

## March 2024 – Edition 1

This newsletter is an output of Hort Innovation Project CH22000 - Communication program for the Australian chestnut industry

# Chestnut Industry News

### Season Update

While last season crops were in some areas 3 weeks later than usual it appears, this season is back on track, even a touch early. Some nuts from Wandiligong were being harvested the last week of February.

Recently growers were emailed the industry standards regarding Nut Rot. Chestnuts Australia are advocating that growers should be setting a level preferable at 0% Nut Rot but certainly 'less than 2%'. If the cool chain is not maintained even this figure could increase rapidly to an unacceptable level.

It's vital then that ALL in the industry maintain quality standards when it comes to sending only the best produce for sale. So, we ask all growers to thoroughly check each of their varieties closely throughout the entire harvest and storage periods for signs of Nut Rot using the information circulated on the 4<sup>th</sup> March. **Hover the mouse over the email, when the hand comes up, click on, and it will take you to more information embedded in the email.**

A Market Report will be emailed to Stakeholders every Friday commencing the 8<sup>th</sup> March and finishing the last week of July. The report will outline average prices from 4 major Australian wholesale markets and tonnages transported out of Evan Taylor Transport, Beechworth, NE Victoria.

### Chemical Update

The following permit has been issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA):

Permit ID	Description	Date Issued	Expiry Date	Permit holder
PER9038 8 Version 2	Metalaxyl-M / Chestnuts / Root and Collar Rot (Phytophthora spp)	08-Jun-2021	31-Jan-2029	Hort Innovation Australia

A copy of the permit is attached HERE.

### **NOTE APVMA CHANGES:**

**Additional conditions updated to add section 161 statement. Permit expiry extended to 31/01/2029. Permit issued as Version 2.**

All efforts have been made to provide the most current, complete and accurate information on these permits, however we recommend that you confirm the details of these permits at the following APVMA website: <https://portal.apvma.gov.au/permits>

*Users are advised that while the pesticide can be applied legally under the APVMA minor use permit, there can be a significant delay until the MRL gazetted by the APVMA is adopted in the Australia New Zealand Food Standards Code.*

*Until this occurs the MRL may not be recognised and a zero tolerance may be imposed for residues of the pesticide resulting from its use according to the APVMA permit.*

*Please be aware that in the absence of an MRL in the Food Standards Code, the use of the pesticide according to the permit may result in the suspension of the produce in the marketplace. Please check the FSANZ website or the Australian Government ComLaw website: <http://www.comlaw.gov.au/Details/F2014C01358/Download> to confirm if there are MRL established by the Australia New Zealand Food Standards Code.*

## **Chestnuts Australia Field Day and Season Launch - Saturday 10<sup>th</sup> February**

A full update can be found published in the Autumn 2024 Edition of the Australia Nutgrower Magazine!

All presentations are available to view in the Levy Payers section of the website under Conference/Field Day Presentations & Scientific Papers and in the Members Only section under Members News [www.chestnutsaustraliainc.com.au](http://www.chestnutsaustraliainc.com.au)

**If you are into Statistics, please read on!!  
Project CH22000**

## **Chestnut Industry Collection of Annual Statistics – Tree Crop – July - September 2023**

### **Collect, collate and disseminate annual industry statistics**

This survey was an output of Project CH22000 - Chestnut Industry Communications Program for the Australian Chestnut industry. Chestnuts Australia Inc. (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. Nine responses were collected.

Please review the results [HERE](#).

Thank you to those growers who did participate in the survey. The next production survey is scheduled to go out in July 2024. It is hoped that more growers will consider participating to gain a better understanding of where the industry is at.

## **Chestnut Industry Collection of Annual Statistics – Market Data - Harvest 2023**

Charts indicating the 2023 Average Weekly Wholesale Market Prices and Tonnages transported from NE Victoria was collated. Data was collected by Chestnuts Australia Inc. from a number of sources.

The findings can be viewed online at [www.chestnutsaustraliainc.com.au](http://www.chestnutsaustraliainc.com.au) in the Members Only section (Market Reports) and Levy Payers Only section (Market Data).

Charts 1 to 4 show the prices achieved across the season within each of the wholesale markets reported on.

Chart 5 is information gathered from the major transport company from NE Victoria ONLY. (This is not the complete numbers for Australia).

Based on the assumption that 70% of Australian Chestnut production comes from NE Victoria if we extrapolate forward, then the estimated total Australian Chestnut Production for 2023 was at least 1,255 tonnes.

## **Industry Statistics - Comparison against levy collection**

Industry through statistics collected via transported volumes estimated a total crop of

1,255 tonnes for 2023. Currently there is a .11 cent per kilo levy on chestnuts sold over 500kg.

The DAWE Levies Revenue Service provided CAI with a Levy Statistical Summary of revenue collected in 2022/23 in the amount of \$132,274.34.

### **Tanya Edwards**

CAI Communications Officer

## ***A First...Chestnut Milk developed in West Australia***

Chestnut Milk. A Unique dairy free milk that could change the way we look at plant based milk drinks. Many consumers are aware of almond milk and now we have a substitute in chestnut milk.

Chestnut Brae, located 15km south of Nannup in the South West of WA is known for its unique products based on sweet chestnuts grown organically in its 1,000 tree orchard.

John and Linda Stanley, the owners of Chestnut Brae, have joined forces with Whole Green Foods based in Perth. Whole Green Foods, who specialise in turning waste food products into valuable food. They have developed what they believe is the first commercially produced Chestnut Milk anywhere in the world. This milk is chocolate coloured and has a distinctive sweet chestnut taste.



Linda & John Stanley

### **Why Chestnut Milk?**

The first question many will ask is why develop a chestnut milk? Chestnuts are recognised as a healthy fruit and are gluten free. They fall into the same gluten free group as other nuts such as pecans and almonds.

Almonds are commonly sold as almond milk. The almonds are blended with water and then strained. Globally 80% of almonds are grown in California and for every nut grown the farmer

applies at least 307 litres of water, that is 10% of all the available water in that State to make 1.42 litres of almond milk ([www.traceandsave.com](http://www.traceandsave.com)) Then to make the almond milk you need one cup of almonds and four cups of water. Almond milk is one of the most water hungry products available.

According to John Stanley, chestnut milk is an opportunity to grow the market, *"We are using our medium sized nuts to make the chestnut milk, this is around 30% of the crop in a normal year and these nuts have little value as a nut. Therefore, we use a commercial peeler to peel these low value nuts and make them into chestnut flour and now into chestnut milk, it ensures we use all the crop and maintain our values as a no waste farm"*.

Chestnut milk is an ideal sustainable alternative. The chestnuts grown for milk are grown organically in West Australia and the trees rely on water from the heavens. The processing only requires one cup of water as chestnuts are already 60% water. If you want to save the planet this is an excellent alternative.

### **Is Chestnut Milk Healthy?**

The milk contains a large amount of low GI carbohydrates, vitamin B, iron, potassium and fibre. It is gluten free and dairy-free approved and low in calories.

### **What can you do with Chestnut Milk?**

Yes, you can put chestnut milk in your coffee, but that may not be the best use of the milk. The milk can be incorporated into other food recipes such as a custard and used in desserts, it can be drunk on its own or blended into other recipes. Chestnut Brae is working with one of Australia's top celebrity chefs to develop some unique recipes



based on the milk.

According to Linda Stanley, *"At present we are testing the market and developing recipes to see if*

*we have a market for the product, we will then be looking for partners to develop and market the product to take it to the next stage"*.

The product at present, is only available from Chestnut Brae, ([www.chestnutbrae.com.au](http://www.chestnutbrae.com.au)) but it is hoped retail outlets will come on board in the near future.

In the future you may be having your latte with a dash of chestnut milk rather than almond milk. For more information contact John Stanley, Chestnut Brae [john@johnstanley.com.au](mailto:john@johnstanley.com.au)

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### **R&D Update - Nut Rot**

Nut Rot is considered the number one priority for Chestnuts Australia and the CAI R&D Subcommittee has been very active in this space. With the support of Hort Innovation and the Chestnut Strategic Investment Advisory Panel (SIAP) a number of projects have been funded.

**Project CH22001** – *"A literature review on the emergent pathogen Gnomoniopsis smithogilyvi causing nut rot of chestnuts"* was undertaken by Professor Celeste Linde.

***A copy of the full report is available here.***

The following is a summary from that project.

*Suggested future research:*

- 1. Investigate abiotic factors associated with disease incidence in order to develop a disease forecasting model. To do this, the absolute minimum requirement would be to have weather stations installed at a few farms to monitor environmental variables. Nut rot incidence will also have to be monitored at those farms over the season (not just once). A species-specific PCR assay has already been developed to assist with disease incidence estimates.*
- 2. Spore trapping could be combined with weather stations to better inform on disease potential days.*
- 3. Chemical trials: Preferably at places with weather stations. This might be controversial, but I suggest to discontinue the current trials using difeconazole and pyraclostrobin. Instead, I suggest to use chemicals such as tebuconazole and phosphite salts, although difeconazole and pyraclostrobin may be used as contrasts since these trials are underway already. Timing and number of applications need to be refined.*

4. *Endophyte microbiome study: Although not essential, it will be good to know what the effect of chemical applications are on endophyte communities. Are we creating a point of no-return with chemical applications?*
5. *Population genetic study: A question that remains re the biology of the fungus, is whether the fungal community causing nut rot is the same as those that are endophytes and symptomless. A population genetic study using markers such as DArT (Diversity Arrays Technology) will help in answering this basic question.*

**Project CH23002** – “Chestnut rot evaluation trials” is currently being undertaken by Trevor Ranford on behalf of Chestnuts Australia Inc.

The following are some of the outputs of this project;

- Support of growers undertaking some specific farm trials to minimise the effects of nut rot.
- Detail the trials being undertaken including the application times and rates; weather conditions and other specific application processes.
- Undertake the collection of vegetative samples at appropriate times and have the samples tested for the presence/absence of nut rot.
- Undertake the collection of nuts, at harvest, and have the samples tested for both the presence/absence of nut rot and any specific chemical residues.
- Prepare a full report on the grower trials.
- Undertake a review of past and current available climatic data and make an assessment against past incidents of nut rot.

Two growers have been undertaking trials and regular samples of plant material including burrs and developing nuts have been taken and tested. Both treated and control material has been tested and the results so far are looking positive. Nut samples will be taken during harvest and will be tested both for the organism and any chemical residues.

Once this project concludes a Final Report will be prepared and recommendations made regarding future R&D.

### **Chestnut SIAP**

The Chestnut SIAP met in early February and a number of proposals were tabled for further consideration.

The topics included:

- Weather Stations for Monitoring and IPDM
- Endophyte study of Australian Chestnut trees
- Expanded A trial utilising other products/chemistry (other than fungicides)
- Chestnut Rot Chemical Trial Option.

These concepts will be developed into more detail documents for review and consideration by the CAI R&D Subcommittee.

### **EUROCASTANEA Conference**

Australia was invited to join the EUROCASTANEA conference held on the morning of the 10<sup>th</sup> of February (1:00 am Australian time) and give a presentation on Nut Rot research in Australia.

The presentation was made by Prof. Celeste Linde, but a number of others were online including Dave McIntyre, Josetta Gafford and Trevor Ranford. Research reports were presented from Europe, USA and Chile and a range of research concepts were discussed for future consideration and co-operation.

The following is a brief response from an Italian Researcher:

*“The situation of brown rot is complicated. Chestnut cultivation in many parts of Europe is agroforestry cultivation, thus we are pushing to limit or eliminate any chemical input environmentally unsafe. Zinc phosphonate is a good alternative. It is an eco-friendly product able to interact with the disease cycle. Its use is strictly related to the flowering period and specifically to a certain phenological stage of the female flower. It delays or aborts the germination of Gnomoniopsis spores protecting from flower infection.*

*Horeduceswever cannot be the only solution since is reducing the infection but not eliminate at all. Thus it is mandatory to do thermal treatment of fruits in post-harvest at 50°C for at least 40-45 minutes to stop at all the activity of the pathogen. The combination of the pre- and post-harvest treatments provides effective protection.*

*We are now carrying out field trials with other eco-friendly products with very promising results. This is because Zinc phosphonate will be not available in Europe in the next years.*

*In my area that is one of the most important chestnut areas in Italy, most of the growers are using Zinc Phosphonate at the moment as an alternative to Tebuconazole.”*

The online conference went for 3 hours.

**The full recording is available from [HERE](#).**

### **Conclusion**

If growers require more information they can contact Trevor Ranford, CAI Industry Development Officer on 0417 809 172 or via email – [sahort@bigpond.com](mailto:sahort@bigpond.com).

The next major update will be in October 2024, when we will have more results from the work streams. But, as important information becomes available the CAI R&D Subcommittee will present it to you the growers through further newsletters.

### **Fred Pucci**

Chair, CAI R&D Subcommittee  
March 2024

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### ***Chestnut Blight Survey Update***

The Chestnuts Australia Biosecurity team has now surveyed more than 150,00 trees for Chestnut Blight (*Cryphonectria parasitica*), with 13 properties identified as infected. The epicentre still remains the original infected area of the 2010 outbreak within the Ovens Valley region.

Some of these infected properties have reinfection or continual outbreaks of Chestnut Blight cankers. It becomes essential that orchardists put into place hygiene practices, use their biosecurity plans (see planner or visit [www.farmbiosecurity.com](http://www.farmbiosecurity.com)) and inform employees and train them.

Some hygiene practices include using a hygiene kit (possibly give a key worker responsibility to set up in the morning and pack-up end of the day), and cleaning tools as you move from tree to tree (provide small spray bottles with methylated spirit/water solution to be carried when working on trees, very simple) in the orchard. Don't forget Chestnut Blight is a lethal disease with no cure. Prevent infection spread both within your orchard and between properties.

***Be proactive rather than reactive! Changing practices is important for your property's future and that of your community.***

If you need assistance, please contact Elke Jasper at [ibo@chestnutsaustralia.com.au](mailto:ibo@chestnutsaustralia.com.au) or Trevor Ranford Chestnut Industry Biosecurity Coordinator at [sahort@bigpond.com](mailto:sahort@bigpond.com).

Training is available through contacting Elke Jasper or Agriculture Victoria, <https://agriculture.vic.gov.au/support-and-resources/elearning/biosecurity-courses>.

### **Elke Jasper**

Chestnut Industry Biosecurity Officer  
Mobile: 0407010667  
Email: [ibo@chestnutsaustralia.com.au](mailto:ibo@chestnutsaustralia.com.au)



Read the Hort Annual Fund Report for Chestnuts [HERE](#)

Read the Hort Annual Report online using the link below;

<https://www.horticulture.com.au/globalassets/hort-innovation/corporate-documents/hort-innovation-2022-23-annual-report.pdf>

### **Australian Horticulture Statistics Handbook 2022/23**

The nation's most comprehensive source of Australian horticulture data.

The annual Australian Horticulture Statistics Handbook offers the most comprehensive and up-to-date data available on more than 75 horticultural products including fruit, nuts, vegetables, nursery, turf, and cut flowers.

Drawing on data from several supply chain sources, including international trade statistics and industry peak bodies, the Handbook includes information on retail and foodservice use, exports and imports, share of production by State and Territory, wholesale value, and volume.

View the Nut Section PDF [HERE](#).

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### ***The National Biosecurity Training Hub***

What it's all about?

The National Biosecurity Training Hub provides a centralised platform for biosecurity training to support biosecurity preparedness, response and recovery.

The Hub is designed to make it easier for Australians to access a range of biosecurity training and for training providers to increase their reach.

<https://biotraininghub.com.au/>



### NEW resources: Cooking with nuts

We have collaborated with Sprout Food Group on a new suite of culinary nutrition resources. These will support health and food service professionals to get more people using nuts when preparing and cooking food. The first of these resources, which include fact sheets and videos, will be on our website in early March

<https://www.nutsforlife.com.au/>

ATHENS, Ohio — A growing demand for things like bread and other culinary items made with chestnut flour has increased the popularity of the once dwindling native American chestnut tree.

<https://www.farmanddairy.com/news/all-in-growing-demand-in-southern-ohio-for-culinary-chestnuts-fueling-renewed-interest-in-north-american-tree/767266.html>

### American Chestnut Foundation to discontinue Darling 58 American Chestnut

ASHEVILLE, N.C. – The American Chestnut Foundation (TACF) announced Friday, Dec. 8 that it will discontinue its development of the Darling 58 American Chestnut due to significant performance limitations that, from TACF's perspective, make it unsuitable as a restoration tree. Likewise, TACF is also withdrawing its support for several pending regulatory petitions that would authorize distribution of transgenic Darling trees outside permitted research plots.

<https://theonefeather.com/2023/12/11/american-chestnut-foundation-to-discontinue-darling-58-american-chestnut/>

### Research Reveals Major Genomic Differences in American, Chinese Chestnuts

The chromosomes of American and Chinese chestnut are not so similar after all, at least in one key region of the genome – the nucleolus organizing region (NOR). The finding, published in a forthcoming article in Scientific Reports, has major implications for anyone with the goal of conferring blight-resistance to American chestnuts through hybridization with the Chinese chestnut.

<https://www.miragenews.com/research-reveals-major-genomic-differences-in-1155571/>

### Effort to rescue the almost-extinct American chestnut tree hits a snag, as rift develops between major sponsoring organizations over gene-editing techniques

The American Chestnut Foundation has poured years of work into a line of chestnuts genetically engineered to endure a deadly disease infecting them, an effort meant to be one of the best hopes for its survival. Then an October visit to a chestnut field in Indiana delivered a blow to that vision.

<https://geneticliteracyproject.org/2024/01/15/effort-to-rescue-the-almost-extinct-american-chestnut-tree-hits-a-snag-as-rift-developments-between-major-sponsoring-organizations-over-gene-editing-techniques/>

### Some of our recent work

- ✓ Consumer fact sheet 'The health benefits of nuts' launched (January 2024)
- ✓ Nuts and weight management report launched (March 2024)
- ✓ 40 episodes of The Healthy Handful podcast
- ✓ 4,400 subscribers to NutEnews for health professionals
- ✓ 27,260 website page views (January 2024)
- ✓ LinkedIn newsletter for health professionals launched (January 2024)
- ✓ 154 responses to our 'Cooking with nuts' survey (February 2024)
- ✓ 36,000 reach for Meta (social) dark ads (January 2024)
- ✓ 900 contacts with doctors at Melbourne GPCE conference (late 2023)
- ✓ Presented at Chestnuts Australia Field Day (February 2024)
- ✓ 1,350 LinkedIn followers
- ✓ Scientific paper published in Journal of Human Nutrition and Dietetics, from PhD research project (January 2024)



### Women In Farming And Agriculture Eligible For Leadership Development Scholarships

Available Now: Partial scholarships for women in Farming and Agriculture ranging from \$1,000 to \$5,000 per person, for one of four leadership and workplace skill development programs.

These scholarships are aimed at encouraging more women to increase their impact at work, progress their career, and step into leadership roles.

Registrations of interest close on 22nd March 2024. Via our website: [www.wla.edu.au/industry/farming/](http://www.wla.edu.au/industry/farming/)

### What's Making News

Growing demand in Ohio for culinary chestnuts fuels renewed interest in North American tree

**Opinion: The story of a once mighty tree, the American chestnut**

How it all started. How can the goal to create a genetically, blight resistant tree be accomplished? The solution is complicated.

[https://www.appenmedia.com/opinion/opinion-the-story-of-a-once-mighty-tree-the-american-chestnut/article\\_39e3d3c4-b964-11ee-b13f-5bb6bc5a3d36.html](https://www.appenmedia.com/opinion/opinion-the-story-of-a-once-mighty-tree-the-american-chestnut/article_39e3d3c4-b964-11ee-b13f-5bb6bc5a3d36.html)

**Thousands of Chestnut Trees planted in Mason, Fleming Counties**

For miles along Kentucky 11, from Mason to Fleming County, travelers can see rows of white tubes sticking out of the ground. All of these tubes are Chestnut Trees.

<https://maysville-online.com/news/210579/thousands-of-chestnut-trees-planted-in-mason-fleming-counties>

***If you are into doing surveys, please read on!***

The **Federation University Australia** are conducting research for a Ph.D. project on “Carbon farming: role and implications for broadacre agriculture”.

The study aims to understand the farmers’ perception of carbon farming, which will help them integrate it into broadacre agriculture. The Ararat Rural City Council, Victoria, funds this research, and the PhD candidate is supported by Federation University Australia and Destination Australia Scholarship.

[https://federation.syd1.qualtrics.com/jfe/form/SV\\_4Vf95jgsRPdPsQS](https://federation.syd1.qualtrics.com/jfe/form/SV_4Vf95jgsRPdPsQS)

The survey requires only 10 minutes to complete. Further details about the project are attached [HERE](#). The Human Research Ethics Committee from Federation University Australia approved the survey with project reference no 2023-204. (PDF in folder).

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**Freshcare**, in partnership with Hort Innovation, is asking for valuable input into an industry-wide grower survey to help businesses and exporters meet regulatory requirements more efficiently, giving Australian agriculture a trade advantage.

The project is focused on how Regulatory Technology (RegTech) could be used to reduce the level of system duplication that exists for grower businesses related to compliance with industry, regulatory and crop specific requirements.

Freshcare’s grower survey will help assess the level of compliance responsibilities for grower businesses in the horticulture industry, identifying the factors contributing to regulatory challenges faced by participants.

Click the link to complete the survey (estimated time 5-10 minutes)

[https://www.research.net/r/st220099\\_survey1](https://www.research.net/r/st220099_survey1)

Results of the survey will be used to understand the factors impacting growers, including time, costs, training requirements and broad number of systems to determine:

- Level of duplication across systems
- Cost of system compliance for grower businesses
- Business case for removing duplication using Regulatory Technology (RegTech).

Supported by a \$471,000 grant from the Australian Government the project is part of a \$6 million funding initiative seeking innovative solutions as part of the Regulatory Technology (RegTech) Research and Insights Grant Round of the National Agriculture Traceability Grants Program.

The broader goal of the multi-organisation RegTech Grant project is to find emerging technology and systems which make it easier for growers to trace their produce along the supply chain, to support maximum food safety and quality and support sustainability claims.

***Marketing Update***

Two new recipes are up on the Consumer website [www.chestnutsaustralia.com.au](http://www.chestnutsaustralia.com.au) to direct your customers to or for downloading and printing. A third will be up soon!

The first of 4 newsletters of general chestnutty news for the season will be out soon, featuring great recipes, fun facts and stories. Sign up on the front page of the website.

**Adam Gatford – CAI Marketing Subcommittee Chair**

