



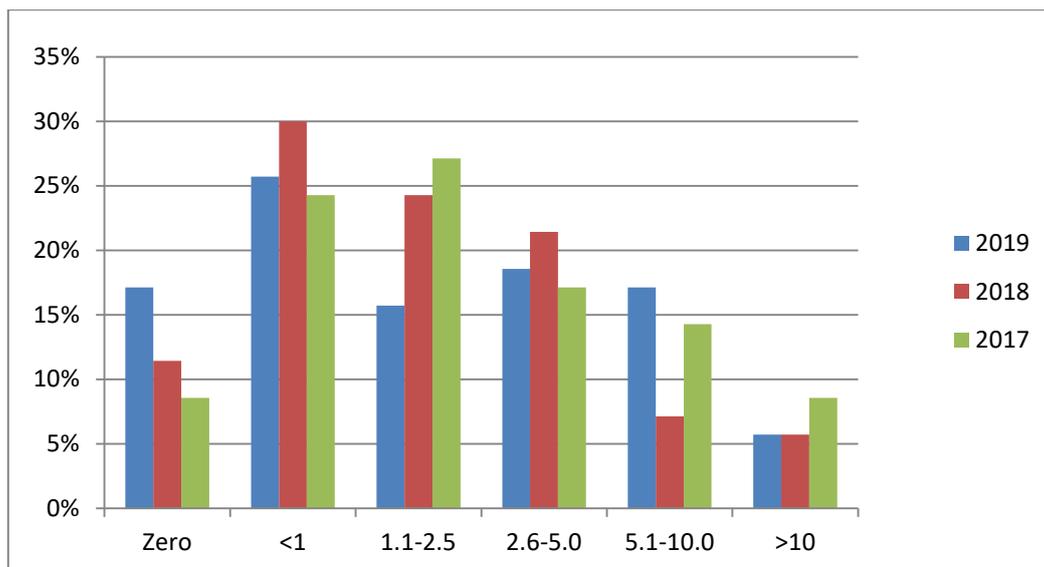
Healthy Soils – Healthy and Productive Groves Regional Olive Grove Days

Increasing grove productivity:

Peter McFarlane, AOA OliveCare® Code of Best Practice Administrator

The Australian Olive Association (AOA) field day series emphasises the important role of healthy soils in producing healthy trees and lifting grove productivity.

Noting a 2019 AOA grower survey that revealed that Australian grove productivity ranges from zero to 15 tonne / ha, with median production <1.0 tonne / ha, and average production of 3.3 tonne / ha, clearly demonstrating the low productivity of many groves in Australia, reflecting the need to address critical grove management issues.



AOA is also emphasising the value of benchmarking grove performance - setting Key Performance Indicators (KPIs) for improved grove productivity and profitability, including:

- Grove productivity KPIs: kg / tree, tonnes / ha ;
- Cost of production - cost \$/tonne;
- Gross margin - \$/ha

Why join *OliveCare*®?

- ❖ *OliveCare*® Best Practice Program provides a systems approach to managing risk to underpin product quality
 - In a high cost producer country such as Australia it is essential that olive producers are able to compete on product quality rather than on price;

- *OliveCare*® covers the entire olive supply chain from growers to the market place, including consideration of grove management, olive processing, product storage, retail and export supply chains.
 - *OliveCare*® incorporates provisions of the *Australian Standard for Olive Oils and Olive Pomace Oils (AS5264-2011*®), introduced in July 2011; and the *Voluntary Industry Standard for Table Olives in Australia (RIRDC 12-111)*, introduced in 2012;
 - *OliveCare*® establishes a framework that encompasses good business practice, GAP & GMP with Hazard Analysis Critical Control Point (HACCP) style production controls;
 - *OliveCare*® establishes a compliance culture within the industry in relation to industry voluntary standards, Australian Consumer Law (ACL), and the FSANZ Food Standards Code.
- ❖ *OliveCare*® Certification encompasses olive oil / flavoured olive oils / table olives / other
- More than 140 *OliveCare*® certified EVOO and 20 flavoured olive oil brands are listed by state of origin on the 'Everyday Australian Extra Virgin' website: australianextravirgin.com.au/brands/.
 - Gooramadda Olives of Rutherglen Victoria are passionate about promoting the value of *OliveCare*® Certification, as Rob Whyte explains:
"AOA Certification is a great conversation starter with your customers. Explain what it means to be Extra Virgin and even discuss what is involved in being certified. This alone will distinguish your oil from the bulk of supermarket suppliers plus convey to your customer you have a good appreciation of your product."
 - AOA members who are *OliveCare*® Signatories are authorised to apply the following AOA Trade Marks to certified olive products, point of sale materials and websites, in accordance with the rules of use of these logos:



- ❖ *OliveCare*® News is a monthly bulletin with the latest on grove, processing best practice, regulatory compliance and markets.
- Back Issues of *OliveCare*® News, workshop presentation, logos, templates, fact sheets and lots more is available to signatories on the AOA website at: <https://australianolives.com.au/olivecare-members-area/>

- ❖ *OliveCare*[®] addresses the major risks to olive product quality:
 - **Fruit damage in the grove** – poor quality olives – diseased, damaged by insect pests, drought or frost (fusty, rancid, dried & frosted defects).
 - **Failure to synchronise harvest and processing** – fruit held too long and too hot between harvesting and processing starts to ferment – the shorter and cooler this period the better. (musty & vinegary defects)
 - **Poor processing technique** – incorrect malaxing time and temperature, failure to clean machinery between batches (burned & metallic defects).
 - **Poor oil storage** – failure to filter or purge and rack off sediments (muddy sediment defect), exposure to oxygen by not completely filling tanks or using other air exclusion methods (rancid defect) – more on this in the *OliveCare*[®] News.
 - **Poor supply chain handling** – including displaying product near heat and light sources, and failure to efficiently manage stock rotation.

- ❖ *OliveCare*[®] has developed 165 Best Practice ‘Conversations’ – members are encouraged to prioritise and implement best practice items most relevant to their enterprise.
 - **Grove Establishment Best Practice Checklist**, 8 items including nursery plant health status; olive cultivar selection and grove design.
 - **Biosecurity Best Practice Checklist**, 19 items including nursery plant health status; managing biosecurity risk on-farm, good grove hygiene and monitoring.
 - **Enterprise Sustainability Best Practice Checklist**, 11 items, including managing enterprise risk and benchmarking grove productivity.
 - **Regulatory Compliance Best Practice Checklist**, 19 items including being a good employer, COVID-19 compliance, responsible chemical use, food safety and food quality, and Australian consumer law.
 - **Environmental & Community Responsibility Best Practice Checklist**, 13 items including minimising farm waste, maintaining biodiversity, and contributing to regional communities.
 - **Grove Care Best Practice Checklist**, 25 items including soil health and tree nutrition, soil moisture, managing soil salinity, chemical use strategies, canopy management, and harvest management.
 - **Integrated Pest and Disease Management (IPDM) Best Practice Checklist**, 21 items including IPDM, cultural management, biological control, physical and mechanical control, use of selective pesticides, and stages of IPDM.
 - **Processing Best Practice Checklist**, 23 items including EVOO and table olive production.
 - **Product Quality, Storage & Blending Best Practice Checklist**, 12 items including EVOO and table olives.
 - **Product Packaging, Labelling & Distribution Best Practice Checklist**, 14 items including labelling requirements, transportation, product specifications, retailing and product recall.

- **The importance of on-farm biosecurity:**

Managing biosecurity risks to safeguard Australia's horticultural production from pest and disease incursions, and associated eradication / management costs:

Ref: *Farm Biosecurity Action Planner for Olive Growers*:

<https://australianolives.com.au/wp-content/uploads/2018/12/Farm-Biosecurity-Action-Plan-for-Olive-Growers-Version-2.0-December-2019.pdf>

- Prepare an on-farm biosecurity plan to identify and manage risks
- Plant / replant disease resistant olive cultivars and avoid planting in infected soils.
- Know your high priority biosecurity pests – induct your employees
- Monitor your grove regularly – report anything unusual to the exotic pest hotline (application of remote sensing)
- Implement good grove hygiene – keep it clean, removal or composting of pruning wood, disinfection of pruning tools
- Enforce visitor movement requirements – people and vehicles
- Use grove biosecurity signage
- Provide access to vehicle and fruit bin wash down facilities – arrive clean / leave clean

Other field day presenters will also cover:

- **Water use:**

Be a responsible and efficient user of water:

- Understand olive tree water requirements (understand tree physiology)
- Undertake continuous monitoring of soil moisture and evaporation (application of remote sensing)
- Improve soil moisture infiltration, holding capacity and drainage properties
- Maintain soil cover (plants / mulch) to manage soil temperature, conserve soil moisture and minimise water stress on the olive tree
- Understand irrigation systems and design (micro-irrigation, sprinklers, furrow)
- Understand and measure water use efficiency (Lit water / kg product)

- **Soil health and tree nutrition:**

Maintain the productive capacity of the soil without detriment to the environment

- Manage application of fertilisers to optimise plant uptake and minimise losses to run-off, leaching or gas emissions
- Undertake regular soil testing and leaf analysis
- Understand fertiliser application methods – foliar, fertigation, broadcasting
- Improve soil biology / build soil carbon
- Build soil nitrogen - nitrogen fixation
- Use soil amendments (gypsum, sulphur and lime) to correct sodic (alkali) and acidic soils

- **Canopy management:**

- **Maintain a productive tree canopy:**

- Undertake pruning to obtain optimal canopy surface to volume ratio, in accordance with your method of harvest
 - Undertake maintenance pruning to manage biennial bearing and achieve optimal light penetration and air flow (which also assists with effective spray coverage)
 - Undertake renovation pruning on older trees to lower tree height, reduce wood and generate new fruiting wood
 - Monitor grove temperatures and implement frost mitigation strategies

- **Harvest:**

- **Manage harvest to optimise fruit quality and grove productivity:**

- Consider stage of fruit ripeness, oil content, desired taste profile and ease of processing
 - Mark with tape any trees not to be harvested
 - Take care when using fruit abscission agents – always read the label
 - Use harvest methods that minimise damage to fruit and trees
 - Manage ‘field heat’ - take care with storage of olive fruit in bins from harvest to milling (consider bin materials, bin storage, fruit depth, ventilation and shading)
 - Keep olives clean – avoid contamination of olives with soil, bird droppings, hydraulic oil etc
 - Coordinate harvest to minimise the time olives sit around waiting to be processed.

- ❖ *OliveCare*® Best Practice Declarations form part of *OliveCare*® member compliance requirements:

- Declaration of on-farm biosecurity preparedness: <https://australianolives.com.au/wp-content/uploads/2020/01/Signatory-declaration-of-onfarm-biosecurity-preparedness.pdf>
 - Declaration of agri-chemical use: <https://australianolives.com.au/wp-content/uploads/2019/08/OliveCare-Chemical-Use-Declaration.pdf>
 - Declaration of food quality & food safety systems: <https://australianolives.com.au/wp-content/uploads/2020/02/Signatory-declaration-of-food-safety-systems-and-risk-management.pdf>
 - Declaration of EVOO storage conditions: <https://australianolives.com.au/wp-content/uploads/2019/08/OliveCare-Oil-Storage-Declaration.pdf>
 - Declaration of table olive storage conditions: <https://australianolives.com.au/wp-content/uploads/2019/11/OliveCare-Table-Olive-Storage-Declaration.pdf>
 - Declaration of product labelling: <https://australianolives.com.au/wp-content/uploads/2020/08/Signatory-declaration-of-product-labelling.pdf>