

BIOSECURITY BULLETIN

MEDITERRANEAN FRUIT FLY AND SOUTH AUSTRALIA'S WINE INDUSTRY

BACKGROUND

South Australia is a global leader in the production of premium, environmentally clean, safe and advanced horticultural crops. In 2017-18, the horticulture industry contributed \$1.6 billion to South Australia's economy (1).

Domestically, South Australia is the only mainland state recognised as being free of Queensland fruit fly (Qfly) and Mediterranean fruit fly (Medfly) and the state's fruit fly management is coordinated by the Department of Primary Industries and Regions (PIRSA).

A SHARED RESPONSIBILITY

The South Australian wine industry operates amongst other horticultural industries in many areas of our state. As a result, the wine industry plays an important role to help protect market access of other horticultural commodities.

In the event of a Medfly outbreak, detailed movement conditions for the South Australian wine industry will apply. These conditions target operational activities including the movement and processing of winegrapes, sending of diagnostic samples and cleaning of harvesters and regulated equipment. These requirements are put in place to limit the spread of Medfly within and out of an affected area and are mandatory for wine supply chain businesses to comply with. Familiarisation with these movement requirements prior to a Medfly outbreak will stand you in good stead to be able to act quickly to minimise operational downtime in light of an outbreak.

For further information on general produce management requirements during a fruit fly outbreak, refer pir.sa.gov.au/fruitfly.

MEDITERRANEAN FRUIT FLY

Mediterranean fruit flies (*Ceratitis capitata*) are one of the world's most destructive fruit pests. They originate from sub-Saharan Africa and are categorised as a serious pest to Australia.

Fruit fly is not endemic in South Australia – fruit flies can only enter South Australia in infested fruit. In the event of a fruit fly outbreak being declared in South Australia quarantine zones (involving Outbreak and Suspension areas) are established and eradication programs enacted to maintain and restore market access of affected horticultural crops.

Medfly adults have a light brown body with irregular patches of black and silver on the thorax and mottled wings. Adults are commonly 3-5mm long (Figure 1).



Figure 1. Mediterranean fruit fly adult. Image courtesy Scott Bauer, USDA Agricultural Research Service, Bugwood.org

HOW AND WHEN PIRSA DECLARES A MEDFLY OUTBREAK

Identifying one fruit fly does not automatically mean there is an outbreak.

A Medfly outbreak is declared when any of the following occurs:

- 3 male or non-pregnant female flies are trapped within a 1 km radius, within a rolling 2 week period; or
- 1 pregnant female is detected; or 1 or more larvae are detected in locally grown fruit.

(1) https://pir.sa.gov.au/__data/assets/pdf_file/0005/340376/Horticulture_in_South_Australia.pdf

DECLARATION OF MANAGEMENT AREAS FOR MEDFLY

When a Medfly outbreak is declared, the area around the fruit fly discovery point is split into an Outbreak Area (1.5km radius around the discovery point, within which on-ground activities are focused) and a Suspension Area (7.5km radius around the discovery point). Collectively, these management areas are known as the 'Fruit Fly Affected Area', within which different requirements are imposed (Figure 2).

PIRSA's regulatory activities in the Outbreak Area focus on eradication and limiting spread into other areas. Strict treatment and movement controls are applied across both the Outbreak Area and Suspension Area to mitigate the risk for host material.

To prevent product contamination, eradication treatments that are applied in the Outbreak Area are not applied directly to winegrapes. Instead, for winegrape vineyards located inside the Outbreak Area, treatments in the form of baits are only applied to trellis posts or other non-fruiting parts of the vine; such as the trunk. Winegrapes from within the Fruit Fly Affected Area, however, must be processed within 24 hours of arrival at the winery or processing facility and transported under secure conditions to prevent spillage (i.e. loaded no more than 200mm from the top of the lip of the truck or bin). These arrangements must be managed with PIRSA under formal accreditation or certification.

During an outbreak of Medfly, restrictions in the 'Fruit Fly Affected Area' will remain in place for a minimum of 12 weeks, or until one generation plus 28 days, whichever is longer after the last detection is made.

OPERATIONAL REQUIREMENTS RELEVANT TO THE WINE INDUSTRY

In the event of a Medfly outbreak, operational requirements will apply for vineyard-specific practices and movements of grape material between vineyards and wineries/processing facilities.

Vineyard-specific practices

- **Fruit fly baits:** applied by PIRSA to vineyards within an outbreak area. Ensure application details are entered into your Spray Diary.¹ Product label and MSDS can be obtained from PIRSA baiting teams.

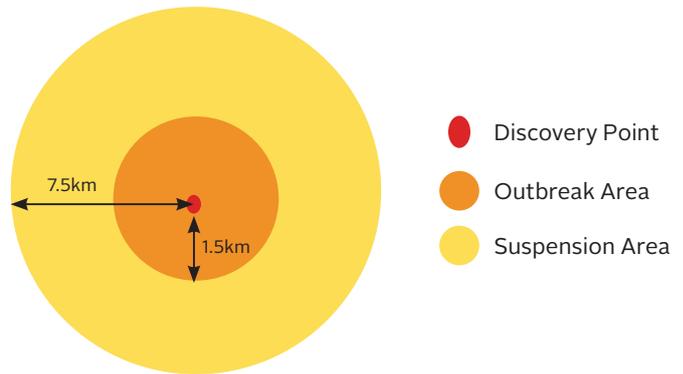


Figure 2. Mediterranean fruit fly management areas.

- **Machine harvester washdown:** thoroughly wash down harvester after operating in a 1.5km Outbreak Area, to remove soil and grape material prior to moving out of that Outbreak Area. Best practice is always to washdown used harvesters of soil and grape material between vineyards.
- **Unharvested winegrapes:** if an owner of a vineyard inside the fruit fly affected area has been unable to secure a purchaser or end-use for their grapes, PIRSA has advised that the grower may harvest these grapes onto the ground. These grapes will not require further treatment from PIRSA unless fruit fly larvae are detected at the site.

Movements of grape material between vineyards and wineries/processing facilities

Refer to Table 1 below to identify your movement situation, taking into account both the location of your vineyard and that of your destination winery/processing facility. Use the corresponding numbers in this table to determine your applicable movement requirements for a range of activities as documented in Table 2.

Note: Irrespective of where your vineyard is located within your land parcel, if you find that a quarantine boundary line crosses your land parcel, you must treat your whole land parcel as if it is inside the "higher requirement" area. If an outbreak boundary line crosses your land parcel, treat your whole land parcel as inside the outbreak area. If a suspension boundary line crosses your land parcel, treat your whole land parcel as if it is inside the suspension area.

Table 1. Movement situations relevant to the wine industry.

		TO: Winery/Processing facility location			
		Outbreak Area	Suspension Area	Outside fruit fly affected area (in SA)	Interstate
FROM: Vineyard location in South Australia	Outbreak Area	1	1	1	3
	Suspension Area	2	2	1	3
	Outside fruit fly affected area (in SA)	2	2	4	

Table 2 – Movement requirements relevant to the wine industry

Activity	Movement Requirement	Movement situation			
		1	2	3	4
Sending grape (bunch or berry) or grape juice samples from a vineyard for maturity processing at non CA-12 accredited laboratories	<ul style="list-style-type: none"> Seal each grape sample bag or container with grape juice. Accompany grape samples with either a PHAC² issued under ICA-33, or for a once off movement, a CIMC³ issued by PIRSA. No accreditation or certification applies to sending grape juice. 	✓			
	<ul style="list-style-type: none"> Seal each grape sample bag or container with grape juice. Can move without accreditation or certification. 		✓		✓
	<ul style="list-style-type: none"> <u>Contact relevant interstate biosecurity department</u> to confirm. 			✓	
Sending grapevine tissue samples for diagnostics	<ul style="list-style-type: none"> To a CA-12 accredited laboratory in SA, complete laboratory sample submission documentation and ensure all documents as advised by laboratory accompany each consignment. 	✓	✓		✓
	<ul style="list-style-type: none"> To an interstate diagnostic laboratory, confirm with laboratory and <u>relevant interstate biosecurity department</u>. 			✓	
Receiving grape (bunch or berry) or grape juice samples for maturity processing at non CA-12 accredited laboratories	<ul style="list-style-type: none"> Receiving laboratory to be accredited under IVCA-CA01, or for a once off receive, obtain a CIMC³ issued by PIRSA. If whole berries left in waste following sample processing, treat waste as per IVCA guidelines. No accreditation or certification applies to receiving juice. 	✓			
	<ul style="list-style-type: none"> Can be received without accreditation or certification. 		✓		✓
	<ul style="list-style-type: none"> <u>Contact relevant interstate biosecurity department</u> to confirm. 			✓	
Filling of grape bins or tippers with winegrapes	<ul style="list-style-type: none"> Fill to prevent spillage – retain at least a 200mm gap between the top of the load and the top lip of the bin or truck. 	✓	✓	✓	✓
Sending harvested winegrape loads from a vineyard to a winery or processing facility	<ul style="list-style-type: none"> Accompany each load with a PHAC² issued under ICA-33 or for a once off movement, a CIMC³ issued by PIRSA. 	✓			
	<ul style="list-style-type: none"> Can move without accreditation or certification. 		✓		✓
	<ul style="list-style-type: none"> Accompany each load with a PHAC³ issued under ICA-33.⁴ <u>Contact relevant interstate biosecurity department</u> to confirm. 			✓	
	<ul style="list-style-type: none"> Accompany each load with a Grape Despatch Docket, cartnote or similar. 	✓	✓	✓	✓
Transiting (for winegrape loads originating from SA vineyards outside the fruit fly affected area, where travel through the fruit fly affected area is unavoidable to reach their designated SA winery or processing facility also located outside the fruit fly affected area)	<ul style="list-style-type: none"> Each load must be consigned to prevent spillage by retaining at least a 200mm gap between the top of the load and the top lip of the truck or bin. The truck must not stop, backload or unload while transiting through the fruit fly affected area. It is best practice for transiting loads to be processed within 24 hours of arrival at the receiving winery or processing facility. 				✓

Activity	Movement Requirement	Movement situation			
		1	2	3	4
Carting winegrape loads from vineyard to winery or processing facility	<ul style="list-style-type: none"> Only transport loads filled to prevent spillage (refer above) and drive to road conditions to minimise chance of spillage. Train drivers in spillage management and have spill kits on board. Contact the consigning vineyard to report any spills en-route to the winery and the SES on 132 500 for assistance in cleaning up major spills. On arrival, present all documentation accompanying a load to the receiving winery or processing facility. 	✓	✓	✓	✓
Receiving harvested winegrape loads at a winery or processing facility	<ul style="list-style-type: none"> Receiving winery or processing facility to be accredited under IVCA-CA01, or for a once off receipt, obtain a CIMC³ issued by PIRSA. Grape marc and destemmer waste from fresh grapes (stalks and stems) are not considered fruit fly host material. Standard management practices apply. 	✓			
	<ul style="list-style-type: none"> Winegrape loads can be received by a winery or processing facility that is not accredited or certified. If a load of winegrapes received from outside the fruit fly affected area in SA is rejected by the winery for any reason, it cannot be moved back outside the fruit fly affected area. Contact the PIRSA Industry Hotline on 1800 255 556 if case arises. 		✓		
	<ul style="list-style-type: none"> Winegrape loads can be received by a winery or processing facility that is not accredited or certified. 				✓
	<ul style="list-style-type: none"> Winegrape loads can be received by an interstate winery or processing facility that is accredited under ICA-33 Part B.⁴ Contact relevant interstate biosecurity department to confirm. 			✓	
	<ul style="list-style-type: none"> Clean used grape bins and tippers of all soil and grape material prior to leaving winery. 	✓	✓	✓	✓
	<ul style="list-style-type: none"> Clean up, contain and safely dispose of grape spills at wineries from grapes grown inside the fruit fly affected area as per IVCA (or ICA-33 Part B for interstate) guidelines. 	✓		✓	

¹For industry assistance on agrochemicals, contact the Australian Wine Research Institute (AWRI) helpdesk on 08 8313 6600 or email helpdesk@awri.com.au

²Plant Health Assurance Certificate - a certificate issued by an authorised signatory for a Business that has been accredited by PIRSA under ICA-33

³Chief inspector's Movement Certificate - means a certificate of accreditation issued by PIRSA

⁴For sending winegrape loads interstate from South Australia, it is advisable to confirm all requirements (as they may change) through PIRSA and the [receiving state's biosecurity department](#)

⁵PIRSA recognise that booking schedules include loads coming from multiple regions and growers for any particular day/week. You can simply send through your full booking schedule each time, rather than having to modify this to flag or only show those accredited or certified loads.

ACCREDITATIONS OR CERTIFICATION YOU MAY NEED in the context of Table 2

- ICA-33 is the accreditation 'Movement of wine grapes (phylloxera and fruit fly)' that businesses can apply for annually, to self-certify winegrape loads from approved properties (vineyards) identified as linked to the accreditation. Under ICA-33, a PHAC must be completed for each winegrape load movement. [Refer here to the ICA-33 Operational Procedure](#). [Refer here for the ICA-33 application form including property approval form](#).
- Chief Inspector's Movement Certificate (CIMC) is available for sending or receiving single consignments only, whereby the loads are not covered under ICA-33 or received under IVCA. Contact the PIRSA Industry Hotline on 1800 255 556 to obtain.
- Import Verification Compliance Arrangement (IVCA) is the accreditation that wineries or processing facilities can apply for annually, to self-inspect and verify winegrape (and other) consignments. [Refer here to the IVCA Operational Procedure](#). [Refer here for the IVCA CA-01 application form](#). If a laboratory receiving maturity samples is on the same site as the winery, a single IVCA covering the winery and laboratory will suffice.
- CA-12 is the laboratory accreditation for Importation of Grapevine, Soil and Plant Diagnostic Material. Contact PIRSA on 08 8207 7814 to confirm if a specific laboratory holds a PIRSA CA-12 accreditation.