

2006 Consolidated Nestlé Environmental Performance Indicators

Indicator	Units	1998 Reference Year	2002	2003	2004	2005	2006	% Change 2005-2006	% Change 2002-2006
Production Volume	10 ⁶ tonnes product per year	23.40	31.22	33.37	33.30	36.36	38.24	5.2%	22.5%
Inputs									
Water consumption	10 ⁶ m ³ per year	218	193	193	175	159	155	-2.6%	-19.9%
	m ³ per tonne product	9.32	6.20	5.78	5.27	4.37	4.05	-7.4%	-34.6%
Energy consumption	10 ¹⁵ Joules (PJ) per year	91.0	96.3	94.4	90.8	88.0	84.4	-4.1%	-12.3%
	10 ⁹ Joules (GJ) per tonne product	3.89	3.08	2.83	2.73	2.42	2.21	-8.8%	-28.4%
Outputs									
Waste water generation	10 ⁶ m ³ per year	165	153	145	142	123	118	-3.7%	-22.6%
	m ³ per tonne product	7.11	4.89	4.36	4.26	3.38	3.09	-8.5%	-36.8%
Greenhouse gases	10 ⁶ tonnes CO ₂ per year	4.90	4.85	4.74	4.41	4.31	4.05	-6.0%	-16.5%
	kg CO ₂ per tonne product	212	155	142	133	118	106	-10.6%	-31.9%
Air acidification potential	10 ³ tonnes SO _x equivalents per year	30.8	26.1	23.4	21.6	18.4	19.0	3.3%	-27.0%
	kg SO _x equiv. per tonne product	1.34	0.84	0.70	0.65	0.51	0.50	-1.8%	-40.4%
Ozone depleting substances	tonnes R-11 equivalents per year	64.60	10.27	9.94	9.58	10.19	8.93	-12.4%	-13.1%
	g R-11 equiv. per tonne product	2.76	0.33	0.30	0.29	0.28	0.23	-16.7%	-29.0%
By- and Co-products	10 ⁶ tonnes per year	1.46	1.42	1.41	1.47	1.48	1.20	-18.8%	-15.5%
	kg per tonne product	62.7	45.5	42.3	44.2	40.7	31.4	-22.8%	-31.0%
Waste (for disposal)	10 ⁶ tonnes per year	0.51	0.40	0.36	0.44	0.44	0.45	2.5%	12.4%
	kg per tonne product	21.8	12.8	10.6	13.2	12.0	11.7	-2.6%	-8.2%

Comments on the reported data:

- In 1986 ozone depleting substances were first reported at 36 g R-11 equivalents per tonne of product, the 2006 figure of 0.23 represents a reduction of 99.4%

- This report covers 435 factories. It excludes 14 Alcon factories (per tonne data not comparable) and 19 other Nestlé factories with incomplete data.

- Factories sold or closed during 2006 are not included.

- Definitions of by- and co-products and waste (for disposal) were aligned with newly emerging industry standards. The reported figures are not directly comparable with previous years.

Definitions

Water consumption: The sum of water consumed from all sources, including purchases from suppliers and surface or ground water sources. Water is used in a variety of ways: as an ingredient (including bottled water), for industrial processes (for example, steam for cooking), in cooling processes and for cleaning.

Energy consumption: The sum of all energy purchased or obtained – less any energy that, in rare cases, is sold. This includes electricity, steam, fuels such as oil and natural gas, and by-products used for energy recovery. The energy is used in many different ways to transform raw materials into finished products, for example, conveying, cooking and packaging. Considering all energy sources used per site, all processes and activities included: production (industrial processes), commercial uses (offices, etc.).

Wastewater generation: The sum of all wastewater discharged from a factory. This primarily includes industrial wastewaters. Wastewater is generated in manufacturing from processing, cleaning and some cooling processes.

Greenhouse gases: The sum of all on-site greenhouse gas emissions from combustion and fermentation processes used to manufacture products. Greenhouse gases are commonly accepted as contributing to global warming, as outlined in the Kyoto Protocol. These greenhouse gas emissions can result from burning of fuels in boilers, roasters, dryers and electric generators.

Air acidification: The sum of all SO_x and NO_x gas emissions from combustion of fuels, converted into SO_x equivalents.

Ozone-depleting substances: The sum of substances emitted which have been shown to contribute to the depletion of the ozone layer. The common unit of measurement is R-11 equivalents. R-11 is one type of refrigerant, which has been assigned an ozone depleting potential of one, with all other ozone depleting substances being assigned related values. The impact potential of each substance is determined using conversion factors commonly agreed by most authorities. These substances are primarily refrigerants in equipment used to cool or freeze products, or methyl bromide – a fumigant used to protect raw materials or products from insects.

By-product: A material which arises during the manufacture or distribution stage of a product. It may be used directly as an effective substitute for a product or as an ingredient in another manufacturing process to create a different product. They are, for example, out-of-specification products or surplus food products (broken biscuits, mis-shapes, etc.), coffee grounds, sludge, filter-cakes from filtration, etc.

Co-product: A material, intentionally and/or unavoidably, created in the same process and at the same time as the main product. Both a main product and a co-product may each meet a set of specifications or design, and individually each is capable of being used directly for a particular purpose (e.g. oil-seed meal, wheat gluten, maize germs, molasses, beet pulp, etc.)

Waste (for disposal): Materials from the production process that are discarded and destined for disposal, exclusive of co- and by-products (i.e. through landfilling or incineration).