

# Agricultural Chemical Usage

## 2006 Dairy Cattle & Dairy Facilities

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*The following chemical use data is the most recent data available.*

The agricultural chemical use estimates in this report are based on data compiled from the 2007 General Dairy Management Survey. This survey was a cooperative project between the National Agricultural Statistics Service (NASS) and the National Animal Health Monitoring System within the Animal and Plant Health Inspection Service (APHIS). The 17 Program States in the survey account for approximately 91 percent of the milk cow inventory in the United States, based on the January 2007 Milk Production release published by the United States Department of Agriculture's National Agricultural Statistics Service (USDA-NASS). This report provides insecticide use information during 2006 on dairy cattle and dairy facilities in the following States: California, Idaho, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, New Mexico, New York, Ohio, Pennsylvania, Texas, Vermont, Virginia, Washington, and Wisconsin.

### Highlights:

**Dairy Cattle:** Agricultural producers applied a total of 174,000 pounds of insecticides to dairy cattle during 2006 in the 17 States surveyed. The insecticides most commonly used on dairy cattle during 2006 were Piperonyl butoxide, at 44,800 pounds, followed by Permethrin, at 42,300 pounds. Tetrachlorvinphos (Z-isomer) was the third most commonly used active ingredient, with 37,600 total pounds used during 2006 in the States surveyed. These three active ingredients accounted for 72 percent of the total pounds of active ingredients applied to dairy cattle. Of the total chemical applications made to dairy cattle during 2006 in the 17 selected States, 58 percent were made as pour-on applications, 28 percent were made using a sprayer, and 4 percent used dust bags or hand dusters. Ear tags, rubbing devices, and various other methods of application accounted for the remaining 10 percent of applications made to dairy cattle. Of the total chemical applications made to dairy cattle during 2006 in the 17 Program States, 59 percent of the applications were to control flies, 23 percent for lice, and 9 percent were for mange/mites. All other pests accounted for the remaining 9 percent.

**Piperonyl butoxide** – PBO-8 (EC), Pyrenone 25-5 Pyrethrins 5% Spray, Pyrocide fogging Concentrate, Pyrenone General Purpose, DeLice Pour-On (Synergized), Purina Insecticide Mist, Purina Fly-A-Rest, Permethrin Plus, Python Ear Tags, Excalibur Ear Tag, Saber Extra Ear Tag, Farnam Wipe Citronella Spray II, Dy Fly Dairy Aerosol, LD-44Z Farm Insect Fogger, Heartland Farm and Dairy Insecticide, Farnam Wipe Fly Repellent, Cutter Blue Ear Tag, Permethrin CD Pour-On (aka Buzz Off), Repel-X RTU, CB-80 Insecticide, Fly Spray (generic), CB-38 Insecticide, CB Farm Dairy Insect Fogger, C-Em-Die, Py-Vona Stock Fly Spray, Max-Con Ear Tags, CB-40 Insecticide, CT 511, Pyrethrin Plus Spray with Vapona, C-Em-Die II, Tox-OWik Insecticide, Prozap VIP Insect Spray, Synergized Pour-On, Genie Fogger X Insect Killer, Dairy Cattle Spray, Moorman's Fly Spray, Pyrenone Multi-Purpose Knockout Spray, CV-80D Country Vet Farm & Dairy Spray, CV-40 Country Vet Farm & Home Insecticide, Back Side Plus, Kent/Opticare Dairy Aerosol, Ultra Boss Pour-On Dairy Aerosol, Ultra Boss Pour-On Insecticide, Revenge Farm & Home Fly Bomb Insect Fogger, Super Kill IBA aka Livestock Fogging Spray, CB Purge 1 Timed Mist, Konk Too Flying Insect Killer, Fly-A-Rest Aerosol II, Dairy Aerosol Insect Spray, Durasect II, Cessco 7 C, Dy-Fly I Livestock Spray, Heartland Auto-Mist 3 Insect Killer, CT-75 Aerosol Insecticide, Fly Foil Spray

**Permethrin** - Arctic 3.2 EC, Permethrin 3.2 EC, Evercide Permethrin Permethrin 10% EC, Permethrin 10 EWC, Atroban 11% EC, Atroban 25% WP, DeLice Pour-On, Delice Pour-On (Synergized), Ectiban D (25%), Ectiban EC, Ectiban WP (25%), Expar 11EC, Expar 1%, Hard Hitter 5.7% EC, Insectaban EC, Insectrin EC, Insectrin WP (25%), GardStar Plus Ear Tags, New Z Permethrin Ear Tag, Permethrin Fly and Louse Dust, Permethrin II 10% EC, Permethrin 25% WP, Permethrin Plus, Durasect, Brute Pour-on for Cattle, Permethrin CD Pour-On(aka Buzz Off), Repel-X RTU, Permethrin 20 MEC Spray, 5% Permethrin Pour-on, 0.25% Permethrin Dust, Raid Wasp and Hornet Killer 13, Synergized Pour-On, Unicom Backup Pour-On, Atroban 42.5% EC, Gardstar 40% EC, Genie Fogger X Insect Killer, MEC Permethrin Premise Spray, Back Side, Boss Pour-On, Backrubber Oil, Dagnet, Permethrin Insecticide Spray, Zema 35-Day Dip, Permethrin

10% WB Multipurpose Concentration, CT Backrubber Oil, Back Side Plus, Ultra Boss Pour-On Insecticide, Kattleguard 1% Permethrin Insecticide, Permethrin Livestock & Premise Spray, Hard Hitter 5.7% Insecticide, Prozap Insectrin Dust, Durasect II, Permethrin 3.2 SFR

**Tetrachlorvinphos (Z-isomer)** - Rabon 3 Livestock Dust, Ravap Livestock Spray EC, Oral Larvacide 97.3%, Rabon 7.76 Oral Larvacide Premix, Mineral Block w/ Rabon

**Dairy Facilities:** In the 17 Program States surveyed, a total of 149,100 pounds of insecticide were applied to dairy cattle facilities in 2006. Imidacloprid had the highest total quantity used at 27,500 pounds. Cyfluthrin had the second highest quantity used at 25,300 pounds followed by Piperonyl butoxide at 22,700 pounds. These three active ingredients accounted for 51 percent of the total pounds of active ingredients applied to dairy cattle facilities. Of the total chemical applications made to dairy facilities in the 17 Program States in 2006, 24 percent were made to the milking parlor, 18 percent were made to tie stall/stanchion, 17 percent were made to freestall barns, 13 percent to calf hutches, and 9 percent to individual or multi-pen.

**Imidacloprid** – QuickBayt Fly Bait

**Cyfluthrin** – Tempo 20 WP, Countdown WP Premise Insecticide, Tempo2, Temp 2% Dust, Countdown EC Premise, Temp SC Ultra, CyLence Pour-On, Prozap CyLence Animal Insecticide Dust

**Piperonyl butoxide** (previously mentioned)

### Dairy Cattle & Dairy Cattle Facilities: Agricultural Chemical Use Total Amount Applied, Program States and Total, 2006

State	Total applied	
	Cattle (1,000 pounds)	Facilities (1,000 pounds)
CA	10.0	7.4
ID	6.7	8.1
IN	8.8	7.8
IA	5.3	14.8
KY	2.2	1.3
MI	4.9	2.9
MN	10.8	12.5
MO	3.9	7.0
NM	9.1	0.3
NY	7.9	10.2
OH	5.2	1.6
<b>PA</b>	<b>14.8</b>	<b>16.0</b>
TX	19.7	34.8
VT	20.1	1.0
VA	10.8	1.0
WA	8.8	1.9
WI	24.9	20.5
<b>Total</b>	<b>174.0</b>	<b>149.1</b>