



Methyl bromide update

August 2017

EPA 2020 DEADLINE FOR METHYL BROMIDE USE

- Due to the effect of methyl bromide on ozone depletion, the Environmental Protection Agency (EPA) requires mandatory recapture or destruction of methyl bromide emissions at the end of fumigations from October 2020.
- New Zealand is signatory to the Montreal Protocol aimed to control ozone depleting substances.
- The controls for methyl bromide use were reviewed by the EPA in 2010 setting a very high bar requiring that no emission of methyl bromide are allowed beyond October 2020.
- Methyl bromide is permitted for quarantine use but countries are urged to reduce or replace it.
- New Zealand phased out non-quarantine use of methyl bromide in 2007.

WHAT IS METHYL BROMIDE?

- Methyl bromide is a colourless, non-flammable, toxic gas that has no odour.
- In New Zealand, it is used for treating logs and other primary sector products to control quarantine pests in export and imported goods.

WHAT DOES THE EPA DEADLINE MEAN TO TRADE?

- Trade in forestry products to key markets such as China and India will be affected significantly should the use of methyl bromide be stopped without an acceptable substitute(s) being accepted by trading partners.
- The log trade to India will be disrupted because methyl bromide is the only feasible option for phytosanitary treatment for unprocessed logs to India.
- New Zealand exported \$2.2 billion worth of logs in the year to June 2016. A large amount of these logs (\$0.5 billion) were treated with methyl bromide for export to China and India.
- Fumigation of logs and timber for export constitutes about 90% of the methyl bromide use in New Zealand. The remaining 10% is used to fumigate imported goods to protect New Zealand from exotic pests and diseases.
- New Zealand is currently the fifth highest user of methyl bromide in the world. The annual use over the last four years falls within the range of 522-565 tonnes/yr.

CHALLENGES

- The Ministry for Primary Industries (MPI), the Stakeholders in Methyl Bromide Reduction (STIMBR) and Crown Research Institutes (CRI) have been working on finding alternative phytosanitary treatments and means to manage and reduce methyl bromide emissions.
- Finding an effective substitute as a phytosanitary treatment continues to pose a great challenge.
- Only one potential alternative fumigant has been identified. Scientists are developing efficacy data. When the data is available MPI will need to negotiate acceptance by our trading partners.
- Current recapture technology can recapture a large percentage of the fumigant remaining in the headspace of containers only.



CURRENT WORK AND PROGRESS MADE

- STIMBR is currently investigating the use of ethanedinitrile (EDN) as a potential alternative phytosanitary fumigant.
- Trials to determine efficacy of EDN on pests are underway and preliminary results are promising.
- STIMBR is investigating non-chemical treatment options such as Joule heating and biological concepts.
- Joule heating involves the use of direct electric current to raise the internal temperature of logs to meet heat treatment requirements.
- Work on biological concepts such as modelling insect activity to determine the likelihood of insect abundance and flight activity in order to identify windows of opportunity and areas of low pest prevalence to reduce the need to fumigate is ongoing.
- A delegation of MPI officials, STIMBR and CRI scientists visited China in May 2017 for discussions on reduction in the methyl bromide treatment rates for log fumigation and proposed a substitute fumigant, EDN.

MORE INFORMATION

For more information on methyl bromide, please visit STIMBR website [InFO](#) and for answers to common questions, visit [FAQs](#). The MPI Plant Export Certification Standard for treatment Supplier Programme can be found at [Treatment](#).

