



Australian Government

Department of Agriculture,
Fisheries and Forestry

Methyl Bromide Fumigation Methodology version 3.0

Overview of key changes

Compliance and Enforcement Division

Department of Agriculture, Fisheries and Forestry



Overview

Version 3.0 comes into force 1 May 2025.

The methodology sets out the minimum requirements. Additional requirements can be found in import conditions through [BICON](#).

[Methyl bromide fumigation methodology – Prepare now for 2025 update - DAFF](#)



[Methyl Bromide Fumigation Methodology v3.0](#)

What's changed?

- Order of the document
- Existing clauses reworded
- Temperature
- Gas concentration monitoring
- Topping up
- Other minor improvements

The way a successful fumigation is performed has not changed.

Enforceability and clarity

Some clauses have been reworded for clarity and enforceability.

What does this mean?

“Sufficient
free
airspace”

“As close as
practicable”

“Where” vs
“If”

Wording, language and readability

Current	New
<p>1.6.1 Impervious wrappings must have 4 or more holes of 6 mm diameter or 5 or more holes of 5 mm diameter for every 100 mm x 100 mm of surface area. Wrappings with at least 6 pinholes per 10 mm x 10 mm surface area are also acceptable.</p>	<p>3.2.3 To be considered pervious, wrappings must have at least:</p> <ul style="list-style-type: none">a) 4 holes of 6 mm diameter per 100 mm x 100 mm surface area, orb) 5 holes of 5 mm diameter per 100 mm x 100 mm surface area, orc) 6 pinholes per 10 mm x 10 mm surface area.

Temperature requirements

New sections

6

Temperature used to calculate the dose

- 6.1 Ambient temperature fumigations
- 6.2 Controlled temperature fumigations
- 6.3 Perishable commodity fumigations

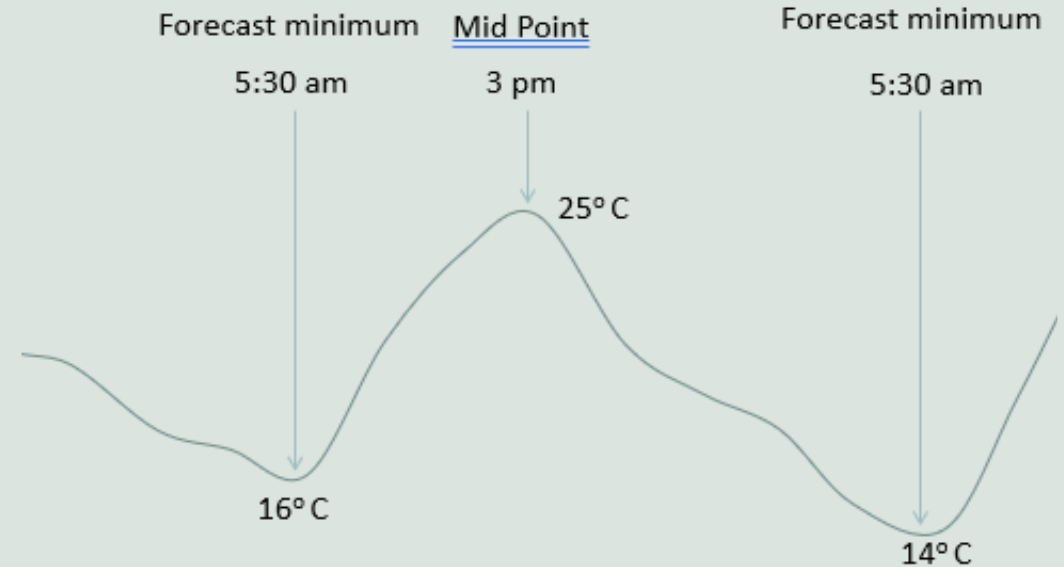
7

Temperature during the exposure period

- 7.1 Ambient temperature fumigations
- 7.2 Controlled temperature fumigations
- 7.3 Perishable commodity fumigations

Ambient temperature

- Obtaining the forecast
- Verifiable weather source
- Checking the temperature hasn't dropped below the temperature used for dosing



Controlled temperature

- Enclosure needs to be monitored – no change
- Temperature data in the enclosure needs to be recorded every 15m
- Minimum temperature recorded on the ROF

Perishables temperature

Temperature used to calculate the dose

- Temperature sample must be taken from **every type of produce**
- Temperature samples must be taken **before** treatment starts

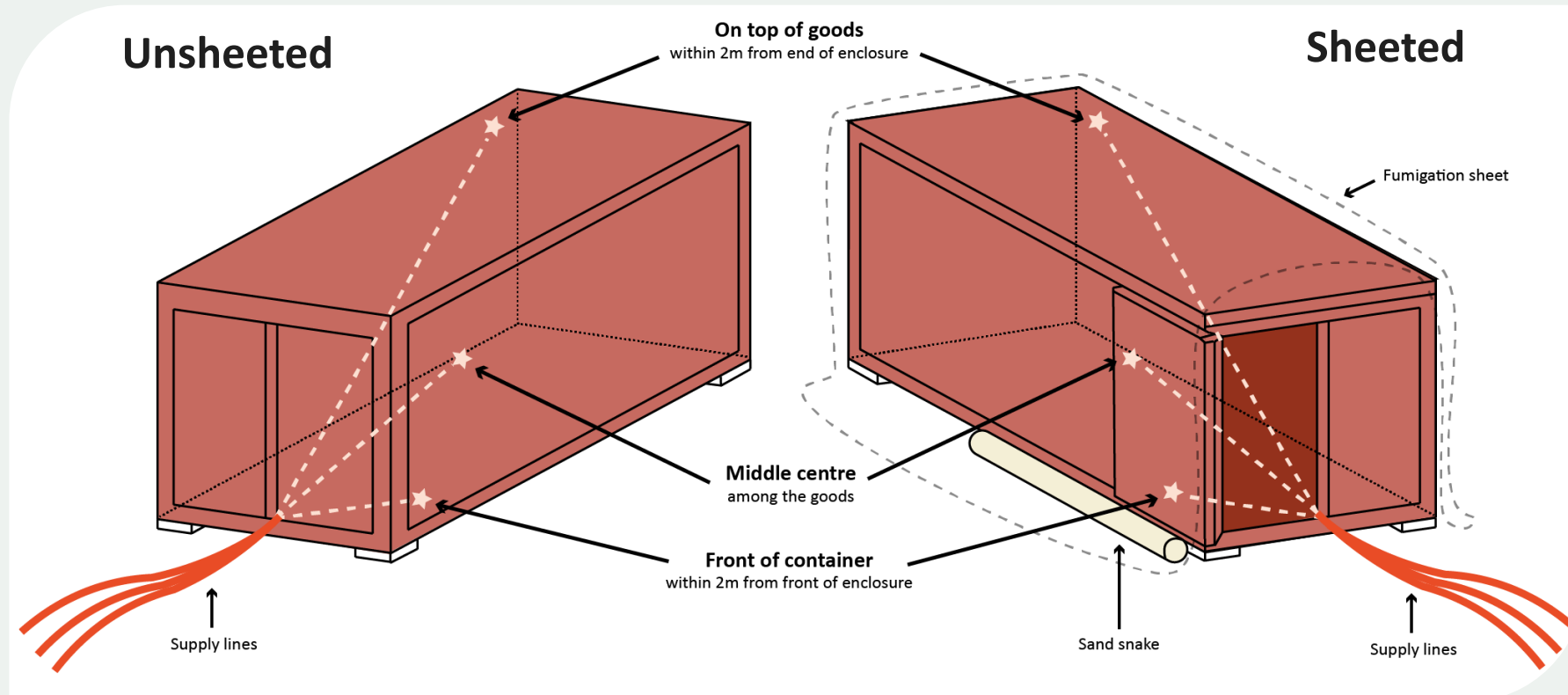
Temperature during the exposure period

- The temperature of the enclosure must be obtained and recorded every 15m
- Minimum temperature recorded on the ROF

Gas concentration monitoring locations

- Wording change from 'sampling tube location' changed to 'gas monitoring location'
- Location of gas monitoring lines clarified/specified

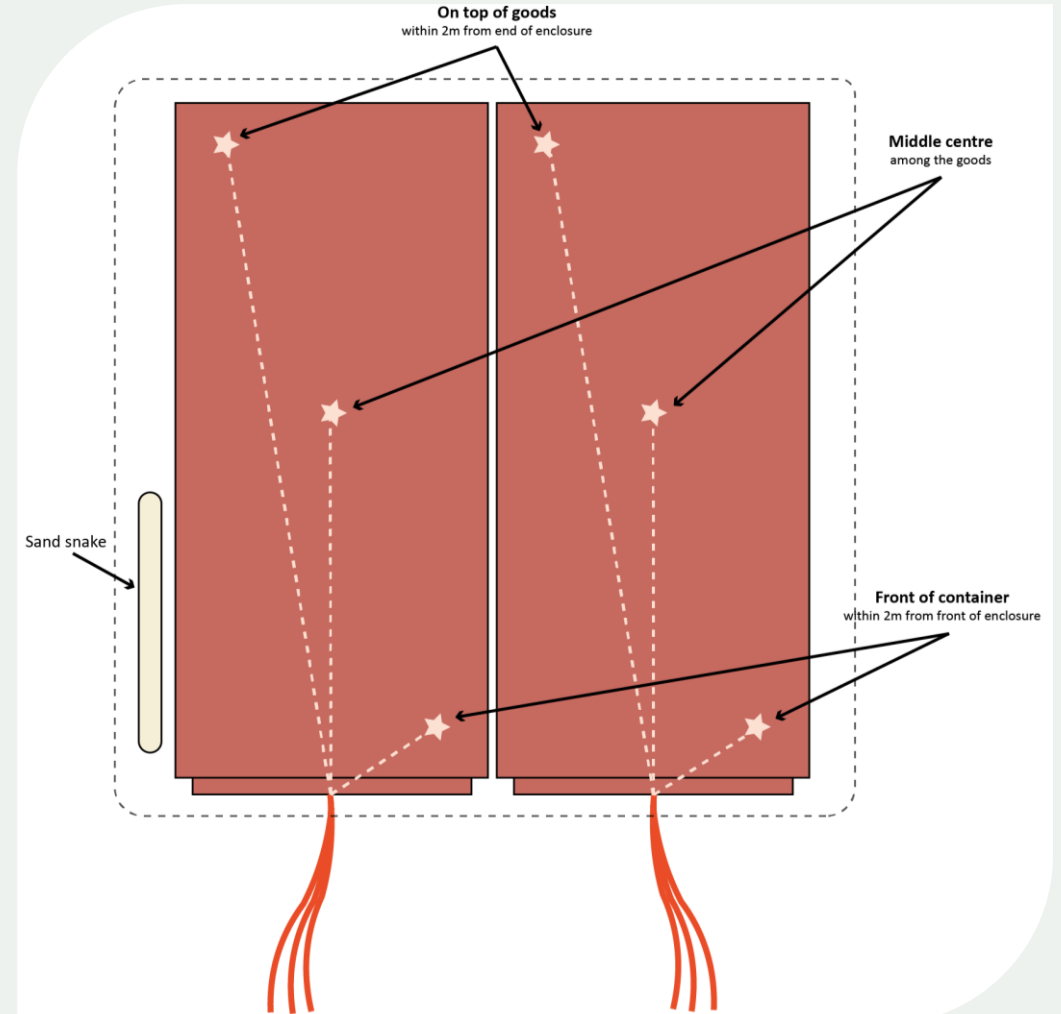
Single container enclosures



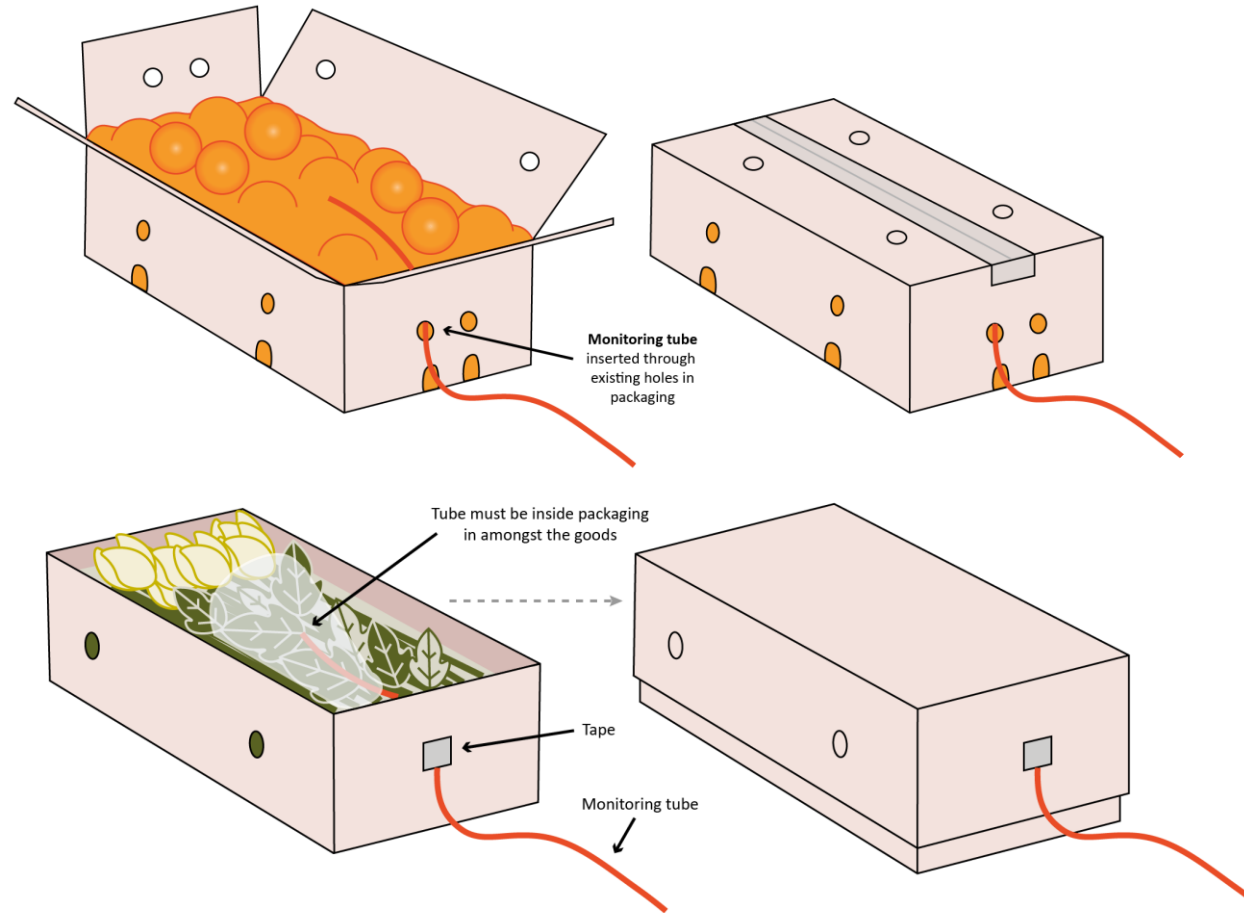
Sheeted enclosures

- Each container in a sheeted enclosure must have 3 monitoring lines
- New allowance: one container can fail

Multi-container sheeted enclosure

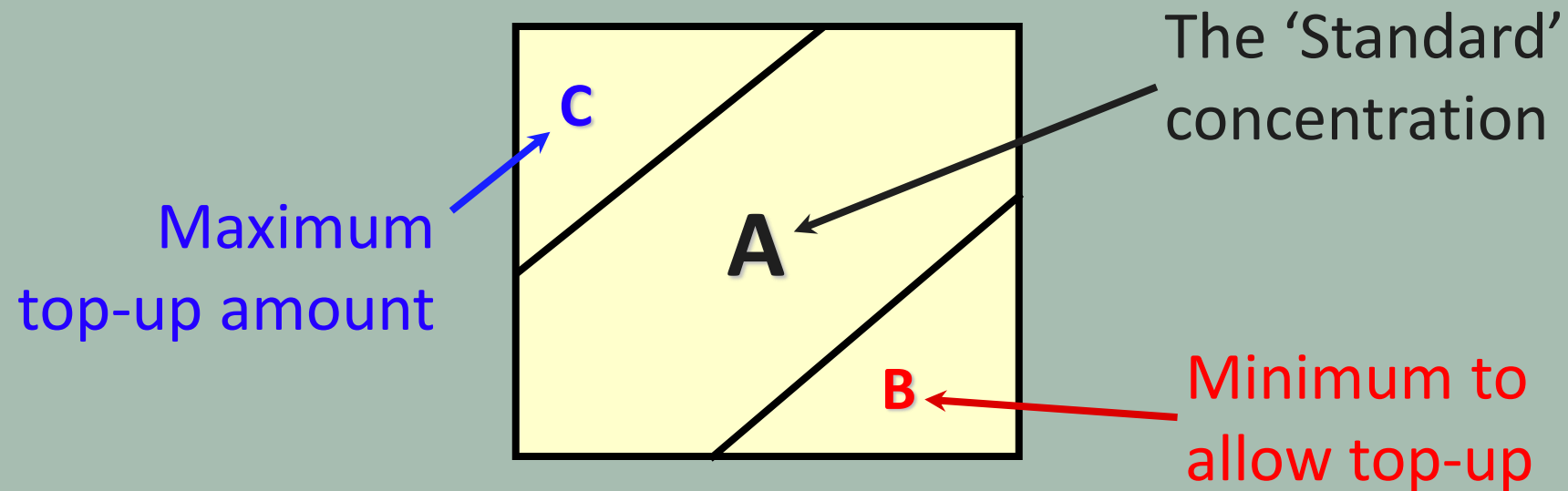


Gas concentration monitoring locations - perishables



Topping up

- During the exposure period – if concentration is equal to or above the standard
- Permitted for treatments under 12 hours



Documentation

- Minimum requirements listed in the methodology
- New templates available on the webpage



[Insert your business logo or letterhead]
(Including address as it appears on the treatment provider list)

Record of fumigation – Methyl bromide fumigation

Section A: Fumigator in charge
Full Name

Section B: Job details
Treatment provider ID
Job identification number
Location of fumigation
Street address
Suburb/town/city
Country Postcode
Consignment identification/Container numbers

Section C: Fumigation details
Specified treatment schedule
Dose rate (g/m³) Exposure period (hrs)
Consignment suitability (Section 3 of the methodology)
Was the consignment suitable for fumigation?
☐ Yes – consignment suitable ☐ No – remedial action taken
If no, what action?
Fumigation type (select one)
☐ Ambient temperature: Forecast min temp
☐ Controlled temperature: Min enclosure temp
Heaters used? ☐ Yes ☐ No

Section D: Concentration readings Monitoring readings
Serial number of monitoring device(s)
1 2 3 4 5
Time and date
Start
During
End
Time and date
Final TLV readings (all) ppm

Top-up details
Amount (g/m³) Time (h:mm)

Section E: Fumigator declaration - To be completed by
I, the fumigator-in-charge declare that the fumigation was conducted in accordance with the Methyl Bromide Fumigation Methodology, and the information I have provided is true and correct.
Signature
Government officer if supervised Name

[Insert your business logo or letterhead]
(Including address as it appears on the treatment provider list)

Record of treatment – Methyl bromide fumigation

Section A: Fumigator in charge
Full Name

Section B: Job details
Treatment provider ID
Job identification number
Location of fumigation
Street address
Suburb/town/city
Country Postcode
Consignment identification/Container numbers

Section C: Fumigation details
Consignment suitability (section 3 of the methodology)
Was the consignment suitable for fumigation?
☐ Yes – consignment suitable ☐ No – remedial action taken
If no, what action?
Specified treatment schedule
Dose rate (g/m³) Exposure period (hrs)
Temperature (°C) or CT product
Retention rate (%)
Temperature probe location
☐ inside packaging ☐ inserted into pulp

Section D: Concentration and temperature readings
Temperature readings (°C) Each reading must be signed by the fumigator
1 2 3 4 5
Time and date: Full name
Start
During
End
Time and date: Full name
Final TLV readings (all) ppm

Section E: Fumigator declaration - To be completed by the fumigator
I, the fumigator-in-charge declare that the fumigation was conducted in accordance with the Methyl Bromide Fumigation Methodology, and the information I have provided is true and correct.
Signature Date (dd/mm/yyyy)
Government officer if supervised Name

[Insert your business logo or letterhead]
(Including address as it appears on the treatment provider list) Date issued (dd/mm/yyyy) _____

Treatment certificate – Methyl bromide fumigation

Certificate number **Treatment provider ID number**
(Registration/AD/JA/ETC)

Consignment details
Consignment link (container numbers if applicable)
Seal numbers(s) (if applicable)
Client name
Client Address
Commodity description
Commodity country of origin Commodity quantity
Port of loading Destination country

Target of fumigation (pick all that apply) **Enclosure type (pick one)**
☐ Commodity ☐ Container ☐ Packaging ☐ Sheeted enclosure ☐ Fumigation chamber ☐ Un-sheeted container
☐ Other (provide details) ☐ Other (provide details)

Treatment schedule (prescribed/specified treatment schedule)
Dose rate (g/m³) Exposure period (hours) Temperature (°C)

Fumigation details (treatment applied)
Applied dose (g/m³) Exposure period (hours) Temperature (°C)
Place of fumigation (Full address) Street address
Suburb/town/city
Country Postcode
Date and time fumigation commenced (dd/mm/yyyy – HH:MM) am/pm
Date and time fumigation completed (dd/mm/yyyy – HH:MM) am/pm
Final TLV reading (ppm) ppm

Declaration
I, the fumigator-in-charge declare:
1. The fumigation certified was conducted in accordance with the treatment schedule, import conditions, and all the requirements in the Methyl Bromide Fumigation Methodology, and
2. The information I have provided is true and correct.
Signature (sign your name)
Full name
Date (dd/mm/yyyy) Accreditation number

Additional Declarations

Record of fumigation

- Pass/fail option
- Airspace/impervious surfaces question has turned into a general 'consignment suitability' question
- Serial number for monitoring device
- 3 final TLV readings
- Fumigator initials for each concentration reading

Record of fumigation – Methyl bromide fumigation (non-perishable commodity)

Section A: Fumigator in charge

Full Name _____ Accreditation number (if applicable) _____

Section B: Job details

Treatment provider ID _____ Client name/details _____

Job identification number _____ *Helps link job to related documentation.*

Location of fumigation

Street address _____ Description of consignment _____
Describe the commodity being shipped.

Suburb/town/city _____ Target of fumigation _____
What is being fumigated? The commodity, the packaging or both?

Country _____ Postcode _____

Consignment identification/Container numbers _____ *Identifies the consignment after treatment and during transport to final destination.*

Section C: Fumigation details

Consignment suitability (section 3 of the methodology)

Was the consignment suitable for fumigation?
☐ Yes – consignment suitable ☐ No – remedial action taken

If no, what action? _____

Enclosure volume (m³)

Length _____ Height _____ Width (m) _____

Total volume _____ (m³)

Dose

Dose rate used _____ (g/m³)

Specified treatment schedule

Dose rate (g/m³) *Base dose rate* _____ Exposure period (hrs) *Duration* _____

Temperature (°C) _____

Retention rate (%) _____ or CT product _____

Temperature probe location

☐ Inside packaging ☐ Inserted into pulp

Load factor

Maximum _____ % Estimated _____ %

Step one: Fumigator in charge details

Step two: Identify the fumigation job and who requested it

Step three: Site or location where the fumigation was performed, and consignment details

Step four: Determine consignment suitability: is there adequate free airspace and no impervious surfaces or wrappings?

Step five: Record treatment schedule

Step six: Record temperature probe location

Step seven: Record enclosure volume

Step eight: Record details of dosage and load factor

[Instructions on how to fill out a ROF and treatment certificate in the 'Guide to performing quarantine pre-shipment \(QPS\) fumigations with methyl bromide v2.0'](#)

Treatment certificate

- Requires a declaration that the consignment complies with the treatment schedule, import conditions, and all requirements of the Methyl Bromide Fumigation Methodology
- Date fumigation commenced
- Importer/exporter address is now client address and place of fumigation

Step one:
Fill out treatment provider details

Step two:
Fill out certificate and treatment provider ID number

Step three:
Fill out the consignment details. If there is insufficient room, you may use the **additional declarations** field or attach a list to the certificate

Step four:
Fill out the details of the fumigation

Step five:
The fumigator in charge must declare the fumigation was conducted according to the requirements of the **Methyl Bromide Fumigation Methodology**

Treatment certificate – Methyl bromide fumigation

Consignment details

Consignment link (container numbers if applicable)		Any other official documentation related to the consignment.	
Seal number(s) (if applicable)			
Client name			
Client Address			
Commodity description			
Commodity country of origin	Commodity quantity		
Port of loading	Destination country		

Target of fumigation (pick all that apply)

☐ Commodity ☐ Container ☐ Packaging ☐ Other (provide details) _____

Enclosure type (pick one)

☐ Sheeted enclosure ☐ Fumigation chamber ☐ Un-sheeted container ☐ Other (provide details) _____

Treatment schedule (prescribed/specified treatment schedule)

Dose rate (g/m ³)	Exposure period (hours)	Temperature (°C)
-------------------------------	-------------------------	------------------

Fumigation details (treatment applied)

Applied dose (g/m ³)	Exposure period (hours)	Temperature (°C)
----------------------------------	-------------------------	------------------

Place of fumigation (Full address)

Street address

Suburb/town/city

Country Postcode

Date and time fumigation completed (dd/mm/yyyy – HH:MM) am/pm

Final TLV reading (ppm) TLV is required for each and every container. ppm

Declaration

I, the fumigator-in-charge declare:

- The fumigation certified was conducted in accordance with the treatment schedule, import conditions, and all the requirements in the Methyl Bromide Fumigation Methodology, and
- The information I have provided is true and correct.

Signature (sign your name) Full name Date (dd/mm/yyyy) Accreditation number

Additional Declarations

Any additional information that the fumigator in charge wishes to supply can be included in this field. The fumigator in charge can stamp the certificate with their company stamp if they wish.

Instructions on how to fill out a ROF and treatment certificate in the 'Guide to performing quarantine pre-shipment (QPS) fumigations with methyl bromide v2.0'

Other minor improvements

Mostly to wording

- Safety
- Free airspace
- Enclosure types
- Glossary definitions
- Consignment suitability

Consignment suitability

- More details included and existing requirements clarified
- New section for perishable commodity packaging
- Reworded timber requirements
- Clearer impermeable packaging requirements



Australian Government
Department of Agriculture,
Fisheries and Forestry

Guide to packaging suitability for performing QPS treatments

Version 2.0



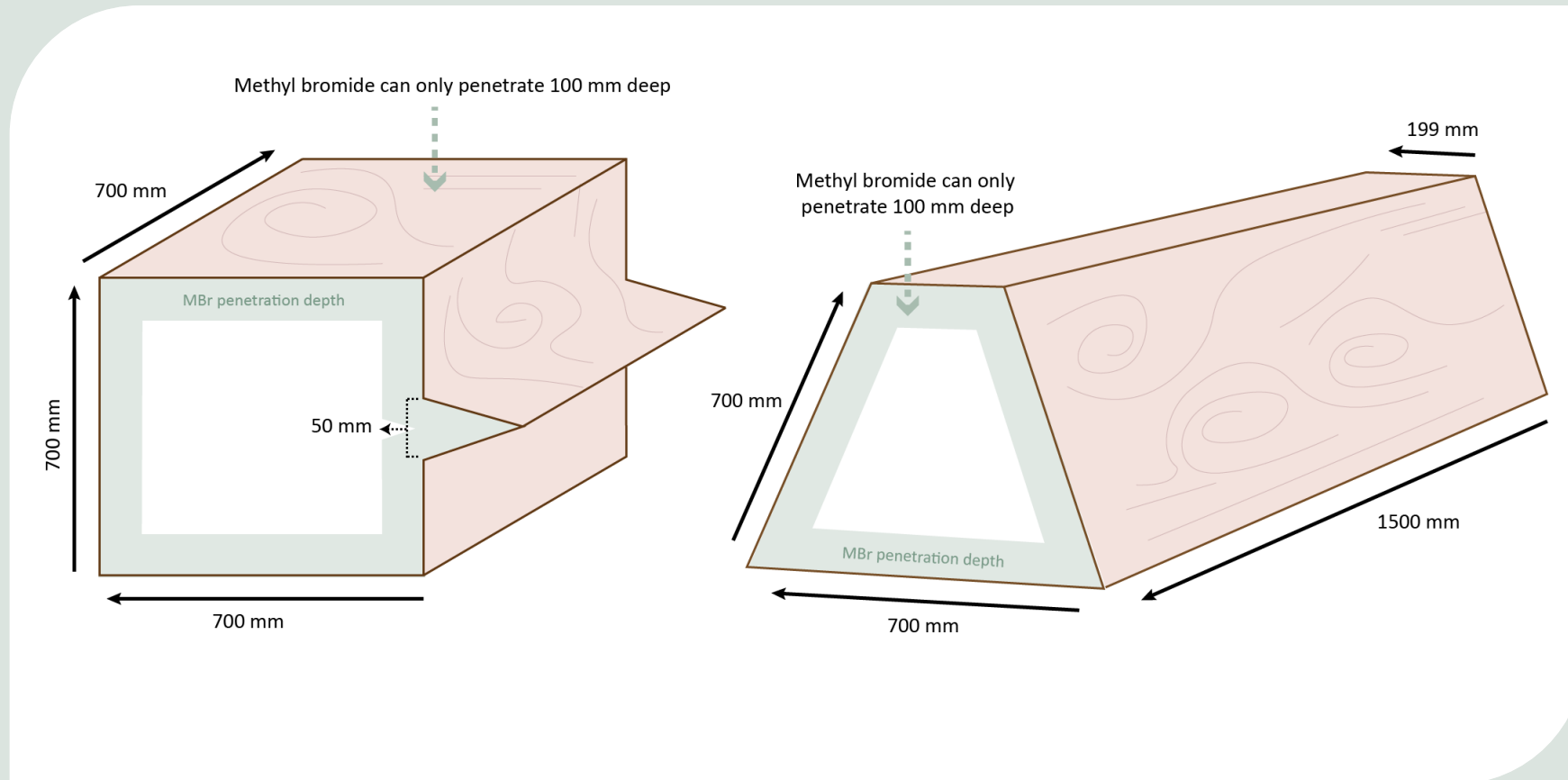
[Guide to packaging suitability for QPS treatments v2.0](#)

Consignment suitability

Current	New
<p>1.2.2 If the consignment does not conform to the suitability requirements remedial action must be taken or an alternative acceptable treatment method used.</p>	<p>3.1.2 If the consignment is not suitable for fumigation, remedial action must be taken to make the consignment suitable prior to fumigation. If the consignment cannot be made suitable, the consignment must not be fumigated with methyl bromide.</p> <p>3.1.3 If the target of fumigation includes the exterior of a sea container, the fumigation must be performed as a sheeted enclosure in accordance with section 4.2 Sheeted enclosures or otherwise made suitable for fumigation.</p> <p>3.1.4 If the target of fumigation is inside a sea container, and the sea container is not sufficiently gas tight (in accordance with section 4.1 All Enclosures), compliant with section 4.1.1a), the fumigation must be performed as a sheeted enclosure in accordance with section 4.2 Sheeted enclosures or otherwise made suitable for fumigation.</p>

Timber suitability

- Re-worded to ensure conditions apply to oddly shaped timber



Examples:

Gas permeable packaging:



Dry cloth that is porous enough to allow the fumigant to pass through freely



Woven fabrics and plastics that are not lined, coated or laminated with impermeable materials



Paper and cardboard that is not waxed, lined, laminated or painted



Perforated plastics or cellophane that meet perforation requirements of the [Methodology](#)*

Gas impermeable packaging:



Sealed solid plastic or cellophane bags or pouches (including those with insufficient perforations)



Sealed pouches, tins and cans



Paper, cardboard and woven fabrics **that are waxed, lined, laminated, or painted** with impermeable materials



Sealed glass jars and bottles

Summary

Version 3.0 comes into force 1 May 2025.



All methyl bromide fumigations with a start date and time at or after 1 May 2025 00:00 (midnight local time) must adhere to the new requirements. Local time means the place where the fumigation was performed.

- Example: A treatment certificate has a start date listed as 30 April 2025 and an end date of 2 May 2025 and arrives in Australia on the 15 May 2025.
Version 2.0 methodology requirements apply.
- Example: A treatment certificate has a start date of 1 May 2025 and an end date of 3 May 2025, and arrives in Australia on the 18 May 2025.
Version 3.0 methodology requirements apply.

Where to get more information:

- [Methyl bromide fumigation methodology – Prepare now for 2025 update - DAFF \(agriculture.gov.au\)](#)
- offshoretreatments@aff.gov.au



Resources

Methyl bromide fumigation guide V2.0

Methyl bromide fumigation guide

Performing quarantine pre-shipment (QPS) fumigations with methyl bromide

Version 2.0



Department of Agriculture, Fisheries and Forestry

1



Guide to packaging suitability for performing QPS treatments

Version 2.0



Methyl bromide fumigation methodology comparison table

Comparison between the Methyl bromide fumigation methodology version 2.0 and Methyl bromide fumigation methodology version 3.0				
Version 3.0 section title	Version 2.0 requirement	Version 2.0 wording	Changes in version 3.0	Reason for the change in version 3.0
Purpose	This methodology sets out the minimum requirements for treatment providers performing methyl bromide fumigations on commodities and/or associated packaging related to such treatments for Quarantine and Pre-shipment (QPS) purposes. This methodology is the basis for compliance auditing of treatment providers to monitor their performance of effective QPS treatments with methyl bromide. Importing countries have the right to impose more stringent treatment conditions to address their individual biosecurity risks. In such cases, those additional conditions take precedence over the requirements of this methodology and must be complied with to the satisfaction of the relevant authority of the importing country. Fumigation treatment providers registered to perform treatments in accordance with these requirements must have the equipment, facilities, accredited fumigators and management and administrative procedures necessary to ensure that all relevant treatments comply with these requirements. Countries receiving treatment certification through this system expect the treatment has been undertaken in accordance with this methodology. Treatment providers found to be wilfully and consistently not complying with the requirements of this methodology and/or other specified treatment conditions will have their registration status changed to "unsatisfactory" until they can demonstrate satisfactory compliance. Methyl bromide is listed as a category 1 ozone depleting substance under the Montreal Protocol 1982. Performing methyl bromide fumigations in accordance with these requirements will reduce the use of methyl bromide by minimising the need for re-treatment of consignments due to ineffective fumigations caused by poor fumigation practice.	This methodology sets out the minimum requirements for treatment providers performing methyl bromide fumigations on import and export consignments for Quarantine and Pre-shipment (QPS) purposes. Compliance auditing of treatment providers is performed against the requirements in this methodology to gain assurance QPS treatments are performed effectively. Treatment providers required to perform fumigations in accordance with this methodology must have the: <ul style="list-style-type: none">• equipment• facilities• personnel and• administrative procedures necessary to comply with these requirements. Importing jurisdictions may impose more stringent treatment requirements to address their individual biosecurity risks. In such cases, those additional requirements, referred to in this document as import conditions, take precedence over the requirements of this methodology and must be complied with to the satisfaction of the relevant authority of the importing jurisdiction.	This methodology sets out the minimum requirements for treatment providers performing methyl bromide fumigations on import and export consignments for Quarantine and Pre-shipment (QPS) purposes. Compliance auditing of treatment providers is performed against the requirements in this methodology to gain assurance QPS treatments are performed effectively. Treatment providers required to perform fumigations in accordance with this methodology must have the: <ul style="list-style-type: none">• equipment• facilities• personnel and• administrative procedures necessary to comply with these requirements. Importing jurisdictions may impose more stringent treatment requirements to address their individual biosecurity risks. In such cases, those additional requirements, referred to in this document as import conditions, take precedence over the requirements of this methodology and must be complied with to the satisfaction of the relevant authority of the importing jurisdiction.	Changed for clarity and to reflect the purpose rather than being informative text.
Scope	This document applies to commercial and government treatment providers performing QPS methyl bromide fumigation treatments for countries that have adopted a specific methyl bromide treatment schedule. This document is not intended to specifically cover the performance of methyl bromide fumigation treatments under IPM 15. However, the basic principles, requirements and recommendations described in this document and the associated guideline are still generally applicable. Even though the basic principles and requirements would be relevant this document is not intended to specifically cover fumigations of vessels (whether it is the vessel itself or its cargo) into or other storage facilities, buildings or other fumigations that are not done in the types of enclosure described herein and not related to import or export.	All requirements in this methodology must be performed to ensure: <ul style="list-style-type: none">• target pests are killed• the people performing the treatment remain safe and are not harmed• all people in the area around the treatment area remain safe and are not harmed• the goods or commodity being treated are not damaged or adversely affected. Methyl bromide is listed as a category 1 ozone depleting substance under the Montreal Protocol 1982. Performing methyl bromide fumigations in accordance with these requirements will reduce the use of methyl bromide by minimising the need for re-treatment of consignments due to ineffective fumigations caused by poor fumigation practice. Use and handling of methyl bromide must not contravene any instructions on the product label, safety data sheet, local regulations or relevant licence requirements.	Principles of scope moved to "Purpose" heading changed to "General" to align with newer methodologies and to be more relevant to the content of this section.	

1



Methyl bromide fumigation methodology

Version 3.0 – Summary of changes

New Methyl bromide fumigation methodology is coming – 1 May 2025

The Methyl bromide fumigation methodology is an internationally recognised standard for the application of methyl bromide for quarantine and pre-shipment treatments.

The new version is now available on our website. It will replace the current documents and come into force on 1 May 2025. Familiarise yourself with the new methodology to prepare for the upcoming change.

Why changes have been made

- Remove ambiguity and simplify language
- Make the document more enforceable
- Changes based on feedback and levels of compliance with the old methodology
- Clearly articulate requirements and how this applies to different fumigation scenarios
- Improve usability by providing context and removing assumed knowledge



Key points

- There are minor changes to treatment requirements and processes.
- There are no changes to how a successful treatment is conducted.
- The methodology focuses on the essential elements required to achieve an effective fumigation.
- The majority of the changes made are to wording, language and readability.

Questions

Please type your questions in the chat or upvote the question(s) you would like to be answered.

