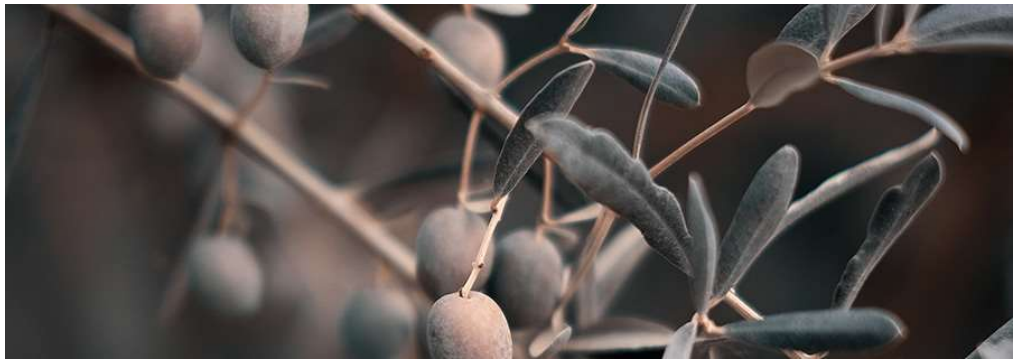
2018-19 INTEGRATED PEST AND DISEASE MANAGEMENT

FIELD DAY SERIES



U of A Roseworthy Campus| 24 November 2018

WESTERN SYDNEY UNIVERSITY

AUSTRALIAN OLIVE ASSOCIATION LTD

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ROSEWORTHY FIELD DAY PROGRAM

08:30 ***Registration – Council Room, Roseworthy College Hall.***

08:35 ***Welcome, Housekeeping, and Overview of Field Day Program***
Greg Seymour, CEO, AOA, Field Day Convenor; Michael Johnston President, OSA; Michael Thomsett, Director AOA

08:45 ***Risk Management and Biosecurity***
Peter McFarlane, OliveCare® Administrator, and AOA Biosecurity Representative;
Fostering Industry Biosecurity Threat Awareness and Preparedness;
Maintaining Producer Access to Registered Pesticides and 'Minor Use Permits' for use in Olive Groves.

09:05 ***Grove Management Checklist – Healthy Trees to Support an IPDM Program,***
Michael Thomsett, Horticultural Consultant and AOA President

Irrigation; Nutrition & Soil Health; Pruning/ Tree Management.

10:00 ***Q & A Session and Morning Tea***

10:30 ***IPDM Session 1***
Dr Robert-Spooner-Hart – Principles and Practices of IPDM

11:10 Q & A Session

11:15 ***IPDM Session 2***
Dr Robert Spooner-Hart and Dr Len Tesoriero
Biology and life cycles of key pests and diseases
Factors influencing pest and disease spread and incidence in groves
Strategies for conventional and organic management
Advantages and disadvantages of management strategies
Importance of timing, application and targeting of interventions.
Monitoring for pests, diseases and beneficial species

13:00 ***LUNCH***

13:45 ***The National Olive Variety Assessment (Nova) Project***
Dr Sue Sweeney

ROSEWORTHY FIELD DAY PROGRAM

14.15 ***Drive to NOVA Grove***

14:30 ***IPDM and NOVA Grove Walk***
Dr Robert-Spooner-Hart, Dr Len Tesoriero, Dr Sue Sweeney

- Introduction to Grove
- Grove walk and discussion
- Insect identification
- Disease identification
- Grove management and drone exhibition
- Pruning

16:45 Review of Field Visit; Q & A Session
Dr Robert Spooner-Hart and Dr Len Tesoriero

- Feedback will be provided in a group Q&A session without identifying the senders of the images.

Questions will also be taken without notice on any aspect of pest and disease management from participants during this session.

- Questions/ comments about any of the topics covered during the day

17:15 Evaluation and Concluding Remarks, Greg Seymour and Michael Johnston

17:30pm ***Post Field Day Networking BBQ***
Field day participants who registered for the post field session networking ($35) are invited to join the field day speakers at an informal get-together over a meal and a few refreshments at Leitchs Roseworthy Hotel, 3 Main N Rd, Roseworthy after the field day concludes. This function will provide an opportunity for participants to get one-on-one with the experts to discuss issues of relevance to their own groves and businesses.

8:00pm Field Day Close

Session1: Risk Management, Biosecurity, Continuous Improvement and Technical Support

With Peter McFarlane, OliveCare® Administrator, AOA Biosecurity Representative and AOA Agri-chemical Permits Co-ordinator; &

- Risk Management: Industry Risk and Crisis Management Plan;
- Biosecurity Risk Management: Fostering industry biosecurity threat awareness and preparedness;
- Food Safety & Product Quality Risk Management: *OliveCare®* Code of Best Practice;
- Regulatory Risk Management: Maintaining producer access to APVMA registered agri-chemicals, and 'Minor Use Permits' for use in olive groves.

Biosecurity Risk Management

Peter McFarlane, AOA Biosecurity Representative

On-farm biosecurity best practices play a pivotal role in maintaining Australia's reputation of producing high quality products.

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Key Biosecurity Risks

An industry observation is that the top 3 biosecurity / plant health threats to Australian horticulture are:

- Movement of machinery and workers on and off groves eg Olive Lace Bug – if we can't get this right with known pests and risks what hope do we have if Xylella enters Australia?
- Propagation and distribution of nursery stock without adopting adequate plant health protocols (especially for fungal and bacterial diseases) - this includes other host species that may be sourced by your neighbours.
- Illegal importation of plant material to gain an economic advantage – shameful behaviour!

A timely biosecurity reminder about movement of nursery trees and other plant propagation material:

Western Australia's Department of Primary Industries (DPIRD) has confirmed the detection of citrus canker on two properties in Kununurra and Wyndham, **linking it to plants moved from a retail nursery in the Northern Territory**.

Note to olive growers: Do you always source certified disease free olive trees?

On-farm Biosecurity Awareness & Preparedness

Six easy ways to protect your property:

Don't put your livelihood at risk by neglecting orchard biosecurity.

1. Be aware of biosecurity threats

Make sure you and your orchard workers are familiar with the most important exotic olive pest threats. Conduct a biosecurity induction session to explain required hygiene practices for people, equipment and vehicles in your orchard.

2. Use pest-free propagation material

Ensure all propagation material is from trusted sources and orchard inputs are fully tested, pest-free and preferably certified. Keep good records of your orchard inputs.

3. Keep it clean

Practicing good sanitation and hygiene will help prevent the entry and movement of pests onto your property. Workers, visitors, vehicles and equipment can spread pests, so make sure they are clean before entering and leaving your property. Have a designated visitor's area and provide vehicle and personnel wash-down facilities.

On-farm Biosecurity Awareness & Preparedness

Six easy ways to protect your property (continued):

4. Check your orchard

Monitor your trees frequently. Knowing the usual appearance of your orchard and trees will help you recognise new or unusual events and pests. Keep written and photographic records of all unusual observations. Constant vigilance is vital for early detection of any exotic plant pest threat.

5. Abide by the law

Respect and be aware of laws and regulations established to protect the olive industry, Australian agriculture, and your region.

6. Report anything unusual

If you suspect a new pest – report it immediately to the Exotic Plant Pest Hotline: **1800 084 881**

Don't put your livelihood at risk by neglecting orchard biosecurity.

Enforce Visitor Requirements

The following are suggested general requirements for managing visitors on farm to limit the biosecurity risk that they pose.

- Place a sign at all property entry points requesting all visitors to report to the office before progressing into other areas of the site.

Enforce Visitor Requirements

- Details of each visitor **must** be recorded in the 'Visitor Record'.
- Designated staff, visitor parking and delivery / pick-up points **must** be separated from production area(s).
- Visitors entering the production area such as customers, contractors, crop consultants or sales representatives **must** be free of contaminants that could carry plant pests such as soil and vegetative material, where appropriate provide foot-baths, boot covers or request clean boots, etc.
- Restrict unnecessary movement of visiting machinery, vehicles, equipment and people into the production area.
- Any vehicles or equipment going into the production area **must** be checked (in a low risk area) for organic matter including soil, crop residue, weed seeds, live pests and possible diseased host material.
- Provide access to vehicle wash-down facilities will be available for high risk machinery including mechanical pruners and harvesters.

The Biosecurity Back Office

The Australian Olive Association Ltd (AOA) is working closely with **Plant Health Australia (PHA)** on industry biosecurity planning processes, fostering olive industry biosecurity threat awareness and preparedness, and industry response to incursions of exotic pests and diseases.

AOA is a signatory to the **Emergency Plant Pest Response Deed (EPPRD),** a government / industry cost sharing agreement that lies at the heart of the industry-government partnership arrangement for plant biosecurity and incursion management. The AOA Board has received training on its responsibilities under the EPPRD.

The **National Management Group (NMG**) is responsible for making key decisions on national biosecurity policy and resourcing in a response to an Incident under the EPPRD. The NMG comprises representatives from all Affected Parties for a particular Biosecurity Incident, who are authorised to bind that Party under the EPPRD, and PHA. The Olive Industry representative on the NMG is AOA CEO Greg Seymour.

The **Consultative Committee on Emergency Plant Pests (CCEPP)** is Australia's key technical body for coordinating national responses to **emergency plant pest (EPP)** incursions (around 5 per month), and assessing the technical feasibility for their eradication. AOA's representative on the CCEPP is Peter McFarlane.

The Biosecurity Plan for the Olive Industry

The Biosecurity Plan for the Olive Industry (OBP) Version 2.0 October 2016, provides a framework for the olive industry, government and other relevant stakeholders to determine pests of highest priority, analyse the risks they pose, and put in place procedures to reduce the chance of pests becoming established, and minimise the impact if a pest incursion occurs.

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High Priority Olive Pests and Diseases

The Biosecurity Plan for the Olive Industry identifies the following 5 high priority exotic pests and diseases of olives:

- Olive fly (*Bactrocera oleae*)
- Olive moth (*Prays oleae*)
- Leaf scorch (*Xylella fastidiosa subsp. multiplex* with vectors)
- Olive quick decline (*Xylella fastidiosa subsp. pauca* with vectors)
- Verticillium wilt (*Verticillium dahliae* - exotic defoliating strains) – already in Australia present on cotton!

Would you be able to recognise these if they appeared in your grove?

The Exotic Plant Pest Hotline

Calls to the Exotic Plant Pest Hotline will connect to an automated system that allows the caller to choose the state or territory that the call relates to. The caller will then be connected to the relevant authority for that jurisdiction where calls will be answered by an experienced person, who will ask some questions to help understand the situation, such as:

- what was seen (describe the pest or send a photo) and when was it first noticed
- where it was found and what it was on
- how many pests are present/how infected is the crop
- how widely distributed it is.

Every report will be taken seriously, checked out and treated confidentially.

If you suspect a new pest, call the <u>Exotic Plant Pest Hotline</u>

EXOTIC PLANT PEST HOTLINE
1800 084 881

Food Safety & Product Quality Risk Management

Peter McFarlane, OliveCare® Administrator

The Australian Olive Industry's Code of Best Practice was launched in 2008, expanded, re-branded and re-launched in 2017 as *OliveCare®*.

What is OliveCare®?

In a high cost producer country such as Australia it is essential that producers are able to compete on product quality rather than on price.

The *OliveCare®* program coverage is now extended from EVOO to include certification of table olives, flavoured olive oils, and other olive products.

OliveCare® also encompasses the entire olive supply chain from growers to the market place, including: grove management, olive processing, product storage, retail, food service and export marketing.

OliveCare® incorporates the 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.

What is *OliveCare®*?

The *OliveCare®* Code of Best Practice program provides a quality systems approach to manage risk and underpin product quality, that provides tools to:

- Establish authenticity and quality of Australian olive products;
- Provide surety and build confidence of consumers in Australian olive products;
- Establish a framework that encompasses good business practice with HAACP-style production controls;
- Build olive industry skills and capacity;
- Deal effectively with complaints; and
- Establish a compliance culture within the industry in relation to industry voluntary standards, Australian Consumer Law (ACL), and the ANZFA Food Standards Code.

OliveCare® Training Program

In addition to offering workshops and seminars, AOA working with River Murray Training (RMT) have developed 'e-learning' modules (comprising a total of 10 on line interactive presentations) with the aim of building industry skills and facilitate implementation of the *OliveCare®* Code of Best Practice.

Modules include Food Safety & Quality, Export Readiness and Sensory Training.

These 6 e-learning modules are linked to Units of Competency from the National Training Framework (NTF), and can lead to a recognised VET qualification or Statements of Attainment eg from the *Certificate III in Food Processing,* or *Certificate IV in Production Horticulture*.

To access the *OliveCare®* e-learning modules, participants need to firstly register with Gillian Ireland at River Murray Training gillian.ireland@r-m-t.com.au or admin@r-m-t.com.au

For sustainability of the on-line training program a nominal enrolment fee of $68 will be charged for participants accessing modules.

Participants will be issued with a username and password to log onto website that hosts the AOA on-line training program: http://www.r-m-t-online.com

OliveCare® Compliance

All Code Signatories are required to provide annually to the *OliveCare®* Administrator evidence of:

- Having a **Product Risk Assurance** or HACCP style food safety / food quality plan - either 'in-house' or as part of a proprietary third party certification arrangement, (template provided), this should include:
  - Use of a **Corrective Action Request** (CAR) procedure to deal with quality complaints, negative feedback, audit failures, on-farm inefficiencies, accidents or lapses in processes, procedures or performance (*template provided*);
  - Using a documented **product trace back system** including unique batch codes, supply chain records and a product recall system in place (*template provided*);
- Using product **Best Before Dates** supported by technical evidence (oxidative stability), and not exceeding 2 years;
- Compliance with Australia New Zealand Food Authority (ANZFA) Food Standards Code, Schedule 20 – **Maximum residue limits**, including keeping spray diary records, and observing Good Agricultural Practice (GMP);

OliveCare® Compliance

- Undertaking **annual product testing** (at NSW DPI or Modern Olives), meeting AS5264-2011 requirements for classification for each product certified as required under the *OliveCare®* Code of Best Practice, including:
  - **Minimum Oil Chemistry**: Free Fatty Acids (FFA), Peroxide Value (PV), Ultra-Violet Absorption (UV) - (ΔK, K232 &K270). These parameters may be tested using NIR for Australian oils where the laboratory has achieved robust calibration;
  - **Highly recommended**: Oil Freshness Testing: Pyropheophytin A (PPP's), 1,2 Diacylglycerols (DAG's), tests which enable an objective calculation of BBD; plus
  - **Sensory assessment** undertaken by NSW DPI or Modern Olives (or through participation in a recognised olive competition);
- Providing a **declaration of EVOO storage conditions,** including control of Heat, Light and Oxygen;
- Having **product labels compliant** with AS5264-2011, Australian Consumer Law (ACL) and *OliveCare®* (*providing copies of all product labels to be certified);*
- All Signatories are encouraged to implement an **on-farm biosecurity plan** using the Farm Biosecurity Action Planner: http://www.farmbiosecurity.com.au/planner/

OliveCare® Certification

AOA members who are *OliveCare®* Signatories are authorised to apply the following AOA trade marks to their certified products, POS materials and websites in accordance to the rules of use of these logos:

Further information on *OliveCare®* and EVOO is available on the AOA website at: https://australianolives.com.au

OliveCare® Certification

OliveCare® certified brands are listed by state of origin on the 'Everyday Australian Extra Virgin' website: australianextravirgin.com.au/brands/.

OliveCare® Signatories: 147 (33%) of an estimated 450 commercial Australian olive producers.

Certified Australian EVOO brands: 144

Certified Imported EVOO brands: 2

Certified Australian Flavoured Olive Oil brands: 21

Certified Australian Table Olive brands: 19

Certified Australian Skin Care Product brands (Pending)

Our aim is to increase producer and supply participation in *OliveCare®* from 150 to 240 over the next 3 years, including recruiting more retailers, food service and exporters.

Product Quality & Reputational Risk Management

The major risks to olive oil quality to be managed are:

Fruit damage in the grove – poor quality olives – diseased, damaged by insect pests or frost.

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.

Poor processing technique – incorrect malaxing time and temperature, failure to clean machinery between batches.

Poor oil storage – failure to rack off sediments, exposure to oxygen by not filling tanks or using other air exclusion methods – more on this in the August OliveCare® News.

Failure to determine an objective BBD.

Unscrupulous traders – in short crop years buying and selling of lesser quality olive oil to fill orders – always independently test bulk oil quality.

Poor supply chain handling – including displaying product near heat and light sources, and failure to efficiently manage stock rotation.

Factors That Accelerate the Breakdown of EVOO

Factors that accelerate the breakdown of EVOO are well established:

- **Exposure to air (oxidation)** – using permeable plastic bulk storage containers, or partially filled storage containers, without using a floating lid or inert gas blanket.
- **Heat** – using uninsulated tanks and storage sheds.
- **Light** – using transparent containers – don't use 1000 Lit IBC's to store olive oil.
- **Contact with sediments and water (hydrolysis)** – need to rack-off tanks regularly during settling.
- **Delayed processing of harvested fruit** – fermentation will occur over time (best if fruit harvested at night and processed within 4-12 hours).
- **Processing damaged (high FFA) fruit** (diseased, mummified, split, over-ripe, frosted) will result in defective oils.
- **Variety and style** – oxidative stability - mild (low polyphenol), low oleic acid olive oils are less stable, even under ideal storage conditions may not last a year!
- **Olio Nuovo (new oil) style** is freshly pressed olive oil with incomplete settling; the higher moisture content of these oils causes hydrolysis and a typical shelf life of only 3 to 6 months.
- **Time** – waiting for a better price? Unlike wine EVOO doesn't get better with age – best to move it as quickly as possible.

Olive Oil Defects

The big 5:

- **Fusty:** A flavour defect attributable to poor storage conditions of the olives, usually promoting the bacterial growth of the Clostridium and Pseudomonas genera.
- **Musty - humid:** A flavour defect occurring when low temperatures and high humidity promote mould growth, mainly of the Aspergillus and Penicilium genera.
- **Winey - vinegary:** A flavour defect caused by storage condition of the olives that causes aerobic fermentation by the growth of yeasts that produce ethanol, acetic acid, and ethyl acetate.
- **Muddy sediment:** A flavour defect caused by storage in contact with oil sediment for long periods of time.
- **Rancid:** A flavour defect caused by the oxidation of the oil and subsequent formation of aldehydes during the production process giving the oil an oxidized flavour and odour.

Other common defects:

- **Frosted (wet wood):** Characteristic flavour of oils extracted from olives which have been injured by frost while on the tree.
- **Heated (Burnt):** Characteristic flavour of oils caused by excessive and/or prolonged heating during processing, particularly when the paste is mixed under unsuitable thermal conditions.
- **Metalic:** Characteristic of oil which has been in prolonged contact with (new) metallic surfaces during crushing, mixing, pressing or storage.

Fresh and Well Processed Olive Oils

Research evidence suggests:

- Fresh and well processed oils have FFA's of ≤0.4 (Australian Standard ≤0.8)
- Fresh and well processed oils have PV's of ≤12 (Australian Standard ≤20)
- It is expected that fresh and well processed oils should show K232 values under 2.00 and K270 values under 0.18 (Australian Standard K232 values ≤ 2.50 and K270 values ≤ 0.22)
- Fresh good quality oils will have around 90% of 1,2 DAGs and will decrease 20 - 25 % per year, under proper storage conditions. (Australian Standard ≥35)
- Fresh good quality oils will have < 1 % of PPPs and will increase 6 – 8 % per year, under proper storage conditions. (Australian Standard ≤17)
- EVOO quality oils must have <u>no</u> defects and must exhibit the fruity attribute.

OliveCare® declaration of EVOO storage conditions

Taking into account current concerns regarding olive oil storage conditions:

Before issuing EVOO Compliance Certificates based on current season oil laboratory test reports, Signatories are required to complete the following declaration covering each EVOO product to be certified:

For storage of bulk olive oil:

Do you store your oil in stainless steel tanks? (YES / NO) – If not what storage vessels do you use? – Provide details

Do you use an inert gas blanket or a floating lid? (YES / NO) – If not how do you control exposure to air? – Provide details

Do you store your oil <18 degrees C ? (YES / NO) – What is the storage temperature range for your EVOO – Provide details

Does your EVOO contain >70% Oleic Acid? (YES / NO) - Have you tested the fatty acid profile (FAP) of your EVOO products? (YES / NO), list varieties grown:

Do you 'rack-off' sediments and water when settling your new season olive oil? (YES / NO) – What is your 'rack-off' schedule? – Provide details

For storage of pre-packaged olive oil:

Warehouse storage conditions - do you store your oil <18 degrees C ? (YES / NO) – What is the storage temperature range for your EVOO – Provide details

What steps do you take to manage product exposure to heat during road / air/ sea freight? Eg do you use temperature controlled transport, thermal blanket protection and temperature logging?

Olive oil sourced from:

Certified Product Labels:

Signatory Name: **Date:**

Please complete and return to the OliveCare® Administrator at:
peter@mc.com.au

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OliveCare® Why Certified 'Freshness Tested'

Ten *OliveCare®* Signatories are now AEV® Certified Freshness Tested with potential Best Before Dates objectively established between 18 and 30 months from 'freshness testing' (providing the product continues to be kept under recommended storage conditions).

OliveCare® Certification of EVOO

AUSTRALIAN EXTRA VIRGIN® Certified

FRESHNESS TESTED™

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Australian Extra Virgin Olive Oil Everyday

This certificate confirms that:

Saluté Oliva Pty Ltd

Is a signatory to the Australian Olive Association's Code of Best Practice (*OliveCare®*).
The Extra Virgin Olive Oil that accompanies this certificate, identified as:

"Saluté Oliva EVOO Harvest 2018"

This olive oil meets the specifications of Australian Extra Virgin Olive Oil under the Australian Standard (AS5264-2011®) and *OliveCare®*.

Certificate issued by:

Australian Olive Association Ltd (AOA).
A.B.N. 57 072 977 489
PO Box 6661
Baulkham Hills, NSW 2153

AOA Office:
Phone: 0478 606 145
E: secretariat@australianolives.com.au
Code Administrator:
Phone: 0418 839 836
E: peter@au-thentic.net

Certificate No.	**1039**
Expires:	**30 November 2020**
COP ID #:	**148**
Harvest Year:	**2018**
AOA Membership #:	**A2758**
Laboratory Test Results:	**AU 18/0669/1**

Signed:

CHIEF EXECUTIVE OFFICER

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OliveCare® Certification of EVOO

FRESHNESS TESTING:

Shelf-life is the length of time, under normal storage conditions, within which no off-flavours or defects are developed and quality parameters such as peroxide value and specific absorbance are retained within accepted limits of the relevant standards.

Potential BBD is best determined from the lowest value derived from the following 3 estimations: Rancimat® (Induction time), PPP and DAG testing:

- Hours of induction time (IND) at 110ºC x 1 = expected shelf life (in months)
- (17.0% - PPPs) / 0.6% = expected shelf life (in months)
- (DAGs – 35.0%) / *FFA factor = expected shelf life (in months)

*FFA factor = 1.7% (if FFA < 0.4%); 2.1% (if 0.4% < FFA < 0.6%); or 2.5% (if FFA > 0.6%)

Note 1: A new cheaper NIR 'freshness testing' method is in development.

Note 2: Under the Australian Standard, the stated BBD may not exceed 2 years.

OliveCare® Certification of EVOO

FRESHNESS TESTING:

Example: Oil "A" was analysed prior to being bottled and showed the following analytical results:

IND (@ 110ºC):	21 hours
PPPs:	5.1%
DAGs:	63.0%
FFA:	0.24%

Applying the above formula we would have the following analysis:

IND:	(21 x 1) = 21;	predicted 21 months
PPPs:	(17.0%-5.1%)/0.6% = 19.8;	predicted 20 months
DAGs:	(63.0%-35.0%)/1.7% = 16.4;	predicted 16 months.

The DAGs prediction is the lowest figure, therefore this oil should have an expected shelf life of **16 months** from the date of testing (providing the oil is stored under optimal conditions).

Australian Market Survey Results

Cumulative results of over 5 years of Australian 'off the shelf' market survey testing, undertaken from July 2012 to July 2017, reveal a disappointingly high product failure rate:

- 26 (22%) of the 129 OliveCare® certified brand samples tested failed to meet the requirements for EVOO classification under AS5264-2011.
- 42 (41%) of the 102 Australian non- certified brand samples tested failed to meet the requirements for EVOO classification under AS5264-2011.
- 135 (89%) of the 151 Imported brand samples tested failed to meet the requirements for EVOO classification under AS5264-2011.

Australian Market Survey Results

Failed Parameters:

Sensory Defects (all standards): A total of 139 (36%) of the 382 products (42 (22%) Australian and 97 (51%) imported) exhibited negative sensory attributes (defects).

Chemical Analysis (all standards): A total of 56 (15%) of products (29 (15%) Australian and 27 (14%) imported) failed one or more of the chemical test parameters.

Freshness Analysis (Australian standard only): A total of 121 (32%) products (46 (24%) Australian and 75 (39% imported) failed freshness testing: Pyropheophytin A (PPP's), and / or 1,2 Diacylglycerols (DAG's).

Take Home Messages

- *Olivecare®* Certified EVOO products have a superior record of compliance with olive oil standards over other Australian or imported products, however there is plenty of room for improvement.
- The industry practice of routinely applying a 2 year 'Best Before Date' on EVOO products without supporting test data is potentially misleading and is strongly discouraged.
- The use of harvest year on product labels is strongly encouraged to guide consumers in their choice of the freshest EVOO product.
- Australian market of the shelf survey testing of EVOO products has found that many products have less than 12 months of potential shelf life, sometimes as low as only 1 month.
- 'Freshness testing' of <u>new season</u> Australian EVOO products found that some products have less than the stated 24 months of potential shelf life, sometimes as low as 12 months.

Take Home Messages

- The application of 'freshness testing' of EVOO is strongly encouraged to assist producers in providing a 'cast iron' guarantee to consumers that their product meets the requirements for EVOO classification under AS5264-2011, up to the stated BBD.

  Note: A new cheaper NIR 'freshness testing' method is in development.

- To assist in implementing Good Agricultural Practice (GAP), and Good Manufacturing Practice (GMP), AOA has developed this Hazard Analysis Critical Control Point (HACCP) style Food Quality Plan template for EVOO for use by *OliveCare®* Signatories.
- The *OliveCare®* Administrator works closely with all Signatories including those with test failures to help identify causal factors and set rectification requirements, as well as providing constructive feedback to other brand owners.
- *OliveCare®* Signatories receive a monthly newsletter packed with useful information and tips on product certification, grove management best practice, olive oil and table olive processing best practice, product storage best practice, and product distribution and handling best practice.

Regulatory Risk Management

Peter McFarlane, Peter McFarlane, AOA Agri-chemical Permits Co-ordinator

Maintaining producer access to APVMA registered agri-chemicals, and 'Minor Use Permits' for use in olive groves.

Risks When Using Agri-chemicals

The risks associated with the use of agri-chemicals – pesticides, fungicides, herbicides and crop regulation agents include:

Legal: Agri-chemicals applied to a crop may only be used in accordance with label or permit conditions approved by the APVMA, or as otherwise allowed under state control of use legislation. The recommended chemical use is designed to ensure any chemical residues in food products are within legislated MRLs.

Operator Safety: Agri-chemicals may be toxic to humans and there are legal OH&S and operator training considerations for staff involved in spray application.

Food Safety: Agri-chemical may not be applied to a crop unless FSANZ has established a MRL for that chemical.

Environment: Agri-chemicals may be toxic to other organisms in the environment, requiring strict conditions to be set for application of chemicals, to prevent spray drift into reserves and non-target crops, and contamination of water courses.

Risks When Using Agri-chemicals

The risks associated with the use of agri-chemicals (continued)

Efficacy: It is important that the chemical selected is efficacious to control the target pest. Frequent use of a chemical may lead to resistance to this chemical by the target pest. Growers should follow recommended resistance management strategies.

IPDM: Not all agri-chemicals are compatible with IPDM practices, as they may be toxic to beneficial insects.

Organic Certification: Limits application to a list of approved chemicals, the use of the term 'organic' on product labels places responsibility on the producer to ensure there are no detectible chemical residues.

Always check the permit and label conditions for withholding periods before using any chemicals.

Approved Agri-chemicals for use on Olives

A list of **chemical permits** (off-label use) issued by APVMA for the control of major olive pests and diseases, and registered chemicals for use on olives is available on the AOA website at:
https://australianolives.com.au/chemical-permits/

All current minor use permits for the industry, and the conditions of their use, are searchable at
https://portal.apvma.gov.au/permits

Approved Agri-chemicals for use on Olives

AOA works closely with Hort Innovation on olive data generation projects to maintain permits to enable continuing use of useful agri-chemicals on olives, including:

- PER14908 Pyraclostrobin + Metiram (Aero) / olives / **anthracnos**e. Residue trials undertaken. Permit extended to 31 March 2020
- PER14897 Clothianidin (Samurai) / olives / **olive lace bug**. Residue trials undertaken. Permit extended to 31 March 2023
- PER81949 Esfenvalerate (Sumi-Alpha Flex Insecticide) olives / **olive lace bug**. Residue trials undertaken. Permit extended to 30 November 2021
- PER81870 Pyrethrins (Pyganic Organic Insecticide) / Olives / **olive lace bug**. Residue trials undertaken. Permit extended to 31 October 2019
- Alpha-cypermethrin / Olives / **Curculio Beetle/Apple weevil & Cutworms**. Residue trials undertaken. Permit extended to 30 November 2021

Pending Chemical Permits for use on Olives

Hort Innovation is currently working with research providers on a new permit application for use on olives:

- Mancozeb / Olives /**Anthracnose.** Trial work contracted Dec-2017, due for completion Jun-2019

New Chemical Registrations for use on Olives

AOA also works closely with Hort Innovation to select high priority data generation projects to register new chemicals for use on olives, including:

ST16006 – A multi-industry data generation project contracted by Hort Innovation in February 2017, will undertake studies required for **new label registrations** with Bayer and ADAMA for the following:

- Bayer Luna Privilege (Fluopyram) for the control of **anthracnose** in olives
- Adama – Trivor (acetamiprid 186 g/L + pyriproxyfen 124 g/L) for the control of **olive lace bug and scale** in olives.

Both data generation projects are due for completion in February 2020 and the data generated will be provided to ADAMA and Bayer to make the regulatory submissions to the APVMA for label registrations for olives.

New Chemical Registrations for use on Olives

ST17000 – A multi-industry data generation project contracted by Hort Innovation in April 2018, will undertake generation of residue, efficacy and crop safety data in olives required for the following **new label registrations** with Bayer:

- Bayer coded product DC-163 for the control of **apple weevil (curculio beetle)** on olives
- Bayer Flupyradifurone (Sivanto) for the control of **olive lace bug**

Both data generation projects are due for completion in November 2020 and the data generated will be provided to Bayer to make the regulatory submissions to the APVMA for label registration for olives.

Hort Innovation data generation projects are funded by the Australian Government through Assistance Grants (Access to industry Priority Uses of Agvet Chemicals).

Grove Management Checklist in Support Of Healthy Trees And Implementation of an IPDM Program,

Michael Thomsett, Horticultural Consultant and AOA Director, NSW


Telstra
9:07 am


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www.treeyopermaculture.com

Irrigation

- ❑ Strategies for efficiencies
- ❑ System design for specific suitability
- ❑ How much? When?
- ❑ Benefits of soil moisture monitoring


SOILSPEC
TENSIOMETER SYSTEM
VACUUM-00.P8
VACUUM
ON
AUTO OFF
TURN ON
BEFORE
INSERTING
PROBE

Soil Health and Fertility

- ❑ Managing Organic matter in the living soil
- ❑ Methods and Options for improved fertility

AUSTRALIAN OLIVE ASSOCIATION LTD

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Australian Extra Virgin Olive Oil Everyday

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Tree Management & Pruning

- ❑ Lessons for Successful Establishment
- ❑ Managing the Canopy - Pruning Strategies for your Trees
- ❑ Tree Care – post Harvest & post Pruning
- ❑ Pollination – How can I help?

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Cleft graft – 18 months

Other Pollination strategies trialled in the Pyrethrum daisy industry may be worth a go

DRONES in GROVES

EARTHBOUND HORTICULTURE

Michael Thomsett

What can a drone do for me in my grove?

- SURVEY AND MONITORING
- DESIGN AND LAYOUT
- DETECT PLANT STRESS –PESTS AND DISEASE OUTBREAKS AND MUCH MORE
- MARKETING
- COLLECT VALUABLE DATA
- TRACK CHANGES OVER TIME

AUSTRALIAN & NEW ZEALAND

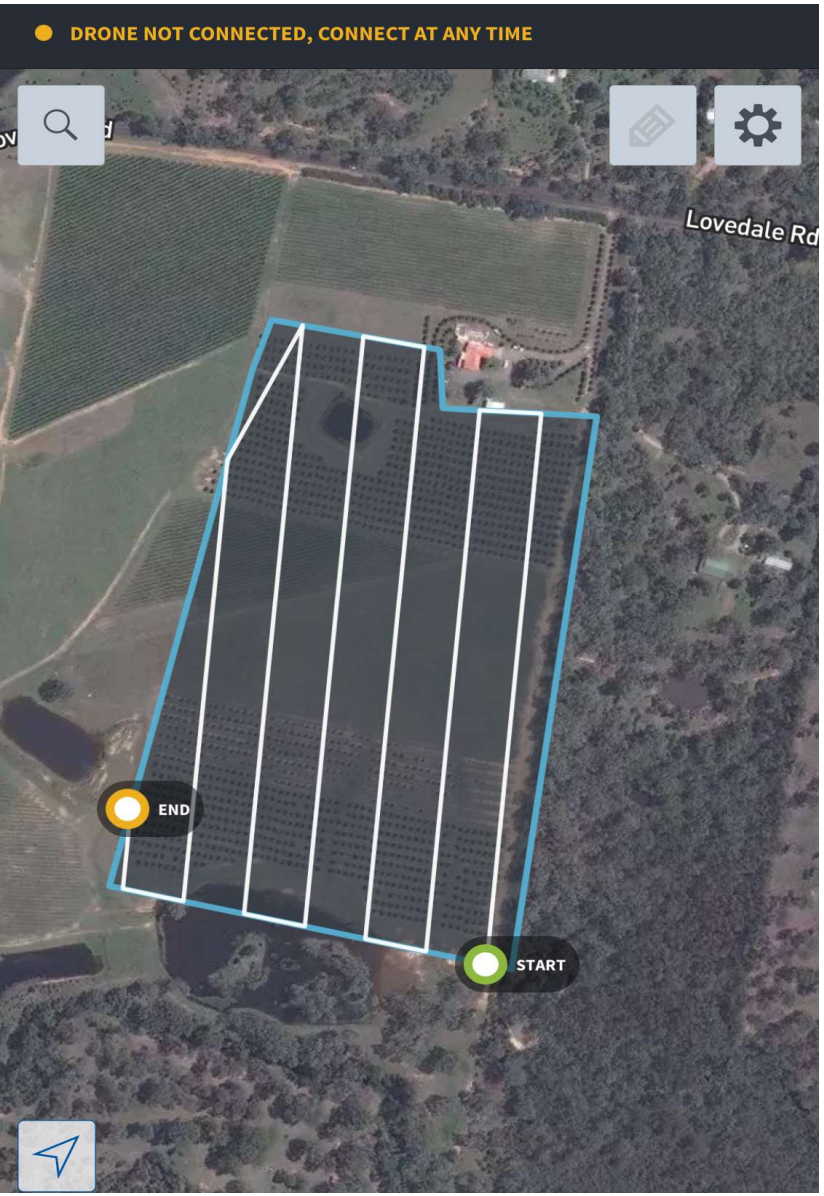
Olivegrower & processor

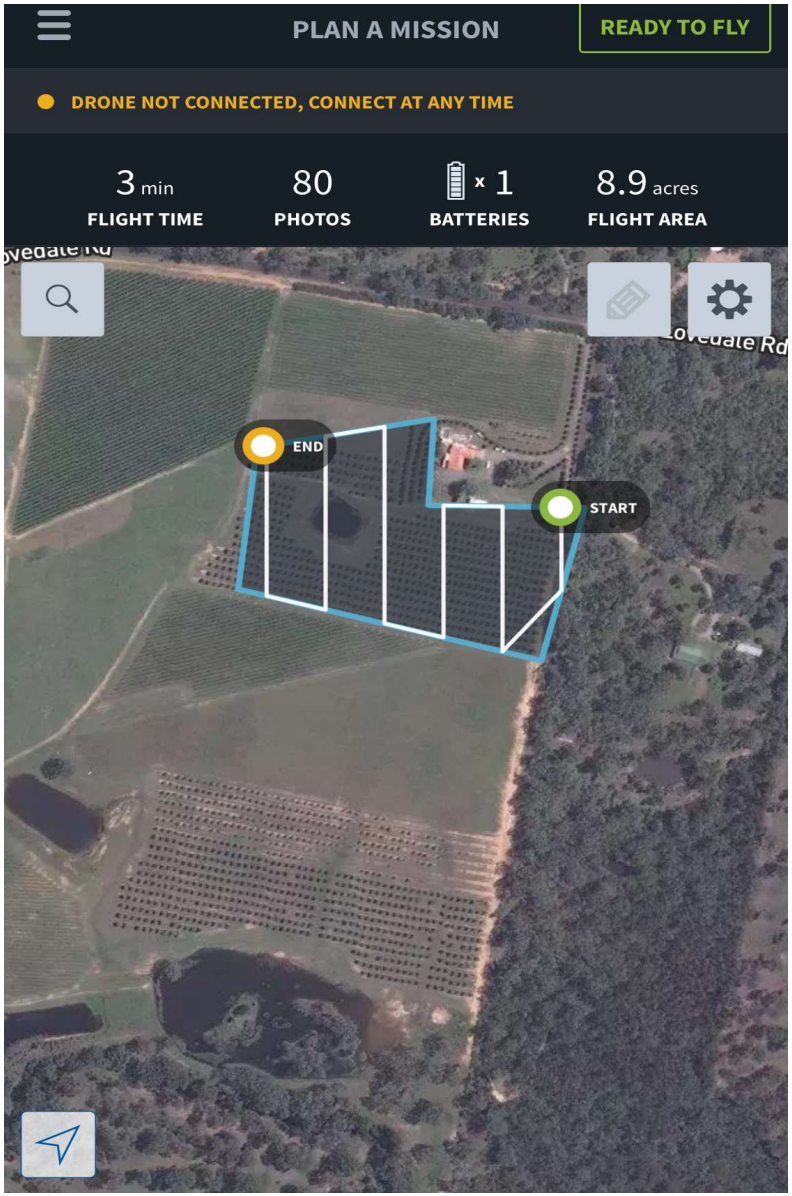
NATIONAL JOURNAL OF THE OLIVE INDUSTRY

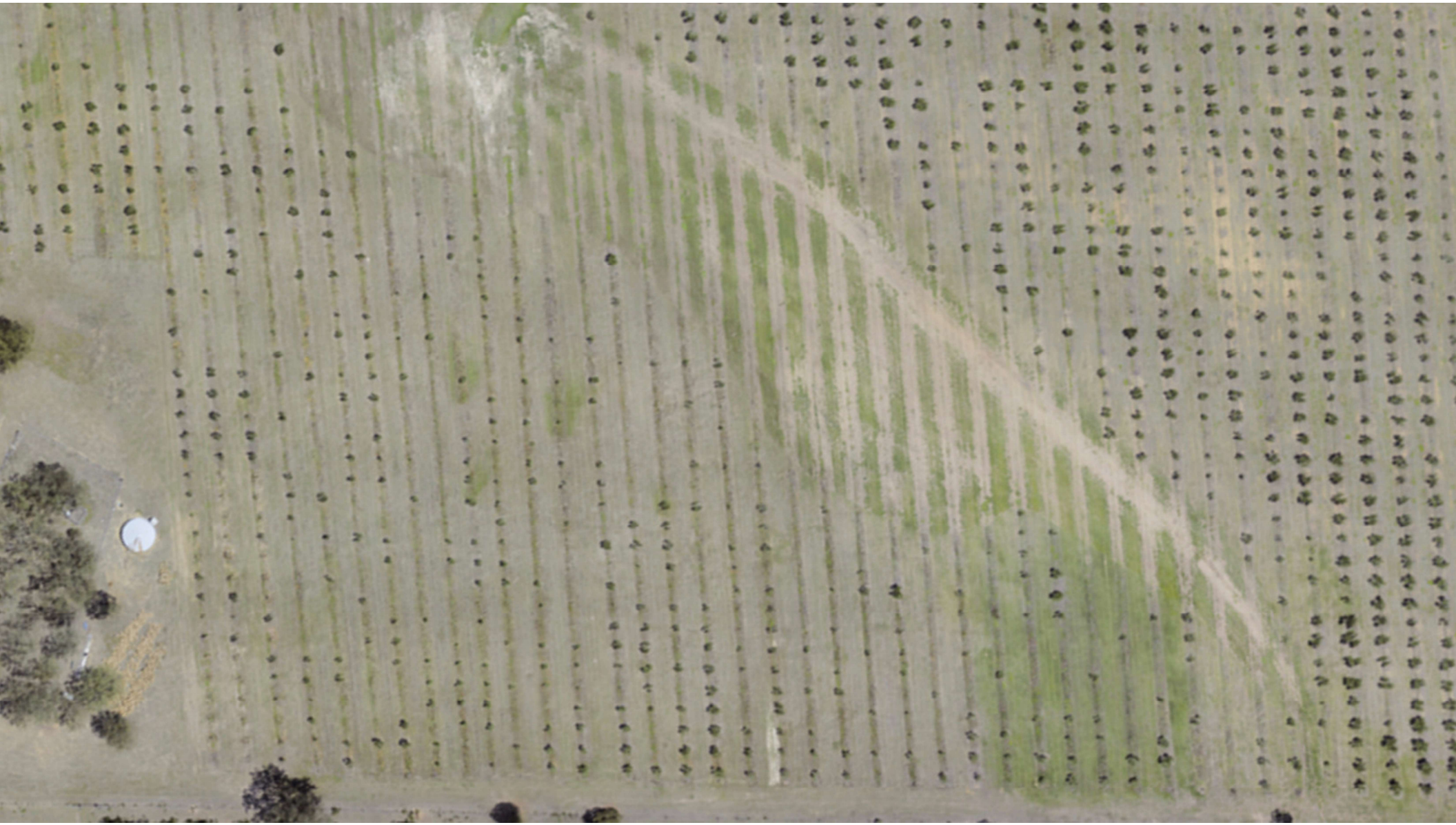
Field days provide missing link

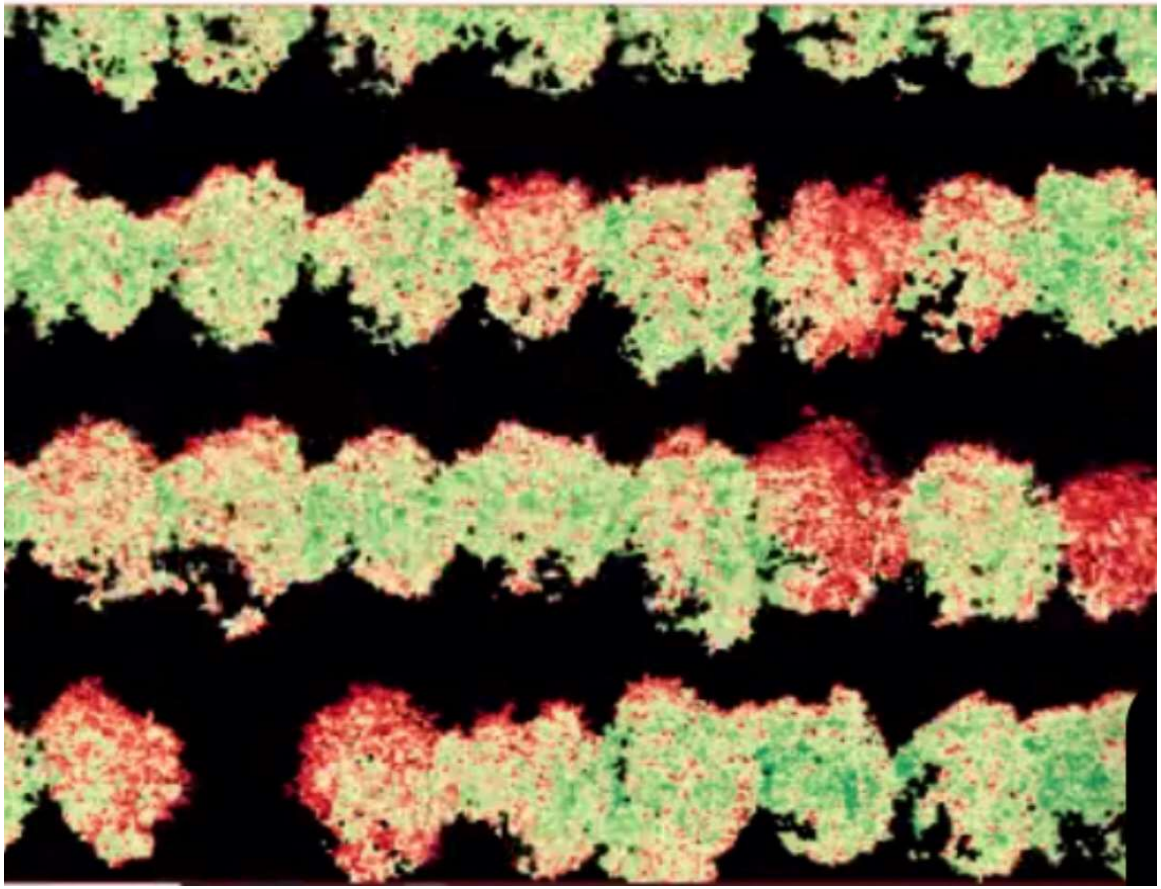
September 2018

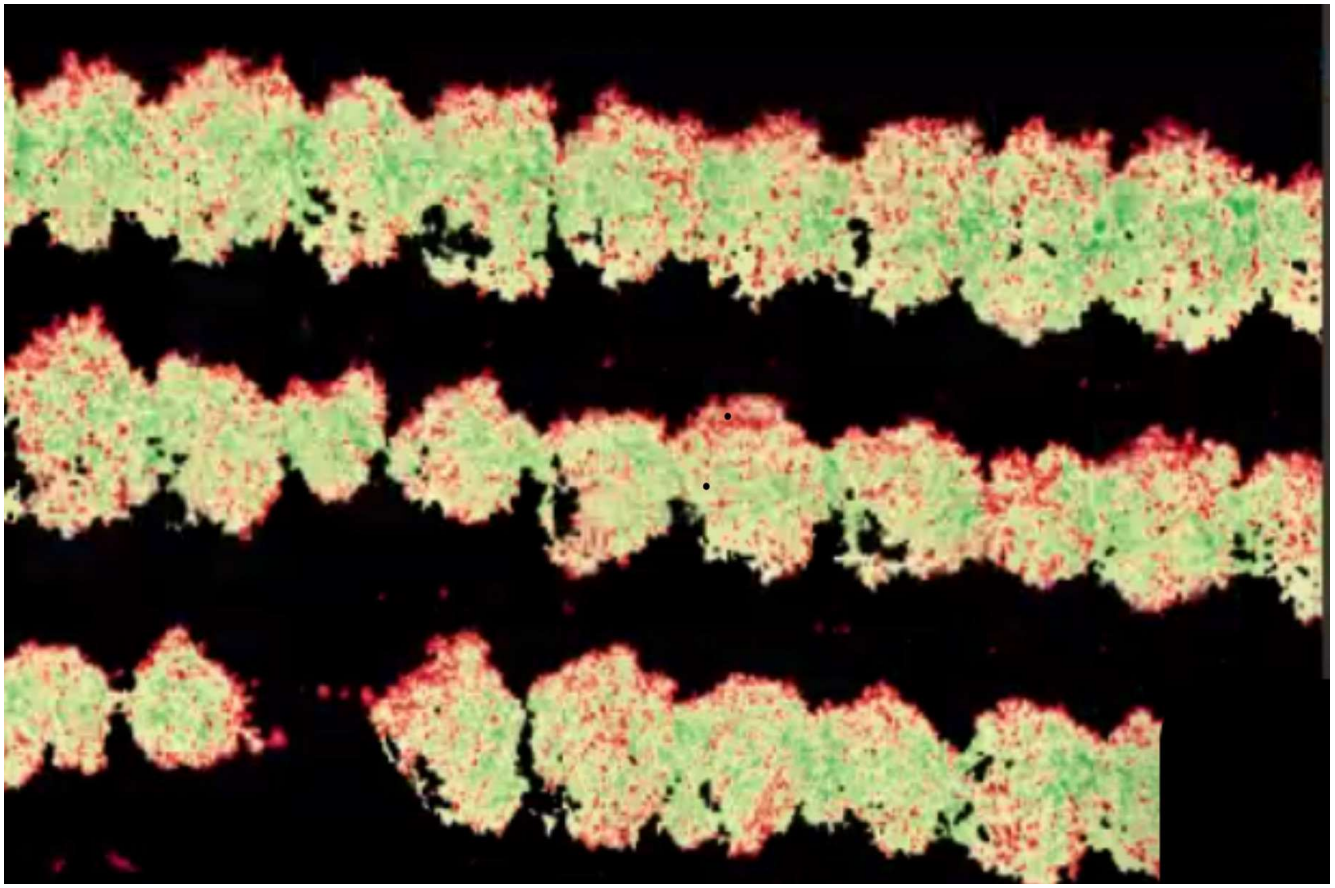
Conference preview
Harvest report: Tas & NZ
Pruning
Olive lace bug management


DRONE NOT CONNECTED, CONNECT AT ANY TIME
Lovedale Rd
END
START


PLAN A MISSION
READY TO FLY
DRONE NOT CONNECTED, CONNECT AT ANY TIME
3 min
FLIGHT TIME
80
PHOTOS
× 1
BATTERIES
8.9 acres
FLIGHT AREA
Lovedale Rd
END
START







Thank You !

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