

The Focus Grove Project

“Increase the average production from 5kgs/tree to 15kg/tree.

Meet the increasing demand for New Zealand Extra Virgin Olive Oil”

Olives
New Zealand

Presentation Overview

- History and concept
- Project Applications
- Approved Project Scope
- Focus Groves – initial assessment October 2016
- Focus Grove Visits – March 2017, October 2017, March 2018
- Fact Sheets Produced

History – issues with New Zealand production

- Issues

- Average annual production = <10kg per tree
- Biennial bearing
- Disease in trees
- Low production = high costs
- NZ market share for NZ EVOO = <10%
- International research not applicable to New Zealand

➤ New Zealand olive industry market share constrained because of low levels of productivity

Project Applications

- Sustainable Farming Fund applications for 2014 and 2015
 - Unsuccessful because scope was too broad and outcomes would be too difficult to measure
 - Financial contribution from industry < 50% total cash cost
- Sustainable Farming Fund application for 2016
 - Developed after discussion with SFF Advisor
 - Scope limited to Canopy Management and Disease Management
 - Total cash cost = \$71,320, half funded by Olives NZ members
 - SUCCESS!
- Three year project formally started July 2016

Funding

- Cash Funding

- Sustainable Farming Fund \$35,660
- Olives NZ members & groups \$35,660

- In Kind Contributions

- Four Focus Groves \$57,480
- Olive Culture & Harvesting \$6,500
- Olives New Zealand \$4,300 (but blown out!)

Approved Project Scope

- Establish four Focus Groves in different regions using Frantoio trial blocks
- Two Project Consultants – Plant & Food Research, Independent Orchard Specialist
- Visit the four Focus Groves twice annually to evaluate tree health, demonstrate pruning, and monitor effectiveness
- Project methodologies based on knowledge and success with stone fruit – canopy management and disease management
- Regional Field Days to demonstrate and share knowledge
- Status Reports, Fact Sheets, Project Team Meetings and Reporting via the Olives NZ website, newsletter, other publications
- AIM – to increase yields to 15kg per tree on an annual recurring basis

Focus Groves – initial assessment October 2016

Ngatarawa, Hawke's Bay

- Grove in good shape – early adopters of methodologies; More conservative pruning recommended
- Drought issues

Leafyridge, Wairarapa

- *Disease pressure apparent; Canopy management just commencing
- Wind and drought issues

Kakariki, Nelson

- Giant trees - major restructuring required; *Disease pressure apparent
- Frequent heavy rainfall

Terrace Edge, Canterbury

- *Disease pressure apparent; Small dense trees impervious to light and spray penetration
- Wind and drought issues

Olives on the Hill, Northland (added)

- Large unkempt trees – major restructuring required; *Disease pressure apparent
- Frequent heavy rainfall

** Disease pressure was always accompanied by significant foliage loss and poor leaf retention.*

Focus Grove Visits – March 2017

Ngatarawa, Hawke's Bay

- More aggressively pruned tress had larger fruit; Overall good fruit set,
- Impact of drought not so apparent (yet!)

Leafyridge, Wairarapa

- 2 year old leaves on new shoots: Healthy canopy with vigorous new growth around cuts; Drought reduced some trees' ability to fruit but fruit now set in in clusters

Kakariki, Nelson

- Pruned trees have responded well with new growth; good two year leaf evident
- Crop load estimated 30kg/tree; Height reduction still the priority whilst maintaining crops

Terrace Edge, Canterbury

- Pruning too conservative; Disease apparent, more frequent spraying required
- Scale and minimal Anthracnose observed

Olives on the Hill, Northland

- Pruned trees showing good regrowth with two year old growth
- Disease pressure reduced to much lower incidence

Focus Grove Visits – October 2017

Ngatarawa, Hawke's Bay

- Low evidence of disease, excellent new growth
- Recommended pruning strategy resulted in 50% more fruit than severely pruned trees, however harvest down (wet winter)
- Thinning (January prune) recommended as crop looked like exceeding 30kg per tree

Leafyridge, Wairarapa

- Pruning to open up canopy looks effective; Low evidence of disease
- Drought resulted in poor extension growth
- Lack of sunshine from Feb. constrained crop maturing and harvestability

Kakariki, Nelson

- Pruning strategy to reduce height resulting in rejuvenation lower down
- Most intensive spray program required but reflected in good reduction in disease
- Clear improvement in leaf retention and health

Focus Grove Visits – October 2017 cont.

Terrace Edge, Canterbury

- Pruning has been effective in opening up canopy for sunlight penetration
- Only secondary pruning recommended

Olives on the Hill, Northland

- Pruning and spraying strategies resulted in healthier trees and heavy flowering

Notes:

The autumn and winter of 2017 was exceptionally wet and dull across NZ.

This delayed fruit maturation and overall significantly reduced harvested yields (trees difficult to shake, some disease pressure causing fruit losses)

Focus Grove Visits – March 2018

Ngatarawa, Hawke's Bay

- Secondary pruning carried out to avoid over cropping
- Trees very healthy and well balanced with good crop load top to bottom
- An exemplary grove

Leafyridge, Wairarapa

- Healthy two year old leaf through canopy, excellent new growth extension
- Virtually no sign of disease
- Excellent bunches of fruit
- Maintenance only pruning now required

Kakariki, Nelson

- Pilot trees now smaller in height than control trees but at least same crop
- Little evidence of disease
- Good crop load

Focus Grove Visits – March 2018

Terrace Edge, Canterbury

- Crop load patchy, medium crop
- Canopy improved although still lean

Olives on the Hill, Northland

- Good regrowth on lower regions of trees with good leaf health
- Good crop load
- Renovation pruning to continue for another year or two

Fact Sheets Produced

- March 2017 Disease Management
- October 2017 Canopy Management 1
- November 2017 Disease Management (updated)
- March 2018 Canopy Management 2

Conclusions

- All of the original Focus Groves that have been following the recommended programme for proactive disease management, canopy management and nutritional advice have reached an exemplary stage and are exemplars for the wider olive growing industry in New Zealand.
- Other groves following these recommendations have similar results in their harvest tonnage as well as their observations on overall grove health.

Other Metrics and Comments

- Reduction in Cercospora and Peacock Spot with spray programme
- More than 120 people attended every round of the Focus Grove Field Days
- Sponsors also attended – Lakewood Products, Yamaha NZ, The Grove Supply Co.
- The processors have noted a marked improvement in fruit from groves following the project protocols. Less leaf and twigs and higher yields.
- Contract harvesters and most processors have a stated preference to work with groves that follow the Focus Grove practices.