Australian Government
Department of Agriculture, Fisheries and Forestry

Methyl bromide fumigation methodology

Version 3.0 – Summary of changes

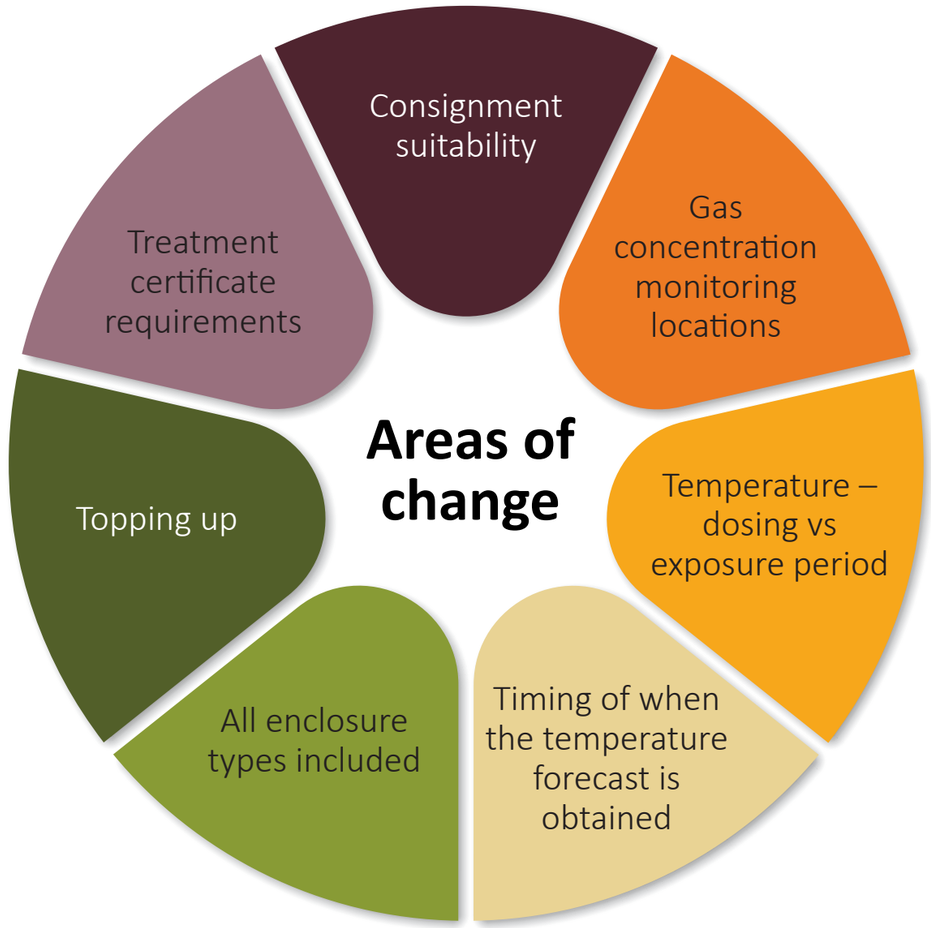
New Methyl bromide fumigation methodology is coming – 1 May 2025

The Methyl bromide fumigation methodology is an internationally recognised standard for the application of methyl bromide for quarantine and preshipment 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 useability by providing context and removing assumed knowledge



Key points

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

Summary of changes table

Requirement	Key changes	Rationale
Applicable to all sections	The methodology has been edited to improve clarity, consistency and readability.	Removing ambiguity and simplifying language improves the document's legal enforceability.
Applicable to all sections	The methodology has been formatted for accessibility.	By rewriting the document using accessibility principles we've made it easier to follow and more accessible.
Applicable to all sections	The order of sections has changed.	The order of the document replicates the order of steps of a fumigation and pre/post fumigation activities, this makes the document easier to navigate.
Safety	Section 2 The methodology clearly defers to local safety legislation and requirements.	Safety requirements concerning the safe conduct of a methyl bromide fumigation will vary by country and state or territory.
Temperature	Section 6 and 7 The temperature section has been split into two sections. Section 6 Temperature used to calculate the dose and Section 7 Temperature during the exposure period.	Separating temperature into two sections to clearly define the different temperature requirements for the different stages of a fumigation.
Temperature	Section 7 Clear linkage added between the temperature used to calculate the dose and the temperature during the exposure period. If the actual temperature drops below the temperatures used to calculate the dose the treatment has failed.	Clearly defines that the temperature during the exposure period must remain above the temperature used to calculate the dose rate and that any fumigations that occur below that temperature are considered unsuccessful.
Timing of when forecast is obtained	Section 6.1.4 The forecast minimum temperature must be sourced no earlier than the day before the fumigation starts. And the source of the information must be retained with the fumigation documentation.	Clarified in response to feedback about when the temperature forecast is taken. Allows a day window for planning purposes but not too early to ensure the forecast is reasonably accurate.
Topping up during the exposure period	Section 10 Top-ups performed during the exposure period are only allowed if the methyl bromide concentration is above the standard.	This removes the option of topping up during the exposure period if the concentration falls below the standard. This was the intent of the original topping up requirements in the original methodology. Through the consultation process it was determined the topping up requirements during the exposure period needed to be re-introduced to ensure treatments achieved the correct concentration over time (CT). This ensures the efficacy of treatments as well as significantly simplifying things for the fumigator. Topping up can still be performed during a treatment if the concentration is above the standard.
Topping up	Topping up if the exposure period is under 12 hours is now permitted.	Makes it consistent with other international standards.
Treatment certificate requirements	Section 12 Minimum requirements listed instead of relying on the certificate template.	Ensures the enforceability of treatment certificate requirements and harmonises the requirements across schemes (where possible). This is the same concept as currently exists for the record of fumigation (RoF) requirements.
Consignment Suitability	Section 3 More details included and existing requirements clarified.	Reduces the subjectivity of the clauses.
Free Air Space	Throughout document Free air space requirements removed - gas monitoring locations specified with measurements.	Free airspace is needed to conduct a successful fumigation. Feedback was received that the current free airspace requirements are hard to interpret, comply with and enforce due to the subjective nature of the requirement. Free airspace requirements can be verified through the correct placement of monitoring lines as well as concentration readings being above the standard and within equilibrium.
Fumigation Enclosures	Section 4 All enclosures included. No enclosures scoped out.	Enclosure requirements have been edited to remove exclusions and simplified to account for the different types of enclosures. All enclosure requirements apply in every situation. Enclosure specific requirements stipulated as such in their respective sections.
Fumigation Enclosures	Section 4.1 Enclosure requirements.	The requirement to create an air flow barrier has been removed. Instead specifies that fumigation enclosures must be sufficiently gas tight.
Fumigation Enclosures	Throughout document 'Sampling tube location' changed to 'gas monitoring location'.	To allow for new technology as it emerges. Allows for possible new monitoring devices that can remotely send data.
Fumigation Enclosures	Section 5.3.3 Multiple sea containers in a sheeted enclosure must have 3 monitoring locations in each sea container. Section 9.2 New allowance for failing a single container in the enclosure.	Additional requirements for sheeted enclosures to verify that there is enough free airspace and that concentrations are above the standard for the exposure period. Given the additional monitoring, a new requirement relating to multiple containers under a sheeted enclosure has been included. If the target of the fumigation is wholly within the containers and one container fails, the remainder of the containers can pass if all other conditions are met.
Glossary	Some information added, some removed.	Removed terms no longer in use in the methodology, adjusted terms if changes. Clarified wording to reflect intent of some definitions. Added terms that required a definition for enforceability and clarity.

More information

Learn more about the updated Methyl bromide fumigation methodology (version 3.0).

Web Methodologies and documents for biosecurity treatments - DAFF (agriculture.gov.au)

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