



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Mr Marco Gonzalez
Executive Secretary
Ozone Secretariat
P.O. Box 30552
Nairobi 00100
KENYA

Dear Mr Gonzalez,

Australian report under Decision Ex.I/4 paragraph 7.

In accordance with this decision of the Parties at the first Extraordinary Meeting of the Parties, please find enclosed with this letter a summary of Australia's current critical use nominations.

Paragraph 7 of Decision Ex.I/4 decided:

“To request each Party from 1 January 2005 to provide to the Ozone Secretariat a summary of each crop or post harvest nomination containing the following information:

- (a) Name of the nominating Party;
- (b) Descriptive title of the nomination;
- (c) Crop name (open field or protected) or post-harvest use;
- (d) Quantity of methyl bromide requested each year;
- (e) Reason or reasons why alternatives to methyl bromide are not technically and economically feasible;”

The attached report represents Australia's report for its current nominations in accordance with this Decision.

Should you have any concerns regarding the content of the report, please feel free to contact me.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Patrick McInerney', with a stylized flourish at the end.

Patrick McInerney
Director
Ozone and Synthetic Gas Team
Department of Sustainability, Environment, Water, Population and Communities

31 January 2012

Australian report under Decision Ex.I/4 paragraph 7

A. Name of the nominating Party:

Australia

B. Descriptive title of the nomination:

Re-application by the strawberry runner industry of the Australian State of Victoria for critical use exemption in 2014 towards the phase-out of methyl bromide.

C. Crop name (open field or protected) or post harvest use:

Strawberry runner production (open field)

D. Quantity of methyl bromide requested in each year:

29.76 metric tonnes in 2014

E. Reason or reasons why alternatives to methyl bromide are not technically or economically feasible.

Research and field trials to identify a suitable replacement for methyl bromide are ongoing.

Results from a trial conducted with Telone C-35 in 2009/2010 continue to show the same trends as in previous research by the runner industry in Toolangi, Victoria. Previous trials showed that Telone C-35 reduces yields and that this is considered to be due to phytotoxicity. Telone C-35 therefore remains an unacceptable alternative in the runner industry in Toolangi.

MBTOC recommended in 2009 that the strawberry runner industry adopt a lower dosage rate of 20 g MB.m⁻². Currently, rates of MB below 25 g MB.m⁻² are not registered and available for use in Australia, with or without impermeable barrier films. Trials to date have tested rates of MB:Pic (40:60) at 600 kg.ha⁻¹, MB:Pic (50:50) at 400 kg.ha⁻¹, and MB:Pic (50:50) at 500 kg.ha⁻¹, with notable variations in results for weed and pathogen control, and yields. These inconsistent results are unacceptable and are currently hindering development of a case for label change for presentation to the relevant State Government Department. Two further commercial trials of lower rate MB (20 g MB.m⁻²) have been established in the runner industry in 2010/11. It is anticipated that data from these trials will be available in October 2011.

There are currently no methyl iodide products registered for use in Australia. However a permit is in place which allows for further evaluation of methyl iodide by strawberry runner growers. Field trials have shown that MI consistently controls pathogen (DNA concentrations of *Rhizoctonia solani* and *Pythium* spp. in soil) and weeds to equivalent levels as MB. Runner yields in soils treated with MI and MB were statistically equivalent in all trials. The Australian Pesticides and Veterinary Medicines Authority (APVMA) is currently considering additional data regarding bystander exposure issues, lodged by the applicant in 2011.

Results from previously conducted trials have suggested ethanedinitrile (EDN) may be a promising possible alternative to MB. Linde BOC, the manufacturer of EDN, submitted a registration package to the APVMA in 2005, and a draft label for EDN has been developed. No further trials were conducted in 2009/10. Linde/BOC, however, advises that a further submission providing additional data was lodged with

the APVMA at the end of January 2011. Linde/BOC also advises that it has volumes available for trial under permit by customers until EDN gains registration.

Application has been made to import small quantities of dimethyl disulphide into Australia for research as an alternative to MB. It is anticipated that small amounts of DMDS will be available for efficacy trials in the runner industry in the 2011 season, should the strawberry runner industry choose to proceed with trials. It is also anticipated that, if effective, registration of DMDS would take at least 3-5 years.

A project confirming feasibility of commercial development of the soil less system for production of the Foundation generation of strawberry runners that are derived from pathogen tested stock has been completed. This and other industry knowledge were used in the design and subsequent construction of the new facility. A decision has been made by VSICA to commission soil less production of the Foundation generation for the 2011/12 season.

Australian report under Decision Ex.I/4 paragraph 7

A. Name of the nominating Party:

Australia

B. Descriptive title of the nomination:

Reapplication for an exemption from the methyl bromide phase-out for consumer packs of rice for 2014

C. Crop name (open field or protected) or post harvest use:

Rice – consumer packs – post-harvest use

D. Quantity of methyl bromide requested in each year:

1.187 metric tonnes in 2014

E. Reason or reasons why alternatives to methyl bromide are not technically or economically feasible.

The use of methyl bromide to treat consumer packs of rice is being phased out, with 2014 being the final year that a critical use exemption should be required. The amount of methyl bromide approved as a critical use exemption has decreased each year since 2009 and will continue to reduce through to 2014.

If alternative treatments are not available at the time that methyl bromide amounts approved for critical uses are insufficient to treat the quantity of rice harvested for the domestic market, the applicant will not be able to access additional methyl bromide. Therefore the total amount of rice that can be treated will reduce. This has not occurred to date due to a significant decrease in rice production as a result of drought conditions over the past decade.

Phosphine fumigation, following milling but before packaging, is currently considered to be the best technical and economical feasible alternative. The method of phosphine application differs markedly from methyl bromide which is applied after packaging. Phosphine fumigation would require a considerable change to SunRice's processing methods and a substantial infrastructure investment. SunRice has been unable to finance a transition to phosphine so far due to continued severe drought conditions in the growing area. Continuing to use methyl bromide at a reduced rate through to (and including) 2014 allows SunRice to recover from the effects of the drought (which has recently broken) and make the major investment required for phosphine over the coming years. The agreed transition plan allows time for SunRice to do this. .

Trials with sulfuryl fluoride (Profume) have not been successful with two trials showing emergence of insects after fumigation, proving sulfuryl fluoride is not technically feasible as it is not controlling all life stages of target pests. Costs associated with possible measures to potentially resolve these technical infeasibility issues would compound issues of economic feasibility.

A number of other alternatives to methyl bromide have been considered, unfortunately each alternative has its own characteristics that make its use either economically or technically infeasible.

Residue problems have been experienced with ethyl formate, and the gas's high flammability creates excessive fire risks. There are also doubts about Ethyl Formate's

pest control efficacy for rice. Ethyl Formate has not been registered in New South Wales, the rice growing area for use on rice.

Vapormate (Ethyl Formate/Carbon Dioxide Fumigant Mixture) was investigated by SunRice but found to be technically infeasible. Due to the reduced grain size and higher bulk density, movement of the gas is inhibited resulting in very low concentrations at the bag opening. Insect mortality rate observed during testing ranged between 0-100%, confirming that all spaces in the bag were not reached using Vapormate.

Carbonyl sulphide was found to be technically infeasible. Sorption studies highlighted that significantly higher dosages were required for various rice commodities, as well as problems with organoleptic (taste and smell) perception due to residues.

Cold disinfestation has also been considered. During the trial it took three weeks to establish -20° in 1 tonne bulkers. Costs associated with constructing sufficient cold storage facilities would require an expansion of warehouse space of up to 200%. Such costs are expected to easily exceed \$A100 million.

Packaging alteration with Oxygen scavenging has also been considered as an alternative for rice storage. It has not been considered economically feasible due to substantial increases in operating costs (from \$A8.88million to \$A31.11million per year).