FLOOD SPRAYING WITH DIMETHOATE OR FENTHION

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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 produce with dimethoate or fenthion for fruit fly under an Interstate Certification Assurance (ICA) arrangement.

2. SCOPE

This procedure covers all certification of flood spraying with dimethoate and fenthion by a Business operating under an Interstate Certification Assurance arrangement in South Australia.

Flood spraying with dimethoate may be used for all host fruit except strawberries.

Flood spraying with fenthion may be used for all host fruit with Inedible Peel except Capsicum.

Dipping in dimethoate or fenthion may not be an accepted Quarantine entry condition for all fruits to all Interstate markets.

Some 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.

The APVMA (Australian Pesticides and Veterinary Medicines Authority) stipulates that Stonefruit be treated at 200ppm (not 400ppm) due to excessive MRL's being detected in stonefruit treated at 400ppm.

<u>Stonefruit may not enter Western Australia under this ICA Procedure.</u>
Western Australia does not accept Stonefruit treated at 200ppm and treatment of Stonefruit at 400ppm is illegal.

Information on Interstate quarantine requirements can be obtained from the Certification Assurance Supervisor or South Australian Quarantine Inspection Service by phoning 8269 4500.

3. REFERENCES

WI-02 Guidelines for completion of Plant Health Interstate Assurance Certificates.

APVMA Off Label Permit

The current Australian Pesticide and Veterinary Medicines Association permit for Minor Off-Label-Use of a Registered AgVet Chemical must be obtained and adhered to whilst operating under this Arrangement.

4. DEFINITIONS

Accredit: means to accredit persons to issue Assurance Certificates to meet interstate plant health requirements

Agvet Code: means the Agvet Code of South Australia

Approved Laboratory: means a laboratory approved by the National Association of Testing Authorities (NATA) or Primary Industries and Resources, South Australia (DPIR).

Application for Accreditation: means an Application for Accreditation of a Business for a Plant Health Interstate Certification Assurance (ICA) arrangement.

Assurance Certificate: means a Plant Health Interstate Assurance Certificate

APVMA: means the Australian Pesticide and Veterinary Medicines Association

Authorised Signatory: 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.

Business: means the legal entity responsible for the operation of the flood spraying facility and an Interstate Certification Assurance (ICA) arrangement detailed on the Business's Application for Accreditation.

Certification Assurance: means a voluntary arrangement between the DPIR and a Business that demonstrates effective in-house quality management and provides assurance through documented procedures and records that produce meets specified requirements.

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

Dipping: means full immersion in a diluted chemical mixture.

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 16 L/minute of the chemical mixture per square metre of the area being flood sprayed.

Fruit Fly: means Queensland and Mediterranean Fruit Fly.

ICA: means Interstate Certification Assurance.

Inspector: means an inspector appointed under the Plant and Fruit Protection Act 1989.

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.

Mediterranean Fruit Fly: means the pest *Ceratitis capitata* (Wiedemann)

NRA: means the National Registration Authority for Agricultural and Veterinary Chemicals.

Quarantine Area: means a quarantine area declared under the Plant Protection Act of 1989 for fruit fly.

Queensland fruit fly: means all stages of the species Bactrocera tryoni and related species B. aquilonis and B. neohumeralis.

Suspension Area: means the area within a Fruit Fly Pest Quarantine Area in which area freedom from fruit fly has been suspended.

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;
- ensuring the Business has current accreditation for an ICA arrangement under this Operational Procedure;
- 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;
- ensuring that all dimethoate or fenthion flood spraying certified under the Business's ICA arrangement is carried out in accordance with this Operational Procedure.

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 (refer 7.2.7);
- maintaining spray mixture concentration testing analysis records (refer 7.6.4);

- calibrating flood spray equipment to ensure –
  - the fruit is sprayed in a single layer,
  - fruit is completely covered by the flood spray for a period of not less than ten seconds and fruit remains wet for at least a further sixty seconds (refer 7.8.1), and
  - the application rate is at least 16L/minute per each square metre of the area being flood sprayed (refer7.8.3);
- maintaining spray coverage and spray application rate test records (refer 7.8.2 and 7.8.4);
- maintaining flood spraying equipment (refer 7.9).

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 7.11.1);
- maintaining copies of all Interstate Assurance Certificates issued by the business under the ICA arrangement (refer 7.12).

Authorised Signatories are responsible for –

- ensuring prior to signing and issuing an Interstate Assurance Certificate, that produce covered by the certificate has been prepared in accordance with the Business's ICA arrangement, and the details on the certificate are true and correct in every particular (refer 7.11.2).

6. REQUIREMENT

6.1 Dimethoate

All host fruit except peaches must be treated by -

Flood spraying the fruit in a single layer with a mixture containing **400 g/L dimethoate** in a high volume application of at least **16L/minute per** each **square metre** of the area being sprayed, which provides complete coverage of the fruit for a **minimum of 10 seconds**, after which the fruit must **remain wet for not less than 60 seconds**.

Capsicums only may be flood sprayed in a single layer with a mixture **containing 400 mg/L dimethoate** in a high volume application of at least **9.2L/ minute** per each square metre of the area being sprayed, which provides complete **coverage of the fruit for a minimum of 60 seconds.**

The alternative rate of 9.2L/min/m^2 for sixty (60) seconds for capsicums is in line with the approved rate for treatment of capsicums for Queensland fruit fly for New Zealand

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 flood spraying.

6.2 Fenthion

Flood spraying the fruit in a single layer with a mixture containing **412.5 mg/L fenthion**, in a high volume application of at least **16L/minute per each square metre of the area being sprayed**, which provides complete coverage of the fruit for a minimum of 10 seconds, after which the fruit must remain wet for not less than **60 seconds**.
Flood spraying must be the last treatment before packing.

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 be checked 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 APVMA 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.

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).

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 of produce.

7.1.2 Audit Process

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 Operational 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 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.

A compliance audit is conducted within four 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 months from the date of provisional accreditation, and an new Certificate of Accreditation is issued (refer 7.1.3 Certificate of Accreditation).

Ongoing compliance audits are conducted at least once every six months for a Business that operates for more than six months of each 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 time to investigate reported or suspected non-conformances.

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 four weeks of the Business applying for re-accreditation each year.

7.1.3 Certificate of Accreditation
An accredited Business will receive a Certificate of Accreditation for an Interstate Certification Assurance Arrangement detailing the facility location, Operational 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.

7.2 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 7.6 Spray Concentration Testing) the ability to control and maintain concentration for a specified longer period.

7.2.1 Volume of the Spray Tank

Permanent volume indicator marks shall be made on the inside of the spray 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 any **incremental volumes** used.

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

7.2.2 Calculating the Quantity of Concentrate to Add to the Flood Spray Mixture

Dimethoate

Using the calibrated volume of the spray tank, calculate 1 mL of a concentrate containing 400gm/L dimethoate for every litre of mixture in the spray tank.

Fenthion

Using the calibrated volume of the spray tank, calculate 0.75 mL of a concentrate containing 550g/L fenthion for every litre of mixture in the spray tank.

A similar calculation may be used when part filling the tank to a known incremental volume.

7.2.3 Spray Mixture Preparation Chart

The business shall maintain a Spray Mixture Preparation Chart (refer Spray Mixture Preparation Chart – Attachments 4 & 5) or similar record 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 400mg/L dimethoate or 412.5 mg/L fenthion in a full tank of the made up spray mixture;

(c) the volume in millilitres (mL) of a concentrate required to achieve 400mg/L dimethoate or 412.5mg/L fenthion in a made up spray mixture for known **incremental volumes** or top-up volumes used (refer 7.4.1 Topping-Up);

(c) printed name and signature of the person responsible for the chart's preparation and date of preparation.

7.2.4 Ensuring Correct pH

Dimethoate 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. Spray mixture pH checks 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.

7.2.5 Preparing the Spray Mixture

If a buffer is required, add it to the empty spray tank or during filling.

Using a clean graduated measuring vessel, measure the required amount of chemical needed to achieve either 412.5 mg/L of fenthion for the required volume of mixture.

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

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

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

Other ingredients may only be added to the mixture if they are known to be compatible with the chemical used to control fruit flies.

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 facilities may require extended periods of mixing to fully dilute the chemical in the water.

The flood spraying facility must have a means of mixing the spray mixture in the spray tank throughout the spray operation to avoid settling or separation of the concentrate. Mechanical mixing devices in the spray tank can achieve this, or agitation from spray mixture returned via a by-pass from the spray pump.

7.2.6 Pre-Flood Spraying Treatments

Fruit can be treated with water or other chemical treatments prior to flood spraying with dimethoate or fenthion 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 7.4 Maintaining Spray Concentration and Volume).

7.2.7 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 7.5 Treatment Records).

7.3 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.

7.3.1 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 for at least ten (10) 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.

Fruit feed 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 or more, or allows hand-operated processes to be accurately timed.

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 ten (10) seconds.

Fruit must be allowed to remain wet with chemical for at least a further sixty (60) seconds after it has been completely covered with spray for ten (10) seconds.

7.3.2 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 of 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 fruits only may –

(a) have a non-recovery gloss coating (wax) applied at least (60) seconds after flood spraying with dimethoate;or

(b) be washed, fungicide treated and/or have a gloss coating applied a minimum of 24 hours after flood spraying with dimethoate.

7.4 Maintaining Dip Concentration and Volume

Concentration of the chemical mixture must be maintained within +/- 15% of the required concentration at all times (refer 6. Requirements).

7.4.1 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 volume of water and the required volume of concentrate to the spray mixture as determined by the facility's top-up program (refer 7.4.2 Top-Up Program).

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 7.2.2 Calculating the Quantity of Concentrate to Add to the Flood Spray Mixture).

Refer to the facility's Spray Mixture Preparation Chart.

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

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

7.4.2 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 state –

(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 being used is effective in achieving and maintaining spray mixture concentration within +/- 15% of the required concentration (refer 7.6 Spray Concentration Testing).

7.4.3 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 7.5 Treatment Records).

7.5 Treatment Records

The treatment Operator must record all spray mixture preparation, top-up mixture preparation and fruit treatment using a Spray Mixture Preparation, Top-Up and Treatment Record (refer Attachment 3) or records which capture the same information.

The Business's treatment records must record –

- the date of flood spray mixture or top-up mixture preparation;
- the time of flood spray mixture or top-up mixture preparation;
- volume of concentrate used (millilitres);
- total volume of the made-up spray mixture or top-up mixture (litres);
- the trade name of the concentrate used;
- the date the spray mixture was discarded;
- the date of treatment;
- treatment commencement time;
- treatment completion time;
- the type of fruit treated;
- the approximate quantity of fruit treated;
- the identification of the Treatment Operator.

7.6 Spray Concentration Testing

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

7.6.1 Frequency of Sampling

Samples shall be gathered and tested –

(a) once prior to initial approval of the facility (so an analysis result is available for the Inspector carrying out the initial audit of the Business's facility and operating procedures); and

(b) at least annually during each season thereafter.

Annual sampling is required during the season for each fruit species being treated where there is a difference –

(a) in the method of processing the fruit (ie. one species is sprayed wet and the other dry), or

(b) 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.

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 spray mixture taken immediately prior to topping-up the mixture according to the facility's documented top-up program.

7.6.2 Collection of the Sample

Samples of a minimum of 200 mL 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 watertight lid.

7.6.3 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 Fruit Fly Chemical Treatment Sample for Analysis form. A copy of this form is included as Attachment 6.

7.6.4 Chemical Mixture Analysis Records

Results of the analysis must be retained by the Business for a minimum of 12 months from receipt and be made available when requested by an Inspector (refer 7.12 ICA System Records).

Details of chemical mixture analysis results shall be maintained using a Chemical Mixture Analysis Record (refer Attachment 7) or records which capture the same information.

The Business's chemical mixture analysis records must include-

- the date and time of collection of the sample;
- the full trade name and batch no. of the concentrate used;
- the total volume of concentrate added to the spray mixture;
- the total volume of the prepared spray mixture from which the sample was taken.

Additional data that should be recorded by the Business includes-

- the name and quantity of any detergents, fungicides, or other additives added to the spray mixture;
- type and quantity of fruit treated prior to collection of the sample;
- whether the fruit was dry, moist or wet when it entered the spray mixture.

Once accredited, any deficiency in an analysis result (refer 7.4 Maintaining Spray Concentration and Volume) **must**, as soon as practical, be reported to the Certification Assurance Supervisor for the district so an investigation may be carried out to determine the cause and rectify any problems.

7.7 Disposal of the Spray Mixture

The treatment facility must have the facilities to dispose of the spray mixture in a manner consistent with the requirements of the South Australian Health Commission and the Environmental Protection Agency (EPA).

7.8 Flood Spray Equipment Calibration

The Treatment Operator shall carry out calibration tests on flood spray equipment at regular intervals to verify spray coverage and spray application rates are in accordance with requirements (refer 6. Requirement).

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

(a) once immediately prior to commencement of treatment and certification of produce each season for each fruit type being treated; and

(b) within a minimum of four weeks from commencement of treatment each season, or prior to the annual compliance audit, whichever is the earlier; and

(c) once a month during each fruit season.

7.8.1 Spray Coverage Calibration

The Treatment Operator shall ensure that fruit is completely covered by the flood spray for a minimum of ten (10) seconds. The Treatment Operator shall ensure that fruit remains wet and does not undergo any drying process (eg fans, blowers or heaters) for at least a further sixty seconds (60) after the fruit has been flood sprayed for ten (10) seconds.

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

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

If any of the tests reveal that fruit is not remaining fully under the spray for at least ten (10) seconds, 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.

7.8.2 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 test.

An example of Spray Coverage Test Record is included as Attachment 8.

7.8.3 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 stonefruits –
16 L/minute per each square metre of the area being flood sprayed, or,

(b) for capsicums flood sprayed at 9.2 L/min/m_2 –
9.2L/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 x 2.0 = 3.0 m squared
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 = 48.9L/min Total output

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

Total output (L/minute) divide by the Total spray area (m2) = Application Rate (L/min/m2)

For example:- 48.9 L/minute divide by 3.0m2 = 16.3 L/Minute/m2

If any test reveals that the application rate is below 16 L/minute 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 a period of at least ten seconds) and the procedure repeated until a satisfactory result is achieved.

7.8.4 Spray Application Rate Calibration Records

Records of spray application 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's application rate.

An example Spray Application Rate Test Record is included as Attachment 9.

7.9 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.

7.10 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, which 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 fruit fly.

Secure conditions include –

(a) unvented packages;
(b) vented packages with the vents secured with gauze/mesh with a maximum aperture of 1.6 mm;
(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;
(e) fully enclosed or screened buildings, coldrooms, vehicles or other facilities free from gaps or other entry points greater than 1.6 mm.

Fruit consigned to Tasmania must be transported in full container lots sealed prior to transport or as lesser container lots in accordance with the requirements of (a), (b) or (d) above.

Fruit consigned to Tasmania must be transported in full container lots sealed prior to transport or as lesser container lots in accordance with the requirements of (a), (b) or (d) above.

Where consignments are transported to Tasmania as full container lots, the seal number must be included in the in the Brand Name or Identifying Marks section of the Assurance Certificate covering the consignment (refer Attachment 2).

Where consignments are transported in vented packages that are Sealed as a palletised unit in accordance with (d) above, the Business

must be secure the top layer of the pallet by applying a row of tape over the shrinkwrap and have applied to the tape in waterproof ink the signature of an Authorised Signatory, the number of the Plant Health Interstate Assurance Certificate covering the consignment and the date.

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

7.11 Dispatch

7.11.1 Package Identification

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

- the Interstate Produce number of the Business that operates the approved facility in which the produce was treated;and
- the words "MEETS ICA –02"; and
- the date (or date code) on which the fruit was treated;

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

7.11.2 Interstate Assurance Certificates

The Authorised Dispatcher shall ensure an Interstate Assurance Certificate is completed and signed by an Authorised Signatory of the Business prior to consignment of produce from a Fruit Fly Pest Quarantine Area or to a market requiring certification of dimethoate or fenthion flood spray treatment.

Interstate Assurance Certificates shall be in the form of a Plant Health Interstate Assurance Certificate. A completed example is shown as Attachment 2.
Individual Interstate 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.
Interstate Assurance Certificates shall be completed, issued and distributed in accordance with the Work Instruction Guidelines for Completion of Plant Health Interstate Assurance Certificates (WI-02).

7.11.3 Interstate Assurance Certificate Distribution

The **original** (yellow copy) must accompany the consignment.
The **duplicate** (white copy) must be retained by the Business.

7.12 ICA System Records

The Business shall maintain the following records –

(a) Spray Mixture Preparation Chart (refer 7.2.3);
(b) Spray Mixture Top-Up Program (if spray mixture is topped-up);
(c) Spray Mixture Preparation, Top-Up and Treatment Record (refer 7.5);
(d) Chemical Mixture Analysis Record (refer 7.6.4);
(e) Spray Coverage Test Record (refer 7.7.2)
(f) Spray Application Rate Test Record (refer 7.7.4);
(g) the duplicate copy of each Plant Health Assurance Certificate issued by the Business (refer 7.11.3).

ICA system records shall be retained for a period of not less than 12 months from competition 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.

7.13 ICA System Documentation

The Business shall maintain the following documentation –

(a) a copy of the Business's 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

Attachment 1	Application for Accreditation of a Business for an Interstate Certification Assurance Arrangement. (blank)
Attachment 2	Plant Health Interstate Assurance Certificate (blank)
Attachment 3	Plant Health Interstate Assurance Certificate (completed example)
Attachment 4	Spray Mixture Preparation, Top-Up and Treatment Record (blank)
Attachment 5	Spray Mixture Preparation Chart (blank)
Attachment 6	Fruit Fly Chemical Treatment Sample for Analysis (blank)
Attachment 7	Chemical Mixture Analysis Record (blank)
Attachment 8	Spray Coverage Test Record (blank).
Attachment 9	Spray Application Rate Test Record (blank).

APPLICATION FOR ACCREDITATION OF A BUSINESS FOR AN INTERSTATE CERTIFICATION ASSURANCE (ICA) ARRANGEMENT

Type of application being made (tick one) : **Renewal** **New** **Amendment**

NOTE; Only one Operational Procedure (ICA arrangement) at any one Facility may be covered in this application.

S

Trading Name(s) of the Business (as shown on packages sent to market)

Australian Business Number (ABN)

Type of Ownership of Business

□ **Individual** Provide name in full	
□ **Partnership** List, in the usual order, the full name of each partner	
□ **Incorporated Company** Companies must provide their Australian Company Number (ACN) or Australian Registered Business Number (ARBN). A copy of the Certificate of Incorporation must be attached to this application	ACN or ARBN □ copy of *Certification of Incorporation* attached
□ **Cooperative Association** A Cooperative Association must provide appropriate proof of registration	□ copy of *Certificate of Registration* attached or □ *Department of Justice registration search* attached
□ **Other** Provide specific details of the Business	

Postal address of the Business (where all correspondence will be sent)

	Mobile	
Postcode	Telephone	(…..)
Email:	Facsimile	(…..)

Location of the Business Facility (Street address if appropriate)

		Mobile	
Postcode		Telephone	(…..)
Property Number	Location	Facsimile	(…..)
Gate Plate Number		Email Address	

Has the Business previously been registered for the interstate movement of produce?	□ Yes □ No	If yes, please provide the Business's Interstate Produce (IP) Number	S

Operational Procedure / Arrangement

Reference Number			Title of Operational Procedure
ICA	**0**	**2**	**SPRAYING WITH DIMETHOATE OR FENTHION**

Tick part(s) for which accreditation is sought (if applicable)	**Part A**	**Part B**	**A & B** ✓

Plants, Produce or Associated Equipment to be treated under this ICA Arrangement

APPLICATION FOR ACCREDITATION OF A BUSINESS FOR AN INTERSTATE CERTIFICATION ASSURANCE (ICA) ARRANGEMENT

Certification Assurance System Records

What records do you maintain to verify that the business is carrying out its responsibilities and duties under the relevant Operation Procedure?

☐ All records are maintained in accordance with the examples provided for this Operational Procedure

☐ Alternative or additional records, as listed below, have been developed for this Operational Procedure

Authorised Signatories for Assurance Certificates

	Family Name	Given Name(s)	Specimen Signature
Certification Controller			
Back-up Certification Controller			
Additional Authorised Signatories			

Accreditation Conditions

For the purposes of this agreement the following definitions shall apply:

Applicant the person, cooperation or other legal entity who is accredited under this agreement
Inspector an inspector appointed under the Fruit and *Plant Protection Act* 1992
Department Primary Industries and Resources South Australia
Interstate Certification Assurance (ICA) system the processes, equipment, personnel & resources used to implement the Operational Procedure

For the purposes of this agreement the following conditions shall apply:

The applicant must maintain and operate the interstate certification assurance system in accordance with the Operational Procedures and must maintain the relevant records.

The applicant will, upon request, allow an inspector to enter any premises where product certified under the agreement is treated or dispatched, or where any product, equipment, chemicals, documents or records are stored.

The inspector may inspect or take samples of any relevant item present on the premises at the time of this search.

The applicant must take all steps to assist an inspector in the conduct of audits, including allowing the inspector to interview any employee of the applicant in relation to the implementation of the interstate certification assurance system.

The applicant authorises the persons listed as Authorised Signatories on this application to issue certificates on his or her behalf.

The applicant agrees to pay to the Chief Executive of the Department any costs associated with the conduct of audits by an inspector. The applicant will be notified of these costs at the time of accreditation.

The applicant agrees to relinquish unused Plant Health Assurance Certificate books (or parts thereof) to the ICA Contact Officer on withdraw, suspension or cancellation of accreditation.

The applicant agrees to abide by the accreditation conditions listed above and acknowledges that any accreditation is granted subject to those conditions.

The applicant certifies that all of the information contained in this application is true and correct.

Name in Full (please print)	Signature	Date
		….. / ….. / …..
		….. / ….. / …..
		….. / ….. / …..

Note: Where applicants are members of a partnership, each partner must sign the application. For Corporations a Director must sign.

Office Use Only

DESK AUDIT **Passed** **Not Passed** because ……

…….. …….. …… / …… / ……

Name of Desk Auditor (please print) Signature of Officer Date

ACCREDITATION EXPIRES ON ……

SITE AUDIT: **Passed**. The facilities and treatment procedures of the Business covered by this application have been audited and I am satisfied that the *Authorised Signatories* are aware of their roles and responsibilities. Therefore, with authority under the Fruit and Plant Protection Act 1992, I approve accreditation of this Business.

…….. …….. ….. / ….. / …..

Name of Auditing Officer (please print) Signature of Officer Date

(PIRSA STAMP)

Government of South Australia Primary Industries and Resources SA	Original (yellow) - Consignment Copy Duplicate (white) - Business Copy	**PLANT HEALTH ASSURANCE CERTIFICATE**

Certificate Number 12345

IP Number					*Facility No.*			*Arrangement Code*				
S					**-**							

Consignment Details (Please Print)

Consignor	Consignee
Name	Name
Address	Address

Reconsigned To (Splitting consignments or reconsigning whole consignments)	Method of Transport (Provide details where known)
Name	☐ Road Vehicle Details Reg. No.
Address	☐ Rail Consignment no.
	☐ Air Airline/Flight no.

Certification Details (Please Print)

Accredited Business that Prepared the Produce	Grower or Packer
Name	Name
Address	Address

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

No. of Packages	Type of Packages (eg. trays, cartons)	Type of Produce	Authorisation for Split Consignment

Date	Treatment	Chemical (Act. Ingredient)	Concentration	Duration and Temperature
	Dipping	Dimethoate	400 ppm	One Min 10 sec then wet for 60 sec.
	Dipping	Fenthion	412.5 ppm	One Min 10 sec then wet for 60 sec.
	Flood spraying	Dimethoate	400 ppm	10 seconds then wet for 60 seconds
	Flood spraying	Fenthion	412.5 ppm	10 seconds then wet for 60 seconds
	Non-recirculated spray	Fenthion	412.5 ppm	10 seconds then wet for 60 seconds
	Fumigation	Methyl Bromide	g/m^3	Two Hours @ °C
	Heat Treatment	Hot Air	Hot Water	Min @ °C

Additional Certification

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 business's Interstate Certification Assurance arrangement and that the details shown above are true and correct in every particular.

Authorised Signatory's Name (Please Print)	Signature	Date

Government of South Australia
Primary Industries and Resources SA

Original (yellow) - Consignment Copy
Duplicate (white) - Business Copy

PLANT HEALTH ASSURANCE CERTIFICATE

Certificate Number 12345

IP Number					Facility No.			Arrangement Code				
S	9	8	7	6	-	0	1	I	C	A	0	2

Consignment Details (Please Print)

Consignor		Consignee	
Name	Willow Family Growers	Name	Fresh is Best
Address	Golden Road	Address	Windsor Drive
	Virginia SA 5120		Newmarket Victoria 3031

Reconsigned To (Splitting consignments or reconsigning whole consignments)	Method of Transport (Provide details where known)
Name	☑ Road Vehicle Details Reg. No. SES 101
Address	☐ Rail Consignment no.
	☐ Air Airline/Flight no.

Certification Details (Please Print)

Accredited Business that Prepared the Produce		Grower or Packer	
Name	Willow Family Growers	Name	Buffy Gardens
Address	Golden Road	Address	Lyons Rd
	Virginia SA 5120		Virginia SA 5120

IP No. of Acc. Business	Brand Name or Identifying Marks (as marked on packages)	Date Code (as marked on packages)
S 9876	*Willow Family Growers or WFG*	*10 June 2004*

No. of Packages	Type of Packages (eg. trays, cartons)	Type of Produce	Authorisation for Split Consignment
22	*Cartons*	*Tomatoes*	
16	*Trays*	*Tomato (Gourmet)*	

Date	Treatment	Chemical (Act. Ingredient)	Concentration	Duration and Temperature
	Dipping	Dimethoate	400 ppm	One Min 10 sec then wet for 60 sec.
	Dipping	Fenthion	412.5 ppm	One Min 10 sec then wet for 60 sec.
10/6/04	☑Flood spraying	Dimethoate	400 ppm	10 seconds then wet for 60 seconds
	Flood spraying	Fenthion	412.5 ppm	10 seconds then wet for 60 seconds
	Non-recirculated spray	Fenthion	412.5 ppm	10 seconds then wet for 60 seconds
	Fumigation	Methyl Bromide	g/m^3	Two Hours @ °C
	Heat Treatment	Hot Air	Hot Water	Min @ °C

Additional Certification

" Meets ICA-02 "

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 business's Interstate Certification Assurance arrangement and that the details shown above are true and correct in every particular.

Authorised Signatory's Name (Please Print)	Signature	Date
Charlie Willow Jr	*Charlie Willow Jr*	10/6/04

Attachment 4

SPRAY MIXTURE PREPARATION, TOP-UP AND TREATMENT RECORD

SPRAY MIXTURE PREPARATION & TOP-UP PREPARATION								FRUIT TREATMENT						
Date	Time	Top-Up (Y)	pH check (Y)	Volume of Concentrate (Mls)	Volume of Mixture (Litres)	Trade Name of Concentrate	Date Mixture Discarded	Date of Treatment	Start Time	Finish Time	Type of Fruit Treated	Quantity of Fruit Treated (kg or packages)	Treatment Operator's Name	Signature

Attachment 5

SPRAY MIXTURE PREPARATION CHART

Date Mixture Prepared ____/____/____

Time Mixture Prepared ___ : ___am / pm

Type of Chemical Concentrate **Dimethoate or Fenthion** **(indicate the chemical used)**

Mixture Concentrate Target _________________ ppm

Maximum Volume of Spray Tank _________________ Litres

Volume of Water in Mixture _________________ Litres

pH Check Conducted Yes / No

Volume of Chemical Concentrate in Mixture _________________ millilitres

Total Volume of Mixture _________________ Litres

Part Fill or Top-Up (Concentrate [mL] / Mixture [L])

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Date __/__/__ Time ___ : ___am / pm _______ mL Concentrate / Litres Mixture

Prepared by:

___________________________ ________________________ ___/___/___
Treatment Operator's Name (please print) Signature Date

Attachment 5b

RECORD OF REQUIRED TOP-UP TREATMENTS

TOP-UP TREATMENT #1

Date of Treatment _____/_____/_____

Start Time ____ : ____ **am / pm**

Volume of Chemical Concentrate added to the Mixture _____ millilitres

Volume of Water added to the Mixture Litres _____

Type of Produce Treated _____

Quantity of Produce Treated _____ kgs

TOP-UP TREATMENT #2

Date of Treatment _____/_____/_____

Start Time ____ : ____ **am / pm**

Volume of Chemical Concentrate added to the Mixture _____ millilitres

Volume of Water added to the Mixture Litres _____

Type of Produce Treated _____

Quantity of Produce Treated _____ kgs

TOP-UP TREATMENT #3

Date of Treatment _____/_____/_____

Start Time ____ : ____ **am / pm**

Volume of Chemical Concentrate added to the Mixture _____ millilitres

Volume of Water added to the Mixture Litres _____

Type of Produce Treated _____

Quantity of Produce Treated _____ kgs

TOP-UP TREATMENT #4

Date of Treatment _____/_____/_____

Start Time ____ : ____ **am / pm**

Volume of Chemical Concentrate added to the Mixture _____ millilitres

Volume of Water added to the Mixture Litres _____

Type of Produce Treated _____

Quantity of Produce Treated _____ kgs

DECLARATION

I, the Treatment Officer of the Accredited Business, hereby declare that the information provided on this form is true and correct in every detail.

…… …… …. / …. / ….

Treatment Officer's Name (please print) Signature Date

Attachment 6

CHEMICAL TREATMENT SAMPLE FOR ANALYSIS

(only one sample may be submitted per form)

SAMPLE DETAILS

Business Name			
Contact Name		IP Number	**S**
Telephone Numbers	( )	Mobile	
Facsimile Number	( )		
Address	LOCATION …… ……	POSTAL …… …… Postcode ……	

Chemical Concentrate ✓	Dimethoate	Fenthion
Trade Name of Concentrate (Brand Name)		
Batch Number of Chemical		
Total Volume of Mixture (Litres)		Litres
Volume of Chemical Concentrate added to Mixture		millilitres
Name and amount of any other Chemicals added		
Date Mixture Prepared …. / …. / ….	Time Mixture Prepared	_ _ : _ _ am / pm
Method of Application ☐ Dip ☐ Flood Spray ☐ Non-recirculating Spray		
Level of *Produce Wetness* immediately prior to Treatment ☐ Dry ☐ Moist ☐ Dripping Wet		
Sample Number as marked on Sample Bottle		
Date Sample Collected …. / …. / ….	Time Sample Collected	_ _ : _ _ am / pm
Quantity of Produce Treated up until Sample Collected		kgs
Total Volume of Chemical Mixture <u>at Time of Sampling</u>		Litres
Additional Information on Sample (optional)		

ANALYSIS DETAILS – LABORATORY USE ONLY

Laboratory Name		Number	
Date Received by Laboratory	…. / …. / ….	Date Analysed by Laboratory	…. / …. / ….
Analysis Method			
Result	Chemical	Concentration	mg/L
Additional Information / Comments			
LABORATORY IDENTIFICATION STAMP			

……..	…….	…. / …. / ….
Analyst's Name (please print)	Analyst's Signature	Date

Attachment 7

CHEMICAL MIXTURE ANALYSIS RECORD

SAMPLE DETAILS	CHEMICAL MIXTURE 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 mL	Quantity Treated	Analysis No.-
Sample No.	Volume of Concentrate mL	Total Volume of Mixture- Litres	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 mL	Quantity Treated	Analysis No.-
Sample No.	Volume of Concentrate mL	Total Volume of Mixture- Litres	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 mL	Quantity Treated	Analysis No.-
Sample No.	Volume of Concentrate mL	Total Volume of Mixture- Litres	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 mL	Quantity Treated	Analysis No.-
Sample No.	Volume of Concentrate mL	Total Volume of Mixture- Litres	Condition ☐ Dry ☐ Moist ☐ Wet	Analysis Result-

Attachment 8

SPRAY COVERAGE TEST RECORD

Date of Test	**Produce Type**	**Time Under Spray** (seconds)			**Time to Drying Process** (seconds)	**Name of Testing Officer**	**Comments**
		Test 1	**Test 2**	**Test 3**			
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							
…. / …. / ….							

NOTES

1. Spray coverage 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 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 spray mixture in the normal flow of fruit.
3. Record the minimum time period between complete coverage of the fruit for ten seconds and any drying process(eg fans, blowers or heaters) is applied to the fruit. 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 spraying or drying.

Attachment 9

SPRAY APPLICATION RATE TEST RECORD

Date of Test	Application Rate Required (L/min)	Number of Nozzles	Output for Individual Nozzles (Litres/minute/Nozzle)	Total Output (L/min)	Total Spray Area (m^2)	Application Rate ($L/m^2/min$	Testing Officers 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 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 to determine the output volume of each nozzle over a one minute period.
3. Calculate the Total Spray Area (m^2) 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 (m^2) to calculate the Application Rate ($L/min/M^2$)

Total Output (L/min) ÷Total Spray Area (m^2) = Application Rate ($L/min/M^2$)

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