

Table 1 (attached) summarizes estimated pesticide use in the San Francisco Bay Area. About 100 million pounds of pesticide active ingredients are estimated to have been used in the nine San Francisco Bay Area counties in 2003. Most of this estimated use—more than 90 million pounds—is urban. Most urban use is not required to be reported; this unreported use was estimated on the basis of sales data in accordance with the methods described in Section 4.4 of the Pesticide Use Trends Report (TDC Environmental 2005). The urban pesticide use estimate includes reported use (about 2 million pounds, primarily for structural pest control and landscape maintenance), residential use, and use of a wide variety of products not typically thought of as pesticides, like chlorine for drinking water and wastewater treatment, bleach, and biocides in cleaning products. Less than 7% of estimated Bay Area pesticide use is agricultural. A much higher fraction of the Bay Area reported pesticide use is urban (about 25%) than is true statewide (about 8%). These data reflect the urban nature of the Bay Area.

Table 2 (attached) summarizes the estimated use of study list pesticides (see TDC Environmental 2005) in the San Francisco Bay Area. Most use—more than 94%—of these pesticides is urban, as expected. For individual pesticides, the use fraction varies. For example, both diazinon and chlorpyrifos have more than 15% of their use in agricultural areas; this is not surprising, as most urban uses of these two pesticides are being phased out. While most Bay Area estimated pyrethroid use is urban (>94%), agricultural use of esfenvalerate (about 15% of estimated use) and lambda cyhalothrin (about 70% of estimated use) is significant.

Although there are some uncertainties in these data, it is reasonable to estimate that more than 90% of pesticide use in the San Francisco Bay area is in urban areas. Similarly, more than 90% of the use of pesticides that pose the greatest potential threat to Bay Area urban surface water quality is urban use. Given the land use patterns in the Bay Area and reported agricultural uses, it is likely that a watershed-specific analysis would show that a somewhat higher than estimated fraction of use of these pesticides is urban.

References

- California Department of Finance (DOF) (2005). "California County Population Estimates and Components of Change by Year, July 1, 2000-2004." Sacramento, California, February.
- California Department of Pesticide Regulation (DPR) (2005a). "State of California Pesticides Sold in California for Year: 2003, Combined Disclosed Active Ingredients by Chemical Name."
- California Department of Pesticide Regulation (DPR) (2005b) *Summary of Pesticide Use Report Data 2003, Indexed by Chemical*, January.
- TDC Environmental (2005). *Pesticides in Urban Surface Water: Urban Pesticides Use Trends Annual Report 2005*. Prepared for the San Francisco Estuary Project, February.

**Table 1. San Francisco Bay Area Estimated Agricultural and Urban Pesticide Use, 2003
(Pounds of Pesticide Active Ingredient)**

Use Type	Estimated Use Quantity
Agricultural	6,457,158
Urban (reported)	2,091,291
Urban (unreported)	91,000,000
Subtotal, Urban	93,000,000
Total, All Pesticide Use	100,000,000
Fraction Agricultural	6.5%
Fraction Urban	93.5%
Fraction of reported use in urban areas	24.5%

Source: TDC Environmental calculations based on DPR sales (DPR 2005a) and reported use data (DPR 2005b) and the Bay Area fraction of the 2003 state population (DOF 2005).

**Table 2. San Francisco Bay Area Estimated Agricultural and Urban Use of
Study List Pesticides, 2003
(Pounds of Pesticide Active Ingredient)**

Pesticide	Estimated Urban Use	Agricultural Use	Total Use	% Ag. Use
<i>Pyrethroids</i>				
Bifenthrin	6,130	314	6,445	4.9%
Cyfluthrin	4,779	280	5,059	5.5%
Beta-Cyfluthrin	8,091	0	8,091	0.0%
Cypermethrin	15,193	102	15,295	0.7%
Deltamethrin	1,372	0	1,372	0.0%
Esfenvalerate	3,901	783	4,684	17%
Lambda-Cyhalothrin	609	1,469	2,078	71%
Permethrin	28,897	1,876	30,773	6.1%
Tralomethrin	12,004	0	12,004	0.0%
<i>Subtotal, Pyrethroids</i>	<i>80,976</i>	<i>4,825</i>	<i>85,801</i>	<i>5.6%</i>
<i>OPs</i>				
Chlorpyrifos	79,931*	14,425	94,356	15%
Diazinon	54,824	14,558	69,383	21%
Malathion	199,615	1,277	200,892	0.6%
<i>Other</i>				
Carbaryl	32,685	2,114	34,799	6.1%
Fipronil	174,631	0	174,631	0.0%
Imidacloprid	7,372	1,996	9,369	21%
Pyrethrins	13,133	67	13,200	0.5%
PHMB	10,893	0	10,893	0.0%
<i>Total (all study list pesticides)</i>	<i>654,060</i>	<i>39,262</i>	<i>693,323</i>	<i>5.7%</i>

*Likely to be incorrect as sales of products for almost all non-reportable urban uses ended 12/2001

Values have not been adjusted to reflect the appropriate number of significant digits (1 or 2, depending on data source).

Please note the uncertainties in these estimates, which are discussed in Section 4.4 of the Urban Pesticide Use Trends Report (TDC Environmental 2005)

Source: TDC Environmental calculations based on DPR sales (DPR 2005a) and reported use data (DPR 2005b) and the Bay Area fraction of the 2003 state population (DOF 2005).