

Pesticide Use Trends in the US: Global Comparison¹

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Introduction

The EPA, in cooperation with the USDA and FDA, is responsible for regulating the production and use of pesticides in the US. This document provides data on volumes used and sales of pesticides from the latest EPA survey data available, 2006–2007. The intent of this information is only to present an objective profile and does not attempt to interpret, reach conclusions about, or make inferences regarding the data. Conclusions should not be drawn in regards to impacts on human health, the environment, or the economy.

Data Sources

The data reported in this document are based upon EPA estimates. EPA does not have a program devoted specifically to estimating pesticide use; rather, they use the best available information from the public domain and proprietary sources. The data are approximate values and not statistically precise. The sources that EPA consults for compiling this information include:

- The Pesticide Data Center in the Biological and Economic Analysis Division of EPA's Office of Pesticide Programs;
- Several national database services for compiling agricultural pesticide use data, including the USDA; and
- Proprietary data sources with vendor permission.

Explanation of Data Components

The data presented in the tables separate broad classes of pesticides—herbicides, insecticides, fungicides, and other pesticides. The “herbicide” data combine plant growth regulators with them, while “fungicides” and “insecticides” exclude sulfur and petroleum oil. Data summarized for “other” pesticides combine the total for nematicides, fumigants, rodenticides, molluscicides, aquatic, and pesticides for the control of birds and fish. Sulfur and petroleum oil are included in the “other” category as well. Data for wood preservatives, specialty biocides, and chlorine/hypochlorites are not included in the tables under any pesticide class. Totals may not add precisely due to rounding. In reporting the amount used, data contained in Table 2 are presented as pounds of active ingredient (a.i.) per acre. These data represent the combined pesticide usage in the major markets of agriculture, home and garden—which include pesticides applied by homeowners, both indoors and outdoors. These two market sectors do not include pesticide applications by professional applicators. Industrial/commercial/governmental uses involve pesticides applied by professional applicators to industrial, commercial, and governmental facilities, plus custom/commercial applications to homes and gardens, including lawns.

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The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication does not signify our approval to the exclusion of other products of suitable composition. Use pesticides safely. Read and follow directions on the manufacturer's label.

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World and US Pesticide Expenditures (Table 1)

World pesticide expenditures totaled more than \$35 billion in 2006 and 2007. Expenditures on herbicides accounted for the largest portion of total expenditures with more than 40%, followed by expenditures on insecticides, fungicides, and other pesticides, respectively. Total expenditures for pesticides as a whole were up in 2007 compared to 2006.

US pesticide expenditures totaled more than \$11 billion in both 2006 and 2007—in similar proportions as those for the world market. Both years, the percentage of herbicide sales in the US was higher than the other classes of pesticides for the world. US expenditures accounted for approximately 33% of total world expenditures on pesticides, approximately 40% of world expenditures on herbicides, approximately 40% of world expenditures on insecticides, and approximately 15% and 25% of world expenditures on fungicides and other pesticides, respectively.

World and US Pesticide Amount Used (Table 2)

World pesticide amount used exceeded 5.0 billion pounds in 2006 and 2007. Herbicides accounted for the largest portion of total use, followed by other pesticide use, and insecticide use. Total world pesticide amount used decreased in 2001 for all pesticide types.

US pesticide amount used in both 2006 and 2007 exceeded 1.1 billion pounds, in proportions similar to those of world pesticide use, with a larger portion of total US pesticide use on herbicides and other pesticides. US pesticide amount used accounted for more than 20% of total world pesticide amount used, approximately 25% of world herbicide amount used, 10% of world insecticide amount used, and approximately 14% and 22% of world fungicides and other pesticide amount used, respectively.

Additional Information

Grube, A., D. Donaldson, T. Kiely, and L. Wu. 2011. *Pesticide Industry Sales and Usage: 2006 and 2007 Market Estimates*. EPA's Biological and Economic Analysis Division, Office of Pesticide Programs, and Office of Prevention, Pesticides, and Toxic Substances. <http://www.epa.gov/pesticides>.

Table 1. World and U.S. pesticide expenditures by pesticide type – 2006 and 2007.

	World Market		US Market		US % of the World Market
	Millions \$	%	Millions \$	%	
2006					
Herbicides	14,247	40	5,673	48	40
Insecticides	10,259	29	4,091	35	40
Fungicides	7,987	22	1,165	10	15
Other	3,320	9	855	7	26
Total	35,814	100	11,784	100	33
2007					
Herbicides	15,512	39	5,856	47	38
Insecticides	11,158	28	4,337	35	39
Fungicides	9,216	23	1,375	11	15
Other	3,557	9	886	7	25
Total	39,443	100	12,454	100	32

Table 2. World and U.S. pesticide amount used by pesticide type – 2006 and 2007.

	World Market		US Market		US % of the World Market
	Millions lbs of a.i.	%	Millions lbs of a.i.	%	
2006					
Herbicides	2,018	39	498	44	25
Insecticides	955	18	99	9	10
Fungicides	519	10	73	6	14
Other	1,705	33	457	41	27
Total	5,197	100	1,127	100	22
2007					
Herbicides	2,096	40	531	47	25
Insecticides	892	17	93	8	10
Fungicides	518	10	70	6	14
Other	1,705	33	439	39	26
Total	5,211	100	1,133	100	22