

# STILL UNSAFE

## FORGET AAMIR KHAN'S ASSURANCES

The Centre for Science and Environment's Pollution Monitoring Laboratory tested 57 soft drink samples of 11 soft drinks brands. Journalists and researchers travelling for stories collected samples from different states and cities of India — bought bottles from Burnihat in Meghalaya, Bharuch in Gujarat, Palakkad in Kerala to Jalandhar in Punjab. Unlike the 2003 pesticide in soft drink study, when 36 samples from Delhi were procured, these samples are from 25 different soft drink manufacturing plants spread over 12 states

Brand	Number of samples	Alpha-HCH (ppb)	Beta-HCH (ppb)	Lindane (ppb)	Delta-HCH (ppb)	HCH total (ppb)
Pepsi Cola	14	1.07	0.02	6.51	0.77	8.36
Pepsi Caffechino	1	0.00	0.00	1.48	0.25	1.73
Mountain Dew	1	0.00	0.00	2.71	0.55	3.26
Mirinda Orange	7	0.09	0.00	5.70	0.76	6.55
Mirinda Lemon	1	0.00	0.05	6.40	0.27	6.72
Duke Lemonade	1	0.00	0.00	5.56	1.20	6.75
7 Up	3	0.00	0.15	4.72	0.53	5.40
<b>Average - PepsiCo brands</b>	<b>28</b>	<b>0.56</b>	<b>0.03</b>	<b>5.76</b>	<b>0.71</b>	<b>7.06</b>
Coca-Cola	14	0.43	0.00	5.43	0.90	6.76
Thums Up	5	0.43	0.00	6.07	0.93	7.43
Limca	6	0.00	0.00	3.08	0.92	4.00
Fanta	4	0.00	0.04	4.76	0.36	5.16
<b>Average - Coca-Cola brands</b>	<b>29</b>	<b>0.28</b>	<b>0.01</b>	<b>4.99</b>	<b>0.81</b>	<b>6.08</b>

### The results:

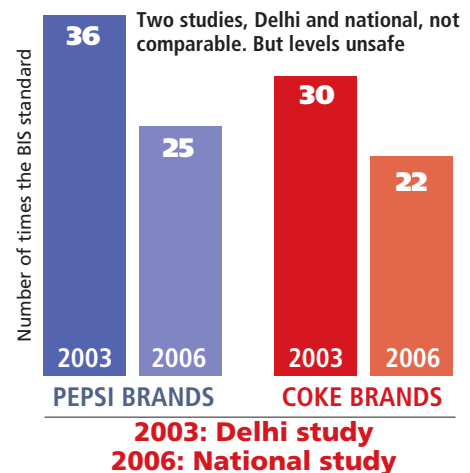
- Pesticide residues found in **all** soft drink samples
- A cocktail of **three** to **six** pesticides found in all samples
- Lindane — a confirmed carcinogen — was found at an average concentration of 5.5 ppb, which is **54 times higher** than the BIS standard (finalised but not notified) for individual pesticides in soft drinks (0.1 ppb)
- In one sample of Coca-Cola bought in Kolkata, lindane was as high as 14 ppb, which is **140 times** higher than the BIS standard
- Chlorpyrifos, a known neurotoxin also known to breach the placenta, was found in all samples at an average concentration of 4.8 ppb, which is **47 times higher**
- A Coca-Cola sample bought in Mumbai, manufactured in Thane, contained 20.4 ppb of chlorpyrifos: this is **200 times higher** than the BIS standard for an individual pesticide

- Heptachlor, banned in India, was found in 71 per cent of the samples, at levels which are four times the BIS standards
- The average amount of pesticide residues found in all samples was 11.85 ppb, which is **23 times** higher than the BIS standards for total pesticides in soft drinks (0.5 ppb)
- Pepsi Cola, the flagship brand of PepsiCo India, on an average contained 15.2 ppb pesticide residues; this is **30 times** the BIS standards
- Coca-Cola, the flagship brand of Coca-Cola India, on an average contained 13.4 ppb pesticide residues; this is **27 times** the BIS standards
- The average pesticide residues in all brands of PepsiCo was 12.7 ppb. This is **25 times** the BIS standards
- The average pesticide residues in all brands of Coca-Cola India was 11.05 ppb. This is **22 times** the BIS standards.

## ABOUT US

The methodology for analysis remained the same as in 2003. Each sample was tested three times for organochlorine pesticides and three times for organophosphorous pesticides using a Gas Chromatograph (GC). The samples were analysed using the US Environmental Protection Agency established methodology for testing as before. However, there are key differences:

The Joint Parliamentary Committee had pointed out that the CSE laboratory had not confirmed its results with a GC-MS — an expensive equipment used to validate the tests. The pesticides have been confirmed using a GC-MS in this survey. It was also said that the CSE laboratory is not accredited. This time the laboratory is accredited with ISO 9001:2000 quality management system.



Heptachlor (ppb)	Organochlorines total (ppb)	Chlorpyrifos (ppb)	Malathion (ppb)	Organophosphates total (ppb)	Pesticides total (ppb)	No of times the BIS standard
0.74	9.11	6.06	0.06	6.11	15.22	30.4
0.23	1.96	2.02	0.00	2.02	3.97	7.9
0.34	3.60	3.37	0.00	3.37	6.97	13.9
0.29	6.84	3.54	0.30	3.84	10.68	21.4
0.40	7.12	0.52	0.45	0.96	8.09	16.2
0.97	7.72	3.16	0.00	3.16	10.88	21.8
0.51	5.90	6.53	0.03	6.56	12.46	24.9
0.57	7.62	4.94	0.12	5.06	12.68	25.4
0.21	6.97	6.11	0.30	6.41	13.38	26.8
0.16	7.59	3.24	0.11	3.35	10.94	21.9
0.15	4.16	2.50	0.07	2.57	6.73	13.5
0.45	5.61	3.29	0.24	3.54	9.14	18.3
0.26	6.34	4.49	0.22	4.71	11.05	22.1

**!** Sprayed to kill sucking and biting pests. Also used as smoke in grain stores. Health effects are breast cancer, non-Hodgkins lymphoma, polyneuritis, chronic liver damage-cirrhosis and chronic hepatitis, endocrine and reproductive disorders, allergic dermatitis

**!** It is one of the most widely applied insecticides in homes or restaurants, against cockroaches or termites. Chlorpyrifos has chronic neurobehavioural effects like persistent headaches, blurred vision, unusual fatigue or muscle weakness, and problems with mental function including memory, concentration, depression and irritability

**It is clear. Three years later, the two soft drink companies have done little to clean up. Instead of cleaning their product, clearly the emphasis has been to clean up the process of standard-setting so that there are no regulations to hold the companies accountable. The fact is that pesticide residues are still at unsafe levels. In some bottles, the pesticide levels exceed standards by 200 times. Clearly this is unacceptable. These products are the preferred choice of millions in this country. But with pesticides, this is not the right choice *baby***