

# INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY

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*Businesses accredited for this Operational Procedure will be forwarded a copy of any reissues or revisions on release.*

Authorised: .....



ICA Project Leader

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**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

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**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

## 1. PURPOSE

The purpose of this procedure is to describe -

- (a) the design features for inspection, treatment and secure storage facilities;
- (b) the standards required for inspection and treatment equipment; and
- (c) the responsibilities and practices of personnel;

that apply to the inspection and treatment of plants for Spiraling Whitefly under an Interstate Certification Assurance (ICA) arrangement.

## 2. SCOPE

This procedure covers all certification of inspection and treatment of plants for Spiraling Whitefly from a business operating under an ICA arrangement in Queensland.

**This procedure covers the inspection and treatment of living plants and parts of plants only.** It does not cover the inspection and treatment of seeds, fruit, underground parts, and dried or processed plant materials.

This procedure is applicable where the requirement(s) specified in section [6. Requirement](#) are a specified condition of entry of an interstate quarantine authority for Spiraling Whitefly.

***Certification of inspection/treatment of plants for Spiraling Whitefly freedom under this Operational Procedure may not be an accepted entry condition for all plants to all intrastate and interstate markets.***

***Some intrastate or interstate markets may require additional quarantine certification for pests and diseases other than Spiraling Whitefly as a condition of entry.***

***It is the responsibility of the business consigning the plants to ensure compliance with all applicable quarantine requirements.***

***Information on intrastate and interstate quarantine requirements can be obtained from the ICA Supervisor for your district.***

## 3. REFERENCES

WI-02

*Guidelines for Completion of Plant Health Assurance Certificates*

## 4. DEFINITIONS

**accredit**

means to accredit persons to issue Assurance Certificates under section 21 of the *Plant Protection Act 1989*.

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<b>Agvet Code</b>	means the <i>Agvet Code of Queensland</i> .
<b>Application for Accreditation</b>	means an <i>Application for Accreditation of a Business for an Interstate Certification Assurance (ICA) Arrangement</i> [FDU 385].
<b>assurance certificate</b>	means a <i>Plant Health Assurance Certificate</i> [FDU 384].
<b>Authorised Signatory</b>	means an officer of an ICA accredited business whose name and specimen signature is provided as an authorised signatory with the business' Application for Accreditation.
<b>Authorised Inspection Person</b>	means a person who is trained in the detection and recognition of Spiraling Whitefly and is authorised by the accredited business to conduct Spiraling Whitefly/inspections on their behalf.
<b>business</b>	means the legal entity responsible for the operation of the facility and ICA arrangement detailed in the business' Application for Accreditation.
<b>category</b>	means a type of plant in a consignment that is likely to differ in its risk of being infested. Plants in a consignment must be segregated into categories on the basis of species, size of plants or pots and site of production.
<b>Certification Assurance</b>	means a voluntary arrangement between the Department of Primary Industries and a business that demonstrates effective in-house quality management and provides assurance through documented procedures and records that produce meets specified requirements.
<b>certified/certification</b>	means covered by a valid <i>Plant Health Assurance Certificate</i> [FDU 384].
<b>facility</b>	means the location where the assembly, inspection, secure storage, certification and dispatch operations covered by the ICA arrangement are carried out.
<b>ICA</b>	means Interstate Certification Assurance.
<b>Inspector</b>	means an inspector appointed under the <i>Plant Protection Act 1989</i> .
<b>Interstate Certification Assurance</b>	means a system of Certification Assurance developed to meet the requirements of State and Territory governments for the certification of produce for interstate and intrastate quarantine purposes.
<b>nonconformance</b>	means a nonfulfilment of a specified requirement.
<b>plant</b>	means living plants and parts of plants but excludes seeds, fruit, underground parts and dried or processed plant materials.

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- Spiraling Whitefly** means all stages of the species *Aleurodicus dispersus* Russell.
- SW** means Spiraling Whitefly.

## 5. RESPONSIBILITY

*These position titles have been used to reflect the responsibilities of staff under the ICA arrangement. These positions may not be present in all businesses, or different titles may be used for staff who carry out these responsibilities. In some businesses one person may carry out the responsibilities of more than one position.*

The **Certification Controller** is responsible for -

- representing the business during audits and other matters relevant to ICA accreditation;
- training staff in their duties and responsibilities under this Operational Procedure;
- ensuring the business and its staff comply with their responsibilities and duties under this Operational Procedure;
- maintaining a property plan for each property on which plants are assembled, inspected and stored under secure conditions for certification under this Operational Procedure (refer [7.2](#));
- reporting any detection of Spiraling Whitefly on a property where the pest has not previously been detected to the DPI ICA Supervisor for the district within 24 hours of the detection (refer [7.3.4](#));
- ensuring certified plants are maintained in secure conditions from inspection/treatment until dispatch (refer [7.5](#)).

The **Treatment Operator** is responsible for -

- maintaining a tank calibration certificate for treatment tank used for treatment of plants under this Operational Procedure (refer [7.4.1](#));
- preparing Spiraling Whitefly treatment mixtures (refer [7.4.4](#));
- applying Spiraling Whitefly treatments according to specified requirements (refer [7.4.6](#));
- maintaining treatment mixture preparation and treatment records (refer [7.4.7](#)).

**Authorised Inspection Persons** are responsible for -

- inspecting all plants for the presence of Spiraling Whitefly prior to certification under this Operational Procedure (refer [7.3.3](#));
- immediately advising the Certification Controller of any detection of Spiraling Whitefly on inspection for certification under this Operational Procedure (refer [7.3.4](#));
- maintaining Spiraling Whitefly freedom inspection records (refer [7.3.6](#)).

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The **Authorised Dispatcher** is responsible for -

- ensuring all packages covered by an Assurance Certificate issued by the business under this Operational Procedure are identified (refer [7.6.1](#));
- maintaining copies of all Assurance Certificates issued by the business under the ICA arrangement (refer [7.6.3](#)).

**Authorised Signatories** are responsible for -

- ensuring, prior to signing and issuing an Assurance Certificate, that produce covered by the certificate has been prepared in accordance with the business' ICA arrangement and that the details on the certificate are true and correct in every particular (refer [7.6.2](#)).

## 6. REQUIREMENT

Plants certified for treatment and/or inspection for Spiraling Whitefly under this Operational Procedure must meet the following requirements:

### 1. Inspection

Inspected and found free of Spiraling Whitefly.

**AND**

**For Western Australia only -**

### 2. Treatment

Plants shall be treated –

- with a mixture containing –
  - **0.75 mL** of a concentrate containing **400 g/L dimethoate**, or
  - **0.5 mL** of a concentrate containing **80 g/L bifenthrin**, or
  - **0.4 mL** of a concentrate containing **100 g/L bifenthrin**,  
per litre of water; and
  - a commercial wetting agent at the rate specified on the product's registered label;
- applied as -
  - a **cover spray** to both sides of the leaves to the **point of run-off**; or  
**for dimethoate only -**
  - a **dip** by fully immersing the plants in the treatment mixture for a **minimum of 10 seconds**.

**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

**New South Wales, Victoria and Tasmania require certification of *Spiraling Whitefly freedom* for:**

- (a) *live plants and parts of plants intended for propagation but not fresh cut flowers and foliage, seeds, fruit, underground parts or dried or processed plant materials;***
- (b) *grown and packed within 10 km of a Spiraling Whitefly infestation.***

**Western Australia requires certification of *Spiraling Whitefly freedom* for:**

- (a) *live plants and parts of plants, fresh cut flowers and foliage but not seeds, fruit, underground parts or dried or processed plant materials;***
- (b) *grown and packed within 500 km of a Spiraling Whitefly infestation.***

**The Northern Territory requires certification of *Spiraling Whitefly freedom* for:**

- (a) *live plants and parts of plants, fresh cut flowers and foliage but not seeds, fruit, underground parts or dried or processed plant materials;***
- (b) *grown and packed anywhere in Queensland.***

**South Australia does not require certification of plants for *Spiraling Whitefly*.**

**Please note, interstate quarantine entry requirements may change without notice. Accredited businesses should check with the ICA Supervisor for their district or the relevant interstate quarantine authority for information on current quarantine entry requirements for *Spiraling Whitefly*.**

**The Department of Primary Industries and interstate quarantine authorities maintain the right to inspect certified produce at any time and to refuse to accept an assurance certificate where produce is found not to comply with specified requirements.**

**Some plants may be damaged by certain chemical treatments. Businesses applying chemical treatments should check with experienced persons such as departmental officers for any available information. Testing of small quantities is recommended.**

**The business must use products registered under the Agvet Code in accordance with the instructions included on the product's approved label or an applicable NRA permit, and follow any first aid, safety, protection, storage and disposal directions on the product label or permit. Treatment facilities must comply with the requirements of the local government, environmental and workplace health and safety authorities.**

## **7. PROCEDURE**

### **7.1 Accreditation**

#### **7.1.1 Application for Accreditation**

A business seeking accreditation for an ICA arrangement under this Operational Procedure shall make application for accreditation (refer [Attachment 1](#)) at least 10 working days prior to the intended date of commencement of certification under the ICA arrangement.

#### **7.1.2 Audit Process**

##### ***Initial Audit***

Prior to accrediting a business, an initial audit of the business is carried out to verify the ICA system is implemented and capable of operating in accordance with the requirements of the Operational Procedure, and the system is effective in ensuring compliance with the specified requirements of the ICA arrangement.

The ICA Auditor shall assess the training and competency of nominated Authorised Inspection Persons (refer [7.1.3 Certificate of Accreditation](#)) in the identification of Spiraling Whitefly and their plant inspection technique.

On completion of a successful initial audit, applicants will be granted provisional accreditation and posted a Certificate of Accreditation (refer [7.1.3 Certificate of Accreditation](#)).

##### ***Compliance Audits***

Compliance audits are conducted to verify that the ICA system continues to operate in accordance with the requirements of the Operational Procedure.

Compliance audits are, wherever practical, conducted when the ICA system is operating.

A compliance audit is conducted within four weeks of the commencement of certification under the ICA arrangement by the business.

On completion of a successful compliance audit, annual accreditation is granted to cover the current season, up to a maximum of twelve months from the date of provisional accreditation, and a new Certificate of Accreditation issued (refer [7.1.3 Certificate of Accreditation](#)).

A compliance audit is conducted between six and nine months after the date of accreditation for an ICA arrangement that operates for more than six months of the year.



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Random audits are conducted on a selected number of accredited businesses each year. Random audits may take the form of a full compliance audit, or audits of limited scope to sample treatment mixtures, certified produce, ICA system records or ICA system documentation.

Unscheduled compliance audits may be conducted at any time to investigate reported or suspected nonconformances.

### **Re-Accreditation**

Accredited businesses are required to re-apply for accreditation each year the business seeks to operate under the ICA arrangement. Businesses seeking re-accreditation must lodge a renewal application prior to accreditation lapsing, or if accreditation has lapsed, prior to commencing further certification of produce under the ICA arrangement.

A compliance audit is conducted within twelve weeks of the commencement of certification under the ICA arrangement by the business each year.

A compliance audit is conducted between six and nine months after the date of re-accreditation for an ICA arrangement that operates for more than six months of the year.

### **7.1.3 Certificate of Accreditation**

An accredited business will receive a *Certificate of Accreditation for an Interstate Certification Assurance Arrangement* detailing the scope of the arrangement including –

- the facility location;
- the Operational Procedure covered;
- the type of produce covered;
- other restrictions on the accreditation; and
- the period of accreditation.

The business must maintain a current Certificate of Accreditation and make this available on request by an Inspector.

**A business may not commence or continue certification of produce under the ICA arrangement unless it is in possession of a valid and current Certificate of Accreditation for the facility, procedure and produce type covered by the Assurance Certificate.**

## **7.2 Property Plan**

The Certification Controller shall maintain a property plan for each property on which consignments of plants are assembled, inspected, treated or stored under secure conditions for certification under this Operational Procedure.

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***A business may elect to define a 'property' as only a portion of a larger area of land owned or leased by the business. However, the boundaries of the 'property' must be clearly defined on the property plan and must include all areas where plants are assembled, inspected, treated or stored for certification under this Operational Procedure.***

The property plan shall comprise of a diagram of the layout of the property including the following features –

- (a) road access including street names;
- (b) internal roadways within the property;
- (c) the location and identification of buildings on the property (eg office, house, and other permanent roofed structures etc)
- (d) the size and location of the plant inspection area;
- (e) the secure area for plants awaiting dispatch; and
- (f) the boundaries of all open and covered plant growing areas.

A copy of the business' property plan shall be included with the business' Application for Accreditation (refer [7.1.1 Application for Accreditation](#)).

A blank Property Plan is included as [Attachment 3](#) and should be copied for completion and inclusion with the business' Application for Accreditation.

## **7.3 Inspection for Freedom from Spiraling Whitefly**

### **7.3.1 Authorised Inspection Persons**

The business shall train one or more Authorised Inspection Persons in the detection and recognition of Spiraling Whitefly. Authorised Inspection Persons shall be able to recognise all stages of Spiraling Whitefly and the symptoms of Spiraling Whitefly infestation of plants.

The names, date of training and specimen signatures of each Authorised Inspection Person shall be included on a *Register of Authorised Inspection Persons* maintained by the business (refer [Attachment 4](#)).

### **7.3.2 Inspection Area Equipment**

The business shall have a designated area for inspection of plants for Spiraling Whitefly.

The business shall maintain inspection equipment such as a hand lens, microscope or other device that provides X10 or greater magnification for examination of suspect plants.

Reference material including photographs/illustrations of Spiraling Whitefly shall be maintained and made available in the inspection area.

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### 7.3.3 Plant Inspection Procedure

Plants shall be inspected as close as practicable, and not more than 48 hours prior to, the time of dispatch from the facility.

Plants shall be assembled at the plant inspection facility prior to inspection. Plants shall be categorised into lots based on their risk of being infested with Spiraling Whitefly including species, size of plants or pots and the source or site of production. Each category of plants in a consignment shall be listed on the inspection record (refer [7.3.6 Inspection Records](#)).

All categories of plants intended for certification shall be thoroughly inspected by an Authorised Inspection Person.

Inspection shall comprise an examination of both sides of all leaves of each plant intended for certification under this Operational Procedure. Plants must be free of any visible symptoms of Spiraling Whitefly including white flocculence from egg laying, or the presence of adults, nymphs or eggs of Spiraling Whitefly, whether living or dead.

Information on the life cycle, host range and identification of Spiraling Whitefly is given in [Attachment 11 Identification of Spiraling Whitefly](#).

The presence of white flocculence on the tops or undersides of leaves, or the presence of adult insects similar to those shown in [Attachment 11](#), shall be regarded as evidence of Spiraling Whitefly infestation until determined otherwise by an officer of the Department of Primary Industries (refer [7.3.4 Action Following Detection of Spiraling Whitefly](#)).

### 7.3.4 Action Following Detection of Spiraling Whitefly

The Authorised Inspection Person shall **reject** for certification any plant found on inspection to be infested with Spiraling Whitefly and all plants in the same category in the consignment.

The Certification Controller shall be immediately advised if any plant is found on inspection to be infested with Spiraling Whitefly.

**The Certification Controller shall report any detection of Spiraling Whitefly on a property where the pest has not been previously detected, to the DPI ICA Supervisor for the district within 24 hours of the detection.**

### 7.3.5 Rejected Plants

All rejected plants shall be moved from the inspection area and clearly identified to prevent mixing with conforming plants.

All rejected plants shall be treated for Spiraling Whitefly in accordance with [7.4 Treatment](#).

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All rejected plants must be disinfested to remove any symptoms of Spiraling Whitefly infestation and treated in accordance with [7.4 Treatment](#) prior to reinspection for Spiraling Whitefly freedom in accordance with this section.

### 7.3.6 Inspection Records

The Authorised Inspection Person shall maintain records of the results of all Spiraling Whitefly freedom inspections.

Inspection records shall be in the form of a *Spiraling Whitefly Freedom Inspection Record* (refer [Attachment 9](#)) or a record which captures the same information.

Inspection records must include –

- the Interstate Produce (IP) Number of the business that operates the approved facility in which the inspection was undertaken;
- the number of the Assurance Certificate to which the inspection relates;
- the date of inspection;
- the type, number and size of plants or pots in each category inspected;
- the inspection result including the presence or absence of Spiraling Whitefly;
- the number of any rejected plants;
- the name and signature of the Authorised Inspection Person.

An example of a completed *Spiraling Whitefly Freedom Inspection Record* is shown as [Attachment 10](#).

## 7.4 Treatment

Treatment under this section is required for –

- (a) all plants consigned to Western Australia that are grown within 500 km of a known Spiraling Whitefly infestation; and
- (b) all plants rejected following Spiraling Whitefly inspection under this Operational Procedure (refer [7.3.5 Rejected Plants](#)).

Treatment shall be carried out following Spiraling Whitefly freedom inspection.

The treatment mixture shall be applied as –

- a **cover spray** to both sides of the leaves to the **point of run-off**; or
- **for dimethoate only**, a **dip** by fully immersing the plants in the treatment mixture for a **minimum of 10 seconds**.

### 7.4.1 Treatment Equipment Calibration

Permanent volume indicator marks shall be made on the side of the treatment mixture tank, on a sight tube or sight panel on the outside of the tank, or by some other method which clearly and accurately indicates the **maximum mixture level** and any **incremental volumes** used.

Volume indicator marks shall include the volume in litres required to fill the tank to that level.

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Each of the volume indicator marks shall be calibrated with the tank at the normal filling position using a calibrated flow meter. The person conducting the calibration test shall issue a certificate of calibration of the treatment mixture tank which must be available to the auditor at the initial audit and all compliance audits.

An example *Chemical Mixture Tank Calibration Certificate* [CAF-03] is shown as [Attachment 5](#).

A Tank Calibration Certificate is not required for small dip tanks or hand held spray equipment such as hand held misters or knapsack sprayers, where the capacity of the treatment mixture tank is less than 25 litres.

#### **7.4.2 Calculating the Quantity of Concentrate to Add to the Treatment Mixture**

Calculate –

- (a) **0.75 mL** of a concentrate containing **400 g/L dimethoate**; or
- (b) **0.5 mL** of a concentrate containing **80 g/L bifenthrin**; or
- (c) **0.4 mL** of a concentrate containing **100 g/L bifenthrin**;

per litre of water.

The treatment mixture shall include a commercial wetting agent at the maximum rate specified on the product's registered label for the purpose.

*The following calculation may be used to determine the quantity of concentrate required to add to the treatment mixture -*

$$\text{volume of water (L)} \times \text{volume of conc./litre (mL)} = \text{total volume of concentrate (mL)}$$

*For example-*

$$\text{volume of water} = 400 \text{ L}$$

$$\text{conc./litre of water} = 0.75 \text{ mL}$$

$$400 \text{ L} \times 0.75 \text{ mL} = 300 \text{ mL concentrate}$$

*This calculation may also be used to calculate the volume of wetting agent to add to the treatment mixture.*

Calculate the volumes of concentrate and commercial wetting agent for the **maximum mixture level** and each of the **incremental volumes** marked on the treatment mixture tank and record these on the *Treatment Mixture Preparation Chart* (refer [7.4.3 Treatment Mixture Preparation Chart](#)).

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### 7.4.3 Treatment Mixture Preparation Chart

The business shall maintain a *Treatment Mixture Preparation Chart* (refer [Attachment 6](#)) or similar record in close proximity to the treatment mixture preparation area for each dip tank or spray unit used by the business for treatment under this Operational Procedure.

The chart shall provide the following details -

- (a) identification of the treatment equipment to which the chart applies;
- (b) the trade name of the concentrate to which the chart applies;
- (c) the name and concentration of the active ingredient in the concentrate;
- (d) the quantity of concentrate required per litre of mixture in mL per litre (refer [7.4.2 Calculating the Quantity of Concentrate to Add to the Treatment Mixture](#));
- (e) the trade name of the wetting agent used and the quantity required per litre of treatment mixture;
- (f) the total volume in litres of the treatment mixture tank when filled to the maximum mixture level mark (refer [7.4.1 Treatment Equipment Calibration](#));
- (g) the volume in millilitres (mL) of concentrate and wetting agent required in the mixture when filled to the maximum mixture level mark;
- (h) the volume in millilitres (mL) of a concentrate and wetting agent required in the mixture for any known incremental volumes used;
- (i) the printed name and signature of the person responsible for the chart's preparation and the date of preparation.

A business that uses a variety of chemical concentrates (ie dimethoate and bifenthrin) shall prepare a *Treatment Mixture Preparation Chart* for each concentrate used.

An example of a completed *Treatment Mixture Preparation Chart* is included as [Attachment 7](#).

### 7.4.4 Treatment Mixture Preparation

The Treatment Operator shall prepare the treatment mixture at least daily or more frequently as required.

### 7.4.5 Making Up the Treatment Mixture

Using a clean graduated measuring vessel, measure the amount of concentrate required for the required volume of **mixture** (refer [7.4.2 Calculating the Quantity of Concentrate to Add to the Treatment Mixture](#)).

Suitable measuring vessels include graduated plastic or glass measuring cylinders or syringes.

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Add the required amount of concentrate to the spray tank in accordance with the manufacturer's directions on the label.

Add the required amount of commercial wetting agent in accordance with the manufacturer's directions on the label.

Fill the spray supply tank with clean water to the **incremental volume** mark or **maximum mixture level** mark.

***Other ingredients may only be added to the treatment mixture if they are known to be compatible with the chemical used for control of Spiraling Whitefly.***

Ensure that the chemical is completely diluted in all of the water by mixing the tank for a minimum of two minutes before commencing the spray operation. Some equipment may require extended periods of mixing to fully dilute the chemical in the water.

#### **7.4.6 Treatment Application**

##### ***Cover Spraying***

Plants must be thoroughly sprayed to the point of run-off on both sides of the leaves.

##### ***Dipping (Dimethoate Only)***

Plants must be fully immersed in the treatment mixture for a minimum of 10 seconds.

The Treatment Operator shall ensure all plant material is fully immersed in the treatment mixture and any air pockets are expelled from the plant material prior to commencing the 10 second immersion period.

***Do not apply dimethoate to chrysanthemums, begonias, liquid amber, gloxinias, Myer lemons, Seville oranges or cumquats. Bifenthrin and some commercial wetting agents may also be phytotoxic to certain plant species.***

***It is advisable to test a small number of plants before treating whole consignments.***

***Dimethoate is a date controlled product under the Agvet Code. The Treatment Operator should ensure that any dimethoate products used are within specified expiry/use by dates.***

***Bifenthrin must only be applied as a cover spray as there is no approved label or NRA permit covering dipping of plants with bifenthrin for spiraling whitefly.***



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#### **7.4.7 Treatment Mixture Preparation and Treatment Records**

The Spray Operator must record details of all cover spray mixture preparation and treatment using a *Treatment Mixture Preparation and Treatment Record* (refer [Attachment 8](#)) or records which capture the same information.

The business' treatment records must identify -

- the date of treatment mixture preparation;
- the time of treatment mixture preparation;
- the trade name of the concentrate used;
- volume of concentrate used (millilitres) in the treatment mixture;
- volume of wetting agent used (millilitres) in the treatment mixture;
- the total volume (litres) of the made up treatment mixture;
- the date of application;
- the plants or parts of plants (eg cut flowers, foliage) treated;
- the number of plants or parts of plants treated;
- the identification of the Spray Operator.

#### **7.4.8 Disposal of Treatment Mixture**

Where applicable, the treatment facility must have facilities to dispose of any waste treatment mixture in a manner consistent with the requirements of Queensland's Environmental Protection Agency and Local Authorities (Shire or City Councils etc).

### **7.5 Post Inspection/Treatment Security**

Plants must be maintained in secure conditions immediately following inspection until dispatch from the facility.

Secure conditions must be more than 10 metres from infested plants and meet one of the following conditions –

- (a) unvented packages;
- (b) vented packages with the vents secured with gauze/mesh with a maximum aperture of 1.0 mm;
- (c) fully enclosed under tarpaulins, hessian, shade cloth, mesh or other covering which provides a maximum aperture of 1.0 mm;
- (d) fully enclosed or screened buildings, rooms, vehicles or other facilities free from gaps or other entry points greater than 1.0 mm.

#### **For all States and Territories except Western Australia -**

Plants treated in accordance with [7.4 Treatment](#) may be certified and consigned up to 12 hours after treatment without requiring storage under secure conditions due to the residual control of the pesticide treatment.



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***Western Australia does not except pesticide treatment in accordance with 7.4 Treatment as adequate security against infestation by Spiraling Whitefly.***

***For plants consigned to Western Australia, all plants must be stored in secure conditions (as outlined above) from the time of inspection until dispatch.***

## **7.6 Dispatch**

### **7.6.1 Package Identification**

The Authorised Dispatcher shall ensure that, after packing, each package is marked in indelible and legible characters of at least 5mm, with -

- the Interstate Produce number of the business that operates the approved facility in which the plants were inspected/treated;
- the words “MEETS ICA-35”; and
- the date (or date code) on which the plants were inspected;

prior to the issuance of an Assurance Certificate by the business under this Operational Procedure.

If plants are consigned loose in pots and not in packages, the above information shall be marked on the consignment note or the invoice accompanying the plants and signed and dated by an Authorised Signatory of the business.

**For Western Australia only**, loose plants must have the above information applied to a tag or label securely attached to each plant. Whole truck or container loads of loose plants do not require individual tags or labels provided the truck or container door is sealed at the time of dispatch from the facility and the seal is intact on arrival in Western Australia. The seal number must be included in the ‘Brand Name or Identifying Marks’ section of the Assurance Certificate covering the consignment (refer [Attachment 2](#)).

**Plants that have not been inspected/treated in accordance with the requirements of this Operational Procedure shall not be marked as stated above.**

### **7.6.2 Assurance Certificates**

The Authorised Dispatcher shall ensure an Assurance Certificate is completed and signed by an Authorised Signatory of the business prior to consignment of plants to a market requiring certification of inspection and/or treatment for Spiraling Whitefly.

Assurance Certificates shall be in the form of a *Plant Health Assurance Certificate* [FDU 384].

**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

Assurance Certificates shall include –

- (a) in the “Accredited business that Prepared the Produce” section -
  - the name and address of the accredited business that **inspected/treated** the plants;
- (b) in the “IP No. of Acc. business” section -
  - the IP No. of the accredited business that **inspected/treated** the plants;
- (c) in the “Type of Produce” section -
  - the **number and description** of plants of **each plant category** in the consignment;

*NOTE: Where there is insufficient room to list each plant category the words “See Attachment” are to be used and an Attachment Sheet securely attached to each copy of the assurance certificate.*

*The Attachment Sheet must include the words “ATTACHMENT SHEET”, the name and address of the consignor, the assurance certificate number, the signature of the Authorised Signatory that signed the certificate and the date.*

*Alternatively, a copy of the Spiraling Whitefly Freedom Inspection Record covering the consignment may be used. An example Attachment Sheet is included with [Attachment 2](#).*

- (d) **for plants consigned to Western Australia only**, in the “Treatment” section -
  - in the Date column, the date or dates of **treatment** of the plants;
  - in the Treatment column, the words “Dip” or “Cover Spray” as applicable;
  - in the Chemical (Active Ingredient) column, the concentration and name of the active ingredient of the chemical used to treat the plants (eg “400 g/L dimethoate” or “100 g/L bifenthrin”);
  - in the Concentration column, the words “at ## mL/L”, where ## is the number of millilitres of concentrate added per litre of spray mixture;
  - in the Duration and Temperature column, for dipping, the words “10 seconds” and for cover spraying, the words “to run-off”;

- (e) in the “Additional Certification” section the statement -

**“Inspected and found free of spiraling whitefly.”**

A completed example is shown as [Attachment 2](#).

Individual Assurance Certificates shall be issued to cover each consignment (ie. a discrete quantity of product transported to a single consignee at one time) to avoid splitting of consignments.

**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

Assurance Certificates shall be completed, issued and distributed in accordance with the Work Instruction *Guidelines for Completion of Plant Health Assurance Certificates* [WI-02].

### **7.6.3 Assurance Certificate Distribution**

The **original** (yellow copy) must accompany the consignment.

The **duplicate** (white copy) must be retained by the Business.

### **7.6.4 Security During Transport**

The Business shall ensure certified plants are isolated from uncertified plants during transport to the consignee to prevent cross-infestation by Spiraling Whitefly.

## **7.7 ICA System Records**

The business shall maintain the following records -

- (a) Property Plan for each source property (refer [7.2](#));
- (b) Spiraling Whitefly Freedom Inspection Records (refer [7.3.6](#));
- (c) Chemical Mixture Tank Calibration Certificate (refer [7.4.1](#));
- (d) Treatment Mixture Preparation Chart (refer [7.4.3](#));
- (e) Treatment Mixture Preparation and Treatment Records (refer [7.4.7](#));
- (f) the duplicate copy of each *Plant Health Assurance Certificate* [FDU 384] issued by the business (refer [7.6.3](#)).

ICA system records shall be retained for a period of not less than 12 months from completion or until the next compliance audit of the business, whichever is the later.

***An accredited business must hold a minimum of 12 months ICA system records at the time of any compliance audit. If the compliance audit is conducted more than 12 months from the last compliance audit, the business must maintain all records completed since the previous compliance audit.***

ICA system records shall be made available on request by an Inspector.

**INSPECTION AND TREATMENT OF PLANTS FOR SPIRALING WHITEFLY**

## 7.8 ICA System Documentation

The business shall maintain the following documentation -

- (a) a copy of the business' current Application for Accreditation (refer [Attachment 1](#));
- (b) a current copy of this Operational Procedure;
- (c) a current *Certificate of Accreditation for an Interstate Certification Assurance Arrangement*.

ICA system documentation shall be made available on request by an Inspector.

## 8. ATTACHMENTS

<a href="#">Attachment 1</a>	<i>Application for Accreditation of a Business for an Interstate Certification Assurance (ICA) Arrangement</i>	<b>FDU 385 (FRONT PAGE ONLY)</b>
<a href="#">Attachment 2</a>	<i>Plant Health Assurance Certificate</i>	<b>FDU 384 (COMPLETED EXAMPLE)</b>
<a href="#">Attachment 3</a>	Property Plan	<b>(BLANK)</b>
<a href="#">Attachment 4</a>	<i>Register of Authorised Inspection Persons</i>	<b>(BLANK)</b>
<a href="#">Attachment 5</a>	<i>Chemical Mixture Tank Calibration Certificate</i>	<b>CAF 03 (BLANK)</b>
<a href="#">Attachment 6</a>	<i>Treatment Mixture Preparation Chart</i>	<b>(BLANK)</b>
<a href="#">Attachment 7</a>	<i>Treatment Mixture Preparation Chart</i>	<b>(COMPLETED EXAMPLE)</b>
<a href="#">Attachment 8</a>	<i>Treatment Mixture Preparation and Treatment Record</i>	<b>(BLANK)</b>
<a href="#">Attachment 9</a>	<i>Spiraling Whitefly Freedom Inspection Record</i>	<b>(BLANK)</b>
<a href="#">Attachment 10</a>	<i>Spiraling Whitefly Freedom Inspection Record</i>	<b>(COMPLETED EXAMPLE)</b>
<a href="#">Attachment 11</a>	Identification of Spiraling Whitefly	

# Application for Accreditation of a Business for an Interstate Certification Assurance (ICA) Arrangement

Indicate the type of application being made

☐ New ☐ Renewal ☐ Amendment

Tick each box that describes your business and the type of application and provide specific details where required. Only one ICA arrangement, that is one Operational Procedure at one facility, may be covered in one application.

## 1. Business Details

### (a) Type of Ownership of Business

☐ Individual ☐ Incorporated Company ☐ Other  
☐ Partnership ☐ Cooperative Association

(please specify)

### (b) Name of Applicant/s (Print your full name including any given names. For partnerships, print the full name of each partner in their normal order. For incorporated companies and cooperatives, print the full registered name of the organisation.)

Australian Company Number or Australian Registered Body Number

☐ ACN          
☐ ARBN

Companies must provide proof of incorporation by attaching a copy of their Certificate of Incorporation or similar document from the Australian Securities Commission. Cooperative associations must provide a copy of their Certificate of Registration or a registration search from the Department of Justice.

### (c) Trading Name/s of the business (include any business or brand names used by the business on packages of certified produce)

### (d) Postal address of the business


Telephone ( )

Facsimile ( )

Mobile

### (e) Has the business been registered previously in Q'ld for the interstate movement of produce?

☐ No ☐ Yes

If yes, give the business's Interstate Produce (IP) Number

Q

## 2. Operational Procedure and Facility Details

### (a) Operational Procedure used in this ICA arrangement (refer to list of Operational Procedures)

Reference No.

ICA

If the Operational Procedure is documented in two parts, indicate the part or parts for which you are seeking accreditation.

☐ Part A ☐ Part B ☐ Parts A & B

Title of Operational Procedure (print the full title of the Operational Procedure)

### (b) Street address of the facility


Telephone ( )

Facsimile ( )

Mobile

## 3. Authorised Signatories (for Assurance Certificates)

Family Name

Given Name/s

Specimen Signature

Certification  
Controller  
Back-Up  
Certification  
Controller

Additional  
Authorised  
Signatories




ORIGINAL

Consignment Details (Please print)

Consignor

Name Tropical Plant Nursery P/L  
Address Nursery Road  
Cairns QLD 4870

Certificate Number

99999999

Consignee

Name Plant Wholesalers P/L  
Address Market City  
Canning Vale WA 6155

Reconsigned To (Splitting consignments or reconsigning whole consignments)

Name  
Address

Method of Transport (Provide details where known)

☒ Road Truck/Trailer  
Registration  
☐ Rail Consignment  
☐ Air Airline/Flight no.  
☐ Sea Vessel Name &  
Voyage no.

Certification Details (Please print)

Accredited Business that Prepared the Produce

Name Tropical Plant Nursery P/L  
Address Nursery Road  
Cairns QLD 4870

Grower or Packer

Name Tropical Plant Nursery P/L  
Address Nursery Road  
Cairns QLD 4870

IP No. of Acc. Business Brand Name or Identifying Marks (as marked on packages)

Q 9999

Tropical Plants

Date Code (as marked on packages)

205003

Number of Packages	Type of Packages (eg. trays, cartons)	Type of Produce	Authorisation for Split Consignment
1	Carton	Mixed Plants	
1	Carton	Mixed Plants	
See Attachment			

Date	Treatment	Chemical (Active Ingredient)	Concentration	Duration and Temperature	
/ /	<input type="checkbox"/> Dipping	Dimethoate	100ppm	<input type="checkbox"/> One min.	<input type="checkbox"/> 10 sec. then wet for 60 sec.
/ /	<input type="checkbox"/> Dipping	Fenthion	412.5ppm	<input type="checkbox"/> One min.	<input type="checkbox"/> 10 sec. then wet for 60 sec.
/ /	<input type="checkbox"/> Flood Spraying	Dimethoate	400ppm	10 seconds then wet for 60 seconds	
/ /	<input type="checkbox"/> Flood Spraying	Fenthion	412.5ppm	10 seconds then wet for 60 seconds	
/ /	<input type="checkbox"/> Non-recirculated Spray	Fenthion	412.5ppm	10 seconds then wet for 60 seconds	
/ /	<input type="checkbox"/> Fumigation	Methyl Bromide	g/m <sup>3</sup>	Two hours @	°C
/ /	<input type="checkbox"/> Heat Treatment	<input type="checkbox"/> Hot Air	<input type="checkbox"/> Hot Water	min. @	°C
30 / 05 / 02	<input checked="" type="checkbox"/> Cover Spray	400 g/L dimethoate at 0.75 mL/L to run-off			
/ /	<input type="checkbox"/> Bananas in a hard green condition with unbroken skin				

Additional Certification

Inspected and found free of Spiraling Whitefly

Declaration

I, an Authorised Signatory of the accredited business that prepared the plants or plant produce described above, hereby declare that the plants or plant produce have been prepared in the business's approved facilities in accordance with the accreditation(s) granted to the business under the *Plant Protection Act 1989* and that the details shown above are true and correct in every particular.

Authorised Signatory's Name (Please print)

Arthur John Signatory

Signature

AJ Signatory

Date

30/05/02

# ATTACHMENT SHEET

Plant Health Assurance Certificate No. 9999999

Consignor –

Tropical Plant Nursery Pty Ltd  
Nursery Road  
Cairns QLD 4870

Carton No.	No. and Size of Plants	Type of Plants
1	10 X 75 mm	Small Leaf Lillypilly ( <i>Syzygium luehmannii</i> )
1	10 X 75 mm	Lemon Scented Myrtle ( <i>Backhousia citriodora</i> )
2	20 X tubes	Walking Stick Palm ( <i>Linospadix monostachya</i> )
2	20 X tubes	Foxtail Palm ( <i>Wodyetia bifurcata</i> )
2	40 X tubes	Bangalow Palm ( <i>Archontophoenix cunninghamiana</i> )

Authorised Signatory -

Arthur John Signatory

Printed Name

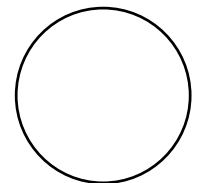
AJ Signatory

Signature

30 / 05 / 02

Date

# PROPERTY PLAN



INDICATE NORTH

**ATTACHMENT 3**



## ARRANGEMENT DETAILS

Applicant's Name *(as shown on the application form)*


## SCOPE OF ARRANGEMENT

Street Address of Property

Postcode

Real Property Description(s) *(available from Rates Notice)*


## PROPERTY PLAN DETAILS

The property plan (overleaf) is to include the following-

1. road access including street names;
2. internal roadways within the property;
3. the location and identification of buildings on the property (eg office, house, equipment and potting sheds, and permanent shadehouse structures etc)
4. the size and location of the plant inspection area;
5. the size and location of the secure area for inspected plants awaiting dispatch;
6. the size and location of all open and covered plant growing areas.

## DECLARATION

I ..... *(full printed name)* the

..... *(position in business)*  
am authorised to sign on behalf of the business and I understand that-

- (a) accreditation will only be granted for properties covered by a Property Plan submitted with the *Application for Accreditation of a Business for an Interstate Certification Assurance Arrangement* [FDU 385];
- (b) application must be made to amend any of the current details in the *Application for Accreditation of a Business for an Interstate Certification Assurance Arrangement* [FDU 385] or this Property Plan; and
- (c) following accreditation, certification can only be issued in accordance with scope of accreditation detailed in the *Certificate of Accreditation for an Interstate Certification Assurance* (ICA) Arrangement covering the arrangement.

.....  
Signature

/ /  
Date

## REGISTER OF AUTHORISED INSPECTION PERSONS

[illegible]

**Note:** Place a line through any entry for any person who is no longer authorised to carry out Spiraling Whitefly freedom inspections under the business' Interstate Certification Assurance arrangement.

# CHEMICAL MIXTURE TANK CALIBRATION CERTIFICATE

## EQUIPMENT CALIBRATED

Name and Address of  
Owner of Equipment:

---

Type of equipment  
(eg boom spray, mister):

---

Brand:

---

Model:

---

Serial No.:

---

Other Identification:

---

## TESTING DETAILS

Name and Address of the  
Business Conducting the  
Test:

---

---

Date of Testing:

---

Type of Flow Meter Used:

---

Date of Latest Calibration  
of Flow Meter:

---

## CALIBRATION RESULTS

Maximum Mixture Level Volume (litres)

Incremental Volumes (litres)  
(as marked on the spray tank):

---

---

---

---

---

---

---

## CERTIFICATION

The spray mixture tank on the equipment described above has been calibrated in the normal filling position using a calibrated flow meter. Volume indicator marks have been clearly marked on the tank with the volume in litres required to fill the tank to that level.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Date

# TREATMENT MIXTURE PREPARATION CHART

Treatment Unit \_\_\_\_\_

Concentrate (*Trade Name*) \_\_\_\_\_

Active Ingredient \_\_\_\_\_ Conc. \_\_\_\_\_ g/L

Concentrate Mixing Rate \_\_\_\_\_ mL/litre of mixture

Wetting Agent (*Trade Name*) \_\_\_\_\_

Wetting Agent Mixing Rate \_\_\_\_\_ mL/litre of mixture

## Full Tank

Full Treatment Tank Volume = \_\_\_\_\_ Litres

Volume of Concentrate = \_\_\_\_\_ millilitres

Volume of Wetting Agent = \_\_\_\_\_ millilitres

## Part Fill

\_\_\_\_\_ mL Concentrate and

\_\_\_\_\_ mL Wetting Agent / \_\_\_\_\_ Litres Mixture

\_\_\_\_\_ mL Concentrate and

\_\_\_\_\_ mL Concentrate / \_\_\_\_\_ Litres Mixture

\_\_\_\_\_ mL Concentrate and

\_\_\_\_\_ mL Concentrate / \_\_\_\_\_ Litres Mixture

Prepared by: \_\_\_\_\_ / /  
Printed Name Signature Date

# TREATMENT MIXTURE PREPARATION CHART

Treatment Unit Hardi Mini-Variant 600

Concentrate (Trade Name) Saboteur

Active Ingredient Dimethoate Conc. 400 g/L

Concentrate Mixing Rate 0.75 mL/litre of mixture

Wetting Agent (Trade Name) Agral

Wetting Agent Mixing Rate 0.1 mL/litre of mixture

## Full Tank

Full Treatment Tank Volume = 600 Litres

Volume of Concentrate = 450 millilitres

Volume of Wetting Agent = 60 millilitres

## Part Fill

150 mL Concentrate and

20 mL Wetting Agent / 200 Litres Mixture

225 mL Concentrate and

30 mL Wetting Agent / 300 Litres Mixture

300 mL Concentrate and

40 mL Wetting Agent / 400 Litres Mixture

Prepared by: S Operator  
Printed Name

S Operator  
Signature

15/11/01  
Date

## TREATMENT MIXTURE PREPARATION AND TREATMENT RECORD

[illegible]

## SPIRALING WHITEFLY FREEDOM INSPECTION RECORD

Page \_\_\_\_ of \_\_\_\_

[illegible]

The consignment described above has been inspected in accordance with the requirements of the ICA Operational Procedure *Inspection and Treatment of Plants for Spiraling Whitefly* [ICA-35] and has been found on inspection to be free of Spiraling Whitefly.

<b>Authorised Signatory</b>	<div style="border: 1px solid black; height: 40px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 40px;"></div>	<div style="border: 1px solid black; height: 40px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 40px;"></div>	<div style="border: 1px solid black; height: 40px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; height: 40px;"></div>
	Printed Name	Signature	Date

# SPIRALING WHITEFLY FREEDOM INSPECTION RECORD

Page 1 of 1

Business Name		Tropical Plant Nursery P/L				IP Number					Q 9 9 9 9					PHA Certificate No.		9999991	
Date	Plant Category			Free of SW?		Comments	Authorised Inspection Person												
	Type of Plants	No. of Plants	Size of Plants	Yes	No		Printed Name	Signature											
12/05/02	Royal Palms	250	tubes	✓															
"	Piccabeen Palms	250	tubes	✓															
"	Cycas revoluta	25	4" pots	✓															
"	Native Violet	125	3" pots	✓			John Inspector	J Inspector											
"	Kentia Palms	30	6" pots	✓															
"	Dwarf Date Palms	10	12" pots	✓															
"	Agapanthus (White)	25	6" pots	✓															
12/05/02	Acalypha	50	6" pots		✓	2 plants infested with whitefly.	Ann Inspector	A Inspector											
"	5 Leaf Lillypilly	25	6" pots	✓		remainder of lot rejected	Ann Inspector	A Inspector											
"	Heliconia flowers	125	Stems	✓		and treated with dimethoate	Ann Inspector	A Inspector											
"	Crab's claws	5	Stems	✓		as per ICA-35.	Ann Inspector	A Inspector											
"	Tropical Foliage	45	Leaves and Stems	✓			Ann Inspector	A Inspector											
"	Palm Leaves	14	Leaves	✓			Ann Inspector	A Inspector											
"	Cycad Leaves	12	Leaves	✓			Ann Inspector	A Inspector											
13/05/02	Acalypha	50	6" pots	✓		Reinspection from 12/05/02	Ann Inspector	A Inspector											

The consignment described above has been inspected in accordance with the requirements of the ICA Operational Procedure *Inspection and Treatment of Plants for Spiraling Whitefly* [ICA-35] and has been found on inspection to be free of Spiraling Whitefly.

Authorised Signatory	<div style="text-align: center;">Printed Name</div> <div style="text-align: center; font-size: 1.2em;">Arthur John Signatory</div>	<div style="text-align: center;">Signature</div> <div style="text-align: center; font-size: 1.2em;">A J Signatory</div>	<div style="text-align: center;">Date</div> <div style="text-align: center; font-size: 1.2em;">13 / 05 / 02</div>
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# IDENTIFICATION OF SPIRALING WHITEFLY

## SPIRALING WHITEFLY (*Aleurodicus dispersus*)

### Host Range

Spiraling Whitefly has been recorded on over 100 crop and ornamental plant species. The pest is tropical in origin and is also able to breed in sub-tropical conditions. It particularly favours crop plants such as papaw, cassava, banana, guava, chilli, tomato, egg plant and coconut and ornamentals such as frangipani, bauhinia, canna, acalypha, poinsettia, hibiscus, rose and palms. The host range could well be much more extensive as there are many subtropical and temperate horticultural and ornamental plants that are still untried against Spiraling Whitefly attack.

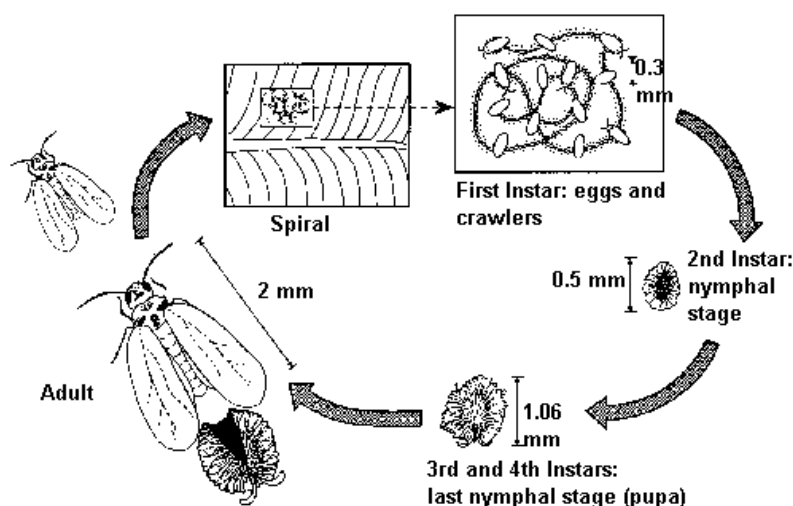
### Detection and Identification

The first signs of infestation are the whitefly eggs that are laid in white silken spirals on the upper or lower surface of leaves and on the skin of fruits and vegetables.

Spiraling Whitefly adults may also be seen. They are small (2.0mm long), white and moth-like in appearance and mode of flight. The adults are generally only active during calm, still times of the day, eg. dawn and dusk, when they can be seen flying in large circular patterns around host plants. Normally adults can be induced to fly by shaking an infested plant, after which they quickly resetttle. The adult whitefly and immature nymphs occur in dense populations on the undersides of the leaves of the host plant.

Nymphal stages are covered in a heavy coating of white, curly filaments and produce sugary secretions that lead to the development of black sooty mould on the leaves and stems.

Spiraling Whitefly bears a superficial resemblance to a closely related species, coconut whitefly which occurs in Queensland and is a minor pest of a range of horticultural and ornamental plants. Samples of suspected Spiraling Whitefly must be submitted to DPI for identification.



### Life History

Eggs (0.3mm long) are lozenge in shape, almost microscopic, and are embedded in the silken spirals produced by the female. The egg hatches into an active crawler stage of about the same size as the egg. This stage crawls out over the undersides of the host's leaves and then transforms into an inert, sedentary stage that sucks nutrients from the leaves.

This nymphal stage (0.5mm-1.06mm long) has no visible legs and grows progressively through a series of moults (instars), each instar producing more and more wax and sugar secretions. The final instar acts as a pupa, out of which the adult whitefly emerges. The time from egg to adult can be less than three weeks in summer, longer in cooler weather. The female whitefly (which is identical to the male) can lay large numbers of eggs.

## IDENTIFICATION OF SPIRALING WHITEFLY

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Spiraling Whitefly egg spirals, nymphs and adults on papaw leaves



Spiraling Whitefly nymphs on papaw leaves



Heavy Spiraling Whitefly infestation of guava plants



Typical Spiraling Whitefly egg spirals on papaw leaves