



Australian Government

Department of the Environment and Water Resources

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 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,

Dr Greg Rippon
A/g Director
Ozone and Synthetic Gas Team

18 February 2008

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 2010 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:

29.79 metric tonnes are requested for 2010.

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

Trials of Telone C-35 (1,3-dichloropropene) have revealed unacceptable variability in plant growth and pest control, particularly under cool climatic conditions. Runner yields from soils treated with Telone C-35 varied within a range of a 10% increase to a 30% decrease. It is considered that the variability in plant growth may be due to phytotoxic residues remaining in soil after treatment at lower temperatures. Furthermore, additional data has demonstrated that the treatment does not effectively kill the pathogens *Phytophthora* and *Sclerotium* and certain weed species.

This variability in plant growth and pest control has thus far prevented runner crops grown in soils treated with Telone C-35 from meeting industry certification standards. Consequently, further research into improving the efficacy of Telone C-35 for cool climate applications is required, and the associated problems resolved, before Telone C-35 can be considered an acceptable alternative for use by the Victorian runner industry. Data from this work may be used to modify the Telone C-35 label.

A potential and promising alternative treatment Methyl Iodide (MI) is still being evaluated. Initial research has been undertaken, and Arysta Life Sciences recently received Australian Pesticides and Veterinary Medicines Authority (APVMA) approval to conduct larger commercial evaluation trials for strawberry runners. Projects to further assess and improve the comparative efficacy of Methyl Iodide:Chloropicrin (MI:Pic 50:50) are continuing over 2008-2009.

Trials of MI:Pic thus far have yielded encouraging results regarding plant growth, pest control, plant-back times and soil impacts. Data from these trials may be used to support possible Australian registration of MI:Pic around 2010, pending resolution of commercial development and regulatory control, usage and handling matters.

Results from previously conducted trials have suggested ethanedinitrile (EDN) may be a promising possible alternative to MB. Linde AG, the manufacturer of EDN, submitted a registration package to the APVMA in 2005, and a draft label for EDN has been developed. Since then, however, Linde AG has not advised of any further progress with or intention to pursue registration.

A two-year research program investigating the possible use of soil-less systems to produce strawberry runner foundation stock commenced in 2007. The program aims to provide data for development of the biological, biosecurity, hygiene and economic protocols necessary to design of a full-scale system. The program is a joint initiative between Horticulture Australia Ltd, and the Victorian Strawberry Industry Certification Authority. Current financial and logistical impediments prevent the adoption of this approach to the vastly more numerous commercial production stocks.

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 2010

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

Rice – consumer packs

D. Quantity of methyl bromide requested in each year:

7.82 metric tonnes for 2010

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

The Australian Rice Growers Cooperative (ARGC) is pursuing phosphine fumigation in sealed silos as the most suitable alternative to methyl bromide fumigation. Substantial infrastructural development, costed at \$47M, is required and the ARGC's transitional plan and timeframe was accepted by MBTOC in 2007. The plan's delivery within the specified timeframe is dependent upon ARGC's capacity to source sufficient infrastructure development capital, which is derived from revenue raised from satisfactory rice crop harvest yields.

Unfortunately, prolonged drought conditions in Australia have resulted in an expected 98% reduction in the rice crop harvest yield for 2008 (down from an average 1,200,000 tonnes to 15,000 tonnes). Two of three milling sites have been closed and 180 staff made redundant. The ARGC has proposed a 12 month delay in its transitional plan until improved crop yields and capital returns are restored.

The ARGC will reduce the volume of methyl bromide by 15% to 7.82 tonnes in 2009. It will seek further reductions in 2010 if it can commence phosphine fumigation infrastructure investment in 2010 with completion in 2013. The schedule is dependent on enough capital being raised from sufficient crop yields in those years.

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, and the gas is registered in New South Wales for use on dried fruit only.

Vapormate (Ethyl Formate/Carbon Dioxide Fumigant Mixture) is currently only registered for adult stages of insects. 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 unfeasible. 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 \$100M.

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 \$8.88 million to \$31.11 million per year).

ProFume (Sulfuryl Fluoride) was registered in Australia in late 2007. Trials are to be organized for 2008 or 2009, depending on availability of rice product (current crop estimations suggest 2009 is more likely). Should trials of ProFume prove successful, ARGC will review its transition plan to determine any capabilities for adopting ProFume ahead of Phosphine.