# DEPARTMENT OF PRIMARY INDUSTRIES

# Flood Spraying for Quarantine

ICA-02: Treatment for control of Queensland fruit fly Version 6.2



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Authorised by the Victorian Government Department of Primary Industries Plant Standards 621 Burwood Highway, Knoxfield, Victoria 3156

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# 1. Purpose

The purpose of this procedure is to describe-

- (a) the principles of operation, design features and standards required for flood spraying equipment; and
- (b) the responsibilities and actions of personnel;

that apply to flood spraying of host produce for Queensland fruit fly under an Interstate Certification Assurance (ICA) arrangement.

# Scope

This procedure covers all certification of flood spraying by a Business operating under an Interstate Certification Assurance arrangement.

Flood spraying may be used for all fruits except strawberries and defective flower end-type pawpaws.

Stonefruit and citrus (excluding mandarins) may not enter WA under this ICA procedure.

Flood spraying may not be an accepted quarantine entry condition for all fruits to all intrastate or interstate markets. Some intrastate or interstate markets may require additional quarantine certification as a condition of entry.

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

Information on intrastate and interstate quarantine requirements can be obtained from the Plant Standards Branch, DPI, Victoria.

# 3. References

PSW- 02 Guidelines for Completion of Plant Health Interstate Assurance Certificates.

Plant Health and Plant Product Act 1995

# 4. Definitions

**Accredit** means to accredit persons to issue Assurance Certificates.

**Application for** means an Application for Accreditation of a Business.

Accreditation

Approved laboratory means a laboratory approved by the National Association of

Testing Authorities (NATA) or the DPI

APVMA means the Australian Pesticides and Veterinary Medicines

Authority

**Assurance Certificate** means a Plant Health Assurance Certificate.

Authorised Signatory means an officer of an ICA accredited Business whose name

and specimen signature is provided as an Authorised Signatory

on the Application for Accreditation.

Business means the legal entity responsible for the operation of the

facility and ICA arrangement detailed on the Business's

Application for Accreditation.

Certification Assurance means a voluntary arrangement between the DPI and a

Business that demonstrates in-house quality management and provides assurance through documented procedures and

records that produce meets the specified requirements.

**Certified/Certification** means covered by a valid Plant Health Assurance Certificate.

**Facility** means the location of the flood spraying operation covered by

the Interstate Certification Assurance arrangement.

**Flood spraying** means flooding with a high volume application which applies

at least 16L/minute of the chemical mixture per square metre of

the area being flood sprayed.

**Inspector** means a person authorised as an inspector under the Act.

**Interstate Certification** 

Assurance

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.

**Queensland fruit fly** means all stages of the species *Bactrocera tryoni*.

# Responsibility

Position titles used reflect the responsibilities of staff under this 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 have responsibility for more than one position.

#### The **Certification Controller** is responsible for:

- representing the Business during audits and other matters relevant to ICA accreditation;
- ensuring the Business has current accreditation for an ICA arrangement under this procedure;
- training staff in their duties and responsibilities under this procedure;
- ensuring the business and staff comply with their responsibilities under this procedure;
- ensuring that all flood spraying is carried out in accordance with this procedure;
- obtaining and reading the specific Material and Safety Data Sheet for the chemical product intended for use;
- arranging a workplace risk assessment to be conducted in compliance with the Occupational Health and Safety (Hazardous Substances) Regulations 1999 (Victoria).

#### The **Treatment Operator** is responsible for:

- preparing and maintaining flood spray mixtures and top-up mixtures;
- maintaining spray mixture preparation, top-up and treatment records;
- maintaining spray mixture concentration testing analysis records;
- calibrating flood spray equipment;
- disposal of solution and chemical containers in accordance with EPA Guidelines;
- maintaining spray coverage and spray application rate test records; and
- maintaining flood spraying equipment.

#### The **Authorised Dispatcher** is responsible for:

- ensuring all packages covered by an Assurance Certificate issued by the Business under this Operational Procedure are identified; and
- maintaining copies of all Assurance Certificates issued by the Business under the ICA arrangement.

#### The **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's ICA arrangement and
that the details on the certificate are true and correct in every particular.

# 6. Requirement

The quarantine control of Queensland fruit fly on produce certified for treatment under this procedure must be treated in accordance with this procedure and the label recommendation.

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

Some produce may be damaged by 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 chemical products in accordance with the instructions included on the products approved label and this ICA Operational Procedure, and follow any first aid, safety, protection, storage and disposal directions on the product label.

Businesses who treat produce for fee or reward are required to hold a Commercial Operators Licence with the Department of Primary Industries, contact the Customer Service Centre (136 186) for information.

Following the required treatments in this procedure does not absolve the business from the responsibility of ensuring that treated produce does not contain a pesticide residue above the Maximum Residue Level (MRL).

All Produce certified for post-harvest treatment under this program must be treated in accordance with the following:

#### Product

Products to use are those that contain 400 g/L Dimethoate as the only active constituent.

#### Treatment

Produce must be treated in accordance with one of the following options

#### Option 1: Any Produce (except peaches) -

• treat by flood spraying of the fruit. Fruit must be sprayed in a single layer with a high volume application of at least 16L/minute per square metre of spray area, providing complete coverage of the fruit for a minimum of 10 seconds, after which the fruit must remain wet for a further 60seconds. The spray mixture is 100ml of chemical in 100L water. This makes up a mixture of 400 ppm dimethoate.

#### Option 2 Peaches and any other stonefruit -

• treat by flood spraying of the fruit. Fruit must be sprayed in a single layer with a high volume application of at least 32L/minute per square metre of spray area, providing complete coverage of the fruit for a minimum of 12 seconds, after which the fruit must remain wet for a further 60seconds. The spray mixture is 50ml of chemical in 100L water. This makes up a mixture of **200 ppm dimethoate**.

Stonefruit other than peaches may be treated at either 200 ppm or 400 ppm dimethoate. Peaches must only be treated at 200 mg/L dimethoate.

DO NOT undertake this treatment on peaches, apricots and cherries that have been subjected to pre-harvest applications of dimethoate sprays.

Flood Spraying must be the last treatment before packing, except that a non-recovery gloss coating ("wax") may be applied to citrus not less than 60 seconds after treatment.

Citrus fruit may be washed, treated with a fungicide and/or a gloss coating applied a minimum of 24 hours after dipping.

# 7. Treatment Procedure

# 7.1. Flood Spray Preparation

The Treatment Operator shall prepare the spray mixture at a minimum of every two days or more frequently as required.

Unused spray mixture may be held overnight for use the next day, however the mixture must be thoroughly mixed for at least two minutes prior to further use.

Periods longer than 48 hours may be considered where a Business can demonstrate by analysis of the chemical mixture (refer 7.5) the ability to control and maintain concentration for a specified longer period.

#### 7.1.1. Volume Of The Spray Tank

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

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

#### 7.1.2. Mixture Preparation Chart

The Business shall maintain a Mixture Preparation Chart (<u>Attachment 3</u>) or similar record for the preparation of the spray in close proximity to the flood spraying equipment.

The chart shall provide the following details:

- (a) the total volume in litres of the spray tank when filled to the **maximum mixture level** mark;
- (b) the volume in millilitres (mL) of concentrate required to achieve the concentration;
- (c) the volume in millilitres (mL) of concentrate required to achieve the concentration of the spray mixture for known **incremental volumes** or top-up volumes used (refer <u>7.3.1</u>); and
- (d) the printed name and signature of the person responsible for the chart's preparation and the date of preparation.

#### 7.1.3. Ensuring Correct pH

Flood sprays shall be maintained at a pH below 7.0 to prevent breakdown of the pesticide.

The Treatment Operator shall regularly check the flood spray mixture to ensure correct pH by testing the water with a pH tester. Checks of the pH of the spray mixture shall be recorded by the Treatment Operator.

After measuring the water pH, the Treatment Operator shall determine if a pH buffer is required.

An acidifying buffer may be used to achieve and maintain an acceptable pH level.

#### 7.1.4. Pre-Flood Spraying Treatments

Fruit can be treated with water or other chemical treatments prior to flood spraying provided there is enough time for the majority of the water to drain off and minimise the dilution of the spray mixture.

The direct addition of chemicals to the wash water, or carriage of chemicals on fruit, that raise pH or otherwise destroy the pesticide must be avoided.

Where fruit has undergone pre-flood spraying, washing or chemical treatments a spray mixture top-up program may be required to maintain the spray mixture concentration within the required tolerance (refer <u>7.3</u>).

#### 7.1.5. Flood Spray Preparation Records

Records of spray mixture preparation shall be maintained by the Treatment Operator which record the date, time and volumes of concentrate and water used to prepare the spray mixture (refer 7.4).

### 7.2. Flood Spraying

Fruit should be clean before spray treatment is applied to avoid fouling the spray mixture and restricting or reducing contact of the chemical with the fruit surface.

#### 7.2.1. Method of Flood Spraying

The Treatment Operator shall ensure that flood spraying equipment is designed and operated to ensure fruit passes under the spray in a single layer and the entire surface of the fruit is completely covered, in the case of:

- (a) all fruit except peaches:
- at least ten (10) seconds; or
- (b) peaches and stonefruit:
- at least twelve (12) seconds.

All surfaces of the fruit must be in contact with the spray mixture either by rotating the fruit as it passes under the spray, or through designing the spray system to ensure complete coverage of the fruit as it passes through the spray.

Mechanisms must be designed in a manner that prevents fruit from passing through the spray before it has been completely covered with spray for ten (10) seconds (12 seconds for stonefruit) or more.

Operation of equipment and volume of fruit feeding through the spray shall be carefully monitored by the Treatment Operator to ensure fruit is prevented from being pushed or carried through the spray in less than the required time.

Fruit that has been sprayed for ten (10) seconds, or stonefruit that is flood sprayed for twelve (12) seconds, must be allowed to remain wet with chemical for at least a further sixty (60) seconds after spraying.

#### 7.2.2. Last Treatment Before Packing

Flood spraying must be the last treatment before packing.

The Treatment Operator shall ensure that no other treatments, such as fungicide treatment or washing, are applied to fruit between flood spraying and packing. However, other processes may be approved provided they do not affect the efficacy of the flood spray treatment.

#### Citrus fruit only may:

- have a non-recovery gloss coating (wax) applied at least (60) seconds after flood spraying; or
- be washed, fungicide treated and/or have a gloss coating applied a minimum of 24 hours after flood spraying.

# 7.3. Maintaining Spray Concentration and Volume

Concentration of the chemical mixture must be maintained within  $\pm$  15% of the required concentration at all times.

#### 7.3.1. Topping Up

During the spraying process it may be necessary for the Treatment Operator to top-up the spray mixture to maintain the required concentration and/or volume.

This is done by adding the required quantity of water with the required amount of concentrate to the spray mixture as determined by the facility's top-up program (refer 7.3.2).

Calculate the required amount of concentrate and water by first determining the required volume of spray mixture to be added during the top-up procedure.

Calculate the quantity of concentrate required for every litre of mixture added in the top-up procedure. Refer to the facility's Spray Mixture Preparation Chart.

Add the required amount of concentrate to the spray tank prior to topping-up with water (if required) to assist mixing of the chemical and the water.

Add the required volume of water (if required) to the dip tank using a graduated measuring vessel or a liquid metering device, or use incremental volume marks indicated on the side of the spray tank.

Ensure that the chemical is completely diluted in all of the water by mixing the tank for a minimum of two minutes before recommencing flood spraying.

#### 7.3.2. Top-Up Program

A facility which uses topping-up as a means of maintaining spray volume and/or concentration must develop and document a top-up program for maintaining spray mixture concentration.

The top-up program shall include:

- (a) the frequency of topping-up based on the quantity of fruit treated or time; and
- (b) the quantity of concentrate and water required to be added.

The business shall provide evidence that the spray top-up program is effective in achieving and maintaining spray mixture concentration within  $\pm$  15% of the required concentration (refer 7.5).

#### 7.3.3. Top-Up Preparation Records

Records of spray top-up preparation shall be maintained by the Treatment Operator which record the date, time and volumes of concentrate and water added to the spray mixture (refer 7.4).

#### 7.4. Treatment Records

The Treatment Operator must record all spray mixture preparation, top-up mixture preparation and fruit treatment using a Dip Mixture Preparation, Top-Up & Treatment Record (Attachment 2) or records which capture the same information.

# 7.5. Spray Concentration Testing

The Business must verify the ability to achieve and maintain spray concentrations by providing the results of analysis of samples of a spray mixture from an approved laboratory.

#### 7.5.1. Frequency of Sampling

Samples shall be gathered and tested:

- (a) once prior to initial approval of the facility (an analysis result must be available for the Inspector carrying out the initial audit of the facility); and
- (b) at least annually during each season thereafter.

Annual sampling is required during the season for each host fruit species being treated where there is a change to the method of processing the fruit (ie one species is sprayed wet and the other dry), or in chemicals or other treatments applied to the fruit prior to flood spraying (ie one species is treated with a fungicide and one is not) where these may materially affect the maintenance of the spray mixture concentration.

Businesses that treat stonefruit and other fruits may use concentration analysis results for dip mixtures provided there are no differences in the methods of processing the fruit as stated above.

Spray mixture samples shall be collected at a minimum of:

- (a) immediately following preparation of the spray mixture; and
- (b) at cessation of treatment after the chemical mixture has been used to treat the maximum quantity of fruit that will be treated in the facility before a spray mixture is discarded.

Additional spray mixture samples required for a facility using a top-up program shall include a sample of a spray mixture taken immediately prior to topping-up the mixture according to the facility's documented top-up program.

#### 7.5.2. Collection of the Sample

Samples of a minimum of 200mL shall be taken from the centre of the spray tank, or if this is not practical, from a spray nozzle after the spray has run for a minimum of five minutes, and placed in a clean glass sample bottle with a secure water tight lid.

#### 7.5.3. Storing and Packaging the Sample

Samples should be stored under refrigeration and dispatched within 24 hours of collection to minimise losses in chemical concentration.

Samples must be carefully packaged to prevent damage in transit and comply with any hazardous chemical packaging and transport requirements.

Samples shall be accompanied by a completed Chemical Treatment Sample for Analysis form (Attachment 4).

#### 7.5.4. Chemical Mixture Analysis Records

Results of the analysis must be retained by the Business for a minimum of 24 months from receipt and be made available when requested by an Inspector (refer 8.2).

Details of chemical mixture analysis results shall be maintained using a Chemical Mixture Analysis Record (Attachment 5) or records which capture the same information.

Once accredited, any deficiency in an analysis result **must**, as soon as practical, be reported to the DPI so an investigation can be carried out to determine the cause and rectify any problems.

### 7.6. Disposal of the Spray Mixture

Disposal of spent spray mixture must be carried out in accordance with the provisions of the *Environment Protection Act* 1970 and the *Environment Protection (Prescribed Waste) Regulations* 1998. Large volumes of spent solution could be discharged to sewer via a licensed trade waste agreement with your local water authority or transported off-site by an EPA-approved waste transporter to an EPA-licensed waste treatment facility. Smaller volumes of spent dipping solutions can be managed on-site by using EPA publication 645 *Interim Guidelines for the Disposal of Waste Fungicide Produced by Apple and Pear Growers* for guidance.

Empty chemical containers must be triple rinsed and if eligible can be recycled via the drumMUSTER program or managed in accordance with EPA publication 344.1 *Transport and Management of Used Containers*.

### 7.7. Flood Spray Equipment Calibration

The Treatment Operator shall carry out calibration tests on flood spray equipment at regular intervals to verify that spray coverage and spray application rates are in accordance with requirements.

Spray coverage and spray application rate calibration tests shall be carried out at a minimum of:

- once immediately prior to commencement of treatment and certification of produce each season for each fruit type being treated;
- within four weeks of commencement of treatment each season, or prior to the compliance audit, whichever is the earlier; and
- once a month during each fruit season.

#### 7.7.1. Spray Coverage Calibration

Calibration tests shall be carried out by placing an identifiable piece of fruit (eg marked with waterproof ink) on the feed mechanism with a normal flow rate of other fruit. The Treatment Operator shall time the period that the marked piece of fruit is under the spray.

This process shall be repeated three times and on each occasion the fruit must remain completely covered with the spray mixture for the required period and remain wet for a further sixty seconds (60) after flood spraying for ten (10) seconds.

If any of the tests reveal that fruit is not remaining fully under the spray for the required period, or fruit is undergoing a drying process within sixty (60) seconds of treatment, the equipment shall be adjusted and the procedure repeated until a satisfactory result is achieved.

#### 7.7.2. Spray Coverage Calibration Records

Records of spray coverage calibration tests shall be maintained by the Treatment Operator which record:

- (a) the name of the person conducting the test;
- (b) the date of testing; and
- (c) the results achieved during the tests.

An example Spray Calibration Test Record is included as Attachment 6.

#### 7.7.3. Spray Application Rate Calibration

The Treatment Operator shall ensure that the application rate of the flood spray equipment is at least the required minimum of:

- (a) for all fruit except peaches:
- 16/L minute; and
- (b) for peaches and stonefruit:
- 32/L minute;

per each square metre of the area being flood sprayed.

Calibration tests may be carried out by calculating the size of the spray area in square metres. The boundary being the line at which a fruit's surface is fully wetted in ten seconds.

For example: spray area width = 1.5 metres

spray area length = 2.0 metres

Total spray area =  $1.5 \times 2.0 = 3.0 \text{ m}^2$ 

Place a collection vessel under each of the spray nozzles for a measured time period and determine the volume of output from each nozzle over a one minute period.

For example: Spray equipment with 16 spray nozzles gives the following Total output volumes over a one-minute period:

```
3.05L + 3.07L + 3.08L + 3.03L + 3.04L + 3.08L + 3.05L + 3.06L + 3.05L + 3.06L + 3.07L + 3.04L + 3.05L + 3.04L + 3.06L + 3.07L = 48.9 \ L/min \ Total \ output.
```

Calculate the application rate per square metre over the spray area using the following calculation:

Total output (L/min)  $\div$  Total Spray Area (m<sup>2</sup>) = Application Rate (L/min/m<sup>2</sup>).

Total output (L/min)  $\div$  3.0 m<sup>2</sup> = 16.3 L/minute/m<sup>2</sup>

If any test reveals that the application rate is below the required rate per square metre of the area being sprayed, the equipment shall be adjusted by increasing the output volume or decreasing the spray area (provided the fruit remains under the spray for the minimum period). The procedure may be repeated until a satisfactory result is achieved.

#### 7.7.4. Spray Application Rate Calibration Records

Records of spray application rate calibration tests shall be maintained by the Treatment Operator which record:

- (a) the name of the person conducting the test;
- (b) the date of testing; and
- (c) the results achieved during the tests.

Results of testing shall include the full calculations used to determine the spray equipment application rate.

An example Spray Equipment Calibration Test Record is included as Attachment 7.

### 7.8. Flood Spray Equipment Maintenance

The Treatment Operator shall carry out regular checks of flood spraying equipment to ensure it continues to operate effectively according to the required standards and remains free from soiling, malfunction, blockages, damage or excessive wear.

### 7.9. Post Treatment Security for Tasmania

Packing shall commence as soon as practicable after treatment. Fruit may be allowed to dry adequately prior to packing.

Treated fruit shall be held for the minimum practical period after treatment before it must be secured against reinfestation. Any fruit that is stored outside the treatment facility after treatment and prior to dispatch must be held under secure conditions.

Any treated fruit, which remains unpacked at the end of the day, must be held in secure conditions until packed. Completed pallets shall be held for the minimum practical period before placing in secure conditions. Certified fruit must be stored at and transported from the facility in secure conditions that prevent infestation by Queensland fruit fly.

Secure conditions include:

- (a) unvented packages;
- (b) vented packages with the vents secured with gauze/mesh with a maximum aperture of 1.6mm;
- (c) fully enclosed under tarpaulins, hessian, shade cloth, mesh or other covering which provides a maximum aperture of 1.6mm;
- (d) shrinkwrapped and sealed as a palletised unit; and/or
- (e) fully enclosed or screened buildings, cool rooms, vehicles or other facilities free from gaps or other entry points greater than 1.6mm.

The Business shall have adequate procedures in place to prevent mixing of treated and untreated fruit at the facility.

### 7.10. Dispatch

#### 7.10.1. Package Identification

The Authorised Dispatcher shall ensure that, after treating and 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 produce was treated;
- the words "MEETS ICA-02"; and
- the date (or date code) on which the fruit was treated;

prior to the issuance of an Assurance Certificate by the Business under this procedure.

Produce that has not been verified as conforming to the requirements specified in this procedure shall not be marked as stated above.

#### 7.10.2. 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 produce to a market requiring certification of flood spray treatment.

Assurance Certificates shall be in the form of a Plant Health Assurance Certificate (Attachment 1).

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

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

#### 7.10.3. Assurance Certificate Distribution

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

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

# 8. Accreditation

## 8.1. Application for Accreditation

A Business seeking accreditation for an ICA arrangement under this procedure shall make application for accreditation at least 10 working days prior to the intended date of commencement of certification of produce.

#### 8.2. Audit Process

#### 8.2.1. Initial Audit

Prior to accrediting a Business, an Inspector carries out an initial audit of the Business to verify the ICA system is implemented and capable of operating in accordance with the requirements of the procedure, and the system is effective in ensuring compliance with the specified requirements of the ICA arrangement.

On completion of a successful initial audit, applicants will be granted provisional accreditation and issued Certificate of Accreditation (refer 8.3).

#### 8.2.2. Compliance Audits

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

A compliance audit is conducted within four (4) weeks of the initial audit and accreditation of the Business.

On completion of a successful compliance audit, annual accreditation is granted to cover the current season, up to a maximum of twelve (12) months from the date of provisional accreditation (refer 8.3)

A compliance audit is conducted between six (6) and nine (9) months after the date of accreditation for an ICA arrangement that operates for more than six (6) months of the year.

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 item to investigate reported or suspected non-conformances.

#### 8.2.3. 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 being accredited to certify produce under the ICA arrangement.

A compliance audit is conducted within twelve (12) weeks of the Business applying for reaccreditation each year.

A compliance audit is conducted between six (6) and nine (9) months after the date of reaccreditation for an ICA arrangement that operates for more than six (6) months of the year.

#### 8.3. Certificate of Accreditation

An accredited Business will receive a Certificate of Accreditation detailing the facility location, procedure, scope (type of produce and chemical covered) and 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 procedure, produce type and chemical covered by the Assurance Certificate.

#### 8.4. Non-conformances and Sanctions

#### 8.4.1. Non-conformances

Audits are regularly undertaken to evaluate the effectiveness of implementation of ICA requirements. If, in the opinion of the auditor, there is evidence indicating that there has been a failure to meet one or more accreditation requirements, the auditor may raise a Nonconformance Report (NCR). Actions required to address the non-conformance shall be discussed and recorded on the NCR.

If the integrity of the accreditation has been significantly compromised, the non-conformance may provide grounds for the suspension or cancellation of the accreditation, and prosecution.

#### 8.4.2. Incident Reports

Incident Reports may be raised by interstate quarantine authorities to report the detection of a non-conformance in produce certified under this ICA arrangement. An investigation into the incident shall be conducted and findings reported back to the originator.

If the integrity of the accreditation has been significantly compromised, the incident may provide grounds for the suspension or cancellation of the accreditation, and prosecution.

#### 8.4.3. Suspension and Cancellation

The DPI may suspend or cancel an accreditation when an accredited business is found, for example, to have:

- obtained accreditation through the provision of false or misleading information;
- not paid fees owing to the DPI;
- contravened an accreditation requirement that compromises the integrity of the arrangement; and/or
- not rectified a non-conformance.

Any action taken by the DPI to suspend or cancel an accreditation shall be provided in writing to the Business. This shall also provide guidance on the lodgement of a written appeal requesting that the decision be reviewed.

#### 8.4.4. Prosecution

Businesses found to be operating contrary to the Act may be liable for prosecution.

## Records and Document Control

### 9.1. ICA System Records

The Business shall maintain the following records:

- (a) Mixture Preparation Chart;
- (b) Mixture Preparation, Top-Up and Treatment Record;
- (c) Chemical Mixture Analysis Record;
- (d) Spray Calibration Test Record;
- (e) Spray Equipment Calibration Test Record; and
- (f) the duplicate copy of each Plant Health Assurance Certificate issued by the Business.

ICA system records shall be retained for a period of not less than 24 months from completion. ICA system records shall be made available on request by an Inspector.

### 9.2. ICA System Documentation

The Business shall maintain the following documentation:

- (a) a copy of the Business's current Application for Accreditation;
- (b) a current copy of this procedure; and
- (c) a current Certificate of Accreditation.

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

# 10. Attachments

Attachment 1	Plant Health Assurance Certificate (PSF-003, example)
Attachment 2	Mixture Preparation, Top-Up & Treatment Record (PSF-087)
Attachment 3	Mixture Preparation Chart (PSF-359)
Attachment 4	Chemical Treatment Sample for Analysis (PSF-088)
Attachment 5	Chemical Mixture Analysis Record (PSF-089)
Attachment 6	Spray Calibration Test Record (PSF-199)
Attachment 7	Spray Equipment Calibration Test Record (PSF-071)



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# **Plant Health Assurance Certificate**

#### Consignment Details (PLEASE PRINT)

CONSIGNOR	
Name	ABC PTY LTD
Address	STREET ROAD
	MELBOURNE VIC 3000

CONSIGNEE		
Name	PRODUCE PEOPLE	
Address	SOMEWHERE ROAD	
	ADELAIDE SA	

RECONSIGN	IED TO (Splitting consignments or reconsigning whole consignments).
Name	
Address	

#### Certification Details (PLEASE PRINT)

IP NUMBER	FACILITY NUMBER	PROCEDURE
V9999	01	ICA- 02

ACCREDITED BUSINESS THAT PREPARED THE PRODUCE	
Name	ABC PTY LTD
Address	STREET ROAD, MELBOURNE VIC 3000

GROWER OR PACKER	
Name	ABC PTY LTD
Address	STREET ROAD, MELBOURNE VIC 3000

OTHER FACILITIES SUPPLYING PRODUCE

BRAND NAME OR IDENTIFYING MARKS (as marked on packages)	DATE OR DATE CODE (as marked on packages)
ABC PRODUCE	01/02/2011

Number of Packages	Type of Packages (e.g. trays, cartons)	Type of Produce	Authorisation for Split Consignment
(a) 48	Trays	Apples	
(b) 48	Boxes	Nectarines	
-			

#### **Treatment Details**

Treatment Date	Treatment	Chemical (Active Ingredient)	Concentration / Duration and Temperature
(a) 01/02/2011	Flood Spray	Dimethoate	400ppm Spray for 10sec then wet for 60 sec
(b) 01/02/2011	Flood Spray	Dimethoate	200ppm spray for 12sec then wet for 60 sec

Additional Certification / Codes	

#### **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 facility in accordance with the business's Certification Assurance arrangement and that the details shown above are true and correct in every particular. I acknowledge that it is an offence under the Plant Health and Plant Products Act 1995 to issue assurance certificates without being accredited and/ or making false statements in certificates and declarations.

A. Signature	ASIGN	02/02/2011		
AUTHORISED SIGNATORY'S NAME (PLEASE PRINT)	SIGNATURE	DATE		

# MIXTURE PREPARATION, TOP-UP & TREATMENT RECORD

MIXT	MIXTURE PREPARATION & TOP-UP PREPARATION						FRUIT TREATMENT							
DATE	TIME	TOP-UP (✓)	pН	VOLUME OF CONC (mL)	VOLUME OF MIXTURE (L)	TRADE NAME OF CONC.	DATE MIXTURE DISCARDED	DATE OF TREATMENT	START TIME	FINISH TIME	TYPE / VARIETY OF FRUIT TREATED	QUANTITY TREATED (KG OR PACKAGES)	TREATMENT OPERATOR'S NAME	SIGNATURE

# MIXTURE PREPARATION CHART

Chemical Appli	cation:		
Mixture Applica	ation Rate:		
Mixing Rate: _			mL
Chemical Cond	centrate:		
Trading Name:			
Full	Tank (Concentra	te [mL or g]/Mixt	ure [L])
Full Tank Volur	ne:		Litres
Concentrate To	o Full Tank:		mL/G
Part Fill o	or Top-Up (Conce	entrate [mL or g]	/Mixture [L])
	mL/g Conce	entrate /	Litres Mixture
	mL/g Conce	entrate /	Litres Mixture
	mL/g Conce	entrate /	Litres Mixture
Prepared by:	Drinted News		
	Printed Name	Signature	Date



# CHEMICAL TREATMENT SAMPLE FOR ANALYSIS SUBMISSION FORM

(ONLY ONE SAMPLE TO BE SUBMITTED PER FORM)

SAMPLE DETAILS						
Client's Name		IP Number				
Postal Address	Street Address					
Telephone No:	Fax No:					
Product Treated:						
Chemical used (tick one):  Chlorpyrifos  White Petroleu	m Oil	Other (specify):				
Chemical Branch Name:	Batch Num	ber:				
Total Volume of Mixture (litres):						
Name and Amount of other chemicals added:						
Date of Mixing:	Time of Mix	king:				
Method of Application (tick one): ☐ Dip ☐ Floor ☐ Non-recirculating						
Product Wetness immediately prior to Treatment (tick or Dry Moist Dripping	ne): Othe	Other:				
Sample Number as marked on sample bottle:						
Date sample collected:	Time sam	Time sample collected:				
Product volume treated up until sample collected (kg):						
Total volume of chemical mixture at time of sampling (litres):						
Other information on sample:						



# **CHEMICAL MIXTURE ANALYSIS RECORD**

SAMPLE DETAILS	CHEMICAL MIX	TURE DETAILS	FRUIT DETAILS	ANALYSIS DETAILS
Date of Sampling-	Trade Name of Concentrate -	Other Additive/s-	Fruit Treated-	Laboratory-
Time of Sampling-	Batch No	Volume of Additive/s-	Quantity Treated-	Analysis No
Sample No	Volume of Concentrate-	Total Volume of Mixture- mL	Condition Dry Moist Wet	Analysis Result-
Date of Sampling-	Trade Name of Concentrate -	Other Additive/s-	Fruit Treated-	Laboratory-
Time of Sampling-	Batch No	Volume of Additive/s-	Quantity Treated-	Analysis No
Sample No	Volume of Concentrate-	Total Volume of Mixture- mL	Condition Dry Moist Wet	Analysis Result-
Date of Sampling-	Trade Name of Concentrate -	Other Additive/s-	Fruit Treated-	Laboratory-
Time of Sampling-	Batch No	Volume of Additive/s-	Quantity Treated-	Analysis No
Sample No	Volume of Concentrate-	Total Volume of Mixture- mL	Condition Dry Moist Wet	Analysis Result-
Date of Sampling-	Trade Name of Concentrate -	Other Additive/s-	Fruit Treated-	Laboratory-
Time of Sampling-	Batch No	Volume of Additive/s-	Quantity Treated-	Analysis No
Sample No	Volume of Concentrate- mL	Total Volume of Mixture- mL	Condition Dry Moist Wet	Analysis Result-



### SPRAY CALIBRATION TEST RECORD

Date of Test	Fruit Type	Time Sprayed (seconds)		red s)	Time of Drying Process (seconds)	Name of Testing Officer	Comments
		Test 1	Test 2	Test 3			

#### **NOTES**

- 1. Calibration tests must be carried out immediately prior to commencement of treatment and certification of produce, within four weeks of commencement of treatment or prior to the Business's compliance audit, and once a month during the season for each fruit type being treated.
- 2. Three tests must be carried out. For each test, record the number of seconds an identifiable piece of fruit is completely covered with the spray mixture in the normal flow of fruit.
- 3. Where no drying process is applied show not applicable (N/A).
- 4. Adjust the equipment and repeat the test if any of the three tests are below the minimum specified time period for complete flood spray cover of fruit. All fruit except stonefruit must be flood sprayed for at least ten (10) seconds or for stonefruit for at least twelve (12) seconds.



## SPRAY EQUIPMENT CALIBRATION TEST RECORD

Date of Test	No. of Nozzles	Application Rate Required	Output for Individual Nozzles (Litres/minute/nozzle)	Effective Spray Width (metres)	Calibration Run (metres)	Litres Used in Run	Total Output (L/min)	Total Spray Area (m²)	Application Rate (L/ha)	Testing Officer's Name

#### **NOTES**

- 1. Spray application rate calibration tests must be carried out immediately prior to commencement of treatment and certification of produce, within four weeks of commencement of treatment or prior to the Business's compliance audit, and once a month during the season for each fruit type being treated.
- 2. Calculate the Total output of the spray equipment by placing a collection vessel under each spray nozzle for a measured time period and determine the volume of output from each nozzle over a one minute period. Total the output (L/min) from each of the nozzles to give the Total Output (L/min).
- 3. Calculate the Total Spray Area (m²) by multiplying the spray area width by the spray area length, the boundary being the line at which the fruit's surface is fully wetted.
- 4. Divide the Total output (L/min) by the Total Spray Area (m²) to give the Application Rate (L/min/m²)-

Total Output (L/min)  $\div$  Total Spray Area (m<sup>2</sup>) = Application Rate (L/min/m<sup>2</sup>)

5. Adjust the equipment and repeat the test if the test shows a spray application rate below the minimum specified requirement.