

Groups

Pistachio Information and Technology Groups - Sessions Report July 2022

BENCHMARKING, GROWING PISTACHIOS FOR PROFIT AND ORCHARD SANITATION SESSIONS

Meeting Date and Venues

Session 1: Jeff Dickinson's Farm: Wed 27th of July, 12.00 Noon sharp

NOTE: We will be starting with lunch and presentations at the **Nyah West Grand Hotel, 12 Station St, Nyah West VIC 3595**. Then, out Jeff's farm for a farm walk.

Farm Address: **2403 Murray Valley Highway Vinifera, Victoria, 3591**

Session 2: Ian McFarlane's Farm: Thurs 28th of July, 12.00 Noon sharp

NOTE: We will be starting with a BBQ and presentations, then a farm walk and a look at Ian's new Spanish built Tenias harvester.

Farm Address: **22 Elephant Trunk Road Cobdogla, South Australia, 5346**

TOPICS:

- Benchmarking Results - Dr Maha Mahadevan, PGAI Research
- Getting the Best from your Orchard – Jake Butler, Swan Hill Chemicals (Victoria only)
- Orchard Sanitation – Craig Feutrill
- Pests (Potential) of the Australian Pistachio Industry
- The Tenias Pistachio Harvester – Ian McFarlane (South Australia Only)

The second round of PIT Group sessions for 2022, were held at the Grand Hotel Nyah West, then Jeff Dickinson's property at Vinifera in Victoria and the second meeting at Ian McFarlane's property at Cobdogla in South Australia.

Both PIT Group sessions were well attended, with a total of 45 growers and industry personnel attending across both venues.

James Simpfendorfer filmed proceedings at the Cobdogla session and during the field walk and spliced in the presentations. These will be posted on the PGAI website as soon as possible with this report and the presentations in PDF format.

PGAI researcher, **Dr Maha Mahadevan** kicked off the presentations at both sessions. Maha presented a summary of her research to date, future research plans and the latest industry benchmarking data. Dr Mahadevan's talk covered topics including;

- Regional chill measurements
- Oil and polymer spray trials to offset lack of chill and
- Industry Benchmarking
- Future research plans

Benchmarking is a common practice and sensible exercise to establish baselines, define best practices and identify improvement opportunities. Utilising the yearly benchmarking data into your farming enterprise will encourage discussion and sparks new ideas and practices. At its best, it can be used as a tool to help you evaluate and prioritize improvement opportunities.

Jake Butler from Swan Hill Chemicals (SHC) spoke on how to get the best from your pistachio trees using various fertilisers, chelates and monitoring/management techniques. Specifically:

- The program focuses on a combination of fertiliser applications through the ground via irrigation as well as foliar applied.
- Product selection based off a similar Almond fertiliser program which have seen above average yields in the Sunraysia/Mallee region.
- Focusing mainly on liquid products when possible, for ease of mixing and OH & S reasons.
- Targeting seasonal Pistachio NPK requirements from Californian Pistachio data, with 90% in the growing season & 10% post harvest.
- Soil microbial and root stimulant products to promote root health, soil health and microbial activity.
- Adjusting to half rates for unestablished or non-bearing trees.
- Encouraging regular sap & leaf nutrient analysis throughout the season to allow for timely adjustments.
- Annual or Bi-Annual soil testing to monitor nutrient levels and pH trends.

At the Cobdogla meeting, the SHC talk was quickly run through with Dr Mahadevan and Craig providing comments.

Swan Hill Chemicals pride themselves on being industry leaders in horticulture with a presence in the Swan Hill region for over 30 years. The horticultural team is experienced and enthusiastic to ensure your farm and crop gets the best care all the way through to the packing shed.

Craig Feutrill spoke on the need for orchard sanitation in pistachios as a preventative measure for diseases and 'if' any potential pest insects invade orchards.

Part of Good Agricultural Practices (GAP) is orchard sanitation post-harvest. Removing mummy nuts from trees during post-harvest, and the gathering and destruction (flailing) of nuts on the ground is important in the US to control Navel Orangeworm and also helps reduce *Botryosphaeria* inoculum, which can splash up into the trees during heavy storms. Sanitation efforts should begin following harvest and should be wrapped up by late August.

Craig Feutrill also presented at both meetings, although greatly extended at the Cobdogla meeting, the finalised chapter on 'Potential Insect Pests of Australian Pistachio Orchards'. This chapter will be part of the grower's manual currently being produced. Craig also provided information on a trial 'chat room' that will be for grower initiated discussion. The link to the chat room will be sent to all growers with a designated time when Dr Maha Mahadevan, Craig, and Trevor Ranford will be available for Q&A.

In South Australia at Cobdogla we had the bonus discussion with host Ian McFarlane on his new Tenias pistachio harvester. Ian had the harvester delivered from Spain one week prior to the 2022 harvest. It is an enormous machine as can be seen in the picture below; Figure: xx

Benefits, Specifications and Tree Requirements for the Tenias Pistachio Harvester:

Efficiency through design

- Smooth and efficient harvest up to 9 trees per minute. (Contact your Sales Representative for details)
- Superior shaking with a grounded shaker head allows continuous harvesting.
- Easy operation thanks to the automated tree sensing and shaking system.
- Unique one-piece machine makes for faster turns, less fruit lost, and easier movement around the field.
- Increased harvesting time between unloads due to twin nut storage hoppers, one mounted to each side of the harvester.
- Unload the hopper without stopping the harvester.
- Comfortable operator station with an ergonomic design, air conditioning, suspension seat, cup holders, and rear-view camera.
- Harvest day or night with confidence and comfort.

Cost saving features

- 3 harvest operations with only 1 person and 1 machine.
- Improved productivity through nonstop harvesting.
- Harvest with less machines and less passes compared to conventional practices.
- Improved fuel efficiency per harvested acre completing the shaking, sweeping, and pick-up operations with a single engine.

Improved nut quality

- Exceeding current food safety standards for the nut industry with superior shaking, catching, and cleaning systems.
- Leaf cleaning fans eliminate leaves and other debris from the nut material.
- Fallen branches removed and discharged infield by the Stick Rake System. (only available on Continuous Unloading Hopper models).
- Pre-cleaning system removes foreign material improving delivered product quality (contact your sales representative for more details).
- Shaker frequency optimized by the proprietary grounding leg system, better vibration with less force preventing damage to next year's buds.

ORCHARD REQUIREMENTS

Recommended planting spacings

- The valid planting patterns are between 18 x 8 and 23 x 13 ft (for other patterns, please enquire). The most recommendable planting pattern is 20 x 10 ft.
- At the end of the row there must be a space of at least 35 ft, so that the harvester can turn around.

Trunk and berm dimensions

- The free height of the trunk must be at least 35 in. To this end, it is recommended that the cross be cut at 35 in to 44 in.
- The maximum permitted height of the berm is 8 in.

Alignment of the orchard

- Trees must be in full alignment.
- Elements such as irrigation systems and other obstacles must be aligned with the rest of the row.

Maximum tree size

- For pistachio trees, these dimensions are a height of 16 ft metres and a width of 13 ft.

After lunch and presentations at the Grand Hotel Nyah West, the attendees drove to Jeff Dickinson's farm to look at the trees and discuss his 2021/22 fertiliser and management program with him and Jake Butler from SHC.

Photo Gallery:



Figure1: Dr Maha Mahadevan presenting Benchmarking data at the Grand Hotel Nyah West in Victoria.



Figure 2: Jeff Dickinson at his Vinifera property in Victoria discussing dieback and new growth.



Figure 3: The Tenias Pistachio Harvester at Ian McFarlane's property, Cobdogle.



Figure 4: Ian McFarlane discussing the Tenias harvester.

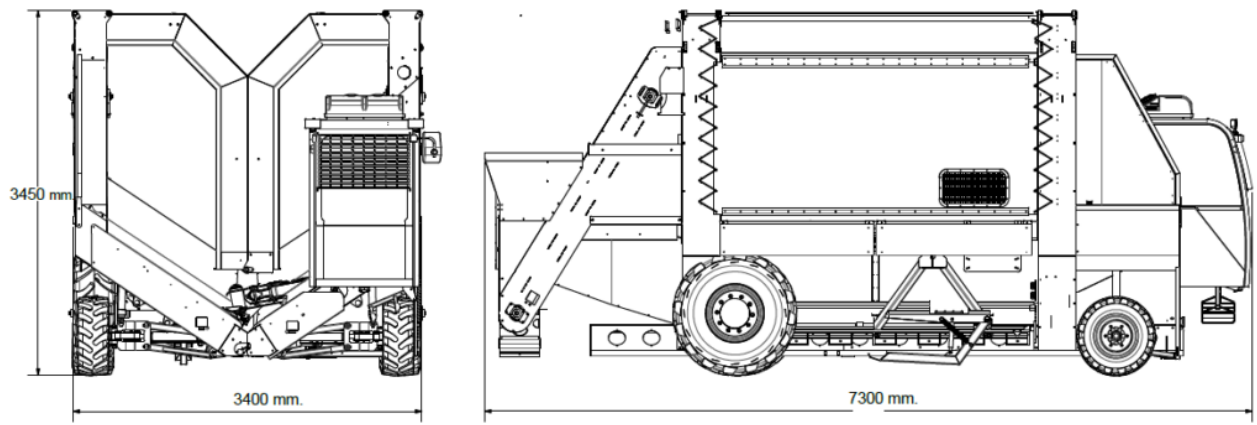


Figure 5: Specifications of the Tenia Pistachio Harvester (minus collection hoppers on each side)

For more information please ring Craig Feutrill on 0437 307 590