

1999 AGRICULTURAL CHEMICAL USE ESTIMATES FOR FRUIT CROPS

Overview

This publication is the fifth Fruit Summary in the series of "Agricultural Chemical Usage" reports issued by the National Agricultural Statistics Service (NASS). These reports contain statistics for the on-farm use of agricultural chemicals. Other chemical usage publications issued in the past year have focused on agricultural chemical use on vegetables (*July 1999*) and field crops (*May 2000*).

This data series addresses the increased public interest in agricultural chemical use and provides the means for government agencies to respond effectively to food safety and water quality issues.

Information in this report is provided from a survey funded by the USDA Pesticide Data Program. The purpose of the Pesticide Data Program is to provide reliable pesticide use statistics and to enhance the quality of information on pesticide residues in food. Multiple agencies within the USDA administer this program. This data series addresses the increased public interest in agricultural chemical use and provides the means for government agencies to respond effectively to food safety and water quality issues.

The National Agricultural Statistics Service collects on-farm agricultural chemical use information to support the evaluation of food safety and water quality issues. The Economic Research Service (ERS) conducts research on the impact of alternative pesticide regulations, policies, and practices. The Agricultural Marketing Service (AMS) conducts a pesticide residue monitoring program. This report includes farm use of pesticides for the 1999 crop year for selected fruit and nut crops in 14 major producing States (*Arizona, Indiana, and Texas were added to the 1999 survey*). The entire report can be found on NASS's website (www.usda.gov/nass/pubs/pubs.htm).

Highlights

Apples: New York growers applied nitrogen to 74 percent of the apple acres in 1999. They applied phosphate to 13 percent and potash to 82 percent of the apple acres. Insecticides were used on 99 percent of the acres. The most commonly used fungicide in New York was captan which was applied to 95 percent of the 55,000 bearing acres.

Nitrogen was applied to 70 percent of the apple acreage in the eleven apple States surveyed. Arizona applied nitrogen to the least amount of acres, 2 percent; Michigan and North Carolina to the most, 85 percent. Phosphate and potash were used less among the major States, with applications made to 37 and 49 percent of the acreage, respectively.

Insecticide applications were made on 97 percent of the acreage in the 11 States surveyed. The most commonly used insecticides were azinphos-methyl and chlorpyrifos. Fungicides were applied to 99 percent of New York's and North Carolina's acreage but in lower percentages in the other States, ranging down to 80 percent of California's acreage. Myclobutanil was the fungicide used on the greatest amount of acres and was applied to 42 percent of the acreage.

Herbicides were applied to 60 percent of the acreage overall and ranged from 12 percent of the acreage in South Carolina upwards to 65 percent and above in five States.

Cherries, Tart: New York growers applied nitrogen to 91 percent of the acreage, applied no phosphate and used potash on 77 percent of the acreage. They applied insecticides to 92 percent and fungicides to 91 percent of the acreage. The insecticide phosmet was used on 60 percent of the 2,600 tart cherry acres. Captan, applied to 84 percent of those acres, was the most frequently used fungicide in New York.

For the four tart cherry States surveyed, nitrogen was applied to 89 percent of the acreage, while phosphate and potash were used on 27 and 66 percent, respectively. Insecticides and fungicides were applied to virtually all of the acreage while herbicides were applied to 62 percent of the acreage. Azinphos-methyl was the insecticide applied to the most acres, at 79 percent of the crop. Chlorothalonil, at 78 percent, and sulfur, at 76 percent, were the most widely used fungicides. Glyphosate and paraquat were the two most common herbicides and were applied to 37 and 27 percent of the acres, respectively.

Grapes, All: New York growers did not use phosphate in 1999 and applied potash to 45 percent of the grape acreage. Fungicides were applied to all 31,500 grape acres using mancozeb on 71 percent of those acres. Ninety-three percent of the grape acres received herbicides and 80 percent had insecticides applied. Glyphosphate, an herbicide, was used on 62 percent of the acres.

Nitrogen was applied to 89 percent of the acreage in the seven grape States surveyed. New York and Pennsylvania applied it to the most acres, at 96 and 95 percent, respectively. In contrast, Indiana applied nitrogen more sparingly to only 33 percent of the acres. Phosphate was applied to 65 percent of the total acreage. However, this figure was highly skewed by California at 71 percent since they had 90 percent of the seven-state acreage. Potash applications were made on 71 percent of the acres. Oregon applications were the lowest, at 19 percent, while Michigan was the highest at 77 percent.

Fungicides were applied to slightly more acres than were herbicides and insecticides in the seven States surveyed. The percent of acres treated with fungicides was 81 percent; sulfur was, by far, the leading fungicide and was in use on 76 percent of the acres. In the insecticide category, imidacloprid was the most commonly used material; it was applied to 32 percent of the acreage. Herbicide applications were made to 75 percent of the acres overall with paraquat being the most commonly used at 54 percent of the acreage.

Peaches: New York growers applied nitrogen to 89 percent of the peach acreage. One tenth of the acreage received phosphate and two thirds received potash. Almost all of New York's 1600 peach acres received fungicide (97%). Captan was applied to 77 percent of the acres. A bit more than half of the acres were treated with an herbicide (56%).

Nitrogen was applied to 87 percent of the peach acreage in the ten peach States surveyed. One-third of the acreage received phosphate treatments, and half of the acreage received potash. Insecticide and fungicide use were each reported on 88 percent of the peach acreage in the ten States surveyed. Georgia and New York each reported insecticide use on 99 percent of the crop. All other surveyed States ranged from 81 to 97 percent of the acres. Fungicide usage was lowest in Texas at 74 percent of the acres while the other States ranged from 86 percent in California to 99 percent in Georgia. Herbicide use was reported on 58 percent of the peach acreage. Washington and California each had the lowest percentage treated, reporting use on 43 percent of the crop.

Pears: Only 61 percent of New York's pear acreage had nitrogen applied. Phosphate was applied to 11 percent and potash to 63 percent. Seventy-nine percent of New York's 2,000 pear acres had insecticide applied. Azinphos-methyl was the most commonly used. Seventy-eight percent of the acreage received fungicides and 43 percent received herbicides. These figures are below the average for the six surveyed pear states.

About 78 percent of the pear acreage in the six States surveyed for pears was treated with nitrogen. Phosphate was applied to 20 percent, and potash was applied to 30 percent. California applied nitrogen most frequently, at 89 percent. Michigan was the lowest at 55 percent.

Insecticides were applied to 91 percent of the acreage in the six States surveyed, while fungicides were applied to 86 percent of the acres. Oregon applied insecticides to 99 percent of their acres, followed closely by Pennsylvania at 97 percent and Washington at 96 percent. Fungicides were applied to almost all of the Oregon and Pennsylvania acreage but were reported used on only three-fourths of California's acreage. Herbicides were put on 48 percent of the acreage in the six States. Oregon growers used herbicides on 68 percent of their pear acreage while the percent treated in the other five States ranged from 51 percent downward. An average of 50 percent of the acreage was treated with other chemicals, ranging from 7 to 60 percent.