



MINISTÉRIO DO MEIO AMBIENTE
Secretaria de Mudanças Climáticas e Qualidade Ambiental
Departamento de Qualidade Ambiental na Indústria

To: Secretariat of Stockholm Convention

**Subject: Invitation to submit comments to the POPs Review Committee
on the Draft Risk Management Evaluation**

The Ministry of Environment (MMA), as technical focal point of the Stockholm Convention in Brazil, are sending comments received from the following institutions: Ministry of Industry and Trade (MDIC) and Ministry of Agriculture (MAPA)

Costs and benefits of implementing control measures

According to analysis of the Agricultural Defense National Syndicate (SINDAG) the possibility of substitution of endosulfan by other products was analyzed taking into consideration technical and financial factors, as the tables below:

Table 1: Costs per hectare of Endosulfan and other alternatives to soy bean

Inseticide	Cost (US\$/ha)	Total (US\$)	Additional cost (US\$)	% Additional
Endosulfan	7.85	34,693,370.61	-	0
Metamidophos	12.35	54,573,841.41	19,880,470.80	57
Thiametoxan + Lambdacyhalothrin	10.00	44,178,824.00	9,485,453.39	27
Imidacloprid + Betacyfluthrin	13.24	58,471,971.94	23,778,602.33	69
Average	11.86	52,408,212.78	17,714,842.17	51

Source: CONAB 2008, Kleffmann 2008 and Agrianual 2009.

Table 2: Costs per hectare of Endosulfan and other alternatives to sugarcane

Inseticide	Cost (US\$/ha)	Total (US\$)	Additional cost (US\$)	% Additional
Endosulfan	56.19	4,801,694.88	-	0
Fipronil	176.47	15,080,700.00	10,279,005.12	214

Source: CONAB 2008, Kleffmann 2008 and Agrianual 2009.

Table 3: Costs per hectare of Endosulfan and other alternatives to cotton

Insecticide	Cost (US\$/ha)	Total (US\$)	Additional cost (US\$)	% Additional
Endosulfan	12.54	34,805,630.12	-	0
Methyl Parathion	13.55	37,627,708.24	2,822,078.12	8
Malation	13.06	36,255,864.71	1,450,234.59	4
Average	13.31	36,941,786.47	2,136,156.35	6

Source: CONAB 2008, Kleffmann 2008 and Agrianual 2009.

Table 4: Costs per hectare of Endosulfan and other alternatives to coffee

Insecticide	Cost (US\$/ha)	Total (US\$)	Additional cost (US\$)	% Additional
Endosulfan	10.66	3,673,467.95	-	0
Chlorpyrifos	22.06	7,604,390.14	3,930,922.19	107

Source: CONAB 2008, Kleffmann 2008 and Agrianual 2009.