



# Queensland biosecurity manual

Version 16.0 current as at March 2022



# Biosecurity Manual

30 March 2022



This publication has been compiled by Biosecurity Queensland, Department of Agriculture and Fisheries.

© State of Queensland, 2022

The Queensland Government supports and encourages the dissemination and exchange of its information. The copyright in this publication is licensed under a Creative Commons Attribution 3.0 Australia (CC BY) licence.

Under this licence you are free, without having to seek our permission, to use this publication in accordance with the licence terms.



You must keep intact the copyright notice and attribute the State of Queensland as the source of the publication.

Note: Some content in this publication may have different licence terms as indicated.

For more information on this licence, visit <http://creativecommons.org/licenses/by/3.0/au/deed.en>

The information contained herein is subject to change without notice. The Queensland Government shall not be liable for technical or other errors or omissions contained herein. The reader/user accepts all risks and responsibility for losses, damages, costs and other consequences resulting directly or indirectly from using this information.

## Revision Register

Revision No	Date of Change	Amendments			
		Section	Details	Approval Officer	Unit
1.0	1 July 2016	All	New Document	M. Cummins	PB&PI
2.0	7 September 2016	1, 7, 13, 16	Updates	M. Cummins	PB&PI
2.1	30 September 2016	1.5, 12A, 12C, 12D, 12E, 12G, 12H	Updates and deletions	R. Sapuppo	Panama TR4
2.2	27 February 2017	4A	Updates	S. Vitelli	PB&PI
3.0	18 April 2017	12, 12A, 12B, 12C, 12D, 12E, 12G, 13	Updates and deletions	S. Vitelli	PB&PI
4.0	12 July 2017	12, 12A, 12B, 12C, 12D, 12E, 12F	Updates and deletions	R. Evans	Panama TR4
5.0	23 September 2017	10A, 12, 12A, 12B, 12C, 12D, 12E  17D, 17E	Updates and deletions	R. Sapuppo	PB&PI
6.0	01 February 2018	4, 4A, 4B, 5, 5A, 6, 9C, 10, 11, 11A, 11B, 11C, 11D, 11E, 12, 12A, 12B, 12C, 12D, 17, 17E, 17F, 18A, 19, 19A, 20, 20A, 21, 21A-21J	Updates and deletions	S. Vitelli	PB&PI
7.0	28 March 2018	12E	Updates and deletions	G. Kent	PB&PI
8.0	04 July 2018	16, 16B-F  19B	Updates and deletions	A. Crook  G. Kent	AB&W  PB&PI
9.0	November 2018	21, 21A-K	Updates and deletions; section renumbered	S Vitelli	PB&PI

## Revision Register

Revision No	Date of Change	Amendments			
		Section	Details	Approval Officer	Unit
10.0	March 2019	17, 17A-G, 22, Appendix 3.1.5 Table 11	Updates and deletions	G Kent	PB&PI
11.0	April 2019	12, 12A, 22A, 22B	Updates and deletions	G Kent	PB&PI
12.0	September 2019	21, 22A	Correction spelling s21 definitions and amended section 22A(1)	G Kent	PB&PI
13.0	January 2021	1, 1A, 12, 13, 18A schedule 3.1.2	Updates and deletions. Correction to 18A definitions	G Kent	PB&PI
14.0	April 2021	7, 12A	Updates and deletions, 12A. Correction to 7 definitions	S Porchun	PB&PI
15.0	June 2021	16	<p>New versions for Procedures:</p> <ul style="list-style-type: none"> <li>Manual inspection high-risk carriers free of adult tick</li> <li>Manual inspection high risk tick carriers</li> <li>Manual inspection low risk tick carriers</li> <li>Use of chemical treatments on cattle tick carriers</li> <li>Visual inspection of high-risk tick carriers</li> </ul> <p>Delete Procedure for Identifying cattle tick</p> <p>Add non-chief executive guidelines as links in new version procedures:</p> <ul style="list-style-type: none"> <li>Identifying cattle tick</li> <li>Manual inspection of high-risk carriers</li> <li>Visual inspection of high-risk carriers</li> <li>Use of chemical treatments on cattle tick carriers</li> <li>Manual inspection of low-risk carriers</li> </ul>	F Thompson	ABW
16.0	March 2022		Document reformatted & renumbered. Updates to section 12 Panama disease tropical race 4, update to medfly irradiation section no. 10.1.3 and other corrections.	S Porchun	PB&PI

## Table of contents

1.	Introduction.....	4
2	Prescribed requirements for plants, bees, cattle tick and associated items.....	100
3	Bee louse carriers .....	111
4	Bees and apiaries.....	122
5	Branched broomrape carriers.....	133
6	Cucurbit virus carriers.....	155
7	European house borer carriers.....	166
8	Giant pine scale carriers.....	17
9	Mango malformation disease carriers .....	18
10	Mediterranean fruit fly carriers .....	19
11	Pyriform Scale Carriers .....	211
12	Panama Disease Tropical Race 4 .....	233
13	Potato Pest Carriers.....	277
14	Far Northern Biosecurity Zones .....	300
15	Red Imported Fire Ant.....	322
16	Electric Ant.....	322
17	Cattle Tick .....	322
18	Discharging the General Biosecurity Obligation .....	333
19	Phylloxera Carriers .....	400
20	Papaya Ringspot Biosecurity Zone.....	466
21	Sugar Cane Pest Carriers .....	477
22	Diagnostic Samples .....	48
23	Tomato/ potato psyllid Carriers .....	500
24	Citrus Canker Carriers .....	56
25	Kaffir Lime Leaves .....	58
26	Appendices .....	59
27	Glossary .....	711

# 1. Introduction

The Queensland *Biosecurity Act 2014* (the Act) and the Biosecurity Regulation 2016 (the Regulation) provide protection for Queensland's profitable industries, unique environment, and community from biosecurity threats.

This manual provides risk minimisation requirements for plants, bees, cattle tick, and associated risk items in compliance with the Regulation

## 1.1 Permits

The chemicals mentioned in this publication are approved under permits issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and were in force at the time of publication.

If you wish to use a chemical in a manner approved under permit, obtain a copy of the relevant permit from the APVMA and ensure that the permit is valid. Read all the details, conditions and limitations relevant to that permit, and must comply with the details, conditions and limitations relevant to that permit, and comply with relevant requirements.

Warning

ALWAYS READ THE LABEL

Users of agricultural (or veterinary) chemical products must always read the label and any permit, before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or omitted to be made in this publication.

## 1.2 How to use this manual

This manual provides the Prescribed Requirements for managing biosecurity risks in Queensland. The manual is designed to simplify the process of determining what must be done carriers into and around Queensland.

Each prescribed requirement (2-24) summarises the requirements found in the Regulation and provides the risk minimisation requirements that must be followed when dealing with a carrier.

***It is an offence under the Regulation not to comply with the Risk Minimisation Requirements in this manual. Penalties of up to 3000 penalty units or 3 years imprisonment apply.***

## 1.3 Prohibited and restricted matter and carriers

There are two important new concepts that underpin the Act, the Regulation, and this manual: *biosecurity matter*, and *carriers*.

Biosecurity matter is defined in the Act (see s.15) and includes things that may pose a risk to the biosecurity of Queensland (a biosecurity risk). Biosecurity matter includes, but is not limited to, plant pests and pathogens, invasive animals, animal diseases, and contaminants.

The Act defines two types of biosecurity matter: *prohibited matter*, and *restricted matter*. Prohibited matter does not occur in Queensland, and restricted matter may occur in Queensland but is subject to strict controls. This manual regulates things that can carry prohibited or restricted biosecurity matter; these are called – *carriers*.

Importantly, it is illegal to deal with, that is manage or handle anything classified as prohibited matter under the Act. Conditions apply to dealings with restricted matter.

## 1.4 Permits for movement of carriers

Movements of carriers that are not covered by the Prescribed Requirements may be permitted in a biosecurity authorisation issued by the Chief Executive, or a biosecurity instrument permit issued by an inspector.

### 1.4.1 Biosecurity instrument permits

Movement control orders and biosecurity zone regulatory provisions are collectively referred to as biosecurity instruments.

An inspector may issue a biosecurity instrument permit to authorise a person to perform an activity that does not comply with the requirements of a biosecurity instrument.

This includes the movement of biosecurity matter (or a carrier) if the movement is otherwise prohibited under the biosecurity instrument. For example, moving items that have been used in banana growing into or from biosecurity zones for bananas, or moving soil from a red imported fire ant biosecurity zone.

An inspector may issue a biosecurity instrument permit if satisfied that granting the permit:

- will not increase the level of the biosecurity risk posed by the relevant biosecurity matter; and
- will not otherwise be detrimental to the effectiveness of the biosecurity instrument.

An inspector may impose conditions that are necessary to ensure these two criteria are met.

A biosecurity instrument permit cannot permit something that is inconsistent with a biosecurity emergency order.

### 1.4.2 Biosecurity authorisations

The Act lists prohibited and restricted biosecurity matter.

The Chief Executive may authorise a person to move or otherwise deal with prohibited and restricted matter and any associated carrier.

An authorisation to move or deal with prohibited matter or a carrier of prohibited matter is known as a prohibited matter permit.

An authorisation to move or deal with restricted matter or a carrier of restricted matter is known as a restricted matter permit.

**Inquiries regarding instrument permits and authorisations should be directed to the Customer Service Centre on 13 25 23 or email [bgapplications@daf.qld.gov.au](mailto:bgapplications@daf.qld.gov.au) or post to: Department of Agriculture and Fisheries, P.O. Box 5083, Nambour, Qld, 4560.**

## 1.5 Acceptable biosecurity certificate

Consignments must be accompanied by an acceptable biosecurity certificate unless otherwise stated in this manual.

An acceptable biosecurity certificate includes a Plant Health Certificate, Plant Health Assurance Certificate or other certificate issued by an interstate officer or interstate accredited certifier providing evidence to the biosecurity status of an item.

Where it is stated in this manual that a copy of the biosecurity certificate be provided to the Department, the certificate is to be emailed to [qld.plantquarantine@daf.qld.gov.au](mailto:qld.plantquarantine@daf.qld.gov.au) prior to the movement occurring.

## 1.6 Reference guide to prescribed requirements

*Table 1 –Reference guide to prescribed requirements by carrier*

Carrier	Pest of concern	Prescribed requirement
<b>Almond hulls/shells</b>	Branched broomrape	5
<b>Apiary appliances (hives, equipment etc)</b>	Bee louse Far northern pests	3 4, 14
<b>Apiary products (honey, wax etc)</b>	Bee louse Far northern pests	3 4, 14
<b>Appliances (apparatus, equipment, machinery, vehicles)</b>	Banana pests Bee louse Branched broomrape Cucurbit virus (CGMMV & MNSV) Panama TR4 Potato pests Far northern pests Phylloxera Sugar cane pests Tomato-potato psyllid	2 3 5 6 12 12 13 18 19, 21 23
<b>Banana fruit</b>	Banana pests Mediterranean fruit fly	2 9, 12, 14
<b>Banana plants</b>	Banana pests	2 12 14
<b>Bees</b>	Bee louse Far northern pests	3 4 14
<b>Cattle tick carriers (livestock)</b>	Cattle tick	17

Carrier	Pest of concern	Prescribed requirement
<b>Cereals, pulses and grains for planting</b>	Branched broomrape	5
<b>Citrus plants including fruit</b>	Citrus canker carriers	24
<b>Convolvulaceous tubers</b>	Tomato-potato psyllid	23
<b>Cut flowers and foliage</b>	Banana pests	2
	Giant Pine Scale	8
	Tomato-potato psyllid	23
<p><b>Diagnostic and analytical samples</b></p> <p>Please note these requirements apply to samples that are carriers of these pests as defined in the Regulation.</p> <p>These requirements <b>DO NOT</b> apply to the pests themselves.</p> <p>Samples of pests that are restricted or prohibited biosecurity matter under the Act <b>MUST</b> be sent under a biosecurity authorisation issued by the Chief Executive.</p>	Banana pests Bee louse Branched broomrape Cucurbit virus (CGMMV & MNSV) EHB Far northern pests Giant pine scale Mango malformation disease Mediterranean fruit fly Papaya ringspot Phylloxera Potato pests Pyriform scale Sugar cane pests Tomato-potato psyllid Citrus canker carriers	19 (Phylloxera) 22 (others)
<b>Fodder</b>	Branched broomrape	5
	Far northern pests	14
	Red imported fire ant	15
	Electric ant	16
	Tomato-potato psyllid	23
<b>Fruit that has not been processed, including fruit attached to plants</b>	Banana pests	2
	Mango malformation	9
	Mediterranean fruit fly	10
	Far northern pests	14
	Phylloxera	19
	Tomato-potato psyllid	23
	Citrus canker carriers	24
<b>Garden organics (green waste, mulch, unprocessed compost, bark etc.)</b>	Banana pests	2
	Cucurbit virus (CGMMV & MNSV)	6
	Potato pests	13
	Panama TR4	12
	Far northern pests	14
	Red imported fire ant	15
	Electric ant	16
	Phylloxera	19

<b>Carrier</b>	<b>Pest of concern</b>	<b>Prescribed requirement</b>
	Papaya ringspot	20
	Sugar cane pests	21
	Tomato-potato psyllid	23
	Citrus canker carriers	24
<b>Grape juice</b>	Phylloxera	19
<b>Grapes</b>	Mediterranean fruit fly	10
	Grape Phylloxera	19
<b>Grapevines</b>	Grape Phylloxera	19
<b>Hay/straw</b>	Branched broomrape	5
	Far northern pests	14
	Red imported fire ant	15
	Electric ant	16
<b>Marc</b>	Grape Phylloxera	19
<b>Must</b>	Grape Phylloxera	19
<b>Nursery stock and plants</b>	Banana pests	2
	Branched broomrape	5
	Cucurbit virus (CGMMV & MNSV)	6
	Giant pine scale	8
	Mango malformation disease	9
	Mediterranean fruit fly	10
	Pyriform scale	11
	Potato pests (Solanaceae)	13
	Panama TR4	12
	Far northern pests	14
	Red imported fire ant	15
	Electric ant	16
	Phylloxera	19
	Papaya ringspot	20
	Sugar cane pests	21
	Tomato-potato psyllid	23
	Citrus canker carriers	24
<b>Papaya plants</b>	Papaya ringspot	20
<b>Plants of the family <i>Cucurbitaceae</i> (e.g. cucumber, melons, pumpkin, squash)</b>	Cucurbit virus (CGMMV & MNSV)	6
	Papaya ringspot	20
<b>Potatoes – processing</b>	Branched broomrape	5
	Potato pests	13
	Tomato-potato psyllid	23
<b>Potatoes – seed</b>	Branched broomrape	5
	Potato pests	13
	Tomato-potato psyllid	23

<b>Carrier</b>	<b>Pest of concern</b>	<b>Prescribed requirement</b>
<b>Potatoes – ware</b>	Branched broomrape	5
	Potato pests	13
	Tomato-potato psyllid	23
<b>Soil</b>	Banana pests	2
	Branched broomrape	5
	Cucurbit virus (CGMMV &MNSV)	6
	Panama TR4	12
	Potato pests	13
	Far northern pests	14
	Red imported fire ant	15
	Electric ant	16
	Phylloxera	19
	Sugar cane pests	21
Tomato-potato psyllid	23	
<b>Timber including pallets</b>	European house borer	7
<b>Vegetables</b>	Branched broomrape	5
	Mediterranean fruit fly	10
	Potato pests	113
	Far northern pests	14
	Tomato-potato psyllid	23

**Note:** this table is a quick reference guide and should not be taken to list all Prescribed Requirements relevant to a carrier. It is the responsibility of the reader to determine and comply with the Prescribed Requirements in this manual that are applicable to movement of a carrier.

## 2 Prescribed requirements for plants, bees, cattle tick and associated items

### 2.1 Banana pest carriers

Banana pest carriers (other than fruit) must not enter Queensland unless sourced from a state or part of a state that is certified free from banana bunchy top virus, Panama disease tropical race 4, and Cavendish-competent Panama disease tropical race 1 (i.e. Cavendish-competent race 1 (strain VCG 01220)). **Regulating Power:** Biosecurity Regulation 2016 s.48(1)(b) and (3)(a) (i).

Banana pest carriers (other than banana fruit) must not be moved out of the northern or southern banana biosecurity zones into the rest of Queensland, or, into the northern banana biosecurity zone from outside that zone. **Regulating Power:** Biosecurity Regulation 2016 s.79(1) and s.80(1).

Banana plantlets may be moved into Queensland if produced under a scheme for the clean planting of bananas outlined in the Nursery Industry Accreditation Scheme, Australia (NIASA) - Banana Nursery Stock Specification and accompanied by the appropriate label. **Regulating Power:** Biosecurity Regulation 2016 s.48(3)(a)(ii) and s.80(2)(a).

Banana plantlets may be moved out of the northern and southern banana biosecurity zones if produced under a scheme for the clean planting of bananas outlined in the NIASA - Banana Nursery Stock Specification and accompanied by the appropriate label. **Regulating Power:** Biosecurity Regulation 2016 s.79(3)(a)(i).

Banana plantlets may be moved into the northern banana biosecurity zone if produced under a scheme for the clean planting of bananas outlined in the NIASA - Banana Nursery Stock Specification and accompanied by the appropriate label. **Regulating Power:** Biosecurity Regulation 2016 s.80(2)(a).

Banana pest carriers that do not meet these requirements may be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate. **Regulating Power:** Biosecurity Regulation 2016 s.48(3)(a)(iii), s.79(3)(a)(ii), s.80(2)(b).

### 2.2 Risk minimisation requirements for banana pest carriers

#### 2.2.1 Banana plantlets

The risk minimisation requirements for banana pest carriers that are banana plantlets under sections 48(3)(a)(iii), 79(3)(a)(ii), and 80(2)(b) of the Biosecurity Regulation 2016 are as follows:

1. A banana pest carrier that is a banana plantlet may be moved the plantlet:
  - a) has been grown from tissue culture free of fungicides, biocides and antibiotics
  - b) has been tested and found free of bunchy top and Cavendish-competent Panama disease tropical race 1 (i.e., Cavendish-competent race 1 (strain VCG 01220), Panama disease tropical race 4
  - c) has not been exposed to banana pests
  - d) is packaged in a quarantine secure manner.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

## 2.2.2 Soil or other growing mediums

The risk minimisation requirements for banana pest carriers that are soil, or other growing mediums, in which a banana plant has been grown under section 48(3)(a) of the Biosecurity Regulation 2016 are as follows.

A banana pest carrier that is soil, or other growing mediums, in which a banana plant has been grown in, and which is attached to any appliance or packaging. The soil or other growing mediums must be completely removed from all surfaces of the appliance or packaging prior to the movement of the appliance or packaging into Queensland.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector or from an accredited certifier.
- Enables movements into Queensland from other states and territories.

**Note:** there are also conditions that relate to the management of banana plants in the far northern pest biosecurity zones – see Risk Minimisation Requirement 13A.

### Definitions

- **appliance** *includes* an apparatus, equipment, machinery, or a vehicle.
- **banana pest carrier** *means* (a) a banana plant; (b) soil, or other growing mediums, in which a banana plant has been grown; or (c) a banana appliance.
- **packaging** *includes* a container, pallet, box, crate, cage, or covering.

## 3 Bee louse carriers

Bee louse carriers must not be moved into Queensland from a state or part of a state where bee louse has been found. **Regulating Power:** Biosecurity Regulation 2016 s.49(1) and (3)(a).

Processed honey and refined beeswax are not bee louse carriers and may be moved into Queensland without restriction.

Bee louse carriers may be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate. **Regulating Power:** Biosecurity Regulation 2016 s.49(3)(b).

### 3.1 Risk minimisation requirements for bee louse carriers

#### 3.1.1 Live bees

The risk minimisation requirement for a bee louse carrier that is live bees under section 49(3)(b) of the Biosecurity Regulation 2016 is as follows in the case of live bees:

1. must include both queen bees and accompanying bees (escort bees)
2. have been individually inspected in Tasmania under magnification for the presence of bee louse
3. are free from bee louse at the time the bees are prepared for export

4. are packed in a mite-proof bag which also prevents the escape of any of the bees
5. must be sent to a location in Queensland for examination by a Departmental officer prior to release to the importer.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- Prior to transport of the bees, and four working days in advance, a copy of the biosecurity certificate and any issued, associated or related documents attached, must be provided to the Department by email: [qld.plantquarantine@daf.qld.gov.au](mailto:qld.plantquarantine@daf.qld.gov.au).

### 3.1.2 Comb honey

The risk minimisation requirement for a bee louse carrier that is comb honey under section 49(3)(b) of the Biosecurity Regulation 2016 is as follows in the case of comb honey:

1. it has been frozen in Tasmania to a core temperature of -15 °C and held at that temperature for at least 24 hours. After having been frozen for that period, is stored and transported in bee-free containers or transport vehicles
2. prior to export from Tasmania, it is cut and packed in a bee-free area, when no other comb honey is on the premises.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- The acceptable biosecurity certificate for this risk minimisation requirement is a Declaration of Disinsectionation of Comb Honey for Human Consumption endorsed by an inspector under the Animal Health Act 1995 of Tasmania.
- A copy of the biosecurity certificate must be provided to the Department.

#### Definitions

- **Bee louse** means *Braula coeca*.
- **Bee louse carrier** means (a) a bee; or (b) an apiary appliance; or (c) an apiary product; or (d) a hive.
- **Apiary appliance** means any apparatus, fitting, implement, or utensil that has been used for beekeeping or processing, handling, or storing an apiary product.
- **Apiary product** means bee-collected pollen, bee comb, comb sections, cut comb honey, honey dew, propolis, queen candy, raw beeswax, royal jelly, or unprocessed honey.

## 4 Bees and apiaries

Bees and apiaries must be managed in a manner that is compliant with the following provisions as set out in the Regulation. These provisions do not prescribe all that a person must do to fulfil the person's general biosecurity obligation in relation to bees and apiaries. **Regulating Power:** Biosecurity Regulation 2016 ss.31–32.

## 4.1 Discharging your general biosecurity obligation

### 4.1.1 Distance between apiaries

A person must not establish an apiary site containing more than 40 hives within 0.8km of another apiary site containing 40 or more hives; and must not establish an apiary site within 2km of a queen bee breeding apiary.

### 4.1.2 Asian honey bee

A person must not keep, in the person's possession or under the person's control, a live Asian honey bee; and must not move a live Asian honey bee.

#### Definitions

- **Asian honey bee** means *Apis dorsata*, *A. florea*, *A. cerana* other than *A. cerana javana*.

## 5 Branched broomrape carriers

Branched broomrape carriers must not be moved into Queensland from a state or part of a state where branched broomrape has been found. **Regulating Power:** Biosecurity Regulation 2016 s.50(1) and (3)(a).

Branched broomrape carriers that are seed potatoes may enter Queensland if produced in accordance with the National Standard for Certification of Seed Potatoes (the Standard) and accompanied by the appropriate label. Seed potato certification schemes currently recognised by Queensland as compliant with the Standard are: ViCSPA, Tas Seed, the Crookwell Seed Potato Certification Scheme and the Western Australian Certified Seed Potato Scheme.

**Regulating Power:** Biosecurity Regulation 2016 s.50(3)(c).

Branched broomrape carriers that is a ware potato may enter Queensland if it has been brushed and washed and does not carry any detachable soil; or the carrier is a processing potato and is sent directly to:

1. a facility for processing; or
2. a facility for storage before being processed in way that prevents an infestation with biosecurity matter; and the escape of biosecurity matter or a carrier.

**Regulating Power:** Biosecurity Regulation 2016 s.50(3)(d) and (3)(e)

Branched broomrape carriers may also be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.50(3)(b).

## **5.1 Risk minimisation requirements for branched broomrape carriers**

### **5.1.1 Soil and plants**

The risk minimisation requirements for branched broomrape carriers that are soil and plants sourced within 50km of an infestation of branched broomrape, must not enter Queensland unless grown and dispatched from a property free of branched broomrape. This includes:

1. soil, hay, straw, fodder
2. unprocessed almond hulls and shells
3. any seed for planting or plant part for propagation including grain, cereals, pulses, and small grains.

**Regulating Power:** Biosecurity Regulation 2016 s.50(3)(b).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

#### **Definitions**

- ***Practically free of soil*** means potato tubers that do not carry any detachable soil following brushing or washing.
- ***processing potato means*** a potato that, when harvested, is sent directly to a facility for processing; or a facility for storage before being processed.
- ***ware potato means*** a potato that is grown to be consumed without being processed and is not intended for replanting for the purpose of producing a potato plant.

### 5.1.2 Appliances

The risk minimisation requirement for a branched broomrape carrier that is an appliance under section 50(3)(b) of the Regulation sourced within 50km of an infestation of branched broomrape that has come into contact with a branched broomrape carrier that is listed at section 50(4)(a)—(g) of the Regulation must be cleaned so that it is for all practical purposes free of organic matter and soil by brushing, by using high pressure water or steam, or by air blasting using compressed air.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

#### Definitions

- **branched broomrape** means *Orobanche ramosa*.
- **branched broomrape carrier** means: (a) hay; or (b) fodder; or (c) potatoes; or (d) straw; or (e) cereals, pulses, and small grains, to be used for planting; or (f) unprocessed almond hulls and shells; or (g) soil that has come into contact with a carrier marked (a) to (f); or an appliance that has come into contact with a carrier marked (a) to (g).

## 6 Cucurbit virus carriers

Cucurbit virus carriers must not be moved into Queensland for the purpose of trade or of business activities from a state or part of a state where a cucurbit virus has been found. **Regulating Power:** Biosecurity Regulation 2016 s.51(1) and (3)(a).

Cucurbit virus carriers may be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.51(2)(b).

### 6.1 Risk minimisation requirements for cucurbit virus carriers

#### 6.1.1 Appliances

The risk minimisation requirement for a Cucurbit virus carrier that is an appliance under section 51(2)(b) of the Regulation has been cleaned free of organic matter and soil and treated with a solution of sodium hypochlorite at a strength of 1.0 per cent available chlorine, in accordance with the label or current APVMA permit.

**Documentation requirement:** biosecurity certificate.

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

## Definitions

- **Cucurbit virus** means *Cucumber green mottle mosaic virus* (CGMMV) or *Melon necrotic spot virus* (MNSV).
- **Cucurbit virus carrier** means (a) any plant of the family *Cucurbitaceae* (excluding the fruit of these plants); or (b) soil or other growing mediums that have come into contact with a plant of the family *Cucurbitaceae* (excluding fruit); or (c) an appliance that has been used for planting, producing, or harvesting a plant of the family *Cucurbitaceae*; or (d) materials that have been used to package or contain and plant of the family *Cucurbitaceae*.

## 7 European house borer carriers

European house borer carriers must not enter Queensland unless sourced from a state or part of a state that is certified free from European house borer.

**Regulating Power:** Biosecurity Regulation 2016 s.52(1) and (3)(a).

A European house borer carrier, that may enter Queensland, is:

1. a wood pallet or wooden packaging material
2. produced under the Western Australian Compliance Arrangement for Manufacture of Pinewood Pallets and Packaging
3. stamped in accordance with this compliance arrangement.

**Regulating Power:** Biosecurity Regulation 2016 s.52(1)

European house borer carriers may also be moved if compliant with the following Risk Minimisation Requirements, and if accompanied by an acceptable biosecurity certificate. **Regulating Power:** Biosecurity Regulation 2016 s.52(3)(b).

### 7.1 Risk minimisation requirements for European house borer carriers

#### 7.1.1 Wood

The risk minimisation requirement for a European house borer carrier that is wood under section 52(3)(b) of the Regulation:

1. has one dimension less than 4 mm thick; or
2. pallets are sourced from a supplier approved under a scheme administered by the state of Western Australia; or
3. is certified as treated with methyl bromide in accordance with table 2, or,
4. c) is certified as treated with methyl bromide in accordance with table 2:

**Table 2 – Methyl bromide fumigation of timber**

Temperature	Dosage Rate (g/m <sup>3</sup> )	Minimum concentration (g/m <sup>3</sup> ) by fumigation time			
		2hrs	4hrs	12hrs	24hrs
21 °C or greater	32	36	31	28	24
15.5 °C or greater but less than 21 °C	40	42	36	32	28
10 °C or greater but less than 15.5 °C	48	48	42	36	32

5. With a preservative in accordance with Australian Standard AS 1604.1 - 2005 Specifications for preservative treatment - Sawn and round timber; or
6. By heating so that the core temperature is more than 56 °C for not less than 30 minutes.
7. In the case of structural pinewood, stored to prevent infestation:
  - i. in a secure building, which has been inspected and approved by an authorised officer as being suitable for the purpose of excluding European house borer; or
  - ii. by fully wrapping in plastic film, which is not ripped, torn or otherwise damaged.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector or from an accredited certifier.

**Definitions**

- **European house borer** means *Hylotrupes bajulus*.
- **European house borer carrier** means (a) a tree of the genera *Abies*, *Picea*, *Pinus* or *Pseudotsuga*; or (b) wood, or wooden articles, from a tree of the genera *Abies*, *Picea*, *Pinus* or *Pseudotsuga*.

## 8 Giant pine scale carriers

Giant pine scale carriers must not enter Queensland unless sourced from a state or part of a state that is certified free from giant pine scale.

**Regulating Power:** Biosecurity Regulation 2016 s.53(1) and (3)(a).

Giant pine scale carriers may also be moved if compliant with the following Risk Minimisation Requirements, and if accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.53(3)(b).

## 8.1 Risk minimisation requirements for giant pine scale carriers

### 8.1.1 Logs and timber

The risk minimisation requirement for a giant pine scale carrier that is logs is, the logs and timber have been processed to remove all bark.

**Regulating Power:** Biosecurity Regulation 2016 s.53(3)(b).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 8.1.2 Pine bark

The risk minimisation requirement for a giant pine scale carrier that is pine bark has been subjected to a constant temperature of 50°C for 5 hours starting from when the centre of the pile has reached 50°C and packaged in such a way to prevent reinfestation with giant pine scale.

**Regulating Power:** Biosecurity Regulation 2016 s.53(3)(b).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

#### Definitions

- **giant pine scale** means *Marchalina hellenica*.
- **giant pine scale carrier** means:
  - a) a plant of the family *Pinaceae* (including cedar, fir, pine, spruce);
  - b) soil that has come into contact with a carrier mentioned in paragraph (a); or
  - c) an appliance that has come into contact with a carrier mentioned in paragraph (a) or (b).

## 9 Mango malformation disease carriers

Mango malformation disease carriers (excluding fruit that has been de-stemmed) must not enter Queensland unless sourced from a state or part of a state that is certified free from mango malformation disease.

**Regulating Power:** Biosecurity Regulation 2016 s.54(1) and (3)(a)

#### Definitions

- **mango malformation disease carrier** means a carrier that is a mango plant.
- **de-stemmed** means the stem has been completely removed from the fruit prior to packing.

## 10 Mediterranean fruit fly carriers

Mediterranean fruit fly carriers must not enter Queensland unless sourced from a state or part of a state that is certified free from Mediterranean fruit fly.

**Regulating Power:** Biosecurity Regulation 2016 s.55(1) and (3)(a).

Mediterranean fruit fly carriers that do not meet these requirements may be moved into Queensland if compliant with the following Risk Minimisation Requirements, and if accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.55(3)(b).

## 10.1 Risk minimisation requirements for Mediterranean fruit fly carriers

The risk minimisation requirements for the movement of Mediterranean fruit fly carriers under s.55(3)(b) of the Regulation is unprocessed fruit, the unprocessed fruit must meet one or more of the risk minimisation requirements below.

### 10.1.1 Fumigation with methyl bromide

1. The fruit must be fumigated with methyl bromide at the rate of:
  - a) 10 °C - 10.9 °C @ 56 g/m<sup>3</sup> for 2 hours; or
  - b) 11 °C - 15.9 °C @ 48 g/m<sup>3</sup> for 2 hours; or
  - c) 16 °C - 20.9 °C @ 40 g/m<sup>3</sup> for 2 hours; or
  - d) 21 °C - 25.9 °C @ 32 g/m<sup>3</sup> for 2 hours; and
2. fumigant loading rates for fruits and vegetables are not less than 30%, nor more than 50%, of the volume of the chamber when empty; and
3. the fumigator in charge ensures produce that is packaged or covered with impervious materials (such as plastic bags, stacked plastic punnets or waxed paper) has the packaging opened, cut, or removed to allow adequate penetration of the gas unless impervious materials contain:
  - a) not less than four unobstructed perforations of 6 mm diameter per 100 cm<sup>2</sup>; or
  - b) five unobstructed perforations of 5 mm diameter per 100 cm<sup>2</sup>; or
  - c) numerous pinholes (at least 6 holes per square centimetre).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- An approved certification program for Mediterranean fruit fly carriers is: ICA-04 Fumigating with Methyl Bromide.

**Note:** Defective-flower-end type papaya must be certified as being in mature green condition at the time of packing prior to fumigation.

**Caution:** some fruit may be damaged by this treatment. A trial treatment is recommended unless the response of fruit to this treatment is known.

### 10.1.2 Cold treatment

1. The fruit must be post-harvest cold treated at a temperature of:
  - a) 0.0 °C ± 0.5 °C for at least 14 days; or
  - b) 1.0 °C ± 0.5 °C for at least 16 days; or
  - c) 1.5 °C ± 0.5 °C for at least 18 days; or
  - d) 2.5 °C ± 0.5 °C for at least 20 days; or
2. in the case of citrus only, post-harvest cold treated at a temperature of:
  - a) 0 °C ± 0.5 °C for at least 14 days; or
  - b) 1 °C ± 0.5 °C for at least 16 days (lemons for 14 days); or
  - c) 2°C ± 0.5 °C for at least 18 days (lemons for 16 days); or
  - d) 3 °C ± 0.5 °C for at least 20 days (lemons for 18 days).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- An approved certification program for Mediterranean fruit fly carriers is ICA-07 Cold Treatment.

**Note:** the treatment commences when the core temperature of the produce reaches the temperature indicated above.

**Caution:** some fruit may be damaged by this treatment. A trial treatment is recommended unless the response of fruit to this treatment is known.

### 10.1.3 Irradiation

Fruit and vegetables listed in Appendix 25.1.3 Table 10 Mediterranean Fruit Fly Carriers must be post-harvest irradiated, with an absorbed dose:

- a) no lower than 150 Gy; and
- a)b) no higher than 1 kGy. minimum dose of 150 Gy.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- An approved certification program for Mediterranean fruit fly carriers is: ICA-55 Irradiation Treatment.

**Refer to:** Appendix 25.1.3 Table 10 Mediterranean Fruit Fly Carriers for full host list.

### 10.1.4 Mature green condition

Banana, black sapote, passionfruit, limes, babaco, and papaya (excluding defective flower end types) must be harvested and packed in a mature green condition.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

- An approved certification program for Mediterranean fruit fly carriers is: ICA-08 Mature Green Condition and Immature Green Condition of Papaw and Babaco; ICA-15 Mature Green Condition of Passionfruit, Tahitian Limes, Black Sapotes and Tomatoes; ICA-16 Mature Green Condition of Bananas.

### 10.1.5 Immature green condition

Papaya fruit (excluding defective flower end types) must be harvested and packed in an immature green condition.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- An approved certification program for Mediterranean fruit fly carriers is: ICA-08 Mature Green Condition and Immature Green Condition of Papaw and Babaco

### 10.1.6 Hard condition of avocado

Avocados (Fuerte, Hass, Lamb Hass, Reed and Sharwil varieties only) must be harvested in hard condition and stored in quarantine secure conditions within 48 hours of harvest.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- An approved certification program for Mediterranean fruit fly carriers is: ICA-30 Hard Condition of Avocados.

### 10.1.7 Unbroken skin

Durian, lychee, mangosteen, passionfruit, pomegranate, and rambutan must be harvested and packed with unbroken skin.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

**Note:** unbroken skin means the skin has no pre-harvest crack, puncture, pulled stem or other break that penetrates through to the flesh and has not healed with callus tissue.

### Definitions

- **Mediterranean fruit fly** means *Ceratitis capitata*.
- **Mediterranean fruit fly carrier** means the fruit of a plant mentioned in Schedule 6 of the Regulation and in 3.1.4 and includes fruit attached to a plant.

## 11 Pyriform scale carriers

Pyriform scale carriers must not be moved into Queensland for trade or business activities from a state or part of a state where Pyriform scale has been found.

**Regulating Power:** Biosecurity Regulation 2016 s.56(1) and (3).

Pyriform scale carriers may be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.56(2)(b).

## 11.1 Risk minimisation requirements for pyriform scale carriers

### 11.1.1 Potted plants

The risk minimisation requirement for a pyriform scale carrier that is a potted plant under section 56(3) (b) of the Regulation have been treated in the following manner:

1. All plants in the consignment have been treated with an insecticide registered for the control of scale at rates specified on the label (or used under an approved APVMA permit).
2. All plants have been inspected at the rate of either 600 plants, or 2% of the plants in the consignment (whichever is greater), and no pyriform scale detected.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### Definitions

- **Pyriform scale** means *Protopulvinaria pyriformis*
- **Pyriform scale carrier** means a potted plant of the following families:

<i>Acanthaceae</i>	<i>Araliaceae</i>	<i>Ebenaceae</i>	<i>Malpighiaceae</i>	<i>Oleaceae</i>	<i>Rubiaceae</i>
<i>Agavaceae</i>	<i>Asclepiadaceae</i>	<i>Elaeocarpaceae</i>	<i>Malvaceae</i>	<i>Orchidaceae</i>	<i>Rutaceae</i>
<i>Anacardiaceae</i>	<i>Cannaceae</i>	<i>Euphorbiaceae</i>	<i>Moraceae</i>	<i>Passifloraceae</i>	<i>Saxifragaceae</i>
<i>Apocynaceae</i>	<i>Caprifoliaceae</i>	<i>Fabaceae</i>	<i>Musaceae</i>	<i>Phyllanthaceae</i>	<i>Scrophulariaceae</i>
<i>Aquifoliaceae</i>	<i>Caricaceae</i>	<i>Lauraceae</i>	<i>Myricaceae</i>	<i>Pittosporaceae</i>	<i>Verbenaceae</i>
<i>Araceae</i>	<i>Convolvulaceae</i>	<i>Lythraceae</i>	<i>Myrtaceae</i>	<i>Punicaceae</i>	

## 12 Panama disease tropical race 4

Where a notice of presence of Panama disease tropical race 4 under section 58 of the Regulation is given by an inspector that:

- a) reasonably believes there is a significant risk that Panama disease tropical race 4 is present on land, the person must carry out the actions in accordance with Risk Minimisation Requirements Section 12A (1) -12A (8) of this manual; or
- b) knows that Panama disease tropical race 4 is present on land, the person must carry out the actions in accordance with Risk Minimisation Requirements Section 12A (1) – 12A (15) of this manual.

**Regulating Power:** Biosecurity Regulation 2016 section 58(4)(b)

### 12.1 Risk minimisation requirements for Panama disease tropical race 4

#### 12A Destruction of plants that pose a biosecurity risk related to Panama disease tropical race 4

The risk minimisation requirement for plants, on the land, that pose a biosecurity risk related to Panama disease tropical race 4 under section 58(4)(b) of the Regulation are as follows:

1. Entry to the destruction zone must be restricted to persons conducting the destruction activity or any destruction zone maintenance activities required under the notice.
2. All destruction activities must be notified to an authorised officer at least two (2) business days prior to commencement.
3. Records of destruction activities must be created and kept for 12 months and made available to an authorised officer upon request.

**Note:** Biosecurity Queensland can provide a checklist upon request to assist in keeping records of destruction activities.

4. Tools, equipment, people, or any other risk items must not leave the destruction zone unless they have been decontaminated.
5. A person must dispose of consumables used in the destruction process in accordance with the property's notice.
6. All agricultural chemicals must be registered by APVMA and used in accordance with the instructions on the approved label, except for where an approved APVMA permit provides for variation to the label use.
7. As soon as possible, and within three (3) business days of receiving documentation confirming the presence of Panama disease tropical race 4, a person must:

- a) create a temporary barrier(s) that is sufficient to deter the entry by persons, vehicles, or machinery (e.g. by placing bunting or high visibility tape) around the destruction zone.

The destruction zone must occupy an area 10m along the row in both directions from the infected banana plant. The area of the destruction zone must include the inter-

rows and the same number of banana plants in each row either side of the row where the infected banana plant is located; and

- b) display signage on the temporary barrier stating there is to be no unauthorised access to the destruction zone.
8. As soon as possible, and within 15 days of receiving documentation confirming the presence of Panama disease tropical race 4 in a banana plant, a person must destroy the infected banana plant(s) in accordance with the following.
- a) if the banana plant has wilted or has been cut down:
    - i. cut off pseudostems at 10cm above the growing point without disturbing the soil; and
    - ii. chop up pseudostems and leaf material into 60 – 80cm pieces; and
    - iii. place all pieces of the infected banana plant(s) in heavy duty plastic bags; and
    - iv. place 1kg of urea in each bag, seal bags securely and leave in the destruction zone; and
    - v. gouge out the surface of each remaining corm to create a hollow; and
    - vi. inject each stool with 5mL prepared solution containing 90g glyphosate active constituent per litre of water, following the relevant APVMA permit requirements for the destruction of banana plants\*; and
    - vii. inject each stool with 18mL of prepared solution containing 200mL of a 350g/L imidacloprid product per 100mL water, following the relevant APVMA permit requirements for the destruction of banana plants\*; and
    - viii. spray each stool, and a 30cm band around each stool, with 500 – 750mL (depending on stool size) of prepared solution containing 66g bifenthrin active constituent per 100L water following the relevant APVMA permit requirements for control of banana weevil borer in banana crops that pose a biosecurity risk related to Panama disease tropical race 4<sup>^</sup>. Do not remove trash from around the base of infected banana plants prior to application of bifenthrin; and
    - ix. apply 200g of urea evenly to the gouged surface of each corm; and
    - x. apply urea at the rate of 1kg per m<sup>2</sup> evenly around each infected stool.
  - b) where the banana plant is still standing:
    - i. for banana plants that are up to 1 metre tall inject at one (1) point in the stem with 5mL of prepared solution containing 90g glyphosate active constituent per litre of water, following the relevant APVMA permit requirements\*; and
    - ii. for banana plants that are over 1 metre tall inject at two (2) points around the stem with a total of 5-15mL of prepared solution containing 90g glyphosate active constituent per litre of water (increase the rate used as the pseudostem increases in size) following the relevant APVMA permit requirements\* at 0.5 – 1 metre above the growing point; and

- iii. inject each pseudostem at one (1) point for banana plants up to 1 metre tall and three (3) points for taller banana plants, with a total of 18 – 30mL of prepared solution containing 200mL of a 350g/L imidacloprid product per 100mL water (increase the rate used as the pseudostem increases in size) following the relevant APVMA permit requirements\*; and
- iv. spray the bottom 30cm of each stool as well as the soil in a 30cm band around each stool, with 500-750mL (depending on stool size) of prepared solution containing 66g bifenthrin active constituent per 100L water following the relevant APVMA permit requirements^. Do not remove trash from around the base of infected banana plants prior to application of bifenthrin; and
- v. where bunches are present, spray the surface of the fruit with red marker dye or paint to clearly indicate that fruit cannot be sold or consumed; and
- vi. between 10 and 15 days after requirements 8b i – v have been completed, cut off pseudostems at 10cm above the growing point without disturbing the soil; and
- vii. chop up pseudostems and leaf material into 60 – 80cm pieces; and
- viii. place all pieces of the infected banana plant(s) in heavy duty plastic bags; and
- ix. place 1kg of urea in each bag, seal bags securely and leave in the destruction zone; and
- x. gouge out the surface of each remaining corm to create a hollow; and
- xi. apply 200g urea evenly to the gouged surface of each corm; and
- xii. apply urea at the rate of 1kg per m<sup>2</sup> evenly around each infected stool.

**Note:** the following requirements relate to plants that pose a biosecurity risk on land where an inspector knows that Panama disease tropical race 4 is present on the land.

9. As soon as possible, and within 15 days of receiving documentation confirming the presence of Panama disease tropical race 4, a person must destroy all banana plants remaining in the destruction zone. Destruction must be undertaken in accordance with the following requirements:
  - a) For banana plants that are up to 1 metre tall inject at one (1) point in the pseudostem with 5mL of prepared solution containing 90g glyphosate active constituent per litre of water following the relevant APVMA permit requirements\*; and
  - b) for banana plants that are over 1 metre tall inject at two (2) points around the pseudostem with a total of 5-15mL of prepared solution containing 90g glyphosate active constituent per litre of water (increase the rate used as the pseudostem increases in size) following the relevant APVMA permit requirements\* at 0.5 – 1 metre above the growing point; and
  - c) inject each pseudostem at one (1) point for banana plants up to 1 metre tall and three (3) points for taller banana plants, with a total of 18 – 30mL of prepared solution containing 200mL of a 350g/L imidacloprid product per 100mL water (increase the

rate as the pseudostem increases in size) following the relevant APVMA permit requirements\*; and

- d) spray the bottom 30cm of each stool, and the soil in a 30cm band around each stool, with 500-750mL (depending on stool size) of prepared solution containing 66g bifenthrin active constituent per 100L water following the relevant APVMA permit requirements^. Remove trash from the base of each banana plant prior to application of bifenthrin; and
- e) where bunches are present, spray the surface of the fruit with red marker dye or paint to clearly indicate that fruit cannot be sold or consumed; and
- f) between 10 and 15 days after requirements 9 a – e have been completed, a person must:
  - i. cut off pseudostems at 10cm above the growing point without disturbing the soil; and
  - ii. chop up all pseudostem and leaf material into 60 – 80cm pieces, and leave on the ground; and
  - iii. gouge out the surface of each remaining corm to create a hollow; and
  - iv. apply 200g of urea evenly to the gouged surface of each corm; and
  - v. apply urea at the rate of 1kg per m<sup>2</sup> over the entire destruction zone.

10. Immediately after completing requirements 8 and 9 a person must:

- a) cover the destruction zone, including the bags of banana plant material, with high grade plastic sheeting; and
- b) secure the plastic sheeting in place (e.g. with tent pegs or other suitable means).

11. As soon as possible, and within five (5) weeks of receiving documentation confirming the presence of Panama disease tropical race 4, a person must permanently fence the destruction zone.

Materials used for the permanent fence must be suitable to prevent the entry of animals and to restrict access by people, vehicles, and machinery. Where a gate is included in the fence, it must be locked, and the key stored in a secure location and made available to an authorised officer upon request.

12. Immediately following the construction of the permanent fence, a person must place signs, or allow an authorised officer to place signs, around the fenced destruction zone that warn of the biosecurity risk related to Panama disease tropical race 4. The signage must be of sufficient size, visibility, intervals, and locations adequate to discourage unauthorised access to the destruction zone.

13. Immediately following the construction of the permanent fence, a person must spray the soil in a 0.5m wide band around the external perimeter of the destruction zone fencing with prepared solution containing 25g bifenthrin active constituent per 100L water following the relevant APVMA permit requirements^.

14. Five (5) to six (6) months after requirement 13 has been met, a person must spray the soil in a 0.5m wide band around the external perimeter of the destruction zone fencing with

prepared solution containing 25g bifenthrin active constituent per 100L water following the relevant APVMA permit requirements<sup>^</sup>.

15. The destruction zone must remain undisturbed other than for:

- the completion of any activities required by section 12 of this manual; or
- maintenance activities required under a notice.

## Definitions

- **corm** *means* the part of a banana plant with vertical enlarged compact stems with a tunic of thin leaves and roots arising from a single node.
- **decontaminated** *means* free of contaminating substances including banana plant material, soil and other growing mediums and disinfected.
- **destruction zone** *means* the area of land where banana plants that pose a biosecurity risk related to Panama disease tropical race 4 have been or will be destroyed. The destruction zone occupies an area 10m along the row in both directions from the infected banana plant. The area of the destruction zone must include the inter-rows and the same number of banana plants in each row either side of the row where the infected banana plant is located.
- **disinfect** *means* application of a sanitiser product known to be effective to minimise the spread of Panama disease tropical race 4, that has been prepared with clean water and in accordance with the registered label instructions or APVMA permit requirements.
- **growing point** *means* the point at which the banana plant emerges from the ground.
- **pseudostem** *means* the part of a banana plant with the compact assemblage of overlapping and spirally arranged leaf sheaths, similar to the trunk of a tree.
- **risk items** *means* items including appliances and consumables that have been in contact or may have come in contact with banana plant material or soils in which banana plants are growing, have been grown or may have been grown or other growing mediums in which banana plants are growing, have been grown or may have been grown.
- **stool** *means* the clump formed at the base of the pseudostem of the banana plant.

\*APVMA Permit number – PER14850

<sup>^</sup>APVMA Permit number – PER89389

## 13 Potato pest carriers

Potato pest carriers (excluding seed potatoes) may enter Queensland if sourced from a state where a potato pest has not been found, or from land that is not interstate potato pest infested land or linked land. **Regulating Power:** Biosecurity Regulation 2016 s.57(1) and (3)(a).

Potato pest carriers that are seed potatoes may enter Queensland if produced in accordance with the National Standard for Certification of Seed Potatoes (the Standard). Seed potato certification schemes recognised by Queensland as compliant with the Standard are: ViCSPA, Tas Seed, the Crookwell seed potato certification scheme and the Western Australian Certified Seed Potato Scheme. **Regulating Power:** Biosecurity Regulation 2016 s.57(3)(b).

Potato pest carriers that do not meet these requirements may be moved into Queensland if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate. **Regulating Power:** Biosecurity Regulation 2016 s.57(3)(c).

## 13.1 Risk minimisation requirements for potato pest carriers

### 13.2 Seed potatoes

The risk minimisation requirements for a potato pest carrier that is a seed potato (excluding seed potato certification schemes recognised by Queensland) under section 57, 3(c) of the Regulation are:

1. Not produced on or sourced from interstate potato pest infested land or linked land
2. produced on land that has tested negative to potato pests during the current growing season.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.
- Approved certification programs for potato pest carriers are ICA-59 Property Freedom of Potatoes for Potato Cyst Nematode.

### 13.3 Ware and processing potatoes from linked land

The risk minimisation requirements for potato pest carriers that are ware and processing potatoes from linked land under section 57, 3(c) of the Regulation. In the case of a potato pest carrier that is ware or processing potatoes from linked land, the potato has been grown on land that has tested negative to potato pests during the current growing season and is washed or brushed and does not carry any detachable soil.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.
- Approved certification programs for potato pest carriers such as ICA 44 Movement of potatoes (processing and ware) from PCN linked land.

### 13.4 Plants of the Solanaceae family

The risk minimisation requirements for potato pest carriers that are plants of the Solanaceae family under section 57(3)(c) of the Regulation that are produced:

1. On interstate potato pest infested land the plant has been grown in soil-free media and the plants, pots and potting mix have not been in contact with soil; or
2. on linked land where the plant:
  - a. has been grown in soil-free media and the plants, pots and potting mix have not been in contact with soil; or

- b. is bare rooted and free of all soil.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.
- Approved certification programs for potato pest carriers are: PS 27 Interstate movement of plants.

## 13.5 Appliances

The risk minimisation requirements for potato pest carriers that are appliances under section 57(3)(c) of the Regulation has been cleaned to remove all soil and plant material and treated by:

1. Dipping or drenching with a solution of sodium hypochlorite at a strength of 1.0 percent available chlorine; or
2. Steam cleaning at a temperature greater than or equal to 85 °C for one minute or more.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.

## Definitions

- **interstate potato pest infested land** means a parcel of land outside the State on which a potato pest has been found.
- **linked land** means land to which any of the following applies:
  - the land adjoins interstate potato pest infested land;
  - the land has been planted with seed from interstate potato pest infested land;
  - and appliance, that has been used on interstate potato pest infested land, is used on the land;
  - water can drain directly from interstate potato pest infested land to the land;
  - a person has dealt with a potato pest carrier on the land in contravention of a corresponding law relating to a potato pest.
- **potato pest carrier** means
  - a. a plant of the *Solanaceae* family (examples: capsicum; chillies; eggplant; tomato, petunia; *Browallia*; *Brugmansia*; *Solandra*; *Solanum*); or
  - b. soil; or
  - c. an appliance that has come into contact with a potato pest carrier mentioned in a. or b.
- **potato pest** means *Globodera rostochiensis* and *Globodera pallida*.

- **processing potato** *means* a potato that, when harvested, is sent directly to a facility for processing; or a facility for storage before being processed.
- **seed potato** *means* a potato that is intended for replanting for the purpose of producing a new potato plant.

**tested** *means* a soil sample has been assayed by extraction of cysts with a Fenwick can and manual counting of those cysts or by using a molecular diagnostic method for the presence of PCN, where the soil sample has been collected by coring of the paddock prior to planting, or within 1 month of planting, so that cores are collected at the intersections of a 10 m by 10 m grid, with at least 1 kg of soil collected per hectare, and where each sample to be submitted for testing is no less than 500 g, collected as a representative sub-sample of soil from every two hectares of paddock. paddock; or

In the case of land that is not interstate potato pest infested land or linked land:

- accumulation of soil in a receptacle positioned under the top inspection table of a potato harvester during harvest, with at least 1 kg of soil collected per hectare; and
  - where each sample to be submitted for testing is no less than 500 g for each 2 hectares or part thereof harvested; and
  - is collected as a representative sub-sample of the total soil accumulated during harvest.
- **ware potato** *means* a potato that is grown to be consumed without being processed and is not intended for replanting for the purpose of producing a new potato plant.

## 14 Far northern biosecurity zones

An owner or occupier of land in far northern biosecurity zones 1 or 2 must not plant or cultivate more than 10 banana plants consisting of up to no more than 30 pseudostems on the land, with all cultivars being resistant to black Sigatoka as listed in Appendix 3.1.3;

**Regulating Power:** Biosecurity Regulation 2016 s.64.

An owner or occupier of land in far northern biosecurity zones 1 or 2 must treat an unmanaged banana plant in accordance with the Risk Minimisation Requirement 13A.

**Regulating Power:** Biosecurity Regulation 2016 s.65(2).

Banana plantlets may be moved from the far northern biosecurity zone 1 to a place outside the biosecurity zone, or from the far northern biosecurity zone 2 to a place other than the far northern biosecurity zone 1, if produced under a scheme for the clean planting of bananas outlined in the NIASA - Banana Nursery Stock Specification and accompanied by the appropriate label.

**Regulating Power:** Biosecurity Regulation 2016 s.63(2)(a)(i).

Far northern pest carriers must not be moved out of the far northern biosecurity zone 1, or from the far northern biosecurity zone 2 to the rest of Queensland (excluding the far northern biosecurity zone 1).

**Regulating Power:** Biosecurity Regulation 2016 s.63(1)

Far northern pest carriers that do not meet these requirements may be moved if compliant with the Risk Minimisation Requirements below.

**Regulating Power:** Biosecurity Regulation 2016 s.63(2)(b)

## **14.1 Risk minimisation requirements for far northern pest carriers**

### **14.1.1 Method of treating unmanaged banana plants**

An owner or occupier of land in far northern biosecurity zones 1 or 2 must treat an unmanaged banana plant by:

1. Removing the plant, including the corm, suckers and pseudostem from the soil.
2. Cutting each pseudostem into pieces and split each piece lengthwise.
3. Cutting the corm into pieces no more than 5 cm in diameter.

### **Definitions**

- **far northern pest** *means* an organism listed in Schedule 8 of the Biosecurity Regulation 2016.
- **far northern pest carrier** *means* an appliance that has come into contact with a:
  - A hive, a mango plant or soil, or other growing mediums, in which a banana plant, a mango plant or a sugar cane plant has been grown; or (iv) a vegetative part of a sugar cane plant; or
    - a banana appliance
    - a hive
    - material that is a product or by-product of the processing of (i) a plant; or (ii) anything that comes from a plant; or
    - a plant
    - soil
    - other growing mediums.
  - A hive, mango plant, soil other growing mediums, in which a banana, mango or sugar cane plant, has been grown; or a vegetative part of a sugar cane plant.
  - A banana appliance; hive, material that is a product or by-product of the processing of a plant; or anything that comes from a plant; a plant; soil or other growing mediums.

## 15 Red imported fire ant

Regulatory provisions exist to establish biosecurity zones and manage the risks associated with red imported fire ant (*Solenopsis invicta*) within Queensland. These provisions are contained in Part 5 of the Regulation.

**Regulating Power:** Biosecurity Regulation 2016, Chapter 5, Part 5.

## 16 Electric ant

Regulatory provisions exist to establish a biosecurity zone and manage the risks associated with electric ant (*Wasmannia auropunctata*) within Queensland. These provisions are contained in Part 6 of the Regulation.

**Regulating Power:** Biosecurity Regulation 2016, Chapter 5, Part 6.

## 17 Cattle tick

Cattle tick biosecurity zones are established to manage the risks associated with cattle tick (*Rhipicephalus (Boophilus) sp.*) in Queensland.

**Regulating power:** Biosecurity Regulation 2016 Chapter 5, Part 8.

The owner or occupier of land in the free zone infested with cattle tick must take action to eradicate cattle tick in accordance with the procedures stated in section 18.1.

**Regulating power:** Biosecurity Regulation 2016 s.61

The movement of cattle tick carriers must be in accordance with the risk minimisation requirements stated in section 18.2 To complete the risk minimisation requirements for a specific movement, the procedures that are identified for that movement must be followed. Below is a list of all procedures:

- [Procedure for the use of chemical treatments on cattle tick carriers](#)
- [Procedure for eradicating cattle tick from infested land](#)
- [Procedure for manual inspection of high-risk tick carriers](#)
- [Procedure for manual inspection – high-risk tick carriers free of adult cattle tick](#)
- [Procedure for manual inspection of low-risk tick carriers](#)
- [Procedure for dealing with high-risk tick carriers in a stated way](#)
- [Procedure for visual inspection of high-risk tick carriers](#)

Where a biosecurity certificate is required, the procedures must be performed by an accredited certifier.

Where a biosecurity certificate is not required, procedures may be performed by a person or an accredited certifier. **Regulating power:** Biosecurity Regulation 2016 ss.83–87.

## 18 Discharging the general biosecurity obligation

### 18.1 Procedures for eradicating cattle tick from infested land

To eradicate cattle tick from infested land **at least one** of the following techniques must be used as described in the [Procedure for eradicating cattle tick from infested land](#).

1. Chemical treatment program
2. Destocking
3. Pasture spelling

**Documentation requirement:** Evidence of the eradication procedure/s being undertaken must be kept. Evidence may include:

- Movement records kept in accordance with s194 of the Act
- NLIS movement records as contained in the NLIS database
- Evidence of the purchase of chemical treatment proportionate to the number of livestock treated
- Records of chemical treatment undertaken
- A biosecurity certificate stating that carriers are free of cattle tick
- Other information kept by the person as evidence of eradication activities.

## 18.2 Risk minimisation requirements for cattle tick carriers

### 18.2.1 Moving a high-risk tick carrier into or through the cattle tick free zone

**Table 3 – Risk minimisation requirements for moving a high-risk tick carrier into or through the cattle tick free zone**

Origin	Destination	Risk minimisation requirement procedures	Biosecurity certificate issued by accredited certifier
<b>Infested zone excluding feedlots</b>	Free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Dealt with in a stated way</a></li> </ul>	Yes
	Prescribed facility free zone (feedlot)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes
	Prescribed facility in the free zone (meat processing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Manual inspection free of adult cattle tick</a></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul>	Yes
	Prescribed facility free zone (clearing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Owner chemical treatment</a></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	No
	Infested zone via free zone <i>Meeting requirements in s83(2) of the Biosecurity Regulation 2016</i>	<ul style="list-style-type: none"> <li>• No vehicle stops for more than a 2 hour period while in the free zone; and</li> <li>• No total vehicle stops for more than a total of 4 hours while in the free zone; and</li> <li>• No cross loading, loading or unloading in the free zone.</li> </ul>	No

	<p>Infested zone via free zone</p> <p><i>Without meeting requirements in Biosecurity Regulation 2016 Section 83 (2).</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes
--	--	---	-----

### 18.2.2 Moving a high-risk tick carrier from infested land to the free zone or a prescribed facility

**Table 4 – Risk minimisation requirements for moving a high-risk tick carrier from infested land to the free zone or a prescribed facility**

Origin	Destination	Risk minimisation requirement procedures	Biosecurity certificate issued by accredited certifier
<b>Infested land</b>	Free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul>	Yes
	Infested zone	<ul style="list-style-type: none"> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes
	Prescribed facility in the free zone (feedlot or meat processing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes
	Prescribed facility free zone (clearing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Owner chemical treatment</a></li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	No

### 18.2.3 Moving a high-risk tick carrier from feedlot in cattle tick infested zone

**Table 5 – Risk minimisation requirements for moving a high-risk tick carrier from feedlot in cattle tick infested zone**

Origin	Destination	Risk minimisation requirement procedures	Biosecurity certificate issued by accredited certifier
<b>Feedlot in the infested zone</b>	Free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Owner chemical treatment</a>; and</li> <li>• <a href="#">Dealt with in a stated way</a></li> </ul>	No
	Free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Dealt with in a stated way</a></li> </ul>	Yes
	Prescribed facility in the free zone (feedlot or meat processing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Dealt with in a stated way</a></li> </ul>	No
	Infested zone via free zone  <i>With meeting requirements in s83(2a) of the Biosecurity Regulation 2016</i>	<ul style="list-style-type: none"> <li>• No vehicle stops more than a 2 hour period while in the free zone; and</li> <li>• No total vehicle stops for more than a total of 4 hours while in the free zone; and</li> <li>• No cross loading, loading or unloading in the free zone.</li> </ul>	No
	Infested zone via free zone  <i>Without meeting requirements in s83(2)(a) of the Biosecurity Regulation 2016 where exemptions apply as specified in s83(3).</i>	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes

## 18.2.4 Moving a high-risk tick carrier from clearing facility in cattle tick free zone

**Table 6 – Risk minimisation requirements for moving a high-risk tick carrier from a clearing facility in cattle tick free zone**

Origin	Destination	Risk minimisation requirement procedures	Biosecurity certificate issued by accredited certifier
Clearing facility in the free zone	Free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul>	Yes
	Prescribed facility free zone (feedlot or meat processing facility)	<ul style="list-style-type: none"> <li>• <a href="#">Tick free visual inspection</a>; and</li> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <b>OR</b> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes
	Infested zone	<ul style="list-style-type: none"> <li>• <a href="#">Supervised chemical treatment</a></li> </ul> <b>OR</b> <ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	Yes

## 18.2.5 Moving a low-risk tick carrier from infested land or infested zone

**Table 7 – Risk minimisation requirements for moving a low-risk tick carrier into or through the cattle tick free zone**

Origin	Destination	Risk minimisation requirement procedures	Biosecurity certificate issued by accredited certifier
Infested zone or infested land	Any destination within or through the Queensland free zone	<ul style="list-style-type: none"> <li>• <a href="#">Tick free manual inspection</a></li> </ul>	No

**Documentation requirement (16B-F):** A biosecurity certificate can only be issued by an accredited certifier and must be issued before the movement takes place. The biosecurity certificate provides evidence that the risk minimisation requirements have been met for that movement.

Where a biosecurity certificate is not required, the accompanying movement record must state the actions taken to achieve the risk minimisation requirements. The following information must be included in the movement record:

*Chemical treatments:*

1. Date of treatment
2. Type of treatment

*Inspections:*

- Date of inspection
- Name and contact details of the person who inspected the carrier

## Definitions

For section 16 of the Biosecurity Manual:

- **adult stages of the life cycle of cattle tick** *means* a cattle tick described as an adult cattle tick in the DAF Procedure for identifying the life cycle stage of cattle tick.
- **all stages of the life cycle of cattle tick** *means* a cattle tick of any of the life stages (larvae, nymph or adult) as described in the DAF Procedure for identifying the life cycle stage of cattle tick.
- **cattle tick** *means* *Rhipicephalus (Boophilus) sp.*
- **cattle tick carrier** *means* a designated animal that is a member of any of the following groups of animals:
  - bison
  - buffalo
  - the family Camelidae (e.g. alpacas, Arabian camels, llamas)
  - cattle
  - deer
  - the family Equidae (e.g. horses, ponies, donkeys, mules)
  - goats
  - sheep
- **clearing facility** *means* a place where cattle tick carriers are inspected or treated for cattle tick.
- **feedlot** *means* a facility where intensive animal feedlotting is periodically carried out.
- **free zone** *means* the part of the state identified as the cattle tick free zone on the cattle tick biosecurity zone map.
- **high risk tick carrier** *means* a cattle tick carrier other than a low-risk carrier. These are:
  - bison
  - buffalo
  - cattle
  - deer

- **infested land** *means* land in the free zone infested with cattle tick and is declared a restricted place.
- **infested zone** *means* the part of the State identified as the cattle tick infested zone on the cattle tick biosecurity zone map.
- **live cattle tick** *means* one that shows obvious signs of movement or from which body fluids can be expressed.
- **low risk tick carrier** *means* a cattle tick carrier that is a member of any of the following groups of animals:
  - the family Camelidae (e.g. alpacas, Arabian camels, llamas)
  - the family Equidae (e.g. horses, ponies, donkeys, mules)
  - goats
  - sheep.
- **movement record** *means* a movement record in s194 of the Act.
- **owner chemical treatment** *means* a chemical treatment, conducted in accordance with the *DAF Procedure for the use of chemical treatments on cattle tick carriers*, by an owner of a cattle tick carrier.
- **prescribed facility** *means*:
  - a meat processing facility that is permanently fixed and operated by an entity holding an accreditation under the Food Production (Safety) Act 2000 authorising the holder to process meat at the facility; or
  - a feedlot where intensive animal feedlotting is periodically carried on; or
  - a clearing facility.
- **procedure** *means* a procedure, published on the Department's website, which describes the actions a person must undertake (e.g. inspection, treatment) to meet a risk minimisation requirement or an eradication requirement in relation to cattle tick. Procedures listed below:
  - Procedure for the use of chemical treatments on cattle tick carriers
  - Procedure for eradicating cattle tick from infested land
  - Procedure for identifying the life cycle stages of cattle tick
  - Procedure for manual inspection of high-risk cattle tick carriers
  - Procedure for manual inspection – high risk tick carriers free of adult cattle tick
  - Procedure for manual inspection of low-risk cattle tick carriers
  - Procedure for dealing with high-risk cattle tick carriers in a stated way
  - Procedure for visual inspection of high-risk tick carriers

- **supervised chemical treatment** means a chemical treatment, conducted in accordance with the DAF *Procedure for the use of chemical treatments on cattle tick carriers*, by, or witnessed by an accredited certifier.
- **tick free manual inspection** means a manual inspection has been conducted in accordance with the DAF *Procedure for manual inspection of high-risk cattle tick carriers* or the DAF *Procedure for manual inspection of low-risk cattle tick carriers*.
- **tick free visual inspection** means a visual inspection has been conducted in accordance with the DAF *Procedure for visual inspection of cattle tick carriers*.

## 19 Phylloxera carriers

Prescribed grape phylloxera carriers may enter a phylloxera exclusion zone (PEZ) or phylloxera risk zone (PRZ) if sourced from a PEZ.

**Regulating Power:** Biosecurity Regulation 2016 s.89(3)

Grape phylloxera carriers that 1) are not prescribed grape phylloxera carriers or 2) that are prescribed phylloxera carriers but originate from a phylloxera infested zone (PIZ) or PRZ, may be moved into or within Queensland if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.89(1)

### 19.1 Risk minimisation requirements for phylloxera carriers

#### 19.1.1 Table grapes

The risk minimisation requirements for a prescribed grape phylloxera carrier that is table grapes sourced from a PIZ or PRZ under section 89(1)(a) and (b) of the Regulation are:

1. The grapes have been packed for sale as table grapes into new containers or returnable plastic containers free of soil and plant material.
2. The packed table grapes have undergone one of the disinfestation treatments specified below:
  - a. packed with sulphur pads containing a minimum 970 g/kg sodium metabisulphite at the rate specified on the label and in accordance with the manufacturer's instructions:  
or
  - b. fumigated with methyl bromide following one of the treatments listed below in Table 7.
3. The packed table grape containers are loaded onto a transport vehicle on a hard surface, not within the vineyard.
4. The transport vehicle must be cleaned free of all soil and plant material.
5. The transport undertaken should be via the most direct route possible.

**Table 8 – Methyl bromide fumigation of table grapes**

Fruit Pulp Temperature	Dosage Rate (g/m <sup>3</sup> )	Duration (hours)	Dosage at 30 minutes (75%)	Dosage at 2 hours (60%)
21 °C or greater	32	2	24 g/m <sup>3</sup>	20 g/m <sup>3</sup>
15.5 °C or greater but less than 21 °C	40	2	30 g/m <sup>3</sup>	24 g/m <sup>3</sup>
10 °C or greater but less than 15.5 °C	48	2	36 g/m <sup>3</sup>	29 g/m <sup>3</sup>

6. In the case of a prescribed grape phylloxera carrier that is table grapes sourced from a Phylloxera Risk Zone (PRZ):
- a) the source vineyard has been inspected in the last 12 months in accordance with the provisions of the National Phylloxera Management Protocol, and found free of phylloxera; or
  - b) the grapes have been packed and treated as per 17A (1)(2) (a) and (b) above; and
  - c) the packed table grape containers have been loaded and transported as per 17 (3)(4)(5), above.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 19.1.2 Wine grapes

The risk minimisation requirements for a prescribed grape phylloxera carrier that is wine grapes sourced from a PRZ under section 89(1)(a) and (b) of the Regulation have:

1. Been grown on a property which has been inspected in the last 12 months in accordance with the provisions of the National Phylloxera Management Protocol and found free of phylloxera.
2. Been packed in bins which have been cleaned free of all soil and plant material before delivery and are securely covered after packing.
3. The bins are loaded onto a transport vehicle on a hard surface, not within the vineyard.
4. The transport vehicle has been cleaned free of all soil and organic matter.

**Note:** loads must be securely covered, and transport should occur via the most direct route possible and preferably not through a PIZ.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 19.1.3 Unfiltered juice or must

Unfiltered juice from grapes originating from a PEZ may enter a phylloxera exclusion zone (PEZ) or phylloxera risk zone (PRZ) if sourced from a PEZ.

Otherwise, the risk minimisation requirements for prescribed grape phylloxera carriers that are unfiltered juice or must sourced from a PIZ or PRZ under section 89(1)(a) and (b) of the Regulation are as follows:

1. the juice or must has completed at least three days (72 hours) of fermentation; or
2. the juice or must has been filtered or otherwise processed to achieve a maximum particle size of 50 microns; or
3. if the juice or must has not been through one of the disinfestation procedures listed above, the product has been moved under the conditions described in the National Phylloxera Management Protocol by businesses accredited under ICA-22.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- Approved certification programs for grape phylloxera carriers are: ICA-22 Transfer of Grape Must and Unfiltered Juice PIZ or PRZ for Winemaking in a PEZ.

### 19.1.4 Marc

The risk minimisation requirements for a grape phylloxera carrier that is sourced from a PIZ or PRZ under regulation 89(1)(a) and (b) of the Regulation is as follows:

1. marc of the genus *Vitis* sourced from a PIZ or a PRZ must have:
  - a) completed at least three days (72 hours) of fermentation; or
  - b) been composted in accordance with Australian Standard AS 4454; or
  - c) been pasteurised in accordance with Australian Standard AS 4454.
  - d) must be securely packed or covered to prevent spillage; and
  - e) the container and transport vehicle must be clean, free of soil and organic matter.

*Note:* transport should be by the most direct route possible.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 19.1.5 Grapevine cuttings and grape rootlings

The risk minimisation requirements for grape phylloxera carriers that are grapevine cuttings and grape rootlings sourced from a PRZ or PEZ under section 89(1)(a) and (b) of the Regulation are as follows:

1. In the case of a grape phylloxera carrier that is a grapevine cutting:
  - a) the dormant cuttings originated from a PRZ or PEZ; and
    - i. were fully lignified before taking; and
    - ii. were washed free of soil and organic matter before bundling with no more than 200 cuttings in a bundle; and
    - iii. have been treated by:
      - a. fumigation with methyl bromide at 32 g/m<sup>3</sup> for 3 hours at a temperature of at least 18 °C; or
      - b. were subjected to complete submersion in a hot water dip for either 30 minutes at a temperature of 50 ± 1 °C, or 5 minutes at a temperature of 54 ± 1 °C; or
  - b) the cuttings were sourced from a Commonwealth post-quarantine facility;
2. In the case of a grape phylloxera carrier that is a grape rootling:
  - a) the original cuttings were sourced from a PRZ or PEZ vineyard and subjected to fumigation with methyl bromide, or complete submersion in a hot water dip as for 1.iii. above, prior to growing on as rootlings; and
  - b) the rootlings (including grafted rootlings) were fully dormant before lifting; and
  - c) the rootlings were bare-rooted and washed completely visibly free of soil prior to treatment, with no more than 100 rootlings in a bundle (if bundled); and
  - d) were subjected to complete submersion in a hot water dip for either 30 minutes at a temperature of 50 ± 1 °C or 5 minutes at a temperature of 54 ± 1 °C; and
  - e) immediately prior to dispatch and subsequently, handled to prevent infestation by phylloxera after treatment; or
  - f) the grape rootling was sourced from a Commonwealth post-quarantine facility.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- Approved certification program for phylloxera carriers: ICA-37 Hot Water Treatment of Grapevines.
- A copy of the biosecurity certificate must be provided to the Department.

### 19.1.6 Diagnostic samples

The risk minimisation requirements for grape phylloxera carriers that are diagnostic samples from a PIZ or PRZ under section 89(1)(a) and (b) of the Regulation are as follows:

1. Diagnostic samples must be packaged in a quarantine secure manner; or
2. Disinfested prior to moving the diagnostic sample by:
  - a) autoclaving at 121 °C and 103 kPa for 15 minutes; or 134 °C and 103 kPa for 4 minutes; or
  - b) freezing to -18 °C for 24 hours; or
  - c) freezing and transfer under liquid nitrogen at -196 °C; or
  - d) freeze drying; or
  - e) oven drying to 45 °C for 2 hours; or
  - f) hot water treatment at  $54 \pm 1$  °C for 5 minutes; or
  - g) fixing in formalin/acetic acid, 70% ethanol.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.

**When moving samples to approved facilities, refer to Condition 22 Diagnostic Samples.**

### 19.1.7 Appliances

1. The risk minimisation requirements for a grape phylloxera carrier that is an appliance (including vineyard machinery, equipment, and second-hand packages) sourced from a PIZ or PRZ under section 89(1)(a) and (b) of the Regulation must be thoroughly cleaned with steam or high-pressure hot water to remove all soil and plant debris; and disinfested using one of the following methods where the steam:
  - a) applied is above 100 °C
  - b) contacts all surfaces
  - c) the surface is left dry and not wet with condensate.

Or the hot water where:

- a) the machinery or equipment is fully immersed in water heated to a minimum of 70 °C; and
- b) the machinery or equipment remains immersed for at least 2 minutes after it has reached 70 °C.

Or dry heat (compulsory for mechanical harvesters) where:

- a) the machinery or equipment can be placed in a hot room that can maintain the required temperature; and

- b) temperature probes are applied to measure the temperature of the whole piece of machinery or equipment and the equipment shall reach the required temperature; and
- c) the whole piece of machinery or equipment is held in the hot room for a minimum of either 75 minutes after the machinery or equipment has reached 45 °C, or 120 minutes after the machinery or equipment has reached 40 °C.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.

**Definitions**

- **approved facility** *means* a facility listed in the biosecurity manual as an approved facility for receiving and handling diagnostic samples.
- **filtered juice** *means* juice processed through a filter that removes all particles larger than 50 microns. Centrifugation and cold settling are accepted alternatives to filtration for the purposes of this definition provided that the same outcomes are achieved.
- **juice** *means* is the liquid fraction of must and may contain small-suspended solids, other than grape skin or seeds.
- **marc** *means* the fraction of must that is not juice.
- **must**, for grapes, *means* the total product of crushing grape berries including juice, skins, seeds, pulp, and possibly some stems and leaves.
- **grape phylloxera carrier** *means* a carrier mentioned in schedule 9 of the Biosecurity Regulation 2016:
  - a grape plant *Vitis* spp., including—
    - grapevine cuttings, buds and vegetative tissue, or plant parts, for propagation
    - germplasm establishment cuttings
    - grape rootlings
    - any vegetative part of a grape plant
  - a product derived from a grape plant, including—
    - table grapes
    - wine grapes
    - marc that has not been fermented
    - must
    - juice other than filtered juice
  - an appliance that has been used in connection with a viticulture activity
  - soil, or other growing mediums, that have been within 100 m of a living grapevine
- **phylloxera exclusion zone (PEZ)** *means* an area that has been surveyed in accordance with the National Phylloxera Management Protocol and found free of grape phylloxera, and certified to this effect.

- **phylloxera infested zone (PIZ)** means any area that is not certified as a PRZ or PEZ.
- **phylloxera risk zone (PRZ)** means any area that is not certified as a PIZ or PEZ.
- **prescribed grape phylloxera carrier** means:
  - a) table grapes that have been packed for human consumption, or
  - b) wine grapes, or
  - c) marc that has not been fermented, or
  - d) must, or
  - e) juice, other than filtered juice.
- **packaged in a quarantine secure manner** means the sample is sealed within the following 3 layers of packaging to prevent the escape of the sample or any biosecurity matter—
  - an inner layer of paper, cardboard or plastic that is sealed;
  - a middle layer that is a strong plastic bag and is sealed and labeled “Quarantine Material—Do Not Open”;
  - an outer layer that is a sealed box or other sealed container.

## 20 Papaya ringspot biosecurity zone

A plant of the genus *Carica* (e.g. papaw, pawpaw, papaya) must not be moved from the papaya ringspot biosecurity zone 1 to the rest of Queensland; and a plant of the family *Cucurbitaceae* must not be moved from the papaya ringspot biosecurity zone 2 to the rest of Queensland (excluding the papaya ringspot biosecurity zone 1).

**Regulating Power:** Biosecurity Regulation 2016 s.91(1) and s.92.

Plants of the family *Cucurbitaceae* may be moved under the conditions of a Biosecurity Instrument Permit issued by an Inspector. Producers should contact the Department on 13 25 23 or email [qld.plantquarantine@daf.qld.gov.au](mailto:qld.plantquarantine@daf.qld.gov.au).

**Regulating Power:** Biosecurity Act 2014 s.132.

Papaya ringspot carriers that do not meet these requirements may be moved if compliant with the following Risk Minimisation Requirements.

**Regulating Power:** Biosecurity Regulation 2016 s.91(2).

### 20.1 Risk minimisation requirements for papaya ringspot carriers

#### 20.1.1 Plants of the genus *Carica*

This condition provides the risk minimisation requirements for movement of papaya ringspot carriers from the papaya ringspot biosecurity zone 1 to the rest of Queensland in accordance with section 92(2) of the Regulation.

1. In the case of a tissue culture plant of the genus *Carica*:
  - a) it is a plantlet that has been produced in quarantine secure conditions

- b) the plantlet has been tested and found free of *Papaya ringspot virus* - type P (PRSV-P)
  - c) the plantlet has been packed in a quarantine secure manner.
2. In the case of *Carica* plants from seed, cuttings, including unrooted cuttings, the plants have been:
- a) produced in quarantine secure conditions
  - b) tested and found free of PRSV-P
  - c) packed in a quarantine secure manner.

**Documentation requirement:** biosecurity certificate

**Note:** maps of the papaya ringspot biosecurity zones are published on the Department's website.

### Definitions

- **papaya ringspot carrier** means a plant of the genus *Carica* or a plant of the family *Cucurbitaceae*. Examples of plants of the family *Cucurbitaceae* — cucumber, melon, pumpkin, squash and zucchini.

## 21 Sugar cane pest carriers

Sugar cane pest carriers must not be moved from a place outside of Queensland into biosecurity zones 1 to 6; or from a place within Queensland into sugar cane biosecurity zone 1 or 5; or from within a biosecurity zone to any place outside of that biosecurity zone.

**Regulating Power:** Biosecurity Regulation 2016 s.94(1).

Sugar cane plants that are produced under the Sugar Research Australia plant breeding and clean planting scheme for sugar cane may move into and within Queensland without restriction.

**Regulating Power:** Biosecurity Regulation 2016 s.94(3)(a).

Dried sugar cane trash may be moved into and within Queensland without restriction.

**Regulating Power:** Biosecurity Regulation 2016 s.94(3)(c).

Sugar cane pest carriers may also be moved if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.94(3)(b).

### 21.1 Risk minimisation requirements for sugar cane pest carriers

#### 21.1.1 Plants

The risk minimisation requirements for a sugar cane pest carrier that is a plant under section 94(3)(b) of the Regulation is:

1. the plant is a tissue culture plant
2. it is contained within a sealed pest proof container
3. it is free from biosecurity matter affecting sugar cane pest carriers and far northern pests
4. it is moved under quarantine secure transport.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

## 21.1.2 Appliances

The risk minimisation requirements for a sugar cane pest carrier that is an appliance under section 94(3)(b) of the Regulation has been inspected and found free of soil and plant material.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.
- Approved certification programs for sugar cane pest carriers are: CAAA-01 Inspection of Appliances Used in Sugarcane Production for Contaminants.

## Definitions

- **sugar cane pest** means biosecurity matter affecting sugar cane pest carriers, identified in s93 of the Regulation; *Fiji disease virus* (causal agent of Fiji leaf gall disease); *Sugar cane mosaic virus* (Strain A); *Sugar cane striate mosaic-associated virus*.
- **sugar cane pest carrier** means (a) a vegetative part of a sugar cane plant; or (b) soil, or other growing mediums, in which a sugar cane plant has been grown; or (c) an appliance that has come into contact with a part of a sugar cane plant mentioned in (a) or soil mentioned in (b).

## 22 Diagnostic samples

1. Diagnostic samples of **carriers** can be moved into Queensland if:
  - a) the samples are consigned to an **approved facility** and
  - b) they are quarantine secured.

**Regulating Power:** Biosecurity Regulation 2016 s.46A(1) and (3)

2. Diagnostic samples can be moved out of a biosecurity zone if:
  - a) the samples are being moved out of the state for testing; and
  - b) they are quarantine secured.

**Regulating Power:** Biosecurity Regulation 2016 s.46A(2) and (3)

### 22.1 Risk minimisation requirements for diagnostic samples

Diagnostic samples for commercial and non-commercial purposes may be moved if compliant with the following Risk Minimisation Requirements. **Regulating Power:** Biosecurity Regulation 2016 s.48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 57A, 57B, 79, 80, 89, 91, 94.

For phylloxera carriers that are diagnostic samples from a PIZ or PRZ, refer to Condition 19.1.7.

### 22.1.1 Diagnostic samples

This Risk Minimisation Requirement applies to the movement of diagnostic samples that may be carriers of biosecurity matter and not to the restricted or prohibited matter itself.

Diagnostic samples of carriers can be moved into or within Queensland if:

1. The samples are quarantine secured.
2. The package(s) is clearly and legibly marked on the outside with the name of the collector, the place of collection, the name, and address of the recipient.
3. The samples are denatured at the completion of testing by autoclaving before disposal into the municipal waste stream.

#### Documentation requirement:

- A biosecurity certificate certifying that a) and b) above have been met may be obtained from an inspector or an accredited certifier.
- A copy of the biosecurity certificate must be provided to the Department.

#### Note:

- Where the intention is to transport prohibited or restricted matter, the person intending to move the matter must apply for a biosecurity authorisation.
- A separate condition applies for the movement of Phylloxera carriers that are diagnostic samples. See Prescribed Requirement 17.
- An instrument permit is required to move diagnostic samples from the far northern pest biosecurity zones (s.63).
- An instrument permit is required to move plants of the family Cucurbitaceae from the papaya ringspot biosecurity zone 2 to a place outside the zone - excluding papaya ringspot biosecurity zone 1 (s.92).
- Approved facilities for the receipt of diagnostic samples of carriers under this condition are listed at 3.1.2.

#### Definitions

- **carrier** means carriers regulated under the following sections of the Biosecurity Regulation 2016:
  - 48 (banana pest carriers)
  - 49 (bee louse carriers)
  - 50 (branched broomrape carriers)
  - 51 (cucumber green mottle mosaic virus carriers)
  - 52 (European house borer carriers)
  - 53 (giant pine scale carriers)
  - 54 (mango malformation disease carriers)
  - 55 (Mediterranean fruit fly carriers)

- 56 (pyriform scale carriers)
- 57 (potato pest carriers)
- 57A (tomato-potato psyllid carriers)
- 57B (citrus canker carriers)
- 79 (banana pest carriers)
- 80 (banana pest carriers)
- 89 (grape phylloxera carriers)
- 91 (papaya ringspot carriers)
- 94 (sugar cane pest carriers).
- **approved facility** means a facility listed at 3.1.2
- **diagnostic sample** means a sample collected to be submitted for any form of analysis including diagnosis of the presence or absence of an organism, chemical analysis, and analysis of physical properties.
- **quarantine secured** means the sample is sealed within the following 3 layers of packaging to prevent the escape of the sample or any biosecurity matter—
  - an inner layer of paper, cardboard or plastic that is sealed;
  - a middle layer that is a strong plastic bag and is sealed and labeled “Quarantine Material—Do Not Open”;
  - an outer layer that is a sealed box or other sealed container.

## 23 Tomato/ potato psyllid Carriers

Tomato/potato psyllid carriers must not enter Queensland from a State where tomato/potato psyllid has been found.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(1)A specifies that a tomato/potato psyllid carrier may not enter Queensland if it is:

- a seed that is free of any vegetative material; or
- a **packing house prepared carrier**; or
- a **permitted plant product**.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(2)(a)(b) and 57A(3)

Tomato/potato psyllid plant carriers from a part of the state that is a certified interstate free area for tomato/potato psyllid and zebra chip (*Candidatus Liberibacter psyllauros*), may be moved into Queensland, if the person gets an acceptable biosecurity certificate that states the carrier comes from the certified interstate free area, before moving the carrier.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(2)(c)(i)(ii)

A tomato/potato psyllid carrier that is not a plant (e.g machinery, equipment, soil, and planting media used in association with TPP production) may be moved into Queensland if the carrier has been continuously located in the certified interstate free area for at least 12 months immediately before

being moved. It may also be moved in Queensland if the person gets an acceptable biosecurity certificate that states the carrier comes from the certified interstate free area, before moving the carrier.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(2)(c)

Tomato/potato psyllid plant carriers that have been certified as free from tomato/potato psyllid in accordance with a corresponding law or an inspection and certification program may be moved into Queensland, if accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(d)(i)(ii)

Tomato/potato psyllid carriers that do not meet these requirements may be moved into Queensland if compliant with the following Risk Minimisation Requirements and accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.57A(2)(e)(i)(ii)

## **23.1 Risk minimisation requirements for tomato/potato psyllid carriers**

### **23.1.1.1 Solanaceous fruit**

The risk minimisation requirements for tomato/potato psyllid carrier that is solanaceous fruit under section 57A(2)(e) of the Regulation are as follows:

1. All solanaceous fruit in the consignment have been treated according to the following schedule:
  - (a) Treated with an insecticide effective against all life stages of the tomato-potato psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an Australian Pesticides and Veterinary Medicines Authority (APVMA) emergency use/minor use permit), and
  - (b) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid, and
  - (c) A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid; or
  - (d) Fumigated with methyl bromide at rates specified on the label (or in accordance with an approved Australian Pesticides and Veterinary Medicines Authority (APVMA) emergency use/minor use permit); and
  - (e) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### **23.1.2 Convolvulaceous tubers**

The risk minimisation requirements for tomato/potato psyllid carriers that are convolvulaceous tubers under section 57A(2)(e) of the Regulation are as follows:

1. All convolvulaceous tubers in the consignment are in a dormant state, and have been treated according to the following schedule:
  - a) Fumigated with methyl bromide at rates specified on the label (or in accordance with an approved Australian Pesticides and Veterinary Medicines Authority (APVMA) emergency use/minor use permit); or

- b) Brushed or washed to remove soil; and
- c) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid, and
- d) A 2% or 600 unit inspection prior to dispatch and found to be free of green plant material i.e. leaves, stems, stalks etc. and tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 23.1.3 Solanaceous tubers

The risk minimisation requirements for tomato/potato psyllid carriers that are Solanaceous tubers under section 57A(2)(e) of the Regulation are as follows:

1. All potato tubers in the consignment have been treated according to the following schedule:
  - a) Fumigated with methyl bromide at rates specified on the label (or in accordance with an approved Australian Pesticides and Veterinary Medicines Authority (APVMA) emergency use/minor use permit); or
  - b) Brushed or washed to remove soil; and
  - c) A 2% or 600 unit inspection prior to dispatch and found to be free of green plant material i.e. leaves, stems, stalks etc. and tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

Note, tomato/potato psyllid carriers that are Solanaceous tubers must also meet entry requirements for potato pest carriers, refer to Condition 11 above.

### 23.1.4 Field packed fruits and vegetables

The risk minimisation requirements for tomato/potato psyllid carriers that are field packed fruits and vegetables under section 57A(2)(e) of the Regulation are as follows:

1. Field packed fruits and vegetables (including broccoli, Brussel sprouts, cauliflower (with protective outer leaves removed), corn, pea, grape, summer fruit, cherry, cucumber, zucchini, rockmelon, honeydew melon, watermelon) when treated in accordance with the following procedure:
  - a) Commercially sorted, graded and packed (including the removal of outer leaves and calyx); and
  - b) A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid; and
  - c) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

**(Note: Field packed leafy vegetables such as lettuce, cabbage and celery, or vegetables with the protective outer leaves still attached, are not permitted under this condition)**

### 23.1.5 Field packed leafy vegetables

The risk minimisation requirements for tomato/potato psyllid carriers that are field packed leafy vegetables under section 57A(2)(e) of the Regulation are as follows:

1. Field packed leafy vegetables such as loose leaf lettuce, spinach, cabbage and celery, or vegetables with the protective outer leaves still attached when treated in accordance with the following procedure:
  - (a) Commercially sorted, graded and packed; and
  - (b) Treated with an insecticide effective against all life stages of the tomato-potato psyllid within 4 days of harvest and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an Australian Pesticides and Veterinary Medicines Authority (APVMA) emergency use/minor use permit); and
  - (c) A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid; and
  - (d) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 23.1.6 Packing shed packed fruit and vegetables that have vegetative material attached

The risk minimisation requirements for tomato/potato psyllid carriers that are packing shed packed fruit and vegetables that have vegetative material attached under section 57A(2)(e) of the Regulation are as follows:

1. Packing shed packed fruit and vegetables that have vegetative material attached (includes sweet corn, broccoli, cauliflower, cabbage and loose leaf lettuce) which have been treated in accordance with the following procedure:
  - (a) Washed, for produce that is suitable for washing (acceptable washing methods include, hydro cooling, drenching and dipping); and
  - (b) Commercially sorted, graded and packed (including the removal of outer leaves), for produce that is not suitable for washing i.e. cauliflower, sweet corn, etc.; and
  - (c) A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid; and
  - (d) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### 23.1.7 Nursery stock other than dormant plants

The risk minimisation requirements for tomato/potato psyllid carriers that are nursery stock other than dormant plants under section 57A(2)(e) of the Regulation are as follows:

1. Nursery stock other than dormant plants when treated in accordance with the following procedure:
  - (a) Treated with an insecticide, effective against all life stages of the tomato-potato psyllid,

registered for the control of tomato-potato psyllid, at rates specified on the label (or in accordance with an APVMA emergency use/minor use permit) not less than 72 hours prior to dispatch; and

- (b) Commercially sorted and packed; and
- (c) A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid; and
- (d) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### **23.1.8 Dormant nursery stock**

The risk minimisation requirements for tomato/potato psyllid carriers that are dormant nursery stock under section 57A(2)(e) of the Regulation with the following conditions:

1. Plants are free of any green vegetative material including buds or leaves.
2. 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### **23.1.9 Cut flowers**

The risk minimisation requirements for tomato/potato psyllid carriers that are cut flowers under section 57A(2)(e) of the Regulation are as follows:

1. Cut flowers when treated in accordance with the following conditions:
  - (a) Treated with a fumigant effective against all life stages of the tomato-potato psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an APVMA emergency use/minor use permit).
  - (b) Commercially sorted and packed.
  - (c) Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### **23.1.10 Strawberry fruit**

The risk minimisation requirements for tomato/potato psyllid carriers that are strawberry fruit under section 57A(2)(e) of the Regulation are:

1. Commercially sorted and packed.
2. A 2% or 600 unit inspection prior to dispatch and found to be free of tomato-potato psyllid
3. Packed in quarantine secure conditions that prevent infestation with tomato-potato psyllid.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

### **23.1.11 Machinery and equipment used in the production of plants or plant material**

The risk minimisation requirements for tomato/potato psyllid carriers that are machinery and equipment used in the production of any plants or plant material under section 57A(2)(e) of the Regulation has been treated according to the following schedule:

1. Washed and cleaned free of plant material and soil with high pressure hot water to a temperature  $\geq 70^{\circ}\text{C}$ ; or
2. Treated with an insecticide effective against all life stages of the tomato-potato psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an APVMA emergency use/minor use permit); and
3. Inspected and found free of tomato-potato psyllid, plant material and soil.

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from an inspector, or from an accredited certifier.

#### **Definitions:**

- ***inspection and certification program*** means a program, administered by another State, under which tomato/potato psyllid carriers are inspected and certified as being free of tomato/potato psyllid.
- ***packing house prepared carrier*** means a fruit or vegetable, other than a plant of the Solanaceae family or Convolvulaceae family, that—
  - (a) is prepared, stemmed, processed, graded, sorted or packed in a packing house; and
  - (b) is free of other vegetative material, including, for example, a calyx.

permitted plant product means any of the following—

- (a) grain;
- (b) dried plant parts;
- (c) mulch;
- (d) timber;

(e) chaff or hay.

security Manual, Department of Agriculture and Fisheries, 2016 55  
#4610421 V15.0 01/06/21

tomato/potato psyllid means tomato/potato psyllid (*Bactericera cockerelli*).

tomato/potato psyllid carrier means—

- (a) a plant of the Solanaceae family; or

Examples—

- capsicum
- potato
- thornapple
- tobacco
- tomato

(b) a plant of the Convolvulaceae family; or

Examples—

- sweet potato
- field bindweed (sp. Field bindweed)

(c) another plant that is not a permitted plant product; or

(d) soil that has come into contact with a

tomato/potato psyllid carrier mentioned in paragraph (a) or (b); or

(e) an appliance that has come into contact with a tomato/potato psyllid carrier mentioned in paragraph (a), (b) or (d).

## 24 Citrus canker carriers

Citrus canker carriers must not enter Queensland unless sourced from a state or part of a state that is certified free from citrus canker. **Regulating Power:** Biosecurity Regulation 2016 s.57B(1) and (3)(a)

Citrus canker carriers that do not meet these requirements may be moved into Queensland if compliant with the following Risk Minimisation Requirements, and if accompanied by an acceptable biosecurity certificate.

**Regulating Power:** Biosecurity Regulation 2016 s.57B(3)(b)

### 24.1 Risk Minimisation Requirements for citrus canker carriers

#### 24.1.1 Citrus fruit

The risk minimisation requirements for movement of citrus canker carriers under section 57B(3)(b) of the Regulation are as follows:

1. The fruit in the consignment has been commercially grown on a property that:
  - (a) was surveyed by an authorised officer of the department responsible for agriculture in the State or Territory of Australia in which the property is located (the Relevant Department) and accredited by the Relevant Department as being free from citrus canker a minimum of three times per year. In the case of the Northern Territory the surveys are to be scheduled:
    - at the beginning of the wet season (November);
    - mid-way through of the wet season (February); and

- at the and end of the wet season (April); and
  - (b) has been registered by the Relevant Department as a property that is free from citrus canker; and
2. The fruit in the consignment has been commercially grown by a commercial grower:
    - (a) whose property has been surveyed and registered in accordance with condition (1)(a) and (1)(b) above; and
    - (b) who has applied to, and been approved by, the Relevant Department for grower registration; and
  3. The citrus trees from which the fruit in the consignment is sourced have been:
    - (a) treated with a copper-based fungicide for citrus canker in accordance with an approved Australian Pesticides and Veterinary Medicines Authority (APVMA) minor use or emergency permit; and
    - (b) monitored for citrus leaf miner, and treated as required with an insecticide registered for the control of citrus leaf miner in accordance with the instructions on an approved label (or in accordance with an approved APVMA minor use or emergency permit); and
  4. The fruit in the consignment is post-harvest treated with one of the following means (and no artificial drying or further treatment has occurred during either of the treatments described in (4)(a) or (4)(b) below):
    - (a) As specified on an approved label or in accordance with an approved APVMA minor use or emergency permit completely wet the fruit either by immersion or continuous spraying using a product containing sodium hypochlorite to produce a solution of 200 ppm w/v of available chlorine (and which is maintained at a pH of 6.0 to 7.5). The fruit must remain completely wet within the solution for at least 2 minutes, either through continued immersion or continuous spraying; or
    - (b) As specified on an approved label or in accordance with an approved APVMA minor use or emergency permit containing 950g/kg sodium ortho-phenylphenate tetrahydrate (SOPP tetrahydrate) to produce a solution of 2kg SOPP tetrahydrate to 100L water (and which is maintained at a pH of 12.0), completely wet fruit with the solution for at least:
      - 45 seconds if the solution has sufficient soap or detergent to cause foam to appear; or
      - 1 minute otherwise.
  5. The facility (packing shed) in which the fruit in the consignment has been sorted, graded, treated and packed has been audited by an authorised officer of the Relevant Department, and registered by the Relevant Department, for the purpose of moving fruit out of particular areas that are or may be affected by citrus canker; and
  6. The fruit in the consignment is inspected by an authorised officer of the relevant Department at a rate of 600 or 2% (whichever is greater) units per consignment lot, prior to dispatch and:
    - (a) found free from symptoms of citrus canker; and
    - (b) each package from which fruit is taken for inspection shall also be inspected for freedom from leaves, twigs and other plant parts (except for stems that are less than 2.5cm long and attached to the fruit).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from a government inspector, or from an accredited certifier.

## 25 Kaffir lime leaves

The risk minimisation requirements for movement of citrus canker carriers under section 57B(3)(b) of the Regulation that are kaffir lime leaves (*Citrus hystrix*) in the consignment:

1. Have been commercially grown on a property that was surveyed by an authorised officer of the department responsible for agriculture in the State or Territory of Australia in which the property is located (the Relevant Department) and accredited by the Relevant Department as being free from citrus canker; and
2. Have been sourced from a registered grower:
  - (a) whose property has been surveyed and accredited in accordance with condition (1) above; and
  - (b) who has applied to, and been approved by, the Relevant Department for grower accreditation.
3. Is sourced have been monitored for citrus leaf miner and treated as required with an insecticide registered for the control of citrus leaf miner in accordance with the instructions on an approved label (or in accordance with an approved APVMA minor use or emergency use permit) during the production season.
4. Have undergone a post-harvest citrus canker treatment in accordance with the product label or APVMA minor use or emergency use permit and have been sorted, graded, post-harvest treated, packed and identified in a registered packing house.
5. Have been sorted, graded, post-harvest treated, packed, and identified at the facility (packing house). These have also been audited by an authorised officer of the relevant Department, and registered by the relevant Department, for the purpose of moving kaffir lime leaves out of particular areas that are or may be affected by citrus canker; and
6. Have been inspected by an authorised officer of the relevant Department at a rate of 600 units per consignment lot, prior to dispatch and:
  - (a) found free from symptoms of citrus canker; and
  - (b) each package from which leaves are taken for inspection shall also be inspected for freedom from twigs and other plant parts (except for the small petiole attached to the leaves).

**Documentation requirement:** biosecurity certificate

- A biosecurity certificate may be obtained from a government inspector, or from an accredited certifier.

### Definitions

- **Citrus canker** means *Xanthomonas citri* pv. *citri*, also known as *Xanthomonas citri* subsp. *citri*,
- **Citrus canker carrier** means
  - (a) a plant mentioned in Schedule 7A of the Regulation and in 3.1.5; or
  - (b) soil, or other growing mediums, that have come into contact with a plant mentioned in Schedule 7A of the Regulation and in 3.1.5; or
  - (c) an appliance that has come into contact with a carrier mentioned in Schedule 7A of the Regulation and in 3.1.5

## 26 Appendices

### 26.1 Biosecurity zone maps

Biosecurity zone maps are published on the Department's [website](#).

#### 26.1.1 Schedule of approved facilities

Section 46A of the Regulation allows for a person to move a sample of a carrier of biosecurity matter into the State, or into or from a biosecurity zone for testing at an approved facility for receiving and handling diagnostic or analytical samples, that would otherwise be restricted.

The following facilities have been approved by the Department for the receipt and handling of certain diagnostic samples, as detailed below.

**Table 9 – Approved facilities**

Facility	Diagnostic samples	Address	Contact
SYMBIO Brisbane Chemistry Laboratory	banana & sugarcane plantation soils, interstate grapevine soils.	52 Brandl Street, Eight Mile Plains QLD 4113.	(07) 3340 5700
Plant Biosecurity Laboratory	Priority plant pests (including suspect exotic viruses, viroids, nematodes, bacterial and fungal plant disease samples).	Level 2 C East, <a href="#">EcoSciences Precinct</a> , <a href="#">41 Boggo Road</a> , <a href="#">Dutton Park QLD</a> <a href="#">4102</a> .  B3 Loading Dock, Joe Baker Street, Dutton Park, QLD 4102.  GPO Box 267, Brisbane QLD 4001.	Biosecurity Queensland Customer Service Centre 13 25 23  info@daf.qld.gov.au

Facility	Diagnostic samples	Address	Contact
Molecular Diagnostics and Diversity Laboratory	Viruses and phytoplasma diagnostics.  Banana bunchy top virus.	Level 2C West, EcoSciences Precinct, 41 Boggo Rd, Dutton Park QLD 4102.  Deliveries via:  B3 Loading Dock, Joe Baker Street, Dutton Park, QLD 4102  Postal mail:  GPO Box 267, Brisbane QLD 4001.	Department of Agriculture and Fisheries Customer Service Centre 13 25 23
(Department of Environment and Science  Chemistry Centre Soil and Plant Laboratory	Banana and sugarcane plant samples and soil samples used in agricultural and environmental assessment.	Level 3A, EcoSciences Precinct, 41 Boggo Rd, Dutton Park QLD 4102.  Deliveries via:  B3 Loading Dock, Joe Baker Street, Dutton Park QLD 4102.	Chemistry Centre Sample Receipt team  T:(07) 3170 5696  Or  E: <a href="mailto:chemistrycentre@des.qld.gov.au">chemistrycentre@des.qld.gov.au</a>
Grow Help Australia  (Plant pathology, Entomology)	Commercial clients only.	Level 2C West, EcoSciences Precinct, 41 Boggo Rd Dutton Park, QLD, 4102.  Deliveries via:  B3 Loading Dock, Joe Baker Street, Dutton Park, QLD, 4102	Department of Agriculture and Fisheries Customer Service Centre 13 25 23  <a href="mailto:growhelp@daf.qld.gov.au">growhelp@daf.qld.gov.au</a>
Centre for Tropical Agriculture	No diagnostic samples of banana & sugarcane plant/soil accepted from the public.	PO Box 1054, Mareeba, QLD, 4880.	(07) 4048 4675  (07) 4048 4676

Facility	Diagnostic samples	Address	Contact
Chemical Residues Laboratory – Health and Food Sciences Precinct	Samples for National Residue Survey, and samples of food and feed for antibiotic and pesticide residues.	Health and Food Sciences Precinct 39 Kessels Road, Coopers Plains, QLD, 4108  Deliveries via. Health and Food Sciences Precinct  Loading dock 12.  PO Box 156, Archerfield BC, QLD 4108.	Biosecurity Queensland Customer Service Centre 13 25 23  info@daf.qld.gov.au
Sugar Research Australia	Sugarcane plant and soil samples.	50 Meiers Road, Indooroopilly, QLD, 4068  Postal mail:  PO Box 86, Indooroopilly, QLD, 4068.	(07) 3331 3333  sra@sugarresearch.com.au
Maroochy Research Facility Tissue Culture Quarantine Laboratory	Banana plant material for NIASA-QBAN only.  No diagnostic samples of banana & sugarcane plant/soil accepted from the public.	PO Box 5083, Sunshine Coast Mail Centre QLD 4560.	4365 Department of Agriculture and Fisheries Customer Service Centre 13 25 23  info@daf.qld.gov.au
Centre for Wet Tropics Agriculture	No diagnostic samples of banana & sugar cane plant/soil accepted from the public.	Postal mail:  PO Box 20, South Johnstone QLD 4859.	(07) 4064 1130

Facility	Diagnostic samples	Address	Contact
Field Crop Plant Pest Diagnostics (Entomology, plant pathology & soil analysis)	No diagnostic samples of bananas & sugar cane accepted from the public.	Ground Floor O-Block, Tor Street Complex, Toowoomba QLD 4350.	(07) 4688 1200

### 26.1.2 Banana cultivars that are considered resistant to black Sigatoka disease

The following banana cultivars are considered resistant to black Sigatoka:

- Blue Java
- Bluggoe;
- Ducasse
- FHIA 01 (Goldfinger)
- FHIA 02
- FHIA 25
- Kluai Namwa Khom (Dwarf Ducasse)
- Pisang Ceylan (Mysore type)
- SH 3436
- Simoi
- Tu-8
- Yangambi Km5.

### 26.1.3 Mediterranean fruit fly carriers

Table 10 – Mediterranean fruit fly carriers

Common name	Scientific name
abiu	<i>Pouteria caimito</i>
acerola	<i>Malpighia glabra</i> L. <i>M.glabra</i> x <i>M.punicifolia</i> L. (Barbados cherry)
achchairu	<i>Garcinia humilis</i>
akee	<i>Blighia sapida</i>
akia	<i>Wikstroemia phillyreifolia</i>
almond (with husk)	<i>Prunus amygdalus</i> Batsch => <i>Prunus dulcis</i>
apple	<i>Malus domestica</i> , <i>Malus sylvestris</i> (crab apple)
apricot	<i>Prunus armeniaca</i> L.
avocado	<i>Persea americana</i>
Barbados cherry	<i>Malpighia punicifolia</i> L.
babaco (ripe)	<i>Carica pentagona</i>
banana	<i>Musa</i> spp.
berries, other than strawberries, not mentioned elsewhere in this schedule	
blackberry	<i>Rubus fruticosus</i> L.
black plum	<i>Syzygium cumini</i>
black sapote	<i>Diospyros digyna</i>
black walnut	<i>Juglans nigra</i> L.
blueberry	<i>Vaccinium corymbosum</i> L.
blue-crown passion flower	<i>Passiflora coerulea</i>
bourbon orange	<i>Ochrosia elliptica</i>
boxthorn	<i>Lycium europaeum</i> L.
boysenberry	<i>Rubus ursinus</i> x <i>R. idaeus</i>
brazil cherry see grumichama	
breadfruit	<i>Artocarpus altilis</i>
calamondin orange	<i>Citrofortunella mitis</i>
camito (star cherry)	<i>Chrysophyllum cainito</i> L.
cape gooseberry	<i>Physalis peruviana</i> L.
capsicum	<i>Capsicum annuum</i> L. var. <i>grossum</i> Sendt
carambola (star fruit)	<i>Averrhoa carambola</i> L.
carissa, not mentioned elsewhere in this schedule	<i>Carissa</i> spp.
cashew apple	<i>Anacardium occidentale</i> L.
casimiroa (white sapote)	<i>Casimiroa edulis</i>
chapote	<i>Diospyros texana</i>
cherimoya	<i>Annona cherimolia</i>
cherry	<i>P. cerasus</i> L. (sour cherry)
	<i>Prunus avium</i> L. (sweet cherry)
chilli	<i>Capsicum annuum</i> L. v <i>acuminatum</i> Fingerh. (chillies)
	<i>C. annuum</i> v <i>cerasiforme</i> Irish (cherry peppers)

Common name	Scientific name
	<i>C. annuum</i> v <i>conoides</i> Irish(tabasco)
choko	<i>Sechium edule</i>
citron	<i>Citrus medica</i> L.
citrus, not mentioned elsewhere in this schedule	
cocoa	<i>Theobroma cacao</i>
coffee berry	<i>Coffea arabica</i> (arabian coffee)
	<i>C. canephora</i>
	<i>C. excelsa</i> Chiov. (excelsa coffee)
	<i>C. liberica</i> Hiern. (liberian coffee)
	<i>C. robusta</i> Linden (robusta coffee)
cola	<i>Cola natalensis</i>
common jujube	<i>Ziziphus jujuba</i>
custard apple	<i>Annona squamosa</i> L. x <i>A. cherimolia</i>
date (fresh)	<i>Phoenix dactylifera</i> L.
diospyros, not mentioned elsewhere in this schedule	<i>Diospyros</i> spp.
durian	<i>Durio zibethinus</i>
eggplant	<i>Solanum melongena</i> L.
eugenia, not mentioned elsewhere in this schedule	<i>Eugenia</i> spp.
feijoa	<i>Acca sellowiana</i>
fig	<i>Ficus carica</i> L.
goji berry	<i>Lycium barbarum</i>
gooseberry	<i>Ribes uva-crispa</i>
granadilla	<i>Passiflora quadrangularis</i> L.
grape	<i>Vitis labrusca</i> L. (isabella grape)
	<i>Vitis vinifera</i> L. (wine grape)
grapefruit	<i>Citrus paradisi</i>
green sapote	<i>Pouteria viridis</i>
grumichama (brazil cherry)	<i>Eugenia braziliensis</i>
guava	<i>Psidium guajava</i> L.
	<i>P. littorale</i> Raddi syn <i>P. cattleianum</i> Sabine (strawberry guava)
	<i>P. cattleianum</i> Sabine var. <i>guineense</i> Sw. (brazilian guava)
	<i>P. cattleianum</i> var. <i>lucidum</i> (yellow cattley guava)
	<i>P. friedrichsthalianum</i> (costa rican guava)
hawthorn	<i>Crataegis</i> spp.
Indian caper (fresh)	<i>Capparis sepiaria</i>
ironwood	<i>Sideroxylon inerme</i>
jaboticaba	<i>Myrciaria cauliflora</i>
jackfruit	<i>Artocarpus heterophyllus</i>
jambu	<i>Syzygium cumini</i> L. Skeels
jerusalem cherry	<i>Solanum pseudocapsicum</i> L.

Common name	Scientific name
jujube	<i>Ziziphus mauritania</i>
kei apple	<i>Dovyalis caffra</i> Warb.
kiwifruit	<i>Actinidia deliciosa</i>
kumquat	<i>Fortunella japonica</i> * <i>F. margarita</i>
lemon	<i>Citrus limon</i> x <i>C. chinense</i>
lemon (meyer)	<i>Citrus meyeri</i>
lime	<i>Citrus aurantiifolia</i> (West Indian lime)
	<i>C. latifolia</i> (Tahitian lime)
	<i>C. reticulata</i> var. <i>Austera</i> (Rangpur lime)
loganberry	<i>Rubus loganobaccus</i>
longan	<i>Euphoria longan</i>
loofah, smooth	<i>Luffa cylindrical</i>
loquat	<i>Eriobotrya japonica</i>
lychee	<i>Litchi chinensis</i>
lycium, not mentioned elsewhere in this schedule	<i>Lycium</i> spp.
madagascar olive	<i>Noronihia emarginata</i>
mamey sapote	<i>Pouteria spanota</i>
mandarin	<i>Citrus reticulata</i>
mangosteen	<i>Garcinia mangostana</i> L.
mango	<i>Mangifera indica</i> L.
medlar	<i>Mespilus germanica</i>
mimusops, not mentioned elsewhere in this schedule	<i>Mimusops</i> spp.
mock orange	<i>Murraya paniculata</i> (L.) Jack syn. <i>M. exotica</i> L.
mombin (vai apple, hog plum)	<i>Spondias aurantiaca</i> syn. <i>Spondias mombin</i> L.
monstera	<i>Monstera deliciosa</i>
mountain apple (malay apple)	<i>Syzygium malaccensis</i>
mulberry	<i>Morus nigra</i> L.
nashi	<i>Pyrus pyrifolia</i> var. <i>culta betulaefolia</i>
natal plum	<i>Carissa macrocarpa</i>
	<i>Terminalia chebula</i>
nectarine	<i>Prunus persicae</i> var. <i>nectarina</i>
olive	<i>Olea europaea</i>
orange	<i>Citrus aurantium</i> L.
oriental pear tree	<i>Pyrus pyrifolia</i>
otaheite apple	<i>Spondias dulcis</i>
papaya	<i>Carica papaya</i> L.
passionfruit	<i>Passiflora edulis</i> f. <i>edulis</i> (purple passionfruit)
	<i>P. edulis</i> f. <i>flavicarpa</i> (yellow passionfruit)
peach	<i>Prunus persicae</i>
peacharine	<i>Prunus nucipersica</i>
peachcot	<i>Prunus persica</i> x <i>P. armeniaca</i>
pear	<i>Pyrus communis</i> L.
pepino	<i>Solanum muricatum</i> Aiton
persimmon	<i>Diospyros kaki</i> L.f. (japanese persimmon)

Common name	Scientific name
	<i>D. decandra</i> Lour. (persimmon)
plum	<i>Prunus domestica</i> (prune)
	<i>Prunus insitita</i> L. (damson plum)
	<i>Prunus salicina</i> (japanese plum)
plumcot	<i>Prunus domestica</i> x <i>P. armeniaca</i>
pomegranate	<i>Punica granatum</i> L.
pond apple	<i>Annona glabra</i> L.
prickly pear	<i>Opuntia ficus indica</i> or <i>Opuntia stricta</i>
pummelo	<i>Citrus grandis</i> L. Osbeck
pyrus	<i>Pyrus syriaca</i>
quince	<i>Cydonia oblonga</i>
rambutan	<i>Nephelium lappaceum</i> L.
raspberry	<i>Rubus idaeus</i> L.
rollinia	<i>Rollinia deliciosa</i>
rose apple	<i>Syzygium jambos</i> L.
santol	<i>Sandoricum indicum</i>
sapodilla	<i>Manilkara zapota</i> L.
sapote, not mentioned elsewhere in this schedule	Family <i>Sapotaceae</i> Family <i>Ebenaceae</i>
shaddock	<i>Citrus maxima</i>
soursop	<i>Annona muricata</i> L.
south american sapote	<i>Quararibea cordata</i>
spanish cherry	<i>Mimusops elengi</i> L.
spondias, not mentioned elsewhere in this schedule	
stonefruit, not mentioned elsewhere in this schedule	
surinam cherry	<i>Eugenia uniflora</i> L.
sweetsop (sugar apple)	<i>Annona squamosa</i> L.
tamarillo	<i>Cyphomandra betacea</i>
tangelo	<i>Citrus reticulata</i> x <i>C. paradisi</i>
tomato	<i>Lycopersicon esculentum</i> L.
tree tomato	<i>Cyphomandra betacea</i>
tropical almond	<i>Terminalia catappa</i> L.
walnut	<i>Juglans regia</i> L.
wax apple (rose apple)	<i>Syzygium jambos</i> L. syn. <i>Eugenia jambos</i> L.
wax jambu	<i>Syzygium samarangense</i>
ziziphus	<i>Ziziphus joazeiro</i>

## 26.1.4 Citrus Canker Carriers

Table 11 – Citrus Canker carriers

Common name	Scientific name
	<i>Acronychia wilcoxiana</i>
African cherry orange	<i>Citropsis schweinfurthii</i> (syn. <i>Limonia schweinfurthii</i> )
Alemow	<i>Citrus macrophylla</i>
Alianthus-like prickly ash	<i>Zanthoxylum ailanthoides</i> <i>Atalantia</i> spp.
Australian round lime	<i>Citrus australis</i> (syn. <i>Microcitrus australis</i> )
Bigaraldin	<i>Citrus madurensis</i> x <i>Citrus aurantiifolia</i>
Calamondin	<i>Citrus madurensis</i>
Calarin	<i>Citrus deliciosa</i> x <i>Citrus madurensis</i>
Calashu	<i>Citrus unshiu</i> x <i>Citrus madurensis</i>
Cicitrangle (cicitrangle)	<i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (citrange) x <i>Poncirus trifoliata</i>
Citradia	<i>Citrus aurantifolium</i> x <i>Poncirus trifoliata</i>
Citrandin (citradarin)	<i>Citrus nobilis</i> x <i>Poncirus trifoliata</i>
Citrangarin	<i>Citrus deliciosa</i> x <i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (citrange) x <i>Poncirus trifoliata</i>
Citrange	<i>Citrus sinensis</i> x <i>Poncirus trifoliata</i>
Citrangedin	<i>Citrus adurensis</i> x <i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (citrange) x <i>Poncirus trifoliata</i>
Citrangequat	<i>Citrus margarita</i> (syn. <i>Fortunella margarita</i> ) x <i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (citrange)
Citranguma	<i>Citrus unshiu</i> x <i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (citrange) x <i>Poncirus trifoliata</i>
Citrofortunella	<i>Citrus</i> spp. (syn. <i>Citrofortunella</i> spp.)
Citron	<i>Citrus medica</i>
	<i>Citroncirus</i> spp.
	<i>Citropsis daweana</i> (syn. <i>Hesperethusa villosa</i> )
Citrumelo	<i>Citrus reticulata</i> x <i>Poncirus trifoliata</i>
Citrunshu	<i>Citrus unshiu</i> x <i>Poncirus trifoliata</i>
	<i>Citrus amblycarpa</i>
	<i>Citrus benikoji</i>
	<i>Citrus davaoensis</i>
	<i>Citrus depressa</i>
	<i>Citrus excels</i>
	<i>Clausena harmandiana</i>
	<i>Citrus intermedia</i>
	<i>Citrus leiocarpa</i>
	<i>Citrus longispina</i>
	<i>Citrus lycopersiciformis</i>
	<i>Citrus maderaspatana</i>

Common name	Scientific name
Clemelo	<i>Citrus nobilis</i> (clementine) x <i>Citrus maxima</i>
Cleopatra mandarin	<i>Citrus reshni</i>
Cochin China atalantia	<i>Atalantia citroides</i>
Desert lime (Australian desert lime)	<i>Citrus glauca</i> (syn. <i>Eremocitrus glauca</i> )
Evodia	<i>Melicope denhamii</i> (syn. <i>Euodia ridleyi</i> )
False foot of the turtle	<i>Melicope triphylla</i>
Faustrime	<i>Citrus aurantiifolia</i> x <i>Citrus australasica</i> (syn. <i>Microcitrus australasica</i> )
Faustrimedrin	<i>Citrus madurensis</i> x <i>Citrus australasica</i> (syn. <i>Microcitrus australasica</i> )
Faustrimon	<i>Citrus limon</i> x <i>Citrus australasica</i> (syn. <i>Microcitrus australasica</i> ) <i>Feroniella crassifolia</i>
Finger lime	<i>Citrus australasica</i> (syn. <i>Microcitrus australasica</i> )
Grapefruit	<i>Citrus paradisi</i>
Hassaku orange	<i>Citrus hassaku</i>
Hong Kong kumquat	<i>Citrus hindsii</i> (syn. <i>Fortunella hindsii</i> )
Humpty doo lime	<i>Citrus gracilis</i>
Kaffir lime (Mauritius bitter orange)	<i>Citrus hystrix</i>
Kalpi	<i>Citrus webberi</i>
Khasi papeda	<i>Citrus latipes</i>
Kumquat	<i>Citrus japonica</i> (syn. <i>Fortunella japonica</i> )
Kuranga (Indian)	<i>Atalantia racemosa</i> (syn. <i>Atalantia disticha</i> )
Langsat	<i>Lansium domesticum</i>
Lemon	<i>Citrus limon</i>
Lemon aspen	<i>Acronychia acidula</i>
Lime berry	<i>Micromelum minutum</i>
Limelo	<i>Citrus maxima</i> x <i>Citrus aurantiifolia</i>
Limequat	<i>Citrus japonica</i> (syn. <i>Fortunella japonica</i> ) x <i>Citrus aurantiifolia</i> <i>Lunasia amara</i>
Mandarin and Tangerine	<i>Citrus reticulata</i>
Meiwa sweet kumquat	<i>Citrus japonica</i> subfo. <i>crassifolia</i> (syn. <i>Fortunella crassifolia</i> )
Meiwa sweet kumquat	<i>Citrus crassifolia</i> (syn. <i>Fortunella crassifolia</i> )
	<i>Melicope latifolia</i> (syn. <i>Euodia latifolia</i> )
Mexican lime (West Indian lime)	<i>Citrus aurantifolia</i>
Meyer lemon	<i>Citrus meyeri</i> <i>Microcitronella</i> spp.
Mountain citron	<i>Citrus halimii</i>
Mount White lime	<i>Citrus garrawayi</i> (syn. <i>Microcitrus garrawayi</i> )
Murcott tangor	<i>Citrus reticulata</i> x <i>Citrus sinensis</i>
Native mock orange	<i>Murraya ovatifoliolata</i> (syn. <i>Murraya paniculata</i> var. <i>ovatifoliolata</i> )
Natsudaidai	<i>Citrus natsudaidai</i>

Common name	Scientific name
North Queensland lime (Russell River lime)	<i>Citrus inodora</i> (syn. <i>Microcitrus inodora</i> )
Orangelo	<i>Citrus maxima</i> x <i>Citrus sinensis</i>
Orangequat	<i>Citrus margarita</i> (syn. <i>Fortunella margarita</i> ) x <i>Citrus sinensis</i>
Oval kumquat	<i>Citrus margarita</i> (syn. <i>Fortunella margarita</i> )
Palestine sweet lime	<i>Citrus limettioides</i>
	<i>Paramignya longipedunculata</i>
	<i>Paramignya monophylla</i>
Pummelo	<i>Citrus maxima</i> (syn. <i>Citrus grandis</i> )
Rangpur	<i>Citrus limonia</i>
Rough lemon	<i>Citrus jambhiri</i>
Satsumelo	<i>Citrus unshiu</i> x <i>Citrus maxima</i>
Siamelo	<i>Citrus nobilis</i> (King of Siam) x <i>Citrus maxima</i>
Siamor	<i>Citrus nobilis</i> (King of Siam) x <i>Citrus sinensis</i>
Sour mandarin	<i>Citrus sunki</i>
Sour orange	<i>Citrus taiwanica</i>
Sour oranges	<i>Citrus aurantium</i>
sweet lemon tree	<i>Citrus limetta</i>
Sweet orange (Navel orange)	<i>Citrus sinensis</i>
	<i>Swinglea glutinosa</i> (syn. <i>Chaetospermum glutinosa</i> , <i>Aegle glutinosa</i> )
Swingle citrumelo	<i>Citrus paradisi</i> x <i>Poncirus trifoliata</i>
Tachibana	<i>Citrus tachibana</i>
Tahiti lime	<i>Citrus latifolia</i>
Tangelo	<i>Citrus deliciosa</i> x <i>Citrus maxima</i>
Tangelo	<i>Citrus</i> x <i>tangelo</i>
Tangor	<i>Citrus nobilis</i>
Tankan mandarin	<i>Citrus tankan</i>
	<i>Toddalia asiatica</i>
Tooth-ache tree	<i>Zanthoxylum clava-herculis</i> (syn. <i>Xanthoxylum clava-herculis</i> )
Tosu sour orange	<i>Citrus neo-aurantium</i>

<b>Common name</b>	<b>Scientific name</b>
Trifoliolate orange	<i>Poncirus trifoliolate</i>
Unshu mandarin (Satsuma)	<i>Citrus unshiu</i>
Wampee (wampi)	<i>Clausena lansium</i>
White sapote	<i>Casimiroa sapota</i> (syn. <i>Casimiroa edulis</i> )
Wild lime	<i>Zanthoxylum fagara</i> (syn. <i>Xanthoxylum fagara</i> )
Yuzu	<i>Citrus junos</i>

## 27 Glossary

Term	Definition
<b>Acceptable biosecurity certificate</b>	<i>means</i> a certificate issued by an accredited certifier in compliance with the <i>Biosecurity Act 2014</i> .
<b>Act</b>	<i>means</i> <i>Biosecurity Act 2014</i>
<b>Department</b>	<i>means</i> Department of Agriculture and Fisheries
<b>Quarantine secure conditions</b>	<i>means</i> in a manner that prevents contamination or contact with biosecurity matter.
<b>Quarantine secure manner</b>	<i>means</i> sealed to completely prevent the escape of the biosecurity matter or carrier, within three (3) layers of packaging, the outer layer being a sealed box or courier satchel, and the inner two (2) layers being sealed paper, cardboard or plastic containers including bags or boxes, one of which must be a strong plastic bag. A label stating “Quarantine Material – Do Not Open” must be affixed between the second and outer layer of packaging.
<b>Quarantine secure transport</b>	<i>means</i> transported in a manner that prevents infestation with biosecurity matter and prevents the escape of any biosecurity matter or carrier.
<b>Regulation</b>	<i>means</i> <i>Biosecurity Regulation 2016</i>
<b>Risk minimisation requirement</b>	<i>means</i> for dealing with biosecurity matter or a carrier, a requirement stated in the biosecurity manual for preventing or minimising a biosecurity risk posed, or likely to be posed, by dealing with the biosecurity matter or carrier.
<b>Processing</b>	<i>means</i> altering the form of the fruit to allow for domestic consumption and includes cutting into segments, cooking, drying, freezing, and pickling.