

# Agricultural Chemical Usage 2007 Nursery & Floriculture

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*The following chemical use data is the most recent data available. For the complete report, search on the keywords 'Agricultural chemical usage' at [www.nass.usda.gov](http://www.nass.usda.gov).*

This report is the third chemical use survey issued by the National Agricultural Statistics Service on nursery and floriculture crops. The publication is part of a series on "Agricultural Chemical Usage", which also provides statistics for on-farm chemical usage for field crops, fruits, livestock, and vegetables. The last chemical use survey for nursery and floriculture crops was published in 2003 for the 2002 production year. NASS collects on-farm chemical use data to enhance the quality of information used in the evaluation of issues related to agricultural chemicals. Pest management data are used to measure Integrated Pest Management (IPM) adoption levels and evaluate the impact of alternative pesticide regulations, policies, and practices. This report includes all chemical use in calendar year 2006 related to the production of nursery and floriculture crops in 6 major producing states: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. There were 1,908 reports (201,631 chemical applications) summarized for the 2006 Nursery and Floriculture Chemical Use Survey.

**Chemical Use Highlights:** There were 374 active ingredients reported as being used by nursery and floriculture operations in the 6 Program States in 2006. A total of 5.59 million pounds of active ingredient, up 17 percent from 4.77 million in 2003, was applied in the Program States: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. Fungicides accounted for 34 percent (1.89 million pounds) of the total chemicals applied. Insecticides - 18 percent (988,600 pounds); herbicides - 17 percent (984 thousand pounds); and other chemicals (growth regulators, rooting compounds, fumigants, disinfectants, etc.) accounted for 31 percent (1.78 million pounds) of the total.

The most commonly used pesticide by percent of operations within the production categories were as follows:

All Nursery: Herbicides, Simazine - 23 percent; insecticides, Carbaryl - 32 percent; Fungicides, Chlorothalonil - 63 percent; and Other Chemicals, Hydrogen peroxide and Pelargonic acid - 1 percent.

Transplants for Commercial Vegetable and Strawberry Production: Herbicides, Glyphosate, Atrazine and S-Metolachor - 37 percent; Insecticides, Imidacloprid and Potassium salts, - 44 percent; Fungicides, Chlorothalomil - 56 percent; and Other

Chemicals, Chlormequat chloride, Daminozide, Ethepon and Pacllobutrazol - 5 percent.

Nursery Propagation or Lining-out Stock: Herbicides, Glyphosate - 33 percent; Insecticides, Chlorfenapyr - 23 percent; Fungicides, Thiophanate - 7 percent.

Broadleaf Evergreens: Herbicides, Isoxaben- 82 percent; Insecticides, Acephate - 14 percent; Fungicides, Azoxystrobin, Chlorothalomil, Copper hydroxide, Copper sulfate, Fosetyl-al, Mancozeb, Phosphorous acid, Propiconazole, Thiophanate, Thionphanate-methyl - 2 percent; and Other Chemicals, Hydrogen peroxide - 2 percent.

Coniferous Evergreens: Herbicides, Glyphosate - 52 percent; Insecticides, Chlorpyrifos - 40 percent; and Fungicides, Chlorothalonil - 45 percent.

Christmas Trees: Herbicides, Glyphosate - 64 percent; Insecticides, Dimethoate - 43 percent; Fungicides, Chlorothalonil - 95 percent.

All Floriculture: Herbicides, Glyphosate iso. salt - 6 percent; Insecticides, Imidacloprid - 51 percent; Fungicides, Etridiazole - 32 percent; and Other Chemicals, Ethepon - 26 percent.

Cut Flowers: Herbicides, Glyphosate iso. salt, Isoxaben, Trifluralin - 28 percent; Insecticides, Diazinon - 35 percent; Fungicides, Chlorothalonil and Mancozeb - 40 percent; and Other Chemicals, Daminozide - 20 percent.

Flowering Plants: Herbicides, Glyphosate iso. salt- 5 percent; Insecticides, Imidacloprid - 40 percent; Fungicides, Etridiazole - 26 percent; and Other Chemicals, Ethepon - 31 percent.

Bedding Plants: Herbicides, Glyphosate iso. salt - 4 percent; Insecticides, Imidacloprid - 41 percent, Spinosad - 42 percent; Fungicides, Etridiazole - 30 percent; and Other Chemicals, Ethepon - 23 percent.

Floriculture Propagation Material: Insecticides, Cyfluthrin - 20 percent; Fungicides, Fenhexamid - 53 percent; and Other Chemicals, Ethepon - 44 percent.