

Methyl Bromide and Alternatives- Global View

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Overview

- Montreal Protocol – How the decisions of 189 countries became significant to the business decisions of US mills and processors
- How the recommendations of a small band of scientists and technical experts (MBTOC) also affect your business
- Four new issues that might negotiators
- How to make decisions that will sustain your business in spite of the above

Montreal Protocol on Ozone Depleting Substances

- Protecting the ozone layer by phasing out ozone depleting substances
- “The single most successful international environmental agreement to date” (Kofi Annan)
- 195 of 196 UN nations are signatories
- 2005 was the phase out date for MB

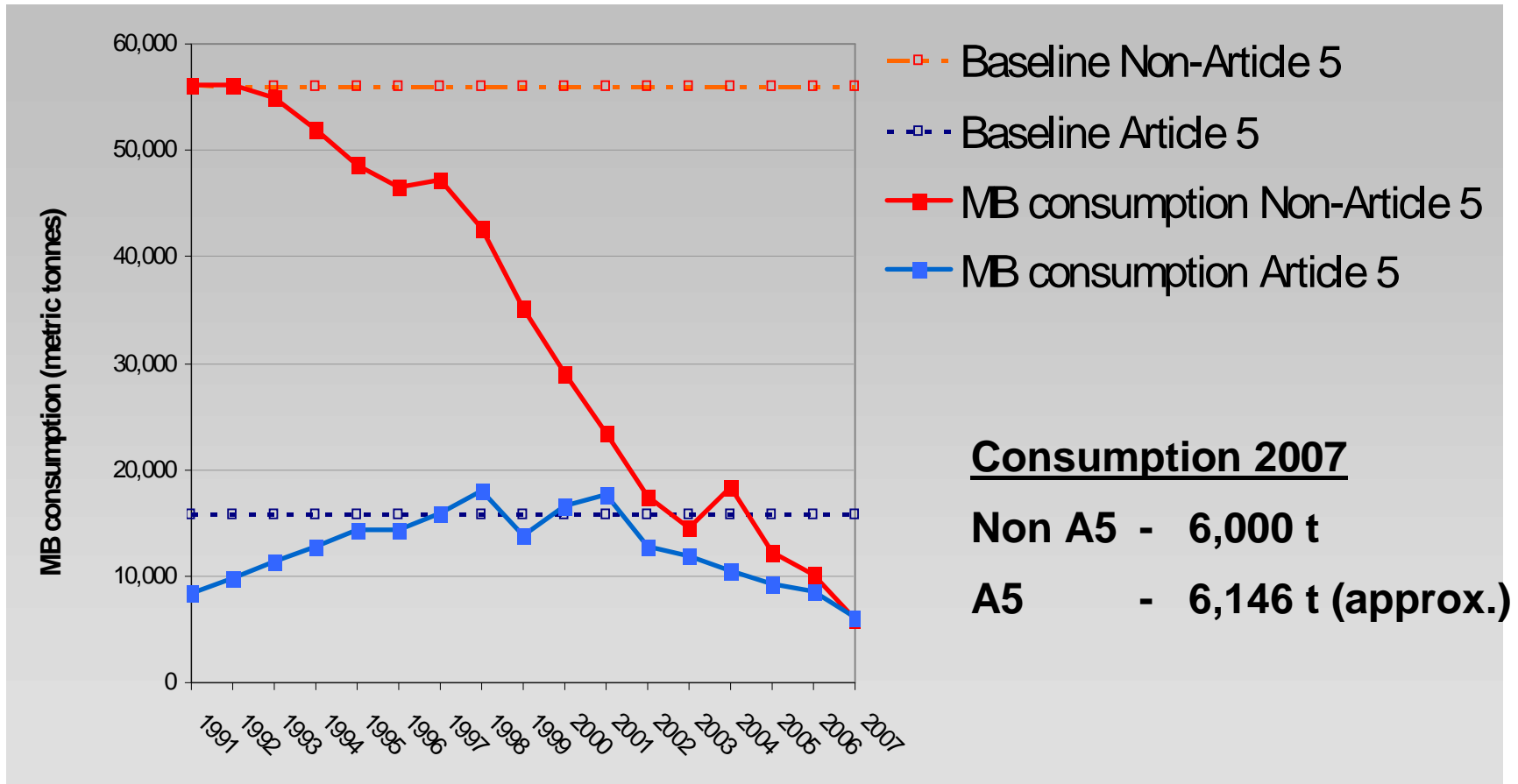
Methyl Bromide Technical Options Committee (MBTOC)

- MBTOC is a technical and economic options committee; part of the Technical and Economic Panel of the Montreal Protocol
- Divided into sub-committees: Soils (preplant issues) and Quarantine, Structures and Commodities (QSC)
- QSC covers all post-harvest issues
- QSC 19 members; 15 countries

MBTOC's Tasks

- Technical and economic assessment of alternatives to all uses of methyl bromide
- Review and recommendations on critical use nominations received from Parties
- Policy relevant advice to Parties concerning remaining MB uses: critical, quarantine and pre-shipment
- Numerous technical reports

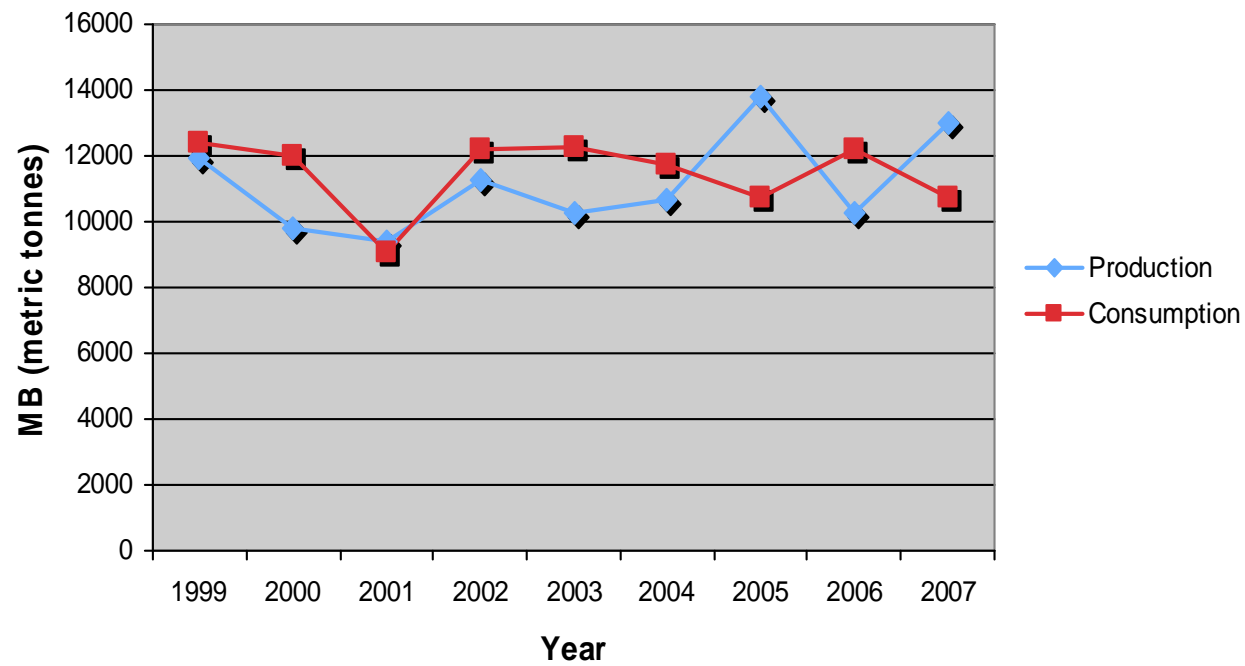
MB Global Consumption 1991-2007



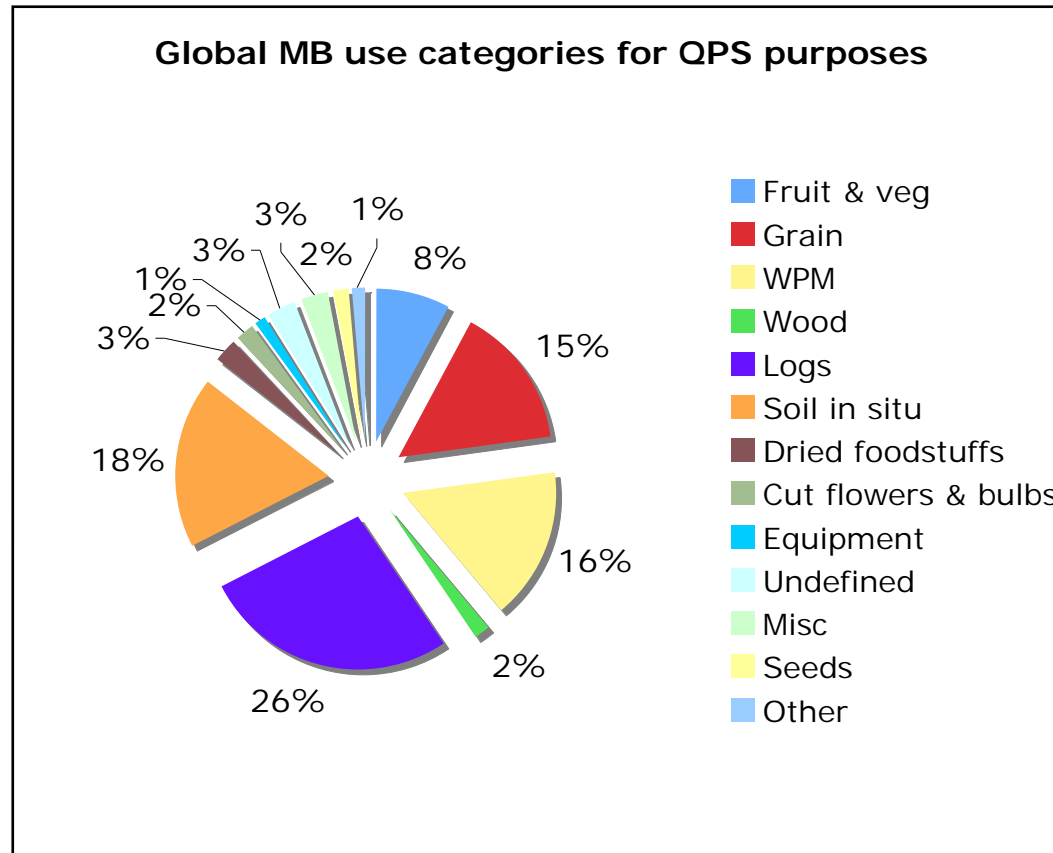
Note: Reported Production for QPS Uses in 2006 - 10,275 t (approx)

Production and Consumption of QPS MB

Global production vs global consumption of MB for QPS uses



MB Use for QPS



Montreal Protocol Decision IX/6

Critical Use Nominations only apply after
100% phase out

Use of MB should qualify as "critical" only if

- **a) the lack of MB would result in significant market disruption; and**
- **b) there are no technically and economically feasible and suitable alternatives**

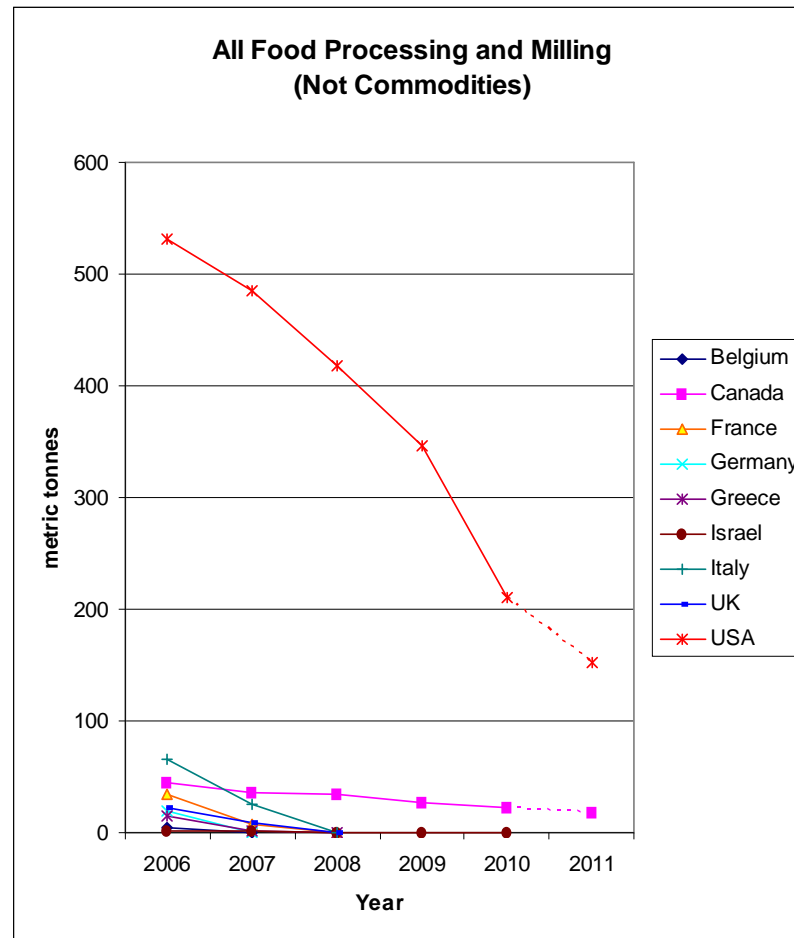
Critical MB use permitted only if:

- **Minimize use and reduce emissions,**
- **MB not available from stocks,**
- **Efforts to evaluate and adopt alternatives,**
- **Research effort**

Structural Critical Use Nominations

- This slide deliberately left blank until workshop

Trend in MB use Food Processing and Milling



Commodity CUN Applications

- **Commodities (2005 CUNs)**

- Nuts: pistachio, walnut, almond
- Chestnuts
- Cocoa beans
- Coffee beans
- Cheese
- Dry beans
- Dry cure pork
- Dried fruit (dates, figs, prunes, raisins)
- Herbs and spices
- Dried milk
- Medicinal herbs and mushrooms
- Museum artifacts
- Strawberry plantlets
- Seeds for planting
- Rice
- Electronic equipment
- baskets

- **Commodities (2009 CUNs)**

- Walnuts
- Chestnuts
- Cheese
- Dry beans
- Dry cure pork
- Dried fruit (dates, prunes, raisins)
- Rice

Stocks of MB held by Party - Consideration of Stocks (Dec IX/6 1,bii)

MBTOC has not accounted for stocks when evaluating CUNs

	Quantity of MB stocks at end of year as reported by the Party	
	2007	2008
Australia	0.000	0.000
Canada	0.348	1.997
EC	8.446	0.092
Israel	190.450	190.450
Japan	17.594	7.524
New Zealand	0.000	0.000
USA	6503.000*	5381.000*
Total	6719.838	5650

* Includes the pre-2005 stocks

GWP of Sulfuryl Fluoride

- Sulfuryl fluoride (SF₆), has recently been reported to have a higher global warming potential (GWP) than previously considered
- The “most likely” GWP for SF₆ of about 4,800, a value similar to that of CFC-11
- See MBTOC QSC Progress report for refs

EU Elimination of MB for QPS

- Regulations in Holland and Belgium required that 80% of remaining MB in export containers be recaptured
- German ports were also installing recapture equipment
- BUT, as of March 2010, the use of MB for QPS in the EU is eliminated
- Result is likely to be more MB QPS use in importing countries and higher pest incursion risk
- Importing countries do not now use recapture equipment so emissions of MB likely to be higher globally

MB Producer Issues

- Chemtura, the main supplier and distributor of methyl bromide in the US, has filed for Chapter 11 bankruptcy, a legal action which protects assets and allows financial and corporate restructuring for a certain time period
- Impact of this on users??
- It can take months to import MB from other countries, and there can be a problem with incompatibility of shipping containers

Making Sustainable Business Decisions in the Face of Global Environmental Agreements

- The problems are:
- MB CUNs are going to be eliminated, likely through $\geq 25\%$ per year decreases
- Tough getting money for investments in pest control
- Can't sell flour with bugs
- SF has high GWP and reportedly costs more than MB
- Heat treatment also likely higher GWP and reportedly costs more than MB

Pest Control, Stewardship and Messages

- Prevention
- Low tech choices - going back to the farm
- Reduce frequency of full site treatments
- Heat treatment – full site or spot heat
- SF and heat
- Better messages, broader audience, backed up with action