

**MONTREAL PROTOCOL  
ON SUBSTANCES THAT DEplete  
THE OZONE LAYER**



**UNEP**

**REPORT OF THE  
TECHNOLOGY AND ECONOMIC ASSESSMENT PANEL**

**OCTOBER 2003**

**CRITICAL USE NOMINATIONS – SUPPLEMENTARY REPORT**



**UNEP  
OCTOBER 2003 REPORT OF THE  
TECHNOLOGY AND ECONOMIC  
ASSESSMENT PANEL**

**CRITICAL USE NOMINATIONS – SUPPLEMENTARY REPORT**

**Montreal Protocol  
On Substances that Deplete the Ozone Layer**

Report of the  
UNEP Technology and Economic Assessment Panel

October 2003

**CRITICAL USE NOMINATIONS – SUPPLEMENTARY REPORT**

The text of this report is composed in Times New Roman.

Co-ordination: **Methyl Bromide Technical Options Committee**

Composition and layout of the report:  
Jonathan Banks

Reproduction: UNON Nairobi

Date: October 2003

Under certain conditions, printed copies of this report are available from:

UNITED NATIONS ENVIRONMENT PROGRAMME  
Ozone Secretariat, P.O. Box 30552, Nairobi, Kenya

Normally from SMI Distribution Service Ltd., Stevenage, Hertfordshire, UK, fax: +  
44 1438 748844

This document is also available in portable document format from  
<http://www.teap.org>

No copyright involved. This publication may be freely copied, abstracted and cited,  
with acknowledgement of the source of the material.

**ISBN: 92-807-2375-8**

## **Disclaimer**

The United Nations Environment Programme (UNEP), the Technology and Economic Assessment Panel (TEAP) cochairs and members, and the Methyl Bromide Technical Options Committee (MBTOC) cochairs and members, and the companies and organisations that employ them do not endorse the performance, worker safety, or environmental acceptability of any of the technical options discussed. Every industrial operation requires consideration of worker safety and proper disposal of contaminants and waste products. Moreover, as work continues - including additional toxicity evaluation - more information on health, environmental and safety effects of alternatives and replacements will become available for use in selecting among the options discussed in this document.

UNEP, TEAP cochairs and members, and the MBTOC cochairs and members, in furnishing or distributing this information, do not make any warranty or representation, either express or implied, with respect to the accuracy, completeness, or utility; nor do they assume any liability of any kind whatsoever resulting from the use or reliance upon any information, material, or procedure contained herein, including but not limited to any claims regarding health, safety, environmental effect or fate, efficacy, or performance, made by the source of information.

Mention of any company, association, or product in this document is for information purposes only and does not constitute a recommendation of any such company, association, or product, either express or implied by UNEP, TEAP cochairs and members, and the MBTOC cochairs and members or the companies or organisations that employ them.

## **Acknowledgement**

The Technology and Economic Assessment Panel and its Methyl Bromide Technical Options Committee acknowledges with thanks the outstanding contributions from all of the individuals and organisations who provided support to Panel and Committee cochairs and members. The opinions expressed are those of the Panel and the Committee and do not necessarily reflect the reviews of any sponsoring or supporting organisation.



**UNEP**  
**OCTOBER 2003 REPORT OF THE**  
**TECHNOLOGY AND ECONOMIC**  
**ASSESSMENT PANEL**

**CRITICAL USE NOMINATIONS – SUPPLEMENTARY REPORT**

**TABLE OF CONTENTS**

<b>1</b>	<b>CRITICAL USE NOMINATIONS FOR METHYL BROMIDE.....</b>	<b>1</b>
1.1	INTRODUCTION TO MBTOC REVIEW OF CRITICAL USE EXEMPTIONS.....	1
1.1.1	<i>Basis of Mandate.....</i>	<i>1</i>
1.1.2	<i>MBTOC and TEAP process for consideration of CUNs.....</i>	<i>3</i>
1.1.2.1	Handbook.....	3
1.1.2.2	Process.....	3
1.2	CRITICAL USE NOMINATIONS REVIEW.....	6
1.2.1	<i>Disaggregation of nominations.....</i>	<i>6</i>
1.2.2	<i>Withdrawal and modification of some nominations.....</i>	<i>6</i>
1.2.3	<i>Limitations in the review of CUNs and supplementary information.....</i>	<i>6</i>
1.2.4	<i>Consideration of alternatives.....</i>	<i>9</i>
1.2.5	<i>Period of nominations, MBTOC's response.....</i>	<i>9</i>
1.2.6	<i>CUNs requested for registration contingencies.....</i>	<i>11</i>
1.2.7	<i>Suggested adjustments to nominated quantities.....</i>	<i>11</i>
1.2.8	<i>Multiplier factors.....</i>	<i>12</i>
1.2.9	<i>New or recently increased uses of MB.....</i>	<i>12</i>
1.2.10	<i>Plans to develop, register and deploy alternatives.....</i>	<i>12</i>
1.2.11	<i>Registration and regulatory restrictions.....</i>	<i>13</i>
1.3	OUTCOME OF REVIEW OF CUNs.....	14
<b>2</b>	<b>ISSUES ARISING IN THE REVIEW OF CUNs.....</b>	<b>15</b>



# 1 Critical Use Nominations for Methyl Bromide

## 1.1 Introduction to MBTOC Review of Critical Use Exemptions

### 1.1.1 Basis of Mandate

Under Article 2H of the Montreal Protocol the production and consumption (defined as production plus imports minus exports) of methyl bromide is to be phased out in Parties not operating under Article 5(1) of the Protocol by 1 January 2005. However, in recognition that there might be some uses after phase out for which there are no technically and economically feasible alternatives available, the Parties agreed to a provision enabling exemptions for those uses of methyl bromide that can be regarded as critical. Parties established criteria, under Decision IX/6 of the Protocol, which all such uses need to meet in order to be granted an exemption. The Decision IX/6 states that:

*1. To apply the following criteria and procedure in assessing a critical methyl bromide use for the purposes of control measures in Article 2 of the Protocol:*

- (a) That a use of methyl bromide should qualify as “critical” only if the nominating Party determines that:*
  - (i) The specific use is critical because the lack of availability of methyl bromide for that use would result in a significant market disruption; and*
  - (ii) There are no technically and economically feasible alternatives or substitutes available to the user that are acceptable from the standpoint of environment and health and are suitable to the crops and circumstances of the nomination;*
- (b) That production and consumption, if any, of methyl bromide for critical uses should be permitted only if:*
  - (i) All technically and economically feasible steps have been taken to minimise the critical use and any associated emission of methyl bromide;*
  - (ii) Methyl bromide is not available in sufficient quantity and quality from existing stocks of banked or recycled methyl bromide, also bearing in mind the developing countries’ need for methyl bromide;*
  - (iii) It is demonstrated that an appropriate effort is being made to evaluate, commercialise and secure national regulatory approval of alternatives and substitutes, taking into consideration the circumstances of the particular nomination and the special needs of Article 5 Parties, including lack of financial and expert resources,*

*institutional capacity, and information. Non-Article 5 Parties must demonstrate that research programmes are in place to develop and deploy alternatives and substitutes. Article 5 Parties must demonstrate that feasible alternatives shall be adopted as soon as they are confirmed as suitable to the Party's specific conditions and/or that they have applied to the Multilateral Fund or other sources for assistance in identifying, evaluating, adapting and demonstrating such options;*

*2. To request the Technology and Economic Assessment Panel to review nominations and make recommendations based on the criteria established in paragraphs 1 (a) (ii) and 1 (b) of the present decision;*

*3. That the present decision will apply to Parties operating under Article 5 and Parties not so operating only after the phase-out date applicable to those Parties.*

Para. 2 of Decision IX/6 does not assign TEAP the responsibility for determining the existence of “significant market disruption” specified in paragraph 1(a)(i).

TEAP assigned its Methyl Bromide Technical Options Committee (MBTOC) to assess whether there are *no technically and economically feasible alternatives or substitutes available to the user that are acceptable from the standpoint of environment and health and are suitable to the crops and circumstances of the nomination*, and to address the criteria listed in Decision IX/6 1(b).

This report is in fulfillment of Decision XI/6(2) relating to Critical Use Nominations (CUNs) submitted in 2003 and supplementary to that contained in the May 2003 TEAP progress report relating to ‘Critical Use Nominations for Methyl Bromide’, being Chapter 3 of that report. At the 23<sup>rd</sup> Open-ended Working Group meeting, TEAP and MBTOC were requested to update their report and present it to Parties prior to the 15<sup>th</sup> Meeting of the Parties.

TEAP and its MBTOC prepared a handbook on Critical Use Nomination (CUN) procedures, as requested in Decision XIII/11 taken by the Parties at their 13<sup>th</sup> Meeting. The Handbook on Critical Use Nominations for Methyl Bromide, published in May 2002, sets out a framework, process and the steps leading to a critical use exemption. A revised handbook was published in August 2003. The Critical Use Nominations reviewed herein were submitted prior to the publication of the new version of the handbook. A few Parties submitted supplementary information in conformance with the new version.

## 1.1.2 MBTOC and TEAP process for consideration of CUNs

### 1.1.2.1 Handbook

The Handbook on Critical Use Nominations for Methyl Bromide (May 2002) described the information required in the Critical Use Nomination documents.

Parties were requested to provide, *inter alia*, a 'detailed rationale for all nominations', details of the nominated use, 'specific details of location' of the requested MB, details of soil, climate and area treated, specific pest species/genera and problems to be controlled, description of research, trials and commercial demonstrations, and results of the trials. Applicants were also asked to describe why each alternative was considered unsuitable for the situation, quantify/describe pest population level, disease incidence, severity and control obtained with alternatives compared with MB, and to provide details of comparative yields when using MB and the leading alternatives evaluated. Also to state logistical and regulatory constraints, if any, and describe other aspects that impact on alternatives. Economic data on MB and alternatives was also requested.

The steps envisaged in the Handbook were as follows:

- Parties would submit requests (called Nominations) for critical use exemptions to the Ozone Secretariat by 31 January.
- The Ozone Secretariat would forward the nominations to TEAP, which in turn would assign the nominations to an appropriate TOC, usually MBTOC.
- MBTOC would make a review of the nominations in relation to the technical criteria outlined in Decision IX/6.
- TEAP would review the report of MBTOC and publish its recommendations for the OEWG meeting.
- The OEWG would consider the recommendations in July, and the Meeting of the Parties would make a decision at the end of the year.

### 1.1.2.2 Process

Some Parties submitted nominations to the Ozone Secretariat prior to the originally prescribed 31 January 2003 deadline, while other Parties submitted nominations by the 15 February extended deadline granted by the Secretariat after consultation with the TEAP and its MBTOC.

MBTOC co-chairs received CUNs from UNEP's Ozone Secretariat during February 2003. These were posted on a passworded Internet site for access by

MBTOC members in electronic form, in preparation to the MBTOC meeting to evaluate the CUNs. MBTOC members unable to access this site were supplied with copies of CUNs by other means.

MBTOC met in Cape Town, South Africa, from 17-22 March to consider nominations. Check list forms were generated to provide the Committee with the ability to assess the large number of nominations efficiently and equitably. Examples of these forms are given at Annex A. These include reference to the basis for the questions asked as part of the evaluation, specifically relevant sections of Decision IX/6 or the Handbook (May 2002 version).

In addition to the normal Disclosure of Interest required under the TEAP/TOC terms of reference, MBTOC members made an additional disclosure relating specifically to their level of national, regional or enterprise involvement in the CUN process. This was required to ensure that those with a high level of involvement and interest did not bias the process of evaluation. Several MBTOC members, as can be expected from the scarcity of expertise on MB issues, have been directly involved in the preparation of particular national CUNs.

A soil subcommittee in MBTOC considered the nominations relating to use of MB for soil fumigation, while a postharvest subcommittee considered the nominations relating to the use of MB for fumigation of commodities, structures and objects. The technical information needed to form an evaluation differs substantially for the two use sectors. This is reflected in the differing informational requirements set out for CU nominations in the Handbook. All drafts arising from the subcommittees were considered in plenary with the aim of reaching consensus decisions.

Within each sub-committee, the nominations for similar uses (i.e. specific crops, commodities and situations) were grouped and considered together, with the aim of assisting evaluations and providing equity in treatment across Parties.

In the first stage of evaluations carried out in March 2003, MBTOC made an initial general technical assessment and considered and analysed, to the extent possible, the specific circumstances of each nomination based on the available information provided by Parties in the CUN forms. Several CUNs were very general, covering a wide range of crops in one submission. In other cases nominations did not specify exactly why or where MB use was considered essential, or did not provide data to substantiate the stated reasons. In such cases MBTOC made best endeavours to identify the detailed reason for the critical use request, and to make an evaluation where possible. MBTOC noted the need to seek additional information from specific Parties on a number of nominations. Some CUNs were referred back to Parties for clarification or provision of additional information aiming to allow a full evaluation of the nomination in advance of the OEWG.

The documentation generated by MBTOC on the CUNs was then passed to the Agricultural Economic Task Force (AETF) to consider economic aspects of the CUNs in response to paragraph 1(a)(ii) of Decision IX/6 relating to the availability of economically feasible alternatives to MB. The AETF was a task force set up by TEAP to specifically consider economic aspects of CUNs relating to economic feasibility criteria of alternatives under Decision IX/6.

The recommendations of MBTOC and AETF were then forwarded to TEAP for review, and published in the TEAP report of May 2003. The recommendations of TEAP/MBTOC were presented at the 23<sup>rd</sup> OEWG.

For a substantial number of CUNs, MBTOC had been unable to complete an evaluation on the basis of the information provided, even when supplemented with its own expertise. Several CUNs appeared to be very broad and failed to specify exactly why or where the critical use MB was required. In a number of instances assertions were made as to why methyl bromide may be critically needed but no or insufficient documentation or citations were provided to substantiate these claims. MBTOC made best endeavours to identify the particular MB critical use and to only recommend the needed amount of MB consistent with critical uses. In some cases it was not possible from the data provided to determine the specific critical uses and in these cases a recommendation was not made, but clarifications were sought from the nominating Party.

The 23<sup>rd</sup> OEWG requested TEAP and MBTOC to update their report in advance of the 15<sup>th</sup> Meeting of the Parties to allow further consideration of the Critical Use Nominations. It was agreed that the information and recommendations contained in the TEAP May 2003 report relating to CUNs was not final and could be regarded as 'work-in-progress'. A timetable for submission of further material and its consideration was agreed (para. 106, report of the 23<sup>rd</sup> meeting of the OEWG).

Through the auspices of the Ozone Secretariat, MBTOC sent questions to individual Parties that had submitted CUNs that could not be evaluated, requesting specific additional information and comments on the report. The supplemental information received by agreed date (10 September 2003), with extensions as negotiated, was circulated out of session to MBTOC for further consideration.

MBTOC met on 22-24 September to conclude its evaluations of the CUNs submitted in 2003. This report is based on the results of that meeting.

## 1.2 Critical Use Nominations Review

### 1.2.1 *Disaggregation of nominations*

Most of the CUNs referred to a particular usage of MB (e.g. strawberry fruit production), but some Parties chose to submit one or more nominations that covered more than one use. Some Parties aggregated requests for similar uses from different regions even though the technical feasibility of using alternatives varied between regions, whilst other Parties provided separate CUNs in this circumstance. The latter were more easily assessable by MBTOC. In the former case, it was unclear if the Party had discounted the total amount requested for a specific region on the basis that some alternatives were considered technically feasible. Some also requested an aggregate quantity of MB to cover a partial or full range of different crop/commodity/structural uses.

For the purposes of technical evaluation of these nominations, it was necessary to disaggregate them to provide nominations for a single usage. Parties submitted 63 CUNs in total. After disaggregation, there were 84 CUNs referring to soil applications, 15 CUNs for applications on various commodities and 8 CUNs for structures.

### 1.2.2 *Withdrawal and modification of some nominations*

Subsequent to the 23<sup>rd</sup> OEWG in correspondence with the Ozone Secretariat and MBTOC, 13 of the (disaggregated) CUNs were withdrawn from this round of nominations. Several Parties reduced the tonnage requested in one or more of their nominations. One Party sought to add a new methyl bromide use to its CUN. These changes resulted from the requests for further information sent to particular Parties submitting CUNs.

### 1.2.3 *Limitations in the review of CUNs and supplementary information*

As first submitted, many CUNs contained insufficient information to allow MBTOC to make a full technical and economic evaluation of the nomination in the light of Decision IX/6. To make this evaluation MBTOC needed, as a minimum:

- to be able to determine what use the nomination was for, i.e. the actual, specific situation or problem that requires methyl bromide and for which alternatives are not available;
- target pest species for which it is considered that alternatives are not available;
- the quantity of methyl bromide requested, including the specific quantity of MB or MB/Pic mixtures used and what assumptions were made to determine the amount of MB for which application was made;

- the dosage/application rates and frequency of application of MB or specified MB-containing mixture;
- area of land or volume of commodities or structure to be treated;
- measures intended to limit the use and emissions of MB from the proposed critical uses;
- how much, as a proportion of the total crop/commodity/structure, was to be treated with methyl bromide;
- reasons why alternatives could not be used in the specific circumstances of the nomination;
- data and references that technically validate the comparative performance of at least the best alternative(s) compared to methyl bromide for the specific reason that the CUN was submitted;
- evidence that trials (R and D) in the relevant or equivalent region had been conducted to evaluate alternatives for the specified CUN use;
- for alternatives considered technically but not economically feasible: the fixed and variable cost, the change in product yield and market price, and other factors relevant to cost effectiveness analysis; and
- estimates of the price elasticity for the products produced with methyl bromide;

In a few cases Parties that were requested to disaggregate their first submissions did not provide even this basic information. MBTOC was unable to recommend such nominations, even where a provisional evaluation in the May 2003 TEAP report. This was without prejudice on resubmission of the nomination at another time.

A number of CUNs, including supplementary information, contained complete information, detailed explanations, supporting technical material and detailed research data, enabling MBTOC to make a full assessment and recommendation on the basis of the technical and scientific data provided. MBTOC would like to note with appreciation the Parties and applicants that provided such complete data, and would like to encourage other Parties to follow the same course in future nominations.

However, many CUNs did not contain sufficient data and information that would allow MBTOC to make a full technical and economic assessment of the nomination in the light of Decision IX/6. The common problem areas were:

- some nominations did not permit the identification of the specific circumstances or problems that gave rise to the nomination;
- many nominations did not provide technical data or studies to substantiate their statements that alternatives were **not** feasible in the specific circumstances;

- many nominations did not provide scientific data comparing the performance of MB and alternatives for the specific reason for the CUN, such as degree of control of key target pest(s) and yields from MB and leading alternatives;
- many did not provide evidence that trials (R and D) in the relevant region had been conducted to evaluate relevant alternatives for the specified critical use;
- many gave insufficient explanation and technical data to justify why effective alternatives currently used in very similar climates/soils/circumstances, including areas within which a CUN was sought, could not be adopted in the particular case of the CUN;
- a number of nominations did not review all relevant leading alternatives, in particular, combined treatments;
- a number provided no credible plan for development, registration and adoption of alternatives;
- some nominations did not make it clear whether they had already discounted amounts in the CUN to account for technical and regulatory issues;
- many nominations stated that MB was used only for a fraction of the crop area or commodity (e.g. 14%) but did not explain what alternatives were in place in remaining cropping areas and why these were not feasible in the area subject to the CUN.

Where possible, MBTOC used information available from its own expertise to try to enable an evaluation of an incomplete CUN to be made.

In some cases, for CUNs involving preplant use of MB, information contained in related CUNs by other Parties was sometimes used to assist evaluations of incomplete nominations.

Some of the problems given above were not resolved in supplementary information provided by some Parties. Several Parties provided very substantial revisions of their CUNs as supplementary information. Some Parties also volunteered additional information although they had not been specifically requested to do so.

MBTOC notes that some of the problems it encountered in making evaluations would be resolved in future through closer adherence to the suggested format of nomination set out in the Handbook on Critical Use Nominations. As this was the first year of the CUE process, MBTOC realizes that the Parties are still developing what is a new and complex system and that substantial improvements in the level and quality of data submitted should occur as the process becomes more familiar.

#### 1.2.4 *Consideration of alternatives*

In evaluating the CUNs for soil treatments, MBTOC assumed that a technically feasible alternative method to MB would need to provide sufficient pest and weed control and continued production of the crop for which MB was used. Furthermore, that the crop would be produced to existing market standards.

For commodity and structural applications, it was assumed that the objectives of the MB treatment, e.g. meeting infestation standards in finished product from a mill, would be met by any process considered a technically feasible alternative to MB.

Furthermore, MBTOC relied on the definition of alternatives to MB used in its 2002 Assessment. This reads, in part:

##### *Definition of an alternative*

- MBTOC defined 'alternatives' as those non-chemical or chemical treatments and/or procedures that are technically feasible for controlling pests, thus avoiding or replacing the use of MB. 'Existing alternatives' are those in present or past use in some regions. 'Potential alternatives' are those in the process of investigation or development.
- MBTOC assumed that an alternative demonstrated in one region of the world would be technically applicable in another unless there were obvious constraints to the contrary e.g., a very different climate or pest complex.

MBTOC has recently been expanded to include expertise in agricultural economics. However in the reevaluation of the CUNs in this round, MBTOC considered solely technical issues and did not make any economic judgements. Where adequate data was available, the CUNs have already been analysed for economic feasibility, as reported in the May 2003 TEAP Progress Report. Where a Party stated that one or more alternatives were not available because of economic considerations, this was accepted without comment. The meaning of economic feasibility in the sense of Decision IX/6 is still under consideration

#### 1.2.5 *Period of nominations, MBTOC's response*

Some nominations requested CUEs for more than one year. A number of nominations received in 2003 to commence in year 2005 were for 2 years or more, and some covered an indefinite period. The Handbook on Critical Use Nominations for Methyl Bromide (May 2002) indicates that Parties may apply for exemptions for more than one year. At its meeting in September 2003 MBTOC

endorsed the conclusion reached previously by MBTOC and TEAP that it could only recommend CUEs received in 2003 for one year (2005).

In view of the evolving situation regarding the future availability of alternatives, particularly relating to the registration and commercial introduction of chemically based alternative processes, MBTOC believes that it would not be appropriate to recommend exemptions for critical uses for a period longer than 1 year. MBTOC found that many nominations for CUE would not be necessary (i.e. feasible alternatives would be available) if some of the new chemical products currently in process are registered and available before 2005.

If the Parties were to consider approving nominations for more than one year, it may be appropriate to review such CUEs annually in the light of updated information from the nominating Party on the situation, *inter alia* regarding the availability of alternatives, and it might be expected that a declining quantity of MB would be nominated as MB alternatives are progressively adopted.

There are a number of technical and economic constraints on introduction of a particular alternative to an existing use of MB. These include:

- costs and time to obtain necessary regulatory approvals
- costs and time for setting up of infrastructure to support the alternative
- time for information transfer, training and local experimentation to optimise the alternative
- costs of transition, such as purchase of new or different application equipment
- marketing plans of the suppliers of materials for the alternatives.

MBTOC notes that prolonged authorisations of MB would discourage further development and introduction of these alternatives in cases where alternatives have not yet achieved high penetration into the market or sufficient commercial availability.

Timely implementation of technically and economically feasible alternatives in non-Article 5(1) countries could result in additional technologies being available to accelerate the phaseout in Article 5(1) countries. On the other hand lack of early research for specific MB uses has delayed registration and implementation of alternatives, and slowed MB phase-out in some non-Article 5(1) Parties. Continued use of MB in developed countries would result in pressures to retain MB in Article 5(1) countries.

Some CUNs are for uses which some enterprises in Article 5(1) and some non-Article 5(1) countries have already phased out. Unless the CUNs are fully justified on a technical basis, it could jeopardise MB phase-out efforts in both Article 5(1) and non-Article 5(1) Parties. Furthermore it may diminish the opportunities for non-Article 5(1) countries to learn from the technical developments achieved in Article 5(1) countries.

Experience in Multilateral Fund projects has shown that very large numbers of MB users can be trained per year, at least in Article 5(1) countries, and that the installation and adoption of alternatives (even not-in-kind alternatives) can occur rapidly when well-organized training and technology transfer programs are implemented. In the first year of a project in Argentina, for example, about 3000 farmers were trained in the effective use of MB alternatives, alternative systems were installed on these farms, and as a result the MB consumption in this sector was reduced substantially.

#### *1.2.6 CUNs requested for registration contingencies*

In a number of cases, Parties submitted CUNs on a 'contingency' basis in case of possible non-availability of alternative treatments in 2005 and/or 2006. These fall into the following categories:

- A specific chemical alternative is, at the time of the nomination, in the process of being registered, but it is not possible to know if it will be registered by 2005, and/or still requires testing under specific conditions, and/or there is no guarantee that it will be commercially available by 2005;
- the alternative is in use at the time of the nomination but its status/registration may be subject to review or there may be other potential future regulatory constraints that, if adopted, might possibly reduce the availability of that specific alternative.

MBTOC supports nominations in the former category (a) if no other alternatives were available, but not the latter (b) if it were the sole grounds of the nomination. It is normal for pesticides in general, including MB, to be subject to reregistration reviews from time to time.

#### *1.2.7 Suggested adjustments to nominated quantities.*

Decision IX/6 states in part that 'critical uses should be permitted only if: all technically and economically feasible steps have been taken to minimise the critical use and any associated emission of methyl bromide'. In its evaluations therefore, MBTOC assessed CUNs where possible for appropriate MB application rates,

deployment of MB reduction technologies, such as use of barriers films such as VIF to retain MB gas and achieve comparable effectiveness at reduced dosages.

In the soils sector, some CUNs involve the use of MB apparently with polyethylene sheeting (tarping). This process is known to lead to high rates of emission of MB in the absence of other measures such as deep injection. MB use and emission rates can be reduced substantially through use of less pervious tarping, such as VIF or equivalent sheets, allowing increased retention of MB, extended effective exposure periods, and reduced MB application rates compared with use of conventional sheeting.

In cases where information was clear, MBTOC has not recommended the quantity of MB sought by the CUN, but instead suggested a reduced allocation based on a reduced application rate of MB in conjunction with chloropicrin, where such mixtures are registered for use on soils. Reductions were not made if the Party provided a substantive argument otherwise. MBTOC considers the maximum application rate of 30 g/m<sup>2</sup> as effective in most circumstances. In cases where the 'hot gas' method of application of MB or MB/Pic (98:2) is the only feasible option (small scale use and some protected cropping environments where access is not possible for injection machinery) a maximum application rate of 60 g/m<sup>2</sup> was used to recalculate the quantities required.

#### *1.2.8 Multiplier factors*

One Party added a small factor (x 1.0244) to its calculated requirements to several of its CUNs to "to compensate for the compounding influence of using the low end of the range for all input parameters in the calculation". MBTOC used the figures as provided by the nominating Party, including the multiplier factor, in its analyses.

#### *1.2.9 New or recently increased uses of MB*

There was little consistency between CUNs with regard to treatment of projected increases in crop area potentially requiring MB and for which a CUE was sought. One Party specifically excluded any new areas from its calculations while others increased their request to allow new production areas. Again, MBTOC used the figures as provided by the nominating Party in its analyses.

#### *1.2.10 Plans to develop, register and deploy alternatives*

To qualify for a CUE, Decision XI/6 in part states that Parties must demonstrate that "...an appropriate effort is being made to evaluate, commercialise and secure national regulatory approval of alternatives and substitutes, taking into consideration the circumstances of the particular nomination...." and "...must demonstrate that

research programmes are in place to develop and deploy alternatives and substitutes ...”

MBTOC’s review of the nominations showed that some research had commenced only in the past 2-3 years even though MB has been a controlled substance since 1992. In addition there were very few plans presented that indicated a path for the phase out of MB and the introduction of alternatives, a requirement for a critical use in Decision IX/6 para.1 (b, iii). Many nominations did, however, document the lengthy time period required for registration of new chemicals and the uncertainty that certain chemicals may not ultimately be registered despite evidence of efficacy. Several CUNs contained information that showed the transition away from MB had not started sufficiently early to achieve orderly change to the alternative(s) to meet the 2005 phaseout schedule under the Protocol.

In many nominations, present plans to identify alternatives were often not adequate and future plans to phase out MB were not stated. In view of the variation in standard of the nominations in this round MBTOC was unable to use this criterion to not recommend a nomination and this clause was not taken into account when MBTOC evaluated CUNs.

#### *1.2.11 Registration and regulatory restrictions*

MBTOC recognised that registration and local regulations can be constraints on the availability of particular chemical alternatives to the end user, in the sense of Decision IX/6, and are thus grounds for recommending a CUE if no other suitable alternatives are available.

Typically, in the case of chemicals, alternatives (and MB) must be registered (i.e. approved for use as pesticides) in the relevant country, often for a particular use. Registration status of chemical alternatives varies from country to country, although some alternatives are widely registered. The differing registration status of two specific key chemical alternatives, 1,3-dichloropropene (1,3-D) and chloropicrin (Pic), accounts for some of the variation in MBTOC’s evaluations in similar uses of MB between Parties.

In certain countries or states, regulatory restrictions such as buffer zones or township caps apply to some chemical fumigants. In cases where buffer zones are the same size for both MB and alternatives, the buffer zones are not relevant to the consideration of CUEs. However, in a few cases where buffer zones are larger for an alternative fumigant than for MB, MBTOC considers this to be a justified and necessary reason for allowing use of MB, provided that no other effective alternatives can be used in this situation. The same reasoning applies to township caps.

### 1.3 Outcome of review of CUNs

MBTOC evaluated the CUNs submitted in 2003 based on the original application and, in some cases, with further correspondence and supplementary information submitted after the application deadlines as authorized initially by the OEWG.

MBTOC evaluations of soil (preplant) CUNs and postharvest (commodities, structures and objects) are given in Annexes I and II respectively.

MBTOC classified nominations into four categories based on criteria of technical and economic feasibility as instructed by Parties and elaborated in the CUE handbook:

- 'recommended' - information contained in the nomination or available to MBTOC (and consistent with the MBTOC Assessment reports) documents that the nominated use satisfies the criteria of 'critical' within the context of Decision IX/6.
- 'noted' - information contained in the nomination or available to MBTOC that, in general, indicated that alternatives have been identified for the nominated use, but the nominating Party stated there were constraints that precluded their use and/or provided that specific reasons why methyl bromide was critical for the particular use. This category includes methyl bromide uses with acknowledged alternatives that were considered by the nominating Party to be not economically feasible.
- 'unable to recommend' - MBTOC determined that there are technically and economically feasible alternatives available to the user for the nominated use.
- 'unable to evaluate' - information contained in the nomination or available to MBTOC was insufficient to evaluate the nomination according to the criteria of Decision IX/6.

The category of 'noted' was specifically created by MBTOC for the guidance of the Parties in situations where MBTOC was unable to verify statements in particular CUNs that the alternatives known to MBTOC were not applicable in the particular circumstances of the nomination. This is discussed further below (Section 2)

As a result of the MBTOC review, the evaluation of a substantial number of the CUNs reported in the May 2003 TEAP Progress Report was changed from 'recommended' to 'noted'. The original 'recommended' evaluations sometimes included various qualifications. Changes were made not only to CUNs for which supplementary information was sought or volunteered, but also for some for which

no further information was requested. These changes were made to improve consistency between evaluations.

On a few occasions MBTOC has suggested quantities of MB for 2005 different from that nominated. Grounds used for these changes are given in Section 1.2.7 and in detail after the relevant CUNs in Annexes I and II.

## **2 Issues arising in the review of CUNs**

The review of CUNs was a cumbersome process this year for three reasons. Firstly, many CUNs when first submitted did not contain sufficient technical data for MBTOC to be able to evaluate the nomination in the context of Decision IX/6, particularly that relating to why the use was critical. MBTOC anticipates that this process will become smoother as the collective experience in this area grows. Secondly, the sheer volume and lack of uniform format of CUNs left the MBTOC somewhat understaffed to take on the sizable administrative task at hand. Furthermore, the MBTOC was not sufficiently equipped in terms of people and time to gather sufficient data to fill in the gaps in CUNs submitted by the Parties. For some essential use nominations, TOC members have been able to hold detailed discussions with nominating Parties, sometimes including site visits, to clarify why the use was essential. Lastly, the guidance from the Parties to the MBTOC on what constitutes a critical use is somewhat broad, most notably language in Decision IX/6 that alternatives are suitable to the “*circumstances of the nomination*”. This language suggests that the rebuttable presumption or standard is that an alternative is considered not feasible if the MBTOC could establish otherwise.

On analysing the results of scientific comparative studies, it became clear that Parties had not provided sufficient information in many CUNs to allow MBTOC to judge the specific circumstances of the nomination in the light of Decision IX/6. This led to substantial discussion within MBTOC. To allow evaluations to proceed, MBTOC cochairs noted that MBTOC was generally obliged to accept at face value the statements made in a CUN in the absence of specific scientific data to the contrary - in other words in this first year for the purposes of the MBTOC evaluation that the rebuttable presumption lay with the nominating country. Some MBTOC members expressed strong concern at this approach because they felt that MBTOC would not be able to base its recommendations on a transparent technical assessment, and some contended that it would be in effect recommending the nominations put forward by Parties without adequate background, thus reflecting badly on MBTOC's credibility. These members expressed strong concern that the term ‘recommendation’ was not appropriate to describe MBTOC's evaluations where MBTOC was unable to make a proper technical assessment due to lack of sufficient technical data/details in the CUNs. Some members of MBTOC contended that in the absence of specific technical data it would be impossible for

MBTOC to recommend a nomination on a technical basis, and that gathering data to confirm or deny the necessary data was the responsibility of MBTOC. The MBTOC remained split in terms of how to approach this issue. However, in recognition that this is the first year, MBTOC cochairs took an approach that deferred to the information as presented in the nominations and the Party's technical expertise in their crops or circumstances.

The outcome was that MBTOC accepted the information presented in the CUNs where it was unable to confirm or reject this on other grounds, but used the 'noted' category of evaluation to indicate this lack of data available to MBTOC relating to the specific nature of the CUN.

## ANNEX I: Evaluation of Critical Use Nominations - Soils

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Australia	CUN2003/001	Cut Flowers - field	40t w/o VIF or 25t with VIF	6	25	MBTOC notes that 25 tonnes have been nominated for this use. The Party states that they are unable to adopt mixtures lower than 98:2. MB/Pic but have recently commenced trials. MBTOC considers that several alternatives are technically suitable (e.g. Pic alone, 1,3-D/Pic and metham sodium and Pic used in combination, substrates). From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
Australia	CUN2003/002	Cut flowers - protected	20t w/o VIF or 15t with VIF	6	15	MBTOC notes that 15 tonnes of MB have been nominated for this use. MBTOC considers that several alternatives are technically suitable (e.g. steam, substrates, 1,3-D/Pic and Pic alone). Party, however, states that steam is uneconomical in this specific situation. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
Australia	CUN2003/003	Cut flowers, bulbs - protected		7 2	7	MBTOC recommends that a CUE of 7 tonnes be approved on the basis of the statement that no alternatives exist for cropping on steeply sloping ground, (i.e.>10°). Owing to the need for short plant back times, no chemical fumigant alternatives are presently considered suitable under the specific circumstances of the nomination. The applicant appears to have accounted for emission reduction strategies when calculating the amount and has restricted the maximum amount of MB used to 60g/m <sup>2</sup> when hot gas formulations of MB (98:2) are used with VIF films.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Australia	CUN2003/005	Strawberry fruit - field	90t (revised to 62.5t) then 59t (revised 42t) (2006) and 58t (revised 42t) (2007)	3	62.5 '(f)	MBTOC notes that 62.5 tonnes of MB have been nominated for this use. An alternative, 1,3-D/Pic, has been available since Sept 2001 in Australia, but time is requested to allow for commercial scale up throughout States that received the product in the latter part of 2002. The CUN states that 1,3-D/Pic is phytotoxic, but MBTOC is not aware of phytotoxicity causing restrictions on the use of this product. MBTOC considers that several alternatives are technically suitable (Pic alone, 1,3-D/Pic, and metham sodium and Pic used in combination). From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Australia	CUN2003/006	Strawberry runners	35.75	3	35.75	MBTOC recommends that 35.75 tonnes be approved. The CUN states that MB is required to meet certification standards and that a key alternative 1,3-D/Pic is reported to have been phytotoxic. The CUN did not provide comparative data to show whether or not available alternatives provide the same disease tolerance threshold as MB. The CUN notes plug plants grown in hydroponics a possible alternative, but time and cost was preventing the adoption of this technology. The industry already uses a low rate, 25g/m <sup>2</sup> of MB, but is still encouraged to try to further reduce amounts by adopting VIF films and better glues which allow a reduction in emissions.
Belgium	CUN2003/007		100	(a)	(c)	This nomination was disaggregated by the Party and resubmitted after the 23OEWG to the Ozone Secretariat and MBTOC for evaluation.
Belgium	CUN2003/007a,b	Lettuce and endive - open field	42.25	(a)	2.19 (endive) + 23.0 (lettuce)	MBTOC notes that 2.19 tonnes of MB for endive and 23.0 tonnes for lettuce have been nominated for this use. The Party indicated that alternatives were already used where possible. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Belgium	CUN2003/007c	Tomatoes - protected	17.17	(a)	5.7	MBTOC notes that 5.7 tonnes of MB have been nominated for this use. The Party indicated that alternatives were already used where possible and that MB was only used in areas where pests were detected as causing a problem. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU post 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007d	Pepper, eggplant - protected	5.27	(a)	3.0	MBTOC notes that 3.0 tonnes of MB have been nominated for this use. The Party indicated that alternatives were already used where possible. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007e	Cucurbits	0.61	(a)	0.61	MBTOC notes that 0.61 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU post 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds.
Belgium	CUN2003/007f	Beans	0.23	(a)	(d)	The Party has withdrawn this CUN
Belgium	CUN2003/007g	Radish	0.14	(a)	(d)	The Party has withdrawn this CUN
Belgium	CUN2003/007h	Asparagus	0.63	(a)	0.63	MBTOC notes that 0.63 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU post 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Belgium	CUN2003/007i	Strawberry fruit	3.4	(a)	3.4	MBTOC notes that 3.4 tonnes of MB have been nominated for this use. MBTOC considers that several alternatives are technically suitable (e.g. Pic alone, 1,3-D/Pic, and metham sodium and Pic used in combination) and notes the use of steam and substrates in strawberry production in Belgium. However, lack of registration prevents use of several alternatives in Belgium. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds.
Belgium	CUN2003/007j	Orchard - pome fruit & berries - replant	1.35	(a)	1.35	MBTOC recommends a CUE of 1.35 tonnes for this use, partly on the basis of CUNs in other countries. The application is a contingent application based on the justification that all uses that can be accomplished with other methods have already switched and that the remaining use is critical. After clarification that the request is only for replant (no request for nursery production is included in this nomination), MBTOC no longer believes that steam and substrates are technical alternatives. MBTOC recognizes that perennial crop replant disease is a problem for which alternatives to MB are generally not adequately proven. The main constraint to the adoption of alternatives is the inability to identify definitively what is causing replant disease.
Belgium	CUN2003/007k	Chicory (Brussels witloof)	0.6	(a)	0.18	MBTOC notes that 0.18 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds.
Belgium	CUN2003/007l	Leek, onions (seedlings)	1.22	(a)	0.66	MBTOC notes that 0.66 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 230EWG.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Belgium	CUN2003/007m	Celery	0.56	(a)	(d)	The Party has withdrawn this nomination.
Belgium	CUN2003/007n	Cut flowers excl. roses and chrysanthemum	6.11	(a)	2.66	MBTOC notes that 2.66 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007o	Cut flowers-roses	1.64	(a)	1.64	MBTOC notes that 1.64 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007p	Cut flowers-chrysanthemum	1.8	(a)	1.12	MBTOC notes that 1.12 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years		
Belgium	CUN2003/007q	Ornamental plants	5.66	(a)	3.07	MBTOC notes that 3.07 tonnes of MB have been nominated for this use. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007r	Nursery	not predictable	(a)	0.9	MBTOC recommends 0.9 tonnes of MB for this use on the basis of similar evaluation of similar nominations from other Parties. MBTOC recognizes that propagation of healthy plant material is an important area where many methyl bromide alternatives may be inadequate, that some potential alternatives may not be registered and that cool soil temperatures impact efficacy of some fumigant alternatives. MBTOC notes that the Party will fully regulate the use of MB for CU in 2005 by implementation of a QA system based on predictive tests for pests and inoculum thresholds. MBTOC acknowledges the specification of the amount requested by the Party subsequent to the 23OEWG.
Belgium	CUN2003/007s	Tree nursery	0.23	(a)	0.23	MBTOC recommends that 0.23 tonnes be approved, on the basis of evaluation of similar nominations from other Parties. Although little information is given in the nomination to justify critical need for MB, MBTOC recognizes that propagation of healthy plant material is an important area where many methyl bromide alternatives may be inadequate. MBTOC recognizes that some alternatives may not be registered and that cool soil temperatures impact efficacy of some fumigant alternatives.
Belgium	CUN2003/007t	All crops (yellow nutsedge)	not predictable	(a)	0	MBTOC was unable to recommend this nomination. It is a contingent nomination based on the need to retain MB to control nutsedge in non cropped soils. In the absence of further substantive data from the Party relating to why MB use is critical under the particular circumstances of the nomination, MBTOC considers that suitable alternatives exist for this use.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Canada	CUN2003/009	Strawberry runners	7.952	2	7.952	MBTOC recommends a CUE for 7.952 tonnes of MB be approved, based partly on evaluation of similar CUNs from other Parties. MBTOC recommends that for open field use of MB in 2005, that a maximum of 30g /m2 of MB be used unless it can be demonstrated a higher rate is needed.
France	CUN2003/010	Carrots - protected and field	10	4	8	MBTOC notes that 8 tonnes of MB have been nominated for this use. Carrots are not typically produced with the aid of methyl bromide. Information provided subsequent to 23OEWG shows some trials with alternatives have been carried out. The alternatives tested did not control a particular, important pest satisfactorily. From the information provided, MBTOC could not determine why some other alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
France	CUN2003/013	Cucurbits - protected and field	85	4	(e)	MBTOC was unable to complete its evaluation of this nomination on the basis of available information at the time of the September MBTOC meeting. Supplementary information has been now been received but not assessed. MBTOC notes that there are alternatives in general for the production of cucurbits but that registration issues may prevent the use of some of these in this particular circumstance.
France	CUN2003/014	Forest nurseries	10	4	10	MBTOC notes that 10 tonnes of MB have been nominated for these uses. Further information was provided after 23OEWG. The CUN covers production of ornamental trees and also certain inoculated forest seedlings and seedlings for truffle production. Proven alternatives for the latter two minor uses are not known to MBTOC. The nomination states that the main alternative process for woody ornamentals, containerisation, is uneconomic in the particular circumstances.
France	CUN2003/015	Orchard and raspberry nurseries	5	4	5	MBTOC recommends a CUE for 5 tonnes of MB be approved, based partly on evaluation of similar CUNs from other Parties. MBTOC's 2002 Assessment has identified the level of disinfestation required for nursery certification as a problem for which alternatives to methyl bromide are generally inadequate.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
France	CUN2003/016	Cut flowers, bulbs - protected and open field	75	4	60	MBTOC recommends that a reduced CUE of 60 tonnes of MB be approved, with the reduction on the basis of progressive adoption of identified alternatives (substrates, steam). MBTOC recognises that several technically feasible alternatives, particularly chloropicrin and chloropicrin mixtures, are not registered in France. Significant attempts, however, to reduce MB usage since 1995 have been made. Conversion to production of crops in substrates was identified as a technically feasible alternative, but MBTOC accepts that time is required to convert some crops.
France	CUN2003/017	Orchard and raspberry - replant	25	4	25	MBTOC recommends that a CUE of 25 tonnes be approved for this use. MBTOC recognizes that perennial crop replant disease is a problem for which alternatives to MB are generally not adequately proven. MBTOC also acknowledges that the request is a substantial (55%) reduction from the amount used in 2000. Orchard is strip treated at a reduced rate and VIF is applied. The main constraint to the adoption of alternatives is the inability to identify definitively what is causing replant disease.
France	CUN2003/018	Eggplant, pepper, tomato	150 (all solanaceous crops)	4	150	MBTOC notes that 150 tonnes of MB have been nominated for these uses. MBTOC recognises that the applicant has identified technically feasible alternatives, but that these are not registered, and that other alternatives such as grafting may be applicable in at least some situations. Products containing chloropicrin are not currently registered in France, limiting the practical availability of alternatives. MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but notes statements in the nomination that alternatives were not appropriate.
France	CUN2003/019	Strawberry - runners	40	4	40	MBTOC recommends that 40 tonnes be approved for this use, based partly on evaluation of similar CUNs from other Parties. The CUN states that MB seems necessary to meet certification standards for hygiene for runners. MBTOC acknowledges that France has a reduced range of alternatives available in practice, because products containing chloropicrin are not registered. The nomination did not provide comparative data that other alternatives do or do not provide the same disease tolerance threshold as MB.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
France	CUN2003/020	Strawberry fruit - protected and open field	90	4	90	MBTOC notes that 90 tonnes of MB have been nominated for this use. MBTOC considers that several alternatives are technically suitable (e.g. Pic alone, 1,3-D/Pic, and metham and Pic used in combination), however the lack of registration of Pic in France means that there is a reduced range of alternatives available compared to some other developed countries. France have accepted that 1,3-D/Pic is a feasible alternative, but it is not currently registered. 1,3-D used in combination with metham sodium have proven as effective as MB in some other countries. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
Greece	CUN2003/021		300-350t (all crops)	1	(c)	This nomination was disaggregated by the Party and CUNs for certain crops were resubmitted after the 23OEWG to the Ozone Secretariat and MBTOC .
Greece	CUN2003/021	Beans - protected		1	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Greece	CUN2003/021	Cucurbits - protected		1	30	MBTOC notes that 30 tonnes of MB have been nominated for these uses. MBTOC considered that a number of alternatives are available to MB (e.g. metham sodium, substrates, grafted plants) to the MB uses nominated. From the information provided, however, MBTOC could not determine why these and other alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
Greece	CUN2003/021	Eggplant - protected		1	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Greece	CUN2003/021	Peppers - protected		1	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Greece	CUN2003/021	Strawberry - protected		1	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Greece	CUN2003/021	Tomato - protected		1	180	MBTOC notes that 180 tonnes of MB have been nominated for these uses. While generally there are feasible alternatives for protected tomato culture including substrate production and grafting, The Party has stated that they are unsuitable for local conditions or have not been implemented fully, commercially. The nomination notes that there is a breakdown of resistance to rootknot nematodes under prevailing high temperatures. 1,3-D is effective in some situations. Chloropicrin is still under local evaluation and mixtures with 1,3-D are not registered. MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
Israel	CUN2003/022				(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Israel	CUN2003/022a	Cut flowers - protected	175	4	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Israel	CUN2003/022b	Melon - protected & field	315	4	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Israel	CUN2003/022c	Potato	385		(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Israel	CUN2003/022d	Propagation material	85	10	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.
Israel	CUN2003/022e	Strawberries - runners & fruit, protected and open field	140	3	(d)	The Party has not proceeded with this CUN in the 2003 round of nominations.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Italy	CUN2003/023	Eggplant - protected	280	4	250 '(f)	MBTOC notes that 250 tonnes of MB have been nominated for this use. MBTOC notes that recent registrations of new EC formulations of 1,3-D alone and Pic used alone are proving as effective as MB, but time is required for commercial scale up. MBTOC acknowledges that some suitable alternatives, particularly mixtures of alternatives (1,3-D/Pic), which are registered in many countries, are presently unavailable. MBTOC also acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Italy	CUN2003/024	Melon - protected	180	4	150 '(f)	MBTOC notes that 150 tonnes of MB have been nominated for this use. MBTOC notes that recent registrations of new EC formulations of 1,3-D alone and Pic used alone are proving as effective as MB, but time is required for commercial scale up. MBTOC acknowledges that some suitable alternatives, particularly mixtures of alternatives (1,3-D/Pic), which are registered in many countries, are presently unavailable. MBTOC also considers that steam and where possible substrates are technical alternatives, but the Party considers steam too expensive and substrates limited because of problems with water availability. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Italy	CUN2003/025	Cut flowers, bulbs - protected	250	1	250	MBTOC recommends that a CUE of 250 tonnes of MB be approved. The Party requests a CUE on the basis that diseases and weeds are not adequately controlled by alternatives. CUE is recommended on the basis that suitable alternatives, particularly mixtures of alternatives, which are registered in several developed countries, are presently either unavailable or time is required to overcome local constraints in their use.
Italy	CUN2003/026	Pepper - protected	220	1	160 '(f)	MBTOC notes that 160 tonnes of MB have been nominated for this use. MBTOC acknowledges that some suitable alternatives, particularly mixtures of alternatives (e.g. 1,3-D/Pic), which are registered in several developed countries, are presently unavailable. MBTOC notes that recent registrations of new EC formulations of 1,3-D alone and Pic used alone are proving as effective as MB, but time is required for commercial scale up. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Italy	CUN2003/027	Strawberry-runners	100	1	100	MBTOC recommends that a CUE of 100 tonnes of MB be approved. The Party requests a CUE on the basis that diseases and weeds are not adequately controlled by alternatives. CUE is recommended on the basis that pest free nursery material is required to support the Italian strawberry fruit and other export industries and suitable alternatives are not available.
Italy	CUN2003/027	Strawberry - fruit	510	1	440 '(f)	MBTOC notes that 440 tonnes of MB have been nominated for this use. MBTOC notes that recent registrations of new EC formulations of 1,3-D alone and Pic used alone are proving as effective as MB, but time is required for commercial scale up. MBTOC acknowledges that suitable alternatives, particularly mixtures of alternatives (e.g. 1,3-D/Pic), which are registered in several developed countries, are presently unavailable. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Italy	CUN2003/028	Tomato - protected	1300	1	900 '(f)	MBTOC notes that 900 tonnes of MB have been nominated for this use. MBTOC notes that recent registrations of new EC formulations of 1,3-D alone and Pic used alone are proving as effective as MB, but time is required for commercial scale up. MBTOC acknowledges that some suitable alternatives, particularly mixtures of alternatives (1,3-D/Pic), which are registered in most countries, are presently unavailable and the change to substrate culture in the region is restricted by water availability. MBTOC acknowledges the reduction in the amount requested by the Party subsequent to the 23OEWG.
Japan	CUN2003/029a	Melon	94.5	3	94.5	MBTOC recommends a CUE of 94.5 tonnes be approved for control of viruses as specified in the nomination, after consideration of further information provided by the Party.
Japan	CUN2003/029b	Watermelon	71.4	3	71.4	MBTOC recommends a CUE of 71.4 tonnes be approved for control of viruses as specified in the nomination, after consideration of further information provided by the Party.
Japan	CUN2003/029c	Peppers	74.1	3	74.1	MBTOC recommends a CUE of 74.1 tonnes be approved for control of viruses as specified in the nomination, after consideration of further information provided by the Party.
Japan	CUN2003/029d	Cucumber	39.4	3	39.4	MBTOC recommends a CUE of 39.4 tonnes be approved for control of viruses as specified in the nomination, after consideration of further information provided by the Party.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Portugal	CUN2003/031				(c)	This nomination was disaggregated by MBTOC to allow technical analysis
Portugal	CUN2003/031a	Strawberry - protected and open field	30	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use.
Portugal	CUN2003/031b	Cut flowers - protected and open field	130	4	50	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination and that provided subsequent to the OEWG. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use. However, it was not clear what circumstances prevent these alternatives from being adopted. Parties may wish to allow a reduced CUE of 50 tonnes MB for this use on the basis of use of reduced dosages of MB in conjunction with VIF films and on the basis of similar CUNs for other Parties.
Portugal	CUN2003/031c	Tomato-protected and open field	20	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use.
Portugal	CUN2003/031d	Peppers - protected and open field	5	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use.
Portugal	CUN2003/031e	Watermelon - protected and open field	4	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use.
Portugal	CUN2003/031f	Melon - protected	5	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years		
Portugal	CUN2003/031g	Green bean - protected and open field	3	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of information supplied in the initial nomination. MBTOC notes that, in general, there are alternatives for this crop, but that specific circumstances may prevent their availability or effective use. The basis for the CUE is not clear - the CUN is for the control of aerial diseases (Alternaria, Cladosporium, Botrytis) that are not normally controlled with MB or other soil fumigants.
Portugal	CUN2003/031h	Cucumber - open field	3	4	(e)	MBTOC was unable to complete its evaluation of this CUN on the basis of available information. The stated basis for the CUN, control of foliar diseases, are not normally a target for MB and can be controlled by other means. Feasibility of alternatives has not been validated, although the CUN states that two (unidentified) alternatives may be available.
Spain	CUN2003/032i	Strawberry runners	230	2+	230	MBTOC recommends that 230 tonnes of MB be approved. The CUN states that MB is required to meet EU certification standards and local regulations, but does not provide data that other alternatives do not provide adequate disease control to meet the standard. The CUN indicates that the most promising alternative for open field production of nursery plants, a 1,3-D/Pic mixture, has been quite successfully used in combination with VIF films. The CUN states however that VIF films are difficult to use on a broad acre basis, but recent technology in Italy has overcome this problem. MBTOC acknowledges the reductions made by use of mixtures of 50:50 (MB/Pic) and the use of low rates of MB.
Spain	CUN2003/033	Cut flowers (Cadiz & Seville) - protected	53	(b)	53	MBTOC notes that 53 tonnes of MB have been nominated for these uses. The CUN provided data and references which show that a number of alternatives which MBTOC considers are technically suitable have failed to give consistent results. MBTOC acknowledges the substantial reduction of MB use from historical levels and also reduction of emissions by adoption of MB/Pic mixtures (67:33), low rates (10g/m <sup>2</sup> MB) and VIF films.
Spain	CUN2003/034	Cut flowers (Catalonia) - carnation, protected and open field	20	(b)	20	MBTOC notes that 20 tonnes of MB have been nominated for these uses. The CUN provided data and references which show that a number of alternatives which MBTOC considers are technically suitable have failed to give consistent results. MBTOC acknowledges the substantial reduction of MB use from historical levels and also reduction of emissions by adoption of MB/Pic mixtures (67:33), low rates (10g/m <sup>2</sup> MB) and VIF films.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
Spain	CUN2003/035	Strawberry fruit - open field	556	1?	556	MBTOC notes that 556 tonnes of MB have been nominated for these uses. MBTOC considers that several alternatives are technically suitable (Pic alone, 1,3-D/Pic, and metham sodium and Pic used in combination). From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate. MBTOC acknowledges the substantial reduction of MB use from historical levels and also reduction of emissions by adoption of MB/Pic mixtures (67:33), low rates (10g/m2 MB) and VIF films.
Spain	CUN2003/036	Peppers - protected	300 t (98:2) or 200 t (67:33)	1?	200	MBTOC recommends a CUE of 200 tonnes be approved for this use, contingent on the non-availability of alternatives, notably 1,3-D/Pic. After consideration of further substantive information by the Party, MBTOC acknowledges that the industry has recently made major reductions in the use and emissions of MB by adoption of MB/Pic mixtures (50:50), VIF films and low rates (10.6 g/m2 MB).
UK	CUN2003/039	Ornamental tree nurseries	12	1	6	MBTOC recommends that a reduced CUE allocation of 6 tonnes be approved, with the reduction on the basis of use of VIF with lowered rates of MB, possibly in conjunction with chloropicrin. MBTOC has determined that the propagation of healthy plant propagation material is an important area where methyl bromide alternatives may not be fully effective and thus supports this CUN. The industry presently uses MB/Pic (formulation not stated) at rates of 75-100 g/m2. Significant attempts have been made to reduce emissions by adoption of VIF tarps and deep injection. The higher than normal rates may be necessary because of the depth of soil treatment involved. Containerised plant systems would appear to be technically feasible alternatives for this CUN. As submitted, the CUN partially substantiates that most of the possible alternatives reported by MBTOC are technically inappropriate, but does not discuss substrates and steaming.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
UK	CUN2003/040	Strawberries & raspberries - fruit	80	2	68	MBTOC recommends that a reduced allocation of 68 tonnes be approved for this CUE, on the basis of reduced dosage rates being used. It is recognised that alternatives are less available for raspberry growing than for strawberry fruit. The CUN states that dazomet, metham sodium, and 1,3-D can give good control, but approval would need to be sought for use in combinations as presently mixtures are not registered in the UK. Applicant states that substrates have been tried commercially but they are considered uneconomic. The CUN relies heavily on overseas studies for its conclusions. Significant attempts have been made to reduce emissions by adoption of VIF tarps, treatment of beds rather than broadacre treatments and deep injection.
USA	CUN2003/049	Cucurbits - field	1187.8	3	1,187.77	MBTOC recommends that a CUE for 1,187.773 tonnes be approved for this use, based on the technical grounds that no alternatives are available for moderate to severe pest pressure (Phytophthora or nutsedge) in certain areas and that certain soils and regulatory issues prevent the use of possible alternatives. MBTOC notes that this nomination could be dramatically reduced if an effective strategy or herbicide was available to control moderate to heavy nutsedge infestations.
USA	CUN2003/050	Eggplant - field	73.6	1	73.56	MBTOC recommends that a CUE of 73.56 tonnes be approved, based on the technical grounds that no alternatives were available for moderate to severe pest pressure (nutsedge) in certain areas and that certain topographies and regulatory issues prevent the use of possible alternatives. MBTOC notes that this nomination could be dramatically reduced if an effective strategy or herbicide was available to control moderate to heavy nutsedge infestations.
USA	CUN2003/052	Forest nursery seedlings	192.515	1	192.512	MBTOC notes that 195.512 tonnes of MB have been nominated for this use. This was on the basis that use of the main alternative, containerisation, was not economically feasible in the context of the nomination.
USA	CUN2003/053	Ginger production - field	9.2	1	9.2	MBTOC recommends a CUE of 9.2 tonnes MB be approved for this use. This crop is grown under unusual terrain and can be considered a minor crop where research is lagging. Time is needed to technically evaluate application methods for alternative fumigants and other alternatives. CUE is recommended on the basis that the industry uses systems to minimise emissions and does not exceed 30g/m <sup>2</sup> of MB (present use 42g/m <sup>2</sup> ) unless this is shown to be insufficient.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
USA	CUN2003/055	Fruit tree nurseries	45.789	1	45.8	MBTOC recommends a CUE for 45.8 tonnes of MB be approved, based partly on evaluation of similar CUNs from other Parties. The CUN notes that use of a particular alternative is restricted in certain regions because of local regulations and technical efficacy on fine textured soils. The CUN and supplementary information contained no references to demonstrate lack of efficacy of alternatives compared to methyl bromide. The nomination also states that MB is required to treat substrates in the citrus industry, but it is unclear why steaming and soilless substrates (containerisation) have not been considered a technical option for seedling production and tree production outdoors. MBTOC has recommended that MB for a CUE be applied with VIF films or other emission reduction technology, combined with minimised rates of MB. MBTOC recognizes that propagation of healthy plant material is an area where many methyl bromide alternatives may be inadequately proven.
USA	CUN2003/056	Orchard replant	706.176	1	706.2	MBTOC recommends a CUE of 706.2 tonnes be approved for this use. MBTOC notes that the industry is aware of the technically available alternatives and is making an effort to adopt these alternatives. Three alternatives, 1,3-D alone and 1,3-D combined with chloropicrin or metham sodium, were considered to be technical alternatives in the CUN for treatment in light soils. However, this CUN is restricted to finer textured soils, for which alternatives are not available. MBTOC recognizes that perennial crop replant disease is a problem for which alternatives to MB are generally not adequately proven. The main constraint to the adoption of alternatives is the inability to identify definitively what is causing replant disease.
USA	CUN2003/057	Chrysanthemum cuttings - rose plants (nursery)	29.412	2	22.9 (roses) + 6.5(chrysanthemums)	MBTOC notes that 22.9 tonnes of MB have been nominated for CUE for rose nurseries and 6.5 tonnes for chrysanthemum propagation. The CUN recognises that there are alternatives for production of chrysanthemum cuttings, but states it is not economically feasible to change over to the chosen alternative (steam) prior to 2005. Some time is required to implement alternatives. For rose nurseries there are several alternatives in use commercially in other countries, notably substrate production. The Party has identified some economically and technically suitable chemical alternatives, but these are subject to local regulatory constraints. From the information provided on the latter sector, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
USA	CUN2003/058	Peppers - field	1085.3	1	1085.3	MBTOC recommends that a CUE for 1085.3 tonnes be approved for this use, based on the technical grounds that no alternatives were available for moderate to severe pest pressure for several diseases, root knot nematode and nutsedge in certain areas and that certain topographies and regulatory issues prevent the use of possible alternatives. MBTOC notes that this nomination could be dramatically reduced if an effective strategy or herbicide was available to control moderate to heavy nutsedge infestations.
USA	CUN2003/059	Strawberry fruit - field	2468.873	1	2468.87	MBTOC notes that a CUE for 2468.87 tonnes has been requested. The application is based on the technical grounds that no alternatives were available for moderate to severe pest pressure for nutsedge in certain areas and that certain topographies and regulatory issues prevent the use of possible alternatives. MBTOC acknowledges that control of nutsedge is difficult, even when MB is used, but notes that several fumigant alternatives are providing effective control of pests in many circumstances (e.g. 1,3-D/Pic, Pic alone, and metham sodium and Pic used in combination). MBTOC could not determine why some of these alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
USA	CUN2003/060	Strawberry runners	54.988	1	54.988	MBTOC recommends that 55 tonnes be approved. MBTOC notes that the applicant has not technically verified that any alternatives are feasible. The CUN states that MB is required to meet certification standards, but does not provide data that other alternatives do not provide the same disease tolerance threshold to satisfy these standards.
USA	CUN2003/061	Sweet potato - field	224.528	1	80.83 or 35.92	MBTOC recommends a CUE of 80.83 tonnes or 35.92 tonnes MB for this use, dependent on the restrictions on use of 1,3-D in 2005, but notes that an alternative, 1,3-D, has been in successful use for this purpose in 2001 and 2002. 1,3-D is acknowledged by the Party as a suitable alternative to MB for this specific crop and situation. This recommendation is based on the non-availability of alternatives for regulatory reasons and contingent on there being township caps that still restrict the use of 1,3-D in 2005 in the specific growing area of the nomination. If 2x township caps are current in 2005 then the CUE should be reduced to 35.92 tonnes, but for 1x township cap the CUE should be 80.83 tonnes.

Party	CUN Number	Industry	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (g)
			t/year	Years	Tonnes	
USA	CUN2003/062	Tomato - field	2865.3	2	2865.3	MBTOC notes that a CUE of 2865.3 tonnes have been requested, based on the technical grounds that no alternatives were available for moderate to severe pest pressure for several diseases, root knot nematode and nutsedge in specific areas and that certain topographies and regulatory issues prevent the use of possible alternatives. MBTOC notes that several fumigant alternatives are providing effective control of pests (e.g. 1,3-D/Pic, Pic alone, and metham sodium and Pic used in combination) and that a number of herbicides are available to control nutsedge. MBTOC could not determine why some of these alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
USA	CUN2003/063	Turfgrass	352.194	1	352.194	MBTOC notes that 352.194 tonnes of MB have been nominated for these uses. MBTOC considers that several alternatives, particularly dazomet and steam, are suitable alternatives for most of the uses in this nomination. From the information provided, MBTOC could not determine why alternatives were not feasible in the specific circumstances of the nomination, but accepts statements in the nomination that alternatives were not appropriate.
<b>Footnotes:</b>						
(a)	Unspecified					
(b)	Indefinite					
(c)	Nomination disaggregated. Quantities given under individual crops.					
(d)	Nomination not proceeded with in this (2003) round					
(e)	Insufficient or no response to supplementary questions received from Party by due date					
(f)	Amount originally requested reduced by the Party					
(g)	For definition of 'recommended' and 'noted' see Section 1.3.					

## ANNEX II: Evaluation of Critical Use Nominations – Postharvest (commodities, structures and objects)

Party	CUN Number	Industry	Type	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (a)
				t/year	Years	Tonnes	
Australia	CUN2003/004	Rice (consumer packs)	Commodity	12.3	3	6.15	MBTOC recommends a reduced quantity of 6.15 tonnes for this nomination. The original nomination and subsequent correspondence both were based on an unusually high dosage rate of methyl bromide for non-quarantine pests. It is suggested that the nomination be reduced to account for fumigation at normal levels for rice in the absence of particular special circumstances that might justify a higher rate. Australia is requested to ensure that the critical use is restricted to those premises unable to use the alternatives.
Canada	CUN2003/008	Pasta and Flour Mills	Structures	47.2	2	47.2	MBTOC notes that 47.2 tonnes of MB has been nominated for this use. MBTOC notes more than 50% of the Canadian mills were reported not to use MB and that in other regions alternatives are in use in many apparently similar situations to those of the nomination. Canada is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible.
France	CUN2003/012a	Old buildings and artefacts	Structures and objects	8.0	4	0	MBTOC was unable to recommend this nomination as alternatives to MB are available for this use.
France	CUN2003/012b	Mills and Processors	Structures	55	4	55	MBTOC notes that 55 tonnes of MB has been nominated for this use. MBTOC notes that technically feasible alternatives have been adopted in diverse types of mills and food processing facilities in France and other countries. France is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible.
France	CUN2003/012c	Chestnuts	Commodity	2.0	4	2.0	MBTOC recommends that a CUE of 2.0 tonnes be approved for this use. There were no technically feasible alternatives known to MBTOC for this use.

Party	CUN Number	Industry	Type	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (a)
				t/year	Years	Tonnes	
France	CUN2003/011	Commodities other than rice	Commodity	8.0	4	(b)	MBTOC was unable to complete its evaluation of this nomination on the basis of available information. MBTOC considered that technically feasible alternatives are available for most commodities in the application but that there may be some commodities in some situations that do not have alternatives.
France	CUN2003/012	Rice (consumer packs)	Commodity	2.0	4	2.0	MBTOC recommends that a CUE of 2.0 tonnes be approved for this use. MBTOC also notes that, given the need for rapid, end-of-line disinfestation, there were no technically feasible alternatives.
Japan	CUN2003/029	Chestnuts	Commodity	4.6	1	4.6	MBTOC recommends that a CUE of 4.6 tonnes be approved for this use. There were no technically feasible alternatives known to MBTOC for this use.
Netherlands	CUN2003/030	Cut flowers (postharvest), some 'green' products and strawberry runners (postharvest)	Commodity	1.2	1	0	MBTOC is unable to recommend a CUE for any part of this nomination. This CUN covers three areas - export of cut flowers to Japan, certain green products to Japan and treatment of strawberry runner plants. If a cut-flower consignment fails inspection by a Japanese quarantine inspector in the Netherlands, the consignment is required to be fumigated prior to export to Japan. Typically MB is used for this treatment. This is likely to fall within the QPS exemption, and thus does not need a CUE. The Netherlands did not define 'other green products' and therefore MBTOC was not able to give this part of the nomination further consideration for a CUE. The correspondence included a new request for the use of MB on strawberry runner plants. This request is an extension of the original request and was not submitted by the due date to the Ozone Secretariat. In addition, MBTOC considered that the case for an alternative such as a miticide to control mites on strawberry plant runners had not been substantiated.
United Kingdom	CUN2003/037	Food storage (dry goods)	Structures	1.1	2	1.1	MBTOC notes that 1.1 tonnes of MB has been nominated for this use. MBTOC also notes that in other regions alternatives are in use in many apparently similar situations to those of the nomination. The United Kingdom is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible.

Party	CUN Number	Industry	Type	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (a)
				t/year	Years	Tonnes	
United Kingdom	CUN2003/038	Mills and Processors	Structures	30.75	2	30.75	MBTOC notes that 30.75 tonnes of MB has been nominated for this use. MBTOC notes that technically feasible alternatives have been adopted in diverse types of mills and food processing facilities in the United Kingdom and other countries. The United Kingdom is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible. The quantity for this nomination was given incorrectly in the May 2003 report.
United Kingdom	CUN2003/041	Spices (structural / equipment)	Structures	1.728	2	1.728	MBTOC notes that 1.728 tonnes of MB has been nominated for this use. The United Kingdom is requested to ensure that the critical use is restricted to those premises unable to use the alternatives.
United Kingdom	CUN2003/044	Mills and Processors	Structures	16.38	2	16.38	MBTOC notes that 16.38 tonnes of MB has been nominated for this use. MBTOC notes that technically feasible alternatives have been adopted in diverse types of mills and food processing facilities in the United Kingdom and other countries. The United Kingdom is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible.
United Kingdom	CUN2003/045	Rice (milled rice, imported)	Commodity	1.0	2	0	MBTOC was unable to recommend this CUN. MBTOC notes that there were technically feasible alternatives for this use. Furthermore, the nominated use appears to be potentially a QPS treatment against <i>Trogoderma granarium</i> , a quarantine pest, and thus exempt from control.
United Kingdom	CUN2003/037	Miscellaneous dry nuts, fruit, beans, cereals, seeds	Commodity	2.4	2	2.4	MBTOC notes that 2.4 tonnes of MB has been nominated for this use. MBTOC also notes that some alternatives may become suitable for some or all of these uses.
United Kingdom	CUN2003/046	Cheese stores (traditional)	Commodity / Structure	0.140	2	0.140	MBTOC recommends that a CUE of 140kg be approved for this use. There were no technically feasible alternatives known to MBTOC for this use.

Party	CUN Number	Industry	Type	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (a)
				t/year	Years	Tonnes	
United Kingdom	CUN2003/047	Cheese stores (traditional)	Commodity / Structure	1.5	2	1.5	MBTOC recommends that a CUE of 1.5 tonnes be approved for this use. There were no technically feasible alternatives known to MBTOC for this use.
United Kingdom	CUN2003/042	Stored spices	Commodity	0.030	2	0.030	MBTOC notes the CUN of the United Kingdom that requested 30 kg of MB for this use. The United Kingdom is requested to ensure that the critical use is restricted to those commodities unable to use the alternatives.
United Kingdom	CUN2003/043	Tobacco (product / machinery)	Commodity / Structure	0.523	2	0.050	MBTOC recommends that a CUE of 50kg be approved for this CUN. MBTOC could not recommend the initial request for 523 kg for both commodity and machinery as alternatives were available to disinfest the commodity. In subsequent correspondence, the UK requested 50 kg of MB for critical uses for the treatment of machinery containing sensitive electronic equipment.
United States	CUN2003/051	Mills and Processors	Structures	536.328	1	536.328	MBTOC notes that 536 tonnes of MB has been nominated for this use. MBTOC notes that technically feasible alternatives have been adopted in diverse types of mills and food processing facilities in the United States and other countries. The United States is requested to ensure that MB is restricted to those premises and circumstances where alternatives are not technically and economically feasible.
United States	CUN2003/048	Smokehouse Ham (building and product)	Commodity / Structure	0.907	1	0.907	MBTOC notes that 0.907 tonnes of MB has been nominated for this use. There were no technically feasible alternatives known to MBTOC for combined treatment of both the smokehouse (structure) and hams (foodstuff).
United States	CUN2003/048	Dried fruit, beans & nuts	Commodity	86.753	1	86.753	MBTOC notes that 86.753 tonnes of MB has been nominated for this use. MBTOC notes that registration, and possibly logistical changes, will be required in order to enable implementation of alternatives for rapid disinfestation.

Party	CUN Number	Industry	Type	Original nomination		Quantity for 2005 in this report	Comment by MBTOC (a)
				t/year	Years	Tonnes	
United States	CUN2003/054	Nursery float trays for tobacco seedlings	Object	1.323	1	1.323	MBTOC notes that 1.323 tonnes of MB has been nominated for this use. The nomination stated that no satisfactory fungicide to control Rhizoctonia fungal spores in pool water was registered in the United States for use specifically on tobacco transplant (float) trays. This could result in higher levels of fungal contamination of the trays than would be the case in other countries where such fungicides were registered. Alternatives to decontaminate fungal spores from tobacco transplant trays are under consideration. MBTOC notes that apparently suitable alternatives are in use in other countries. MBTOC wishes to emphasise that this exemption relates to the specific circumstances of some tobacco seedling (float) trays and there are satisfactory alternatives to MB in widespread use in the nursery industry for seedling trays.
<b>Footnotes:</b>							
(a)	For definition of 'recommended' and 'noted' see Section 1.3						
(b)	Insufficient or no response to supplementary questions received from Party						