

Pistachio Information and Technology Groups.

MECHANICAL PRUNING DEMONSTRATION

Meeting Date and Venue

CMV Farms Robinvale: Tuesday 6th of July, 12 Noon sharp

Address: **CMV Farms, 3067 Murray Valley Hwy, Bannerton Vic 3549**

TOPICS:

- Mechanical skirting and tipping of mature pistachio trees
- Input from Phil Hewett from CMV Farms and Andrew Bowring, Kyalite Pistachios
- Pistachio Dieback – grower observations and input needed!

Due to the ongoing Covid-19 pandemic in Australia, we were very lucky to be able to hold the July 2021 PIT Group meeting during a brief open border period between South Australia and Victoria on the 6th of July at CMV Farms at Bannerton near Robinvale in Victoria.

33 pistachio growers and PGAI staff were able to cross the SA/Victoria border or from near border communities/areas in NSW with the requisite travel permits.

Covid-19 safety/recording and social-distancing procedures were followed during the course of the meeting. All SA/NSW growers were able to return home before the borders closed once again.

After a splendid barbeque lunch the welcome and introduction spoke about the beginning of the third PIT Group project with grower and Hort. Innovation funding, what we were going to see today and future PIT Group meetings. This included the need to research 'Pistachio Dieback' that had been seen in previous years.

"When trees begin to produce a harvestable crop in years six through eight and are full bearing, pruning helps maintain a canopy that intercepts maximum light and produces efficiently harvestable annual quality yields.

Beginning at years six through eight, a pistachio tree benefits from canopy management to capture light and facilitate photosynthesis, keeping the tree trunk accessible to harvest equipment without contacting the branches, controlling canopy height and volume, directing branch and shoot orientation, and producing new bearing surfaces, all with net profit in mind.

Mechanical pruning uses annual topping to control tree height in every other row, every other year hedging for light interception. If needed for light interception and air circulation, every-other-row middle cross hedging can also be done. Mechanical pruning should be followed by limited hand pruning, specifically steps two and three detailed in the hand pruning directions above; thinning cuts to remove low flat branches that do not shake well and interfere with the harvester and thinning cuts within the canopy center, the 'snakes' that block light.

Dr Louise Ferguson, UC Davis Department of Plant Sciences, cited retired UCCE Kings County Farm Advisor Bob Beede's mechanical pruning trial conducted from 2012 to 2017. The data reaffirmed an earlier trial's demonstration that mechanical pruning can mitigate alternate bearing in trees on an Atlantica rootstock by topping and hedging before the low crop year."

Phil Hewett from CMV Farms demonstrated the 4-bladed hedging machinery (static) used for skirting, tipping and topping of mature pistachio trees. The growers were shown topped orchards, cut at 55 degrees along the tops, and side trimmed to allow machinery access for harvest. The growers were shown various aged trees that had been mechanically topped/tipped and skirted and the benefits of undertaking these procedures.

The growers also were introduced to a large mulching machine that shredded quite large tree cuttings – mostly from the previously seen hedging machine.

Orchard sanitation – or lack of it - is a problem for propagating diseases from old rachis and kernels that remain on the tree or the orchard floor after harvest. This large mulcher turned trimmings into matchwood.

James Simpfendorfer filmed all proceedings from the day and they are available to growers who could not attend the PIT Group on the PGAI website under the PIT Group tab.



The 4 bladed hedging/tipping/topping/skirting machine.



Phil Hewett from CMV farms explaining the cuts conducted by the hedging machine and the benefits.



The bespoke mulching machine.



The mulched orchard floor.