FLOOD SPRAYING WITH DIMETHOATE

REVISION REGISTER

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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 for fruit fly under an Interstate Certification Assurance (ICA) arrangement.

2. SCOPE

This procedure covers all certification of flood spraying with dimethoate by a business operating under an Interstate Certification Assurance arrangement in the Northern Territory.

Post-harvest flood spraying with dimethoate mixture.

Pests: For citrus fruit (excluding all edible skin species and mandarins that have received pre-harvest treatment with dimethoate):

- Queensland fruit fly (*Bactrocera tryoni*),
- Mediterranean fruit fly (*Ceratitis capitata*),
- Lesser Queensland fruit fly (*Bactrocera neohumeralis*) and
- Northern Territory fruit fly (*Bactrocera aquilonis*).

For melons (including water melons):

- Cucumber fly (*Bactrocera cucumis*),
- Lesser Queensland fruit fly (*Bactrocera neohumeralis*),
- Queensland fruit fly (*Bactrocera tryoni*),
- Mediterranean fly (*Ceratitis capitata*),
- Banana fly (*Bactrocera musae*),
- Mango fly (*Bactrocera frauenfeldi*).

Produce: **Dimethoate** may be used for:

- All melon fruits as specified on the APVMA minor use permit, or
- All fruits specified on the APVMA minor use permit, except for WA, which do not accept citrus except mandarins. The APVMA minor use permit currently includes:
  - Citrus fruit (excluding all edible skin species and mandarins that have received pre-harvest treatment with dimethoate).

IMPORTANT

Suspension of dimethoate.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has suspended certain use patterns for dimethoate. Flood spraying of some host fruit previously eligible for treatment are no longer permitted. Check the APVMA website at www.apvma.gov.au for further details.

Flood spraying with dimethoate 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 Biosecurity Branch.

3. REFERENCES

WI-02	Guidelines for Completion of Plant Health Assurance Certificates.
APVMA Permit No. PER87164	Permit to Allow Minor Use of an AgVet Chemcial Product for Postharvest Treat of Specified Citrus Fruit to Control Various Fruit Fly Species. 1 March 2019 to 30 September 2028.
APVMA Permit No. PER87065	Permit to Allow Minor Use of an AgVet Chemical Product for Postharvest Treatment of melons, including watermelon to control pests of quarantine concern. 18 February 2019 to 28 February 2024.

4. DEFINITIONS

Accredit	means to authorise nominated staff within a business to issue Assurance Certificates.
Act	means the *Plant Health Act 2008.*
Application for Accreditation	means an Application for Accreditation of a business for an Interstate Certification Assurance (ICA) and/or Certification Assurance (CA) arrangement (Attachment 1).
Approved Laboratory	means a laboratory approved by the National Association of Testing Authorities (NATA) or the Northern Territory Department of Industry Tourism and Trade.
APVMA	means the Australian Pesticides and Veterinary Medicines Authority.
Assurance Certificate	means a Plant Health Assurance Certificate (Attachment 2).
Authorised Signatory	means a person whose name and specimen signature is included as an Authorised Signatory on the business's Application for Accreditation.
Business	means the legal entity responsible for the operation of the flood

	spraying facility and an ICA arrangement detailed on the business's Application for Accreditation.
Certification Assurance	means a voluntary arrangement between the Department of Industry Tourism and Trade 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 (Attachment 2).
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. Flood spraying is a recirculated spray.
Fruit Fly	means Cucumber fly (*Bactrocera cucumis*), Queensland fruit fly (*Bactrocera tryoni*), Lesser Queensland fruit fly (*Bactrocera neohumeralis*), Mediterranean fly (*Ceratitis capitata*), Northern Territory fruit fly (*Bactrocera aquilonis*), Banana fly (*Bactrocera musae*) and Mango fly (*Bactrocers frauenfeldi*); as applicable to the host produce.
ICA	means Interstate Certification Assurance.
Inspector	means an inspector appointed under the *Plant Health Act 2008.*
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.
PBB	means Plant Biosecurity Branch.

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 under this Operational Procedure;
- ensuring that all dimethoate 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 (refer 7.2);

- maintaining spray mixture preparation, top-up and treatment records immediately after or during the relevant procedure (refer 7.5);
- 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 10 seconds and fruit remains wet for at least a further 60 seconds (refer 7.8.1), and
  - the application rate is at least 16L/minute per each square metre of the area being flood sprayed (refer 7.8.3);
- 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 Assurance Certificates issued by the business under the ICA arrangement (refer 7.11.2).

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 (refer 7.11.2).

6. REQUIREMENT

This Operational Procedure describes the critical features of an ICA system for host produce flood spraying with dimethoate for the quarantine entry requirement:

(a) post-harvest treatment.

Post-harvest treatment:

1. Host produce **must** be flood sprayed:
   a) in a single layer with a mixture containing 400mg/L dimethoate, which is registered or approved under an APVMA minor use permit for the control of fruit fly for flood spraying of the specific host produce;
   b) in a mixture containing 1ml of a concentrate per litre of mixture in the spray tank;
   c) 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 host produce for a minimum of 10 seconds, after which the host produce **must** remain wet for not less than 60 seconds; and
   d) flood spraying **must** be the last treatment before packing; with the following exceptions;

      For citrus fruit only;

      i. A non-recovery gloss coating ("wax") may be applied to citrus not less than 60 seconds after treatment; or
      ii. Citrus fruit may be washed, treated with a fungicide and/or, have a gloss coating applied more than 24 hours after flood spraying.

The Department of Industry Tourism and Trade 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 products 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/CA arrangement under this Operational Procedure **shall** submit an Application for Accreditation (refer Attachment 1) at least 10 working days prior to the intended date of commencement of certification of produce.

Applicants **must** provide the details of all produce, plants and plant products they intend to pack and certify under this ICA/CA arrangement in Section 4 of the Application for Accreditation. Ensure application form is completed correctly and all required attachments are provided. A copy of the application form **must** be maintained for audit purposes.

Each accredited business is provided with a unique Interstate Produce (IP) number to identify the business and its produce for all interstate plant quarantine purposes as ministered by the Certificate of Accreditation.

7.1.2 Audit Process

Desk Audit

When the application is received a desk audit is conducted to ensure the application is completed correctly with the required attachments. If found to be incomplete the application form will be returned to the business for completion. Once the desk audit has been passed, an initial/compliance audit will be conducted.

Initial Audit

Prior to accrediting a business, an Inspector carries out an initial audit of the business to verify the ICA/CA system is implemented will be 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/CA arrangement.

On completion of a successful initial audit, applicants will be granted provisional accreditation for a period of 4 weeks and a 'Certificate of Accreditation' for Provisional Certification will be issued (refer 7.1.3).

Initial Compliance Audit
In the first year of accreditation an initial compliance audit will be conducted within 4 weeks of accreditation or issuing an assurance certificate pursuant to the Operational Procedure. On completion of successful initial compliance audit the business **shall** be granted full accreditation.

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

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

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/CA system records or ICA/CA system processes.

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

Re-Accreditation
Accredited businesses are required to re-apply for accreditation each year the business seeks to operate under the ICA/CA 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/CA arrangement.

A compliance audit is conducted within twelve 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' 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 for an Interstate Certification Assurance' and make this available on request by an Inspector.

A business may not commence or continue certification of produce under the ICA/CA arrangement unless it is in possession of a valid and current 'Certificate of Accreditation

for an Interstate Certification Assurance' for the facility, procedure, produce type and chemical covered by the Assurance Certificate.

7.1.4 Nonconformances and Sanctions

7.1.4.1 Nonconformances

Audits are regularly undertaken to evaluate the effectiveness of implementation of the 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 nonconformance **shall** be discussed and recorded on the NCR.

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

7.1.4.2 Incident Reports

Incident Reports may be raised by intra and/or interstate quarantine authorities to report the detection of a nonconformance in produce certified under this 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.

7.1.4.3 Suspension and Cancellation

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

- obtained accreditation through the provision of false or misleading information;
- contravened an accreditation requirement that compromises the integrity of the arrangement;
- not rectified a nonconformance;
- unpaid fees owing to the PBB.

Any action taken by the PBB to suspend or cancel an accreditation **shall** be provided in writing to the business. This **shall** provide guidance making an appeal to have the decision be reviewed.

7.1.4.4 Prosecution

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

7.1.4.5 Charging Policy

Plant Biosecurity fees will apply to businesses that participate in ICA/CA arrangements. PBB can be contacted for a schedule of the Plant Biosecurity fees.

7.2 Flood Spray Preparation

The Treatment Operator **shall** prepare the spray mixture at a maximum of every 48 hours 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 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 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.

7.2.2 Calculating The Quantity Of Concentrate To Add To The Flood Spray Mixture

Dimethoate

Using the calibrated volume of the flood spray tank, calculate 1ml of a concentrate containing 400gm/L dimethoate 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 Attachments 4 and 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 in a full tank of the made up spray mixture;

(c) the volume in millilitres (ml) of concentrate required to achieve 400mg/L dimethoate in a made up spray mixture for known **incremental volumes** or top-up volumes used (refer 7.41.);

(d) the printed name and signature of the person responsible for the chart's preparation and the 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. The Treatment Operator **shall** record spray mixture pH checks on the Spray Mixture Preparation Record.

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

An acidifying buffer (e.g. vinegar) 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 400mg/L of dimethoate for the required volume of **mixture**, as specified on the Spray Mixture Preparation Chart.

Suitable measuring vessels are 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 vigorously 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. This can be achieved by mechanical mixing devices in the spray tank, 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 provided there is enough time for the majority of the water to drain off to 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).

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 immediately after or during the relevant procedure (refer 7.5).

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 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 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 10 seconds.

Fruit **must** be allowed to remain wet with chemical for at least a further 60 seconds after it has been completely covered with spray for 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 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 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 Spray Concentration and Volume

Concentration of the chemical mixture **must** be maintained within ± 15% of the required concentration at all times as specified (refer 6.).

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 quantity of water with the required amount of concentrate to the spray mixture as determined by the facility's top-up program (refer 7.4.2).

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 7.2.2.).

Preparation of top-up mixtures can be carried out in a separate mixing tank and added to the spray tank as required to minimise disruption to the treatment process.

Where top-up mixtures are prepared in the spray tank, volume of the top-up mixture <u>must</u> be calculated by using either the incremental volume marks, or a calibrated measuring vessel or liquid metering device so that allowance is made for mixture already in the spray tank.

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 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 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 is effective in achieving and maintaining spray mixture concentration within ± 15% of the required concentration (refer 7.6).

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).

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 required information immediately after or during the relevant procedure.

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;
- the volume of concentrate used (millilitres);
- the volume of the made-up spray mixture or top-up mixture (litres);
- the trade name of the concentrate used and the chemical 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 the results of analysis of samples of a spray mixture from an approved laboratory.

7.6.1 Frequency of Sampling

Newly purchased **dimethoate concentrate** with a receipt of less than 30 days does not have to be sampled.

Spray mixtures of dimethoate **must** be sampled at least every 3 months or at any time when there is a change to the method of processing which could affect the concentration of insecticide. Such a change may be whether fruit is wet or dry before treatment.

Samples of **spray mixtures** of dimethoate **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) every 3 months during the season thereafter - immediately following preparation of the spray mixture at the start of the season;

(c) A further sample is required during the season if there is a change to the method of processing the fruit (i.e. one species is sprayed wet and the other dry), or in chemicals or other treatments applied to the fruit prior to flood spraying (i.e. one species is treated with a fungicide and one is not) which could affect the concentration of dimethoate;

(d) An additional spray mixture sample is required for a facility using a top-up program after topping-up the mixture according to the facility's documented top-up program;

OR

(e) If requested by an auditor 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.

7.6.2 Collection of the Sample

Samples of the spray **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 5 minutes, and placed in a clean glass sample bottle with a secure water tight lid. The sample size will be of sufficient quantity for chemical analysis.

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.

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 label instructions or as recommended by relevant governing authorities.

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.).

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 4 weeks of commencement of treatment each season, or prior to the 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 fruit is completely covered by the flood spray for a minimum of 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 60 seconds after the fruit has been flood sprayed for 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.

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

If any of the tests reveal that fruit is not remaining fully under the spray for at least 10 seconds, or fruit is undergoing a drying process within 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 tests.

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

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 Handling, Storage and Transport Under Secure Conditions (Tasmania only)

The accredited business **must** handle, store and transport host produce according to the secure conditions requirement in Schedule 1B of the Plant Biosecurity Manual, Tasmania.

The Plant Biosecurity Manual can be found at Plant Biosecurity Manual Tasmania | Department of Natural Resources and Environment Tasmania (nre.tas.gov.au).

Certification Assurance certificates **must** state the host produce was; “handled, stored and transported in secure conditions.”

7.11 Dispatch

7.11.1 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, on the end of each package with -

- the "A" Registration (IP) 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 Assurance Certificate by the business under this Operational Procedure.

Any Packages containing fruit that has not been treated in accordance with the requirements of this Operational Procedure shall not be marked as stated above.

7.11.2 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 dimethoate flood spray treatment.

Assurance Certificates **shall** be in the form of a Plant Health Assurance Certificate (PHAC). A completed example is shown (refer Attachment 2).

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

Additional detail for Tasmania only: In the additional certification section, the statement “handled, stored and transported in secure conditions.”

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

7.11.3 Assurance Certificate Distribution

The **original** (yellow copy) **must** accompany the consignment.
The **duplicate** (white copy) **must** be retained by the business.
The **triplicate** (green copy) **must** be sent to PBB.

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) (refer 7.4.2);
(c) Spray Mixture Preparation, Top-Up and Treatment Record (refer 7.5);
(d) Chemical Mixture Analysis Record (refer 7.6.4);

(e) Spray Coverage Calibration Record (refer 7.8.2):
(f) Spray Application Rate Calibration Record (refer 7.8.4);
(g) the duplicate copy of each Plant Health Assurance Certificate (Attachment 2) issued by the business (refer 7.11.3).

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.

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.

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 (ICA) and/or Certification Assurance (CA) Arrangement	**(BLANK)**
Attachment 2	Plant Health Assurance Certificate (PHAC)	**(COMPLETED EXAMPLE)**
Attachment 3	Spray Mixture Preparation, Top-Up and Treatment Record	**(BLANK)**
Attachment 4	Spray Mixture Preparation Chart	**(BLANK)**
Attachment 5	Spray Mixture Preparation Chart	**(COMPLETED EXAMPLE)**
Attachment 6	Spray Coverage Calibration Record	**(BLANK)**
Attachment 7	Spray Application Coverage Calibration Record	**(BLANK)**

NORTHERN TERRITORY GOVERNMENT

Application for Accreditation of a Business for an Interstate Certification Assurance (ICA) and/or Certification Assurance (CA) Arrangement

Attachment 1

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

Indicate the type of application being made. ☐ New ☐ Renewal ☐ Amendment

1. Business/Person Details

(a) Type of Ownership of Business

☐ Individual ☐ Incorporated Company ☐ Other (please specify)

☐ Partnership ☐ Cooperative Association

(b) Name of Business/Person

Please supply name in full. For a partnership, list the full names of each partner in their normal order. Companies must provide their Australian Company Number (ACN) or Australian Registered Body Number (ARBN) and attach a copy of the Certificate of Incorporation. Cooperative associations must provide appropriate proof of registration (i.e. a copy of the Certificate of Registration or registration search from the Office of Business Affairs or Australian Securities Commission)

☐ ARBN

☐ ACN

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

(d) Postal address of the Business/Person

Telephone: ( )

Facsimile: ( )

Mobile:

E-mail

(e) Has the business/person been registered previously for the interstate movement of produce? ☐ Yes ☐ No

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

A

2. Operational Procedure and Facility Details

a) Operational Procedure used in this arrangement

Reference No.

Title of Operational Procedure

(b) Street address of the facility

Telephone: ( )

Facsimile ( )

Mobile

3. Authorised Signatories (for Plant Health Assurance Certificates)

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

4. Types (including varieties) of Produce to be Prepared Under the ICA/CA Arrangement (if insufficient space, attach a list)

5. Interstate Certification Assurance/Certification Assurance System Records

(a) What records do you maintain to verify that the business is carrying out its responsibilities and duties under the Operational Procedure?

☐ We maintain all our records in accordance with the examples provided in the Operational Procedure.
☐ We have developed alternative or additional records to those provided in the Operational Procedure.

(b) List the alternative or additional records you intend to use and attach a copy to this application.

(a)
(b)
(c)

6. Accreditation Conditions

(a) For the purposes of this agreement the following definitions shall apply:-

Applicant	means the person, **corporation**, or other legal entity who is accredited under this agreement.
Inspector	means an inspector appointed under the *Plant Health Act 2008*
Department	means the Department of Industry Tourism and Trade
Interstate Certification Assurance System	means the processes, equipment, personnel and resources used to implement the Operational Procedure nominated in Section 2(a).

(b) The applicant must maintain and operate the interstate certification assurance system in accordance with the Operational Procedure as nominated in Section 2(a), and must maintain the records specified in Section 5.

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

(d) The inspector may inspect or take samples of any relevant item present on the premises at the time of the inspection.

(e) The applicant must take all steps to assist an inspector in the conduct of audits including allowing the inspector or officer to interview any employee of the applicant in relation to the Implementation of the Interstate Certification Assurance System.

(f) The applicant authorises the persons listed in Section 3 of this application to issue certificates on his or her behalf.

(g) In the event of cancellation or non-renewal of this arrangement the certificate pad and any green copies must be returned as they remain the property of Plant Biosecurity Branch.

(h) Plant Biosecurity fees will apply to those businesses/persons that choose to participate in this ICA/CA arrangement. Plant Biosecurity Branch can be contacted for a schedule of the Plant Biosecurity fees.

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.

Signature/s	Date

Note: ***Where the applicant is a corporation, the company seal must be applied, and signed, in the appropriate form. Where the applicants are members of a partnership, each of the partners must sign the application.***

Office Use Only

Desk Audit ☐ Passed ☐ Failed

Name (print) _____ Date received ____ / ____ / ____

Signature: _____ Date completed ____ / ____ / ____

Post your application/s to: Department of Industry Tourism and Trade, Plant Biosecurity Branch
GPO Box 3000, DARWIN NT 0801

Northern Territory Government

Certificate No. B012345

Attachment 2

Plant Health Assurance Certificate

Consignment Details (PLEASE PRINT)

CONSIGNOR (FROM)
Name *Joe's Citrus Farm Pty Ltd*
Address *Lot 2000 Beddington Road*
Humpty Doo NT 0836

CONSIGNEE (TO)
Name *Adelaide Produce Market*
Address *Burma Road*
Pooraka South Australia 5095

RECONSIGNED TO (Splitting consignments or reconsigning whole consignments).
Name
Address

Certification Details (PLEASE PRINT)

IP NUMBER	FACILITY NUMBER	PROCEDURE
A *9999*	*01*	ICA- *02*

ACCREDITED BUSINESS THAT PREPARED THE PRODUCE
Name *Joe's Citrus Farm Pty Ltd*
Address *Lot 2000 Beddington Road*
Humpty Doo NT 0836
GROWER OR PACKER
Name *Joe's Citrus Farm Pty Ltd*
Address *Lot 2000 Beddington Road*
Humpty Doo NT 0836
OTHER FACILITIES SUPPLYING PRODUCE

BRAND NAME OR IDENTIFYING MARKS (as marked on packages)	DATE OR DATE CODE (as marked on packages)
Joe's Citrus Farm	*18032014*

Number of Packages	Type of Packages (e.g. trays, cartons)	Type of Produce	Authorisation for Split Consignment
40	*Cartons*	*Tahitian Limes*	

Treatment Details

Treatment	Chemical (Active Ingredient)	Treatment Date	Concentration / Duration and Temperature
Flood Spray	*Dimethoate*	*16/03/2014*	*400g/L @ 1ml/L (400 ppm) for 10 secs*

Additional Certification / Codes
Meets ICA02

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 *Plant Health Act 2008* and that the details shown above are true and correct in every particular.

AUTHORISED SIGNATORY'S NAME (PLEASE PRINT)	SIGNATURE	DATE
Joe Signatory	*Joe Signatory*	*18/3/2014*

EXAMPLE ONLY

SPRAY MIXTURE PREPARATION TOP-UP AND TREATMENT RECORD

Attachment 3

SPRAY MIXTURE PREPARATION & TOP-UP PREPARATION								FRUIT TREATMENT						
DATE	TIME	TOP-UP (✓)	PFF CHECK (✓)	VOLUME OF CONCENTRATE (Millilitres)	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

SPRAY MIXTURE PREPARATION CHART

Attachment 4

CHEMICAL CONCENTRATE = _____

FULL SPRAY TANK VOLUME = _____LITRES

CONCENTRATE TO FULL TANK = _____MILLILITRES

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

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

_____ ml Concentrate/_____Litres Mixture

Prepared by: _____ _____ / /

Printed Name Signature Date

SPRAY MIXTURE PREPARATION CHART

Attachment 5

CHEMICAL CONCENTRATE = DIMETHOATE

FULL SPRAY TANK VOLUME = 1,400 LITRES

CONCENTRATE TO FULL TANK = 1,400 MILLILITRES

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

100	ml Concentrate /	**100**	Litres Mixture
250	ml Concentrate /	**250**	Litres Mixture
400	ml Concentrate /	**400**	Litres Mixture
500	ml Concentrate /	**500**	Litres Mixture
750	ml Concentrate /	**750**	Litres Mixture
1000	ml Concentrate /	**1000**	Litres Mixture
1200	ml Concentrate /	**1200**	Litres Mixture

Prepared by: *T OPERATOR* (Printed Name) *T Operator* (Signature) *12/03/97* (Date)

EXAMPLE ONLY

SPRAY COVERAGE CALIBRATION RECORD

Attachment 6

Date of Test	Fruit Type	Time Fully Under Spray (seconds)			Time of Drying Process (seconds)	Name of Testing Officer	Comments
		Test 1	**Test 2**	**Test 3**			

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. 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. For small fruits requiring only a ten second flood spray, record the minimum time period between completion of the ten second flood spray 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).

Adjust the equipment and repeat the test if any of the three tests are below the minimum specified time period for complete spray or drying of small fruits.

SPRAY APPLICATION COVERAGE CALIBRATION RECORD

Attachment 7

Date of Test	No. of Nozzles	Output for Individual Nozzles (Litres/minute/nozzle)	Total Output (L/min)	Total Spray Area (m^2)	Application Rate	Testing Officer's Name
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
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/ /					$L/m^2/min$	
/ /					$L/m^2/min$	
/ /					$L/m^2/min$	

NOTES

1. 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).
2. 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.
3. Divide the Total output (L/min) by the Total Spray Area (m^2) to give the Application Rate ($L/min/m^2$)-

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

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