

Agricultural Chemical Usage

2003 Nursery & Floriculture

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(for the complete report, search on the keywords 'agricultural chemical usage' at www.usda.gov/nass/search.htm)

This report is the second 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 2002 for the 2000 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 2003 related to the production of nursery and floriculture crops in 6 major producing states: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. There were 2,121 reports (218,579 chemical applications) summarized for the 2003 Nursery and Floriculture Chemical Use Survey.

Chemical Use Highlights: There were 335 active ingredients reported as being used by nursery and floriculture operations in the 6 Program States in 2003. A total of 4.77 million pounds of active ingredient, a decrease from 5.36 million in 2000, was applied in the Program States: California, Florida, Michigan, Oregon, Pennsylvania, and Texas. Fungicides accounted for 35 percent (1.69 million pounds) of the total chemicals applied. Insecticides - 26 percent (1.25 million pounds); herbicides - 20 percent (984 thousand pounds); and other chemicals (growth regulators, rooting compounds, fumigants, disinfectants, etc.) accounted for 18 percent (857 thousand pounds) of the total.

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

All Nursery: herbicides, glyphosate - 40 percent; insecticides, acephate - 25 percent; fungicides, chlorothalonil - 28 percent; and other chemicals, hydrogen peroxide and metaldehyde - 3 percent.

Transplants for Commercial Vegetable and Strawberry Production: herbicides, glyphosate - 7 percent; insecticides, *Bacillus thuringiensis* - 18 percent; fungicides, copper hydroxide - 21 percent; and other chemicals, metaldehyde and chloropicrin - 10 percent.

Nursery Propagation or Lining-out Stock: herbicides, glyphosate - 22 percent; insecticides, acephate - 20 percent; fungicides, thiophanate - 23 percent; and other chemicals, metaldehyde - 6 percent.

Broadleaf Evergreens: herbicides, glyphosate - 23 percent; insecticides, acephate - 29 percent; fungicides, copper hydroxide - 16 percent; and other chemicals, alkyl dimethyl benzyl 60% and alkyl dimethyl ethyl benzyl - 3 percent each.

Coniferous Evergreens: herbicides, glyphosate - 43 percent; insecticides, chlorpyrifos - 17 percent; fungicides, chlorothalonil - 24 percent; and other chemicals, hydrogen peroxide and sodium hypochlorite - 2 percent.

Christmas Trees: herbicides, glyphosate - 53 percent; insecticides, chlorpyrifos - 32 percent; fungicides, chlorothalonil - 46 percent; and other chemicals, pelargonic acid - 1 percent.

All Floriculture: herbicides, oxyfluorfen - 3 percent; insecticides, acephate - 42 percent; fungicides, thiophanate-methyl - 27 percent; and other chemicals, daminozide - 19 percent.

Cut Flowers: herbicides, glyphosate - 17 percent; insecticides, acephate - 45 percent; fungicides, chlorothalonil - 23 percent; and other chemicals, metaldehyde - 7 percent.

Flowering Plants: herbicides, glyphosate - 7 percent; insecticides, acephate - 38 percent; fungicides, chlorothalonil and thiophanate-methyl - 18 percent; and other chemicals, daminozide - 19 percent.

Bedding Plants: herbicides, glyphosate - 4 percent; insecticides, imidacloprid - 36 percent; fungicides, thiophanate-methyl - 32 percent; and other chemicals, daminozide - 34 percent.

Floriculture Propagation Material: herbicides, glyphosate - 16 percent; insecticides, spinosad - 15 percent; fungicides, mefenoxam - 27 percent; and other chemicals, daminozide - 17 percent.

