

Condition 17 - Tomato Potato Psyllid (TPP) (*Bactericera cockerelli*) and

Zebra Chip (Clso) (*Candidatus Liberibacter solanacearum*)

With the exception of dried plants, seed (other than potato), mulch, timber, chaff and hay the entry into South Australia of the following:

- Category 1
all *Solanaceous*, *Convolvulaceae* and *Lamiaceae*, plants, plant material (including fruit and vegetables for consumption), cut flowers and potatoes (seed and ware),
- Category 2
All other plants and plant material (including fruit and vegetables for consumption) and cut flowers but excludes dormant trees without foliage/fruit and excludes fresh fruit/vegetables without leaves, green calyx or other attached green material,
- Machinery and equipment used in association with the production or manipulation of category 1 or category 2 plants and plant material,

is prohibited unless in compliance with one of the following requirements:

1. The plants or plant material were grown on or sourced from a property (or for machinery or equipment continuously located on the property for the past 12 months) located in a State or Territory for which an area freedom certificate, approved by the Chief Inspector and issued by an officer responsible for agriculture for the State or Territory where the plants or plant material were grown or sourced, is currently in force certifying that all of the State or Territory is known to be free from
 - 1.1. Tomato potato psyllid and *Candidatus Liberibacter solanacearum* OR
 - 1.2. *Candidatus Liberibacter solanacearum* only, in the case of potato (*Solanum tuberosum*) tubers free of shoots, stems, leaves, stalks or any other green plant material and TPP (refer 3.3 below).

Proof: No certification; however documentation that verifies origin may be requested on entry.

2. The plants or plant material were grown on or sourced from a property (or for machinery or equipment continuously located on the property for the past 12 months) located in a part of a State or Territory for which an area freedom certificate, approved by the Chief Inspector and issued by an officer responsible for agriculture for the State or Territory where the plants or plant material were grown or sourced, is currently in force certifying that part of the State or Territory is known to be free from Tomato potato psyllid and *Candidatus Liberibacter solanacearum*.

Proof: Accompanied by a Plant Health Certificate, Plant Health Assurance Certificate or the Biosecurity SA Tomato potato psyllid Declaration of Source (Appendix 12).

The Biosecurity SA Tomato potato psyllid Declaration is shown in Appendix 12 or available at

3. Treatment and Inspection

3.1. Nursery Stock / Plants / Cut Flowers (also see 3.4)

(1) Category 1

Cannot be treated or inspected and can only enter under 1 or 2 above or 3.5 or 5. below,

- (2) Category 2
- 1) Apply one of following pesticide treatments effective against adult tomato- potato psyllid only in accordance to the label or APVMA permit, ensuring;
 - They make contact with the underside of the leaf, and,
 - Are not rinsed off, and
 - Followed prior to dispatch by a 2% / 600-piece inspection and found to be free of tomato-potato psyllid, and
 - Packed in an approved manner to prevent infestation with tomato- potato psyllid;
 - (a) **Abamectin** within 3 days prior to dispatch;
 - i. with active ingredient of 18g/L at rate of 90mL/100L or 450ml/ha, plus 500mls of Summer Spray Oil, or
 - ii. with active ingredient of 36g/L at rate of 45mL/100L or 225ml/ha, plus 500mls of Summer Spray Oil, or
 - (b) **Bifenthrin** within 3 days prior to dispatch;
 - i. with active ingredient of 100g/L at rate of 80mL/100L, or
 - ii. with active ingredient of 250g/L at rate of 32mL/100L, or
 - (c) **Methomyl** within 3 days prior to dispatch;
 - i. with active ingredient of 225g/L at rate of 200ml/100L,

OR

- 2) Fumigated with methyl bromide
 - (a) By a licensed fumigator prior to dispatch at one of the following temperatures and rates for 2 hours
 - 10°C - 10.9°C @ 56 g/m³ for 2 hrs; or
 - 11°C - 15.9°C @ 48 g/m³ for 2 hrs; or
 - 16°C - 20.9°C @ 40 g/m³ for 2 hrs; or
 - 21°C - 31.9°C @ 32 g/m³ for 2 hrs, and
 - (b) Packed in an approved manner to prevent infestation with tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA04).

3.2. Fruit and Vegetables for Consumption (excluding tubers – see 3.3)

- (1) Category 1 - Fresh fruit and vegetables with calyx but no leaves or other attached green material
 - (a) Treated with an insecticide effective against **all** life stages of the psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an approved APVMA minor use permit), and
 - (b) Packed in an approved manner to prevent infestation with tomato-potato psyllid, and
 - (c) 2% / 600-piece inspected prior to dispatch and found to be free of tomato- potato psyllid,

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate.

OR

- (d) Fumigated by a licensed fumigator with methyl bromide prior to dispatch at the following pulp temperatures and rates for 2 hours
- 10°C - 10.9°C @ 56 g/m³ for 2 hrs; or
 - 11°C - 15.9°C @ 48 g/m³ for 2 hrs; or
 - 16°C - 20.9°C @ 40 g/m³ for 2 hrs; or
 - 21°C - 31.9°C @ 32 g/m³ for 2 hrs, and
- (e) Packed in an approved manner to prevent infestation with tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA04).

- (2) Category 2 – Fresh fruit and vegetables with leaves, green calyx or other attached green material
- 1) Apply one of following pesticide treatments effective against adult tomato-potato psyllid, ensuring;
- They make contact with the underside of the leaf, and,
 - Are not rinsed off, and
 - Followed prior to dispatch by a 2% / 600-piece inspection and found to be free of tomato-potato psyllid, and
 - Packed in an approved manner to prevent infestation with tomato-potato psyllid;
- (a) **Abamectin** within 4 days of harvest and packed in an approved manner pending dispatch;
- i. with active ingredient of 18g/L at rate of 90mL/100L or 450ml/ha, or
 - ii. with active ingredient of 36g/L at rate of 45mL/100L or 225ml/ha, or
- (b) **Bifenthrin** within 4 days of harvest and packed in an approved manner pending dispatch;
- i. with active ingredient of 100g/L at rate of 80mL/100L, or
 - ii. with active ingredient of 250g/L at rate of 32mL/100L, or
- (c) **Methomyl** within 4 days of harvest and packed in an approved manner pending dispatch;
- i. with active ingredient of 225g/L at rate of 200ml/100L,

OR

- 2) Treated with an insecticide known to be effective against the adult life stage of the psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an approved APVMA minor use permit), and
- Packed in an approved manner to prevent infestation with tomato-potato psyllid, and
 - 2% / 600-piece inspected prior to dispatch and found to be free of tomato-potato psyllid,

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate ICA.

OR

- 3) Fumigated by a licensed fumigator with methyl bromide prior to dispatch at the following pulp temperatures and rates for 2 hours
- 10°C - 10.9°C @ 56 g/m³ for 2 hrs; or
 - 11°C - 15.9°C @ 48 g/m³ for 2 hrs; or
 - 16°C - 20.9°C @ 40 g/m³ for 2 hrs; or
 - 21°C - 31.9°C @ 32 g/m³ for 2 hrs, and
- Packed in an approved manner to prevent infestation with tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate ICA04.

- (3) Category 1 – Pack-house prepared fruit and vegetables with NO leaves, calyx or other attached green material, or

Category 2 – Pack-house prepared fruit and vegetables with leaves, green calyx or other attached green material

- (a) Washed/drenched/sprayed in accordance with one of the following Biosecurity SA approved methods and following equipment manufacturer's instructions to effectively remove adult tomato-potato psyllid,
- i. Hydro-cooled with continuously circulated water for a period of not less than 20 minutes a minimum flow rate of 200 litres per minute per square metre, or
 - ii. Immersed in water and produce remaining submerged and continuously agitated for a period of not less than 3 minutes with adequate circulation of the water over and around the produce, or
 - iii. High pressure spray washed by water in a single layer to ensure complete coverage of the produce passing through the spray at pressure of 200kpa for not less than 20 seconds, or
 - iv. Moved in a single layer along on roller brushes for at least thirty (30) seconds receiving sprayed water to all surfaces at a minimum of 16L/min.

And

- (b) Packed in an approved manner to prevent infestation with tomato-potato psyllid, and
- (c) 2% / 600-piece inspected prior to dispatch and found to be free of tomato-potato psyllid.

Proof – Category 1: Accompanied by Plant Health Certificate

Proof – Category 2: Accompanied by Plant Health Assurance Certificate (ICA61) or Plant Health Certificate.

OR

- (d) Treated with an insecticide known to be effective against the adult life stage of the psyllid and registered for the control of tomato-potato psyllid at rates specified on the label (or in accordance with an approved APVMA minor use permit), and
- (e) Packed in an approved manner to prevent infestation with tomato-potato psyllid, and
- (f) 2% / 600-piece inspected prior to dispatch and found to be free of tomato-potato psyllid,

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA).

OR

- (g) Fumigated by a licensed fumigator with methyl bromide prior to dispatch at the following pulp temperatures and rates for 2 hours
- 10°C - 10.9°C @ 56 g/m³ for 2 hrs; or
 - 11°C - 15.9°C @ 48 g/m³ for 2 hrs; or
 - 16°C - 20.9°C @ 40 g/m³ for 2 hrs; or
 - 21°C - 31.9°C @ 32 g/m³ for 2 hrs, and
- (h) Packed in an approved manner to prevent infestation with tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA04).

- (4) Strawberry fruit.
- (a) 2% / 600-piece inspected prior to dispatch and found to be free of tomato- potato psyllid, and
- (b) Packed in an approved manner to prevent infestation with tomato-potato psyllid

Proof: Accompanied by Plant Health Assurance Certificate or Plant Health Certificate (ICA60).

3.3. Tubers

(1) Category 1

- (a) Unwashed or unbrushed ware potato (*Solanum tuberosum*) tubers and potatoes (*Solanum tuberosum*) for propagation that meet 1.2 above
- a. Must be subjected to a 2% or 600 unit inspection prior to dispatch and found free of shoots, stems, leaves, stalks or any other green plant material and TPP,
- (b) Unwashed or unbrushed sweet potato (*Ipomea batatas*) or other tubers in the Families Convolvulaceae and Lamiaceae
- a. No restrictions for CLso
 - b. Must be subjected to a 2% or 600 unit inspection prior to dispatch and found to be free of shoots, stems, leaves, stalks or any other green plant material and TPP
- (c) Brushed or washed ware potato (*Solanum tuberosum*) tubers and sweet potato (*Ipomea batatas*) or other tubers in the Families Convolvulaceae and Lamiaceae
- a. Must be free of shoots, stems, leave stalks or any other green plant material and TPP

Proof: A Declaration (Appendix 14)

(2) Category 2

- (a) No restrictions for Clso.
- (b) Restrictions for TPP
- a. Must have been subject to a 2% or 600 unit inspection

prior to dispatch and found to be free of shoots, stems, leaves, stalks or any other green plant material and TPP.

Proof: No certification required.

3.4. Cut Flowers

- (1) Category 1, Category 2 (also see 3.1)
- (a) Fumigated in a manner that doesn't restrict gas permeation with ethyl formate gas (166.7g/kg – ie. Vapormate) at 25g/m³ plus 833.3gm/Kg CO² for minimum of 1 hour at a minimum of 15°C in accordance with label or APVMA permit, then packed in an approved manner to prevent infestation with tomato-potato psyllid

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA65).

OR

- (b) Submerged, in a manner that doesn't restrict solution permeating foliage, in a solution of Deltamethrin (active ingredient 25g/L) at rate of 100m/100L for in accordance with label or APVMA permit for a minimum of 3 minutes then left to dry naturally for 2 hours, then packed in an approved manner to prevent infestation with tomato- potato psyllid

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate.

OR

- (c) Fumigated in a manner that doesn't restrict gas permeation by a licensed fumigator with methyl bromide prior to dispatch at the following temperatures and rates for 2 hours
- 10°C - 10.9°C @ 56 g/m³ for 2 hrs; or
 - 11°C - 15.9°C @ 48 g/m³ for 2 hrs; or
 - 16°C - 20.9°C @ 40 g/m³ for 2 hrs; or
 - 21°C - 31.9°C @ 32 g/m³ for 2 hrs,
- then packed in an approved manner to prevent infestation with tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate or Plant Health Assurance Certificate (ICA04).

3.5. Alternative Treatment / Handling

- (1) Category 1
- (a) Host seedlings (other than potato) grown and prepared in a Pest Free Place of Production may enter to an Approved TPP Facility in South Australia, provided;
- i. They were grown and prepared in a PFPP facility approved by the Chief Inspector, and
 - ii. They travel under secure conditions directly to an Approved TPP Facility accredited by Biosecurity SA for planting and management under accreditation conditions.

Proof: Accompanied by Plant Health Certificate (CA14).

- (2) Category 1, Category 2
 - (a) Treated under conditions effective against all life stages of the psyllid otherwise permitted by the Chief Inspector
And 2% / 600-piece inspected prior to dispatch by a Biosecurity officer and found to be free of tomato-potato psyllid.

Proof: Accompanied by Plant Health Certificate, Plant Health Assurance Certificate or Import Certificate from Chief Inspector.

- 4. All machinery and equipment used in the production or manipulation of all categories of plants or plant material must be
 - 4.1. Washed free of plant material and soil with high pressure hot water, and
 - 4.2. Inspected prior to dispatch by a Biosecurity officer and found to be free of tomato-potato psyllid, plant material and soil.

Proof: Accompanied by Plant Health Certificate and Import Certificate from Chief Inspector or CA12 Laboratory documentation.

- 5. The material has been consigned under other conditions permitted by the Chief Inspector that ensures it is incapable of introducing TPP or Clso into the State.

Proof: Accompanied by an Import Certificate from Chief Inspector and a Plant Health Certificate or Plant Health Assurance Certificate.

For Fact Sheets and information on regulated pests go to following web page;
http://www.pir.sa.gov.au/biosecurity/plant_health/exotic_plant_pest_emergency_response