate the following out of 10 by circling your choice - 1 represents very poor and 10 represents excellent.

1) How useful was the day for you? 1 2 3 4 5 6 7 8 9 10

13 responses rated the usefulness of the day 10

2 responses rated the usefulness of the day 9

9 responses rated the usefulness of the day 8

Why?

Learnt more about the Industry

Packaging and Wholesale Markets presentations were excellent

New ideas and information

Insights, practical demonstrations and discussions

Helped to get stimulated to keep on going

Packaging research/Robertson's innovations

Provides incentive

Well presented

Industry Updates

Loved the farm walk

Good insight into the Industry – practices of small orchard owners and other challenges

Absolutely – good updates and chat to growers

Machinery/Reports

Meeting people/Production/Processing/Seeing practices in real life

Being able to see a working facility

Other growers have good suggestions

Learnt new things

Likes Tom's inventiveness

Presentations/CAI personnel/Gnomiopsis perspective on Robertson's orchard

2) How would you rate the quality of the program? 1 2 3 4 5 6 7 8 9 10

8 responses rated the quality of the program 10

6 responses rated the quality of the program 9

9 responses rated the quality of the program 8

1 response rated the quality of the program 7

Why

Best practice excellence from all presenters, hosts and demonstrators

Everyone open to share their experience

Wholesalers present from both Sydney & Melbourne Markets – shared ideas on how we as growers can improve our presentation of nuts

Real world, practical information and Industry knowledge

Good overview and mix of information

Depth of coverage

Very informative and presented in a friendly manner

Good cross section of Industry & good support from Industry suppliers

Well-coordinated

Good, short informative talks

Program well organised and put together

More time needed to talk things through

Well thought through

Always learn something

3) What you think were the best aspects of the Field Day?

Why?

Bird drone

Seeing the orchard

Talks

Farm, processing and the packaging presentation

Catching up with other growers/Exchanging ideas

Visits to Robertson's orchard & packing shed

Seeing how others do things, need more of it

Interactions with growers/Wholesalers open and free sharing of ideas/Seeing packaging options

Packing & grading shed

Great to see new people interested in the Industry

Seeing the equipment in the shed

Seeing an active orchard and practices used/The talk on R&D and Nut Rot was also extremely informative

All

Looking at grafting and pruning/Innovation in the packing shed

Sharing spirit of chestnut

Looking at Tom's inventions and very neat farm

4) Is there anything you learnt at the Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

10 kg packing bag machine – next season
Packing machine
Grade nuts for size
Number of aspirational developments!
Lots!
More machinery ideas
Orchard ecosystem
Automatic bag filler – ASAP
Drone – 1-2 years
Water bath – 12 months
Review packaging options/Removal of trash during harvest
Adopt packaging recommendations – next 12 months
Machinery modifications – by next season
More thought to packaging and value adding

5) How did you hear about this activity/event?

<i>Website</i>	<i>Trevor</i>
<i>Chestnuts Australia Inc.</i>	<i>David Phillipot</i>
<i>Nuts & Burrs</i>	<i>Industry email</i>
<i>CAI</i>	<i>CAI Members</i>
<i>Through my manager</i>	<i>Communications Officer</i>

6) What further information would have been helpful to know in advance?

Nil – Thank you Tanya, Trevor & Brian
A fine day
Not sure
Planning by Tanya & Trevor was perfect – every possibility was outlined from the start
Nothing – well organised
Different Industry related products
Very comprehensive

7) What was missing? Any suggestions for future events/activities?

More practical demonstrations

No suggestions

Stick to practical demonstrations

Maybe some discussion of varieties

Change the date to a warmer month/Daylight saving – better for travelling long distances

No – all good

Lovely day and well planned/run

Continue with visits to growers grading sheds and farms

Appendix A – Survey to evaluate Project activities - Results



Participant Feedback Sheet – HIA Project CH16000 February 17th & 18th 2018

(31 responses were collected)
55% of those surveyed rated the usefulness of the days a 10 - Excellent

Please rate the following out of 10 by circling your choice - 1 represents very poor and 10 represents excellent.

- | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|
| 1) How useful were the days for you? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 17 responses rated the usefulness of the day 10 | | | | | | | | | | |
| 7 responses rated the usefulness of the day 9 | | | | | | | | | | |
| 5 responses rated the usefulness of the day 8 | | | | | | | | | | |
| 1 response rated the usefulness of the day 7 | | | | | | | | | | |
| 1 response rated the usefulness of the day 6 | | | | | | | | | | |

Why?

*These days are terrific and of equal value to both new and experienced growers
Game changing results were presented at the workshop
Good engagement opportunity
Great opportunity to hear from and talk to other growers
Range of topics and relevance
Remain up to date with industry standards
So much information to help with our business planning
Speakers were knowledgeable
Good to catch up with other growers and exchange ideas
Good information. Reinforces previous day's work
Meeting people
Very informative
Great! Always keeps you thinking
Good presenters had been organized and the topics were very relevant to chestnut growers
New to industry
Brushed up awareness of industry
Professional advice from people – Femi excellent
Updated on industry R&D & Marketing and networking with industry participants
Phytophthora is one of the most important threats to this industry, the nut rot and blight updates were also important
New information
Always learn something new from these days
Need all the phytophthora information
Learn about tree health
Good stories for the Nutgrower!*

2) How would you rate the quality of the program? 1 2 3 4 5 6 7 8 9 10

16 responses rated the usefulness of the day 10

5 responses rated the usefulness of the day 9

8 responses rated the usefulness of the day 8

1 response rated the usefulness of the day 7

1 response rated the usefulness of the day 6

Why?

I have been waiting for this kind of information on Phytophthora for some time – I was delighted with the outcome

Interesting technical content

Varied, just the right amount of time, nice combination of theory, practice and down time

Level of presenters

Relaxed and informative

Well planned and executed

Having guest speakers, speaking about problems growers have

Mixture of both field and quality presenters

More information on Root Rot

Well run with excellent speakers

Very good!

Easy to understand

It flowed from one subject to another quickly

Good value for money

Social networking invaluable

Good content and relevant

Femi – excellent

Science/Marketing/biosecurity mix

Needs more structured group work and problem solving

3) What you think were the best aspects of the Conference/Field Day?

Farm/Orchard walk

Theory followed by in-field discussions

Packaging research happening

Phytophthora information

The new use of phos acid as a trunk application

Field day very informative

Experienced speaker on phytophthora, and butt drenching demonstration with gives us something practical to apply strait away, always good to meet new growers/members

Update on Root Rot management

Always learning something new

Dr Femi

Speakers and presentations

Choice of topics

Practical demonstrations

BBQ

Will be interested in MacTavish West packaging results

Other grower input and how they deal with problems

Scones and muffins

Venue was good

*Good summary of the Blight situation
Support from growers on increasing the proportion allocated to R&D levy
Packaging analysis
Cross nut industry support of the Phytophthora initiative
Butt drenching demonstration
Leadership opportunity for next generation
Warm, positive, constructive, collaborative feel to the meeting
I enjoyed it all*

4) Is there anything you learnt at the Conference/Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

*Phos Acid application and timing
Butt drenching for phytophthora
Potential for CA methods for smaller growers
Femi's work
Videoing growers about how they use their produce
Encouragement for packaging trials
All the information was useful
Butt spaying – test spray several trees and monitor results
Treatment of sick trees by 'butt' ASAP
Will try to implement butt/trunk treatments
Check out the condition of the trees and soil
Improving soil around sick trees
Adopt control of phytophthora, starting now
Lots - soil management – ASAP
Yes, all – soil management
Yes, possible root plan and more organic matter
Reinforcement of current practice but given more options
Butt drenching, continuing our current phytophthora management strategy with greater confidence
Soil improvement/Butt spray
Tree management, nutrition program
The correlation between attending to soil deficiencies at the same time as any treatment for Phytophthora
Yes, Phytophthora control – immediately
Promote scientific method in leadership and strategy developed*

5) How did you hear about this activity/event?

*ANIC – Trevor
CAI
Newsletter
Website
Email
Tanya's good work
CAI communication
Last year
Joining CAI
Communications Officer
Employer*

6) What further information would have been helpful to know in advance?

Not applicable
All the Phytophthora information
All information provided well in advance
None, very well run
Summary of phytophthora presentation may have been helpful
Maintenance program
Get some presentations in advance so can look at and ask questions
Follow up on grower experiments
Perhaps a broad overview of the subjects to be addressed so that we may think about our problems in these areas
Printed material on disease management

7) What was missing? Any suggestions for future events/activities?

Q & A session, where growers could ask other growers questions on a range of issues
Info/knowledge transfer
All good, BBQ worked well
Look forward to powerpoint presentations on website for chemical rates
Better air-conditioning
Access to application rates and other statistical information given rather quickly on overheads so that it could be referred to again and again (for those of us whose memory has slipped away)
More of what was done here – well done
Amount of information was good – don't need too much at one time
Cool room/management after harvest, temperature
Good to have a print out of rates of application (technical information)
All good
Like to see harvesters working
Nothing, great way to start the season
Nothing missing, suggest thumbdrives to all members containing all presentations at the meeting or as soon as possible afterwards
More on Rot

2) How would you rate the quality of the program? 1 2 3 4 5 6 7 8 9 10
9 responses rated the usefulness of the day 10
9 responses rated the usefulness of the day 9
7 responses rated the usefulness of the day 8
2 response rated the usefulness of the day 7

Why?

Great few days

The depth of information available from experts and the opportunity to meet them and ask questions later

Good info, orchards and presenters

Great place, great program

Impressed with Friday and Saturday diversity – quality of program

Good cross section of information, interesting big picture objectives

Getting to experience was interesting

Very detailed and engaging

We all had a good time!

Excellent mix of tech and practical

Overseas speaker Bruce Lampinen supplied invaluable research data. All speakers raised issues relevant to all associations

Information sharing

Information and farm walks

Bruce Lampinen presentation was very concise

Variety plus availability of speakers

A full agenda with good speakers and people

Very well organized and controlled

Well structured

Very good but a bit rushed – more time for discussion

Good balance and reminders. Could have stronger scientific sessions. Excellent catering, social and industry sessions

Speakers need to improve presentation skills

Bit let down by the efforts of some of the speakers. Also, quite crammed

3) What you think were the best aspects of the Conference/Field Day?

Good mix of technical and professional. Good location. Great farm hosts

Research presentations. Farm walks

Variety

Bruce Lampinen, pollen viability, site visits, catering and trade connections

The extent of learning, Bruce Lampinen's talk

Presentations, field trips

Learnt new skills from growers

Having time with other growers to discuss new ideas and to do a bit of problem solving

Contact with all growers and speakers

Trevor Ranford

Catching up with other growers and sharing experiences

Final farm walk

Farm walks and information sharing

The opportunity to intermingle with a range of members from all associations and hear about their challenges. The social interaction that was possible, particularly during the orchard visits and the final day, coffee, lunch and beer!

*Meeting with other to talk technical issues
The chance to share experiences with other growers
Day 2 presentations. Day 3 farm visits – was good to see the best orchards
Learning about the industry, the support and investment by government bodies
Enthusiastic owners, neat and tidy, openness
Industry Awards. Sunday morning tea- 9 fabulous nut cakes, muffins and biscuits – 9 hats!
Time during breaks to speak with one another, food and hospitality – great
Field activity
Networking opportunities
Research information
Farm visits
Food quality is always important
Technical presentations
Learning from others
All good quality*

4) Is there anything you learnt at the Conference/Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

*Walnut watering strategy based on data – soon
Pruning of hazelnuts and chestnuts – within 12 months
Map – trial
Cost of harvesters – need to investigate coop/sharing
Keep in touch
Learnt its important to know exactly what you're are getting into. Chestnut industry has benefits but also ahs issues and we need to be aware of what they are
Not at this time
The reassurance that our approach to rectifying problems was in line with recommendations from research and experienced growers
Purchase nut cracker – this financial year
Modify pruning – next winter
Spraying – spring/autumn
Leadership training – October
Need time to process information
Differing watering and nutrition/Pruning techniques
A lot of detailed matters
Learnt a lot over weekend
Health and work place safety – this week
Orchard floor management
Rootstock management
Drip irrigation
Packaging trends*

5) How did you hear about this activity/event?

*Trevor Ranford
HGA
On the Committee
Members newsletters
Internet
AWGA
Grower email
Word of mouth
Email
CAI
Industry*

6) Would you attend another Tri-Nut Conference in 2 years? YES/NO (please circle)
26 persons responded they would attend another Tri-Nut Conference

7) Any suggestions for future events/activities?

*Professional speakers
Breakout workshops – soil/disease/plant physiology
Publish proceedings so there is a record of the presentations
The following aspects must be touched on – Biology of flowering and breeding/Nursery
technology – non-conventional/Nutrition/Crop regulation/High density orchard growing
Improve speakers' microphone techniques
Time for discussion with other growers
Anything to do with pests and diseases – very useful
Mudgee would be nice
Communication – re times for field trips – return times to avoid missing flights etc
Members able to have stalls to showcase their produce
Cut the conference to half day presentations and half day with growers over 2 days
Have growers who have been in the business for a while present on their experience
Keep up the good work
More of the same please
Congratulations and thank you team
Continue how it is
Some sessions on processing and packaging – include again*

3) What you think were the best aspects of the Field Day?

Opportunity to talk to a range of people about a variety of topics
Information presented by TAO
Meeting growers
Networking
Finding out what others do
Socialising
Nut Rot reminders
Blight Update
Farm visits
Industry Updates
Lunch & Dinner
Good venue
Exchange with more experienced growers
Seeing different approaches
Food
Levy discussions
Commitment to organic farming – field day host
Acknowledgement of contributions to industry by various growers
Different approaches
Venue

4) Is there anything you learnt at the Field Day that you intend to adopt on-farm or implement in your farming business? What? Timeframe?

Fungal treatments
Wood chipping/carbon replenishment of soil – immediately
Cool room Filter – 2 – 5 years
Cool room air purifier
Look into air purifier
Improve cool room set up
Disease identification
Refrigeration techniques
Horticulture techniques
Mould prevention

5) How did you hear about this activity/event?

Email from Tanya
Email from CAI
Website search
Online
Stanley Nine Mile Newsletter – advertisement submitted by local CAI Member
Newsletter

6) What further information would have been helpful to know in advance?

Mechanical harvesting
Weather
All other responses - Nil

7) What was missing? Any suggestions for future events/activities?

Chestnut blight ID training

Food Innovation Australia – overseas contact

All good

Nothing – very informative day

Packaging/Storage examples