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Agricultural Chemical Usage
2004 Vegetables Summary

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Overview

This publication is the eighth Vegetable Summary in the series of **"Agricultural Chemical Usage"** reports issued by the Environmental, Economics, and Demographics Branch of the United States Department of Agriculture's National Agricultural Statistics Service (USDA-NASS). This report contains statistics for on-farm use of agricultural chemicals and pest management practices from producers of targeted vegetable crops. The agricultural chemical use estimates in this report focus on the acreage treated with herbicides, insecticides, fungicides, and other pesticides for selected vegetable crops. Other publications in the series that have statistics for on-farm agricultural chemical usage have focused on agricultural chemical use for field crops (May 2005) and nursery applications (September 2004). Chemical use information for vegetables is collected in even numbered years while fruit are collected in odd numbered years.

Information in this report is provided from a survey funded by the USDA Pesticide Data Program. Delaware was surveyed for chemical use on lima beans with funding from outside sources. 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.

This report includes chemical use information for 23 targeted vegetable crops in 20 States. The States surveyed were: Arizona, California, Delaware, Florida, Georgia, Illinois, Maryland, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Washington, and Wisconsin. The targeted crops were: asparagus, lima beans, snap beans, broccoli, cabbage, cantaloupes, carrots, cauliflower, celery, sweet corn, cucumbers, garlic, honeydews, lettuce, onions, green peas, bell peppers, pumpkins, spinach, squash, strawberries, tomatoes, and watermelons. Additional tables containing the 5 most active ingredients for each commodity have been included in this publication, but only for the commodities which have at least 5 states in the survey program.

California's vegetable crop data are centered around their Pesticide Reporting requirements, which screens for the county agriculture commissioners ID and CAL-EPA site location numbers. Some pesticides are labeled for control of more than one type of pest, i.e., as an insecticide and as a fungicide. In these instances, the active ingredient is listed under the pesticide class for which it was predominantly used. This report excludes pesticides used for seed treatments and postharvest applications to the commodity. Spot treatments, which account for a very small percentage of total applications, are mentioned only in the "Active Ingredients and Publication Status" tables.

AGRICULTURAL CHEMICAL USE SURVEY COVERAGE

Crop	2004			2002		
	States Surveyed	Reports Summarized	U.S. Acreage Included	States Surveyed	Reports Summarized	U.S. Acreage Included
	Number		Percent	Number		Percent
Asparagus	3	274	100	3	275	100
Beans, Lima, Proc.	2	29	40	N/A	N/A	N/A
Beans, Snap, Fresh	6	544	84	5	427	77
Beans, Snap, Proc.	6	298	77	5	277	71
Broccoli	1	133	93	1	124	91
Cabbage, Fresh	7	488	81	9	655	85
Cantaloupes	3	213	83	4	291	85
Carrots, Fresh	2	137	84	3	125	86
Carrots, Proc.	4	48	87	4	49	86
Cauliflower	1	85	86	1	80	87
Celery	1	60	92	1	50	92
Corn, Sweet, Fresh	13	1,433	81	9	1,142	66
Corn, Sweet, Proc.	5	516	88	5	474	87
Cucumbers, Fresh	7	628	87	5	410	71
Cucumbers, Pickles	7	291	69	7	299	69
Garlic	1	96	83	1	61	83
Honeydews	2	68	94	2	49	93
Lettuce, Head	2	110	98	2	100	98
Lettuce, Other	2	165	100	2	128	100
Onions, Bulb	6	556	75	6	492	75
Peas, Green, Proc.	5	417	86	5	419	88
Peppers, Bell	3	245	78	4	333	84
Pumpkins	5	687	85	4	581	68
Spinach	3	126	88	3	101	85
Squash	6	766	78	6	755	80
Strawberries	3	285	82	3	263	80
Tomatoes, Fresh	7	798	81	5	472	76
Tomatoes, Proc.	1	107	94	1	105	93
Watermelons	7	711	76	7	713	76

Highlights

Asparagus: Herbicides and insecticides were applied to 69 percent of the planted acres in California, Michigan, and Washington, with the greatest coverage in Michigan at 97 percent for herbicides and 95 percent for insecticides. Diuron was applied to 51 percent of the crop, and the next most commonly used herbicides were glyphosate and metribuzin, which were applied to 38 and 34 percent of the acreage, respectively. Carbaryl was the most widely used insecticide, at 38 percent, followed by disulfoton at 31 percent. Overall, fungicides were used on 37 percent of the acreage. Michigan applied fungicides to 78 percent of their asparagus acreage. The most commonly reported fungicide was mancozeb, at 21 percent. In all classes of pesticides, Michigan applied pesticides to a greater percentage of acres than both California and Washington.

Lima Beans: Delaware and Maryland were the only states surveyed for processed lima beans. Herbicides were used to treat 91 percent of the acres planted to lima beans, with imazethapyr being the most utilized active ingredient covering 79 percent of the acres, followed by trifuluralin used to treat 69 percent of the acres. Insecticides were used on 88 percent of the acreage, with lambda-cyhalothrin and zeta-cypermethrin being the most commonly used active ingredients, at 65 and 53 percent, respectively. Fungicides were applied to 94 percent of the acreage, with copper hydroxide being the most commonly used at 92 percent.

Snap Beans: Herbicides were applied to 60 percent of the fresh market snap beans from the following states surveyed in 2004: California, Florida, Georgia, New York, North Carolina, and Tennessee. Insecticide, fungicide, and other chemical applications were made to 76, 79, and 2 percent of the acreage, respectively. Major herbicides used included S-Metolachlor, applied to 37 percent of the acreage, followed by trifluralin, applied to 16 percent of the acres. The more commonly used insecticides were acephate, esfenvalerate, and methomyl covering 26, 22, and 19 percent of the acreage, respectively. Chlorothalonil was the most widely used fungicide and was applied on 54 percent of the acreage. Azoxystrobin was the next most utilized fungicide being applied to 26 percent of the acreage, followed by metalaxyl and sulfur on 22 and 21 percent of the acres, respectively.

Snap bean acreage planted for processing was surveyed in six states: Illinois, Michigan, New York, Oregon, Pennsylvania, and Wisconsin. Growers treated 91 percent of the acreage with herbicides; 87 percent received insecticides; and 65 percent received fungicide treatments. The herbicides used most were EPTC, applied to 49 percent of the acres, S-Metolachlor used on 43 percent of the acres, and trifluralin applied to 33 percent of the acreage. Insecticides commonly used included bifenthrin on 31 percent of the acreage, followed by acephate and zeta-cypermethrin at 27 and 24 percent coverage, respectively. Vinclozolin was used more than all other fungicides, at 35 percent.

Broccoli: California was the only state surveyed for broccoli. Herbicides were used to treat 34 percent of California's broccoli acreage. The most utilized herbicide was DCPA, covering 25 percent of the acreage. Insecticides were applied to 74 percent of the acreage, and fungicides were applied to 12 percent of the acres. A wide variety of insecticides were used, but the most commonly used were oxydemeton-methyl, dimethoate, and chlorpyrifos on 55, 43, and 39 percent of the acreage, respectively. There was little use of fungicides on the surveyed acreage, with no single active ingredient covering 10 percent of the acres. Mefenoxam was applied to 9 percent of the acreage, followed by chlorothalonil, which was applied on 6 percent of the planted acreage.

Cabbage: States surveyed for fresh market cabbage included California, Florida, Georgia, New York, North Carolina, Texas, and Wisconsin. Herbicides were applied to 57 percent of the fresh market cabbage acres. The most commonly used herbicides were trifluralin at 22 percent, followed by oxyflurorfen and S-metolachlor, which both were applied to 14 percent of the acreage. Insecticides were applied to 85 percent of the fresh market cabbage acreage. The most commonly reported insecticides included bacillus thuringiensis and spinosad, both were applied on 42 percent of the acres, followed by indoxacarb, used on 25 percent of the crop acreage. Fungicides were applied to 58 percent of the acreage. Chlorothalonil and maneb were the most utilized fungicides, with 47 and 23 percent of the acres being treated. Other chemicals were utilized on 4 percent of the acres.

Cantaloupes: Three program states, Arizona, California, and Texas were surveyed for cantaloupes. Herbicides were used to treat 37 percent of the planted acreage. Trifluralin and bensulide were the most common herbicides used on 18 percent and 11 percent of the acreage, respectively. Insecticides were applied to 54 percent of the acres, with Bacillus thuringiensis being the most utilized active ingredient, covering 22 percent. Endosulfan was applied to 18 percent of the acres. Imidacloprid and spinosad were both applied to 16 percent of the acres. Fungicides were applied to 51 percent of the planted acreage. Sulfur was the most commonly applied fungicide, at 31 percent. Other chemicals were used to treat 22 percent of the acreage planted to cantaloupes.

Carrots: California and Michigan growers applied herbicides to 46 percent of the carrot acreage for fresh market production. The two herbicides used most were linuron, on 38 percent of the acreage, and trifluralin, on 25 percent of the acres. Insecticides were reported on 15 percent of the acreage. Esfenvalerate was the only insecticide reported on fresh market carrots, at 7 percent. Fungicides were used on 53 percent of the acreage, with mefenoxam being the most utilized, covering 41 percent of the acreage. Other chemicals were applied to 23 percent of the acreage, with metam-sodium being the most widely used on 19 percent of the acres.

Carrot acreage planted for processing was surveyed in four states: California, Texas, Washington, and Wisconsin. Herbicide applications were reported on 81 percent of the surveyed acreage. The herbicides most commonly used were linuron and trifluralin, at 81 and 27 percent, respectively. Insecticides were applied to 50 percent of the planted acres. Esfenvalerate was used most, applied to 42 percent of the acres. Fungicides were applied to 63 percent of the acreage. Chlorothalonil was the most utilized fungicide, covering 48 percent of the acreage; followed by copper hydroxide, which was applied to 22 percent of the acres. Other chemicals were used to treat 36 percent of processed carrots. Dichloropropene was the most commonly reported other chemical, covering 32 percent of the acres. California applied less pesticides by class type than all other states surveyed.

Cauliflower: For the 2004 crop year, California accounted for 86 percent of all the U.S. planted acres in cauliflower and was the only state surveyed. Herbicides were applied to 26 percent of the cauliflower acreage. The most widely used herbicides were DCPA, on 12 percent of the acres, and oxyfluorfen, on 11 percent. Insecticides were used on 81 percent of the surveyed acres. A wide array of insecticides were used which included spinosad, applied to 46 percent of the acreage; indoxacarb, on 40 percent; and oxydemeton-methyl, on 39 percent of the acres. Fungicides were used on 8 percent of the acreage. Chlorothalonil and mefenoxam were the most commonly used fungicides applied to 5 and 3 percent of the acres, respectively.

Celery: California was the only state surveyed for celery and accounted for 92 percent of all the U.S. planted acres. Herbicides were applied to 39 percent of the planted acres. Prometryn was predominantly used, applied to 36 percent of the acreage. Insecticides were widely used, applied to 57 percent of the acreage. The most utilized insecticides were: spinosad, on 47 percent of the acres; acephate and oxamyl, both on 33 percent; benzoic acid, on 28 percent; zeta-cypermethrin, on 27 percent; and abamectin, on 26 percent of the acres. Fungicides were applied to 38 percent of the acreage. Chlorothalonil was the most commonly utilized fungicide, applied to 32 percent of the acreage; followed by dicloran, applied to 19 percent; and copper hydroxide and propiconazole, both applied to 15 percent of the acreage.

Highlights (cont.)

Corn, Sweet: Thirteen states were included in the 2004 survey for fresh market sweet corn: California, Florida, Georgia, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Texas, and Wisconsin. Herbicides were applied to 79 percent of the fresh market sweet corn acreage. Atrazine was used on 67 percent of the acres, followed by S-Metolachlor on 43 percent. Insecticides were widely used, applied to 88 percent of the surveyed acreage. The most common insecticides applied were: lambda-cyhalothrin, on 59 percent of the acres; methomyl, applied to 46 percent of the acreage and applied more often than any other active ingredient in the insecticide class; and zeta-cypermethrin and chlorpyrifos, which were applied to 25 and 24 percent of the planted acres, respectively. Fungicides were used on 36 percent of the acreage. Propiconazole was used on 20 percent of the acreage and was applied less often than any other active ingredient in the fungicide class. Mancozeb was the second most commonly reported fungicide, used to treat 16 percent of the acreage.

There were five program states surveyed for pesticide applications on processed sweet corn acreage: (Minnesota, New York, Oregon, Washington, and Wisconsin). A higher percentage of herbicides were used on processed sweet corn compared to fresh market. Herbicides were used on 92 percent of the surveyed acres, with Oregon, New York, and Washington all reporting at least 95 percent coverage. Atrazine was applied to 69 percent of the acreage, bentazon to 31 percent, and S-metolachlor to 30 percent. Approximately, 71 percent of the acreage was treated with insecticides. The two insecticides most commonly applied were lambda-cyhalothrin, on 37 percent, and zeta-cypermethrin, on 17 percent of the acres. Both of these active ingredients averaged the same number of applications (2.7) and were applied more often than all other active ingredients in the insecticide class. Fungicides were reportedly used only on 17 percent of the Program States planted acres. Azoxystrobin and propiconazole were the primary fungicides used on 15 and 10 percent of acres, respectively.

Cucumbers: The seven program states: California, Florida, Georgia, Michigan, New Jersey, New York, and North Carolina applied herbicides to 49 percent of their fresh market cucumber acreage. Ethalfuralin was the most commonly applied herbicide, being used on 25 percent of the acreage. Insecticides were more widely used, applied to 77 percent of the acreage. Endosulfan was used on 25 percent of the acreage, and Bacillus thuringiensis was used on 17 percent. Fungicides were applied to 88 percent of the planted acreage. Georgia, Florida, and Michigan utilized fungicides the most, all treating over 95 percent of their acreage. Chlorothalonil was the fungicide predominantly used, applied to 60 percent of the acreage. Azoxystrobin, and copper hydroxide were applied to 40 and 28 percent of the acreage, respectively. Other chemicals were applied to 17 percent of the acreage. Dichloropropene was applied to 6 percent of the acreage, followed by chloropicrin, and methyl bromide applied to 4 percent of acreage.

Herbicides were applied to 84 percent of the pickle cucumber acreage in the following states: Florida, Michigan, North Carolina, Ohio, South Carolina, Texas, and Wisconsin. The leading herbicides used were ethalfluralin on 59 percent of the acres, clomazone on 28 percent, and halosulfuron on 15 percent. Insecticides were applied to 32 percent of the acreage. Florida used insecticides on all of its acreage planted for pickle cucumbers. Spinosad was the most utilized insecticide, as it was applied to 8 percent of the states surveyed planted acreage. Fungicides were applied to 37 percent of the acreage with chlorothalonil being used most, covering 23 percent of the acres.

Garlic: California's garlic growers applied herbicides, insecticides, and fungicides on 75, 57, and 63 percent of their acreage, respectively. Pendimethalin, at 41 percent applied, was the most widely used herbicide, followed by oxyfluorfen, which was applied to 36 percent of the acres. The only active ingredient published for insecticides was zeta-cypermethrin, at 46 percent. Fungicides were applied to 63 percent of the acreage, with azoxystrobin being the most utilized fungicide, applied to 53 percent of the acres.

Honeydews: Arizona and California were the only two states surveyed for honeydew melons. Herbicides were used to treat 17 percent of the acres planted to honeydew melons, with trifluralin being the most utilized active ingredient covering 8 percent of the acres, followed by bensulide, used to treat 2 percent of the acres. Insecticides were used on 84 percent of the acreage with bifenthrin and spinosad being the most commonly used active ingredient, at 62 and 43 percent, respectively. Fungicides were applied to only 29 percent of the acreage, with thiophanate-methyl being the most commonly used at 9 percent. Other chemicals were applied to 11 percent of the planted acreage.

Lettuce, Head: California and Arizona growers applied herbicides to 38 percent of the head lettuce acreage. Pronamide was applied to 25 percent of the acreage, whereas bensulide was applied to 20 percent of the acres. Insecticides were more widely used, applied to 89 percent of the planted acreage. A wide range of insecticides were used which included: spinosad, on 57 percent of the planted acres; zeta-cypermethrin on 54 percent; acephate and diazinon on 42 percent of the acreage. Fungicides were applied to 63 percent of the acreage. Maneb was the most predominantly used, applied to 59 percent of the acres, followed by iprodione and fosetyl-al, applied to 22 and 19 percent, respectively.

Lettuce, Other: California and Arizona were the only states surveyed. Herbicides were applied to 43 percent of the other lettuce acreage, with pronamide being applied to 35 percent of the acreage, followed by bensulide on 22 percent. Insecticides were applied to 85 percent of the acreage. There was a wide array of insecticides used including: zeta-cypermethrin on 53 percent, spinosad on 51 percent, imidacloprid on 48 percent of the acreage, and diazinon on 44 percent of the acres. Fungicides were applied to 66 percent of the acreage. Maneb was the leading fungicide, as it was applied to 59 percent of the acreage. Other chemicals were applied to 1 percent of the planted acreage.

Onions, Bulb: Herbicides were applied to 78 percent of the bulb onions from the following states surveyed in 2004: California, Georgia, New York, Oregon, Texas, and Washington. Insecticide, fungicide, and other chemical applications were made on 77, 76, and 18 percent of the acreage, respectively. Major herbicides used were oxyfluorfen, applied to 54 percent of the acreage; followed by bromoxynil, applied to 48 percent; and pendimethalin, applied to 45 percent of the acres. The more commonly used insecticides were lambda-cyhalothrin and methomyl, covering 46 and 33 percent of the acreage, respectively. The next two most used insecticides were chlorpyrifos and zeta-cypermethrin, both applied to 26 percent of the acres. Chlorothalonil was the most widely used fungicide and was applied to 45 percent of the acreage, followed by mancozeb, the next most utilized fungicide applied to 43 percent of the acres. Maleic hydrazide was the most commonly used other chemical, applied to 11 percent of the acres.

Peas, Green, Processing: States surveyed for processed green peas included Minnesota, New York, Oregon, Washington, and Wisconsin. Herbicides were applied to 88 percent of the planted acreage for processed green peas. Across the five program states, the application percentages ranged from 84 percent in Minnesota and Wisconsin to 99 percent in Oregon and New York. Pendimethalin received the most coverage, on 48 percent of the crop. Imazethapyr, at 34 percent coverage, and bentazon, at 27 percent, were the next two most used herbicides. Insecticides were applied to 21 percent of the acreage. Dimethoate was applied to 14 percent of the processing green pea acreage. Fungicides were applied to only 2 percent of the acreage. Wisconsin was the only state surveyed that applied fungicides at a rate which was publishable.

Peppers, Bell: Growers in three program states (California, Florida, and North Carolina) applied herbicides, ranging from 19 percent of the planted acreage in California to 61 percent in North Carolina. The most commonly applied herbicides were napropamide and paraquat, both active ingredients were used to treat 9 percent of the acres. Insecticides were applied to 89 percent of the acreage. A wide array of insecticides were used, which included spinosad, applied to 42 percent of the acreage; methomyl, on 31 percent; and Bacillus thuringiensis, on 29 percent of the acres. Fungicides were used on 80 percent of the acreage. The leading fungicides used were sulfur, on 40 percent of the acres; copper hydroxide and maneb, both on 39 percent; and mefenoxam, on 36 percent of the acreage. Other chemicals were applied to 50 percent of the acreage. Methyl bromide and chloropicrin were the most commonly applied other chemicals, at 31 and 21 percent, respectively.

Pumpkins: Herbicides were applied to 74 percent of the acreage planted to pumpkins in the following states: California, Illinois, Michigan, New York, and Pennsylvania. Insecticide, fungicide, and other chemical applications were made to 68, 76, and 1 percent of the acreage, respectively. Major herbicides used included clomazone, applied to 57 percent of the acreage; followed by halosulfuron, applied to 21 percent of the acres. The more commonly used insecticides were bifenthrin, endosulfan, and carbaryl, covering 27, 16, and 11 percent of the acreage, respectively. Chlorothalonil was the most widely used fungicide and was applied on 57 percent of the acreage. Myclobutanil was the next most utilized fungicide, applied to 23 percent of the acreage, followed by azoxystrobin on 21 percent of the acres. New York applied less pesticides than all other states surveyed.

Spinach: Herbicides and insecticides were applied to 24 and 66 percent of the planted spinach acreage in Arizona, California, and Texas, with the greatest coverage in Texas at 84 percent for herbicides and 82 percent for insecticides. Cycloate was applied to 13 percent of the crop, and the next most commonly used herbicide was S-Metolachlor, applied to 10 percent of the acreage. Spinosad was the most widely used insecticide, at 49 percent; followed by permethrin at 33 percent, and diazinon at 26 percent. Overall, fungicides were used on 50 percent of the acreage. Texas applied fungicides to 91 percent of their spinach acreage; the active ingredients applied most were mefenoxam and fosetyl-al at 45 and 11 percent, respectively. In all classes of pesticides, Texas applied a greater percentage than both Arizonia and California.

Squash: Six states (California, Florida, Georgia, Michigan, New Jersey, and North Carolina) were surveyed for chemical usage on squash. Herbicides were used on 39 percent of the planted acreage in these program states. Ethalfluralin and clomazone were the most common active ingredients applied, at 19 and 10 percent, respectively. Insecticides were used on 71 percent of the acreage, with endosulfan the most commonly used at 28 percent. Other insecticides applied were esfenvalerate, on 26 percent of the acres, and Bacillus thuringiensis, on 18 percent of the planted squash acreage. Fungicides were used on 74 percent of the acreage. Chlorothalonil was the most widely used fungicide, at 54 percent. Other fungicides included: maneb used on 27 percent of the acres, and copper hydroxide and mancozeb, both applied to 19 percent of the acreage, respectively. Other chemicals were applied to 9 percent of the acreage; chloropicrin and methyl bromide were the only active ingredients applied as other chemicals.

Strawberries: Three program states (California, Florida, and Oregon) were surveyed for strawberries. Herbicides were used to treat 16 percent of the planted acreage. Glyphosate was the most used herbicide on 6 percent of the acreage, followed by napropamide, paraquat and simazine, all of which were applied to 4 percent of the acres. Insecticides were applied to 72 percent of the acres planted, with Bacillus thuringiensis and methomyl being the most used, treating 27 percent each. Abamectin, malathion, and spinosad were all applied to 23 percent of the acres. Fungicides were applied to 77 percent of the planted acreage. Captan was the most commonly applied fungicide, at 62 percent; followed by sulfur at 52 percent, and azoxystrobin and fenhexamid, both used to treat 29 percent of the acreage. Other chemicals were used to treat 44 percent of the planted acres. Methyl bromide and chloropicrin were the most commonly used other chemicals, at 33 and 32 percent, respectively.

Highlights (cont.)

Tomatoes: The seven program states (California, Florida, Georgia, New Jersey, North Carolina, Ohio, and Tennessee) applied herbicides to 64 percent of their fresh market tomato acreage. Metribuzin was the most commonly applied herbicide being used on 44 percent of the acreage, followed by paraquat on 31 percent of the acres. Insecticides were more widely used, applied to 90 percent of the acreage. Esfenvalerate was used on 44 percent of the acreage; imidacloprid on 35 percent of the acres; and Bacillus thuringiensis on 34 percent. Fungicides were applied to 89 percent of the planted acreage. Chlorothalonil and copper hydroxide were the fungicides predominantly used, each applied to 65 percent of the acreage. Mancozeb and mefenoxam were applied to 62 and 32 percent of the acreage, respectively. Other chemicals were applied to 51 percent of the acreage; chloropicrin and methyl bromide were the most commonly used other chemicals at 48 and 42 percent, respectively.

California was the only state surveyed for chemicals used on processed tomatoes. Herbicides were applied to 70 percent of the processed tomato acreage. The leading herbicides used were trifluralin, on 52 percent of the acres, rimsulfuron on 39 percent, and S-Metolachlor on 36 percent. Insecticides were applied to 53 percent of the acreage. Dimethoate and indoxacarb were the most commonly applied insecticides on 15 and 14 percent of the acres, respectively. Sulfur was the most utilized fungicide, as it was applied to 55 percent of California's planted acreage. Other chemicals were applied to 22 percent of the planted acres, with metam-sodium being the most commonly applied at 17 percent.

Watermelons: In the seven program states (Arizona, California, Florida, Georgia, North Carolina, South Carolina, and Texas), herbicides were applied to 46 percent of the planted acreage, while 51 percent of the acreage was treated with insecticides. Fungicides were applied to 85 percent of the planted acreage, and 15 percent of the acreage was treated with other chemicals. Ethalfluralin and glyphosate were applied to 19 and 11 percent of the acreage, followed by three other active ingredients (naptalam, sethoxydim, and trifluralin) used on 10 percent of the acres. The insecticide Bacillus thuringiensis was applied to 16 percent of the acreage, followed by endosulfan on 14 percent, and imidacloprid on 13 percent of the acres. Chlorothalonil was the most utilized fungicide, covering 58 percent of the acreage, followed by mancozeb which was applied to 44 percent of the acres. Dichloropropene and gibberellic acid were the two most commonly used other chemicals applied to 7 and 5 percent of the acres, respectively.

Asparagus: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States			
	ALL	CA	MI	WA
Herbicides				
2,4-D	P	*	P	*
2,4-D, Dimeth. salt	*	*	*	
2,4-D, Triisopropan.	*	*	*	
Acetic acid (2,4-D)	*		*	
Alachlor	*		*	
Dicamba	P	*	*	
Dicamba, Dimet. salt	*		*	
Diuron	P	P	P	P
Fluazifop-P-butyl	P		*	*
Glyphosate	P	P	P	P
Glyphosate diam salt	*	*		
Halosulfuron	*	*	*	*
Linuron	P	P	P	P
Metribuzin	P	*	P	*
Norflurazon	P		*	*
Paraquat	P	*	P	*
S-Metolachlor	P		P	
Sethoxydim	*	*	*	*
Sulfentrazone	*		*	
Terbacil	P		P	
Trifluralin	P	P		P
Insecticides				
Abamectin	*		*	
Azadirachtin	*	*		
Azinphos-methyl	*		*	
Carbaryl	P	*	P	*
Chlorpyrifos	P	P	*	*
Diazinon	*			*
Dimethoate	*			*
Disulfoton	P	P		P
Esfenvalerate	*		*	
Malathion	P		*	*
Methomyl	*		*	
Oxamyl	*			*
Permethrin	P		*	*
Pyrethrins	*		*	*
Rotenone	*		*	*

See footnote(s) at end of table.

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Asparagus: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	CA	MI	WA
Fungicides				
Azoxystrobin	*			*
Chlorothalonil	P	*	P	*
Copper hydroxide	*			*
Mancozeb	P		P	P
Mefenoxam	*	*		
Myclobutanil	*	*	*	
Sulfur	P		*	*
Tebuconazole	*		*	
Other Chemicals				
Cytokinins	*		*	
Dichloropropene	*	*		*
Metam-sodium	*			*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Asparagus: Pesticide, Planted Acreage, Percent of Area Receiving Applications and Total Applied Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [1]	26,000	45	39.5	46	20.1	5	0.3		
MI [1]	15,500	97	64.1	95	37.2	78	52.4		
WA [1]	15,000	82	30.7	82	28.7	52	13.7		
Total [1]	56,500	69	134.3	69	86.0	37	66.4		

[1] Insufficient reports to publish data for one or more pesticide classes.

Asparagus: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	6	1.1	1.05	1.16	3.7
Dicamba	2	1.2	0.35	0.43	0.5
Diuron	51	1.5	1.30	1.91	54.8
Fluazifop-P-butyl	2	1.0	0.10	0.10	0.1
Glyphosate	38	1.5	0.85	1.25	26.6
Linuron	15	1.5	0.78	1.14	9.8
Metribuzin	34	1.5	0.63	0.94	17.7
Norflurazon	1	1.4	0.76	1.07	0.3
Paraquat	10	1.2	0.58	0.68	3.9
S-Metolachlor	2	1.2	1.19	1.42	1.7
Terbacil	1	1.3	0.27	0.35	0.2
Trifluralin	19	1.0	1.21	1.23	13.2
Insecticides					
Carbaryl	38	2.4	0.83	2.02	43.3
Chlorpyrifos	21	1.1	0.94	1.00	11.9
Disulfoton	31	1.3	1.02	1.32	23.5
Malathion	3	1.0	0.97	0.97	1.5
Permethrin	15	2.2	0.09	0.19	1.6
Fungicides					
Chlorothalonil	17	2.5	1.28	3.14	29.7
Mancozeb	21	1.7	1.43	2.48	29.4
Sulfur	2	2.3	1.86	4.24	5.8

[1] Planted acreage in 2004 for the 3 Program States was 56,500 acres. States included are CA, MI, and WA.

Asparagus: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Diuron	28	1.2	1.64	1.91	14.1
Glyphosate	23	1.5	0.99	1.47	8.6
Linuron	21	1.5	0.82	1.21	6.6
Trifluralin	11	1.0	1.69	1.71	5.0
Insecticides					
Chlorpyrifos	12	1.0	1.00	1.04	3.2
Disulfoton	35	1.3	1.00	1.27	11.5

[1] Planted acreage in 2004 for California was 26,000 acres.

Asparagus: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	15	1.1	0.88	0.93	2.2
Diuron	91	1.8	1.21	2.18	30.7
Glyphosate	89	1.5	0.80	1.21	16.7
Linuron	4	1.2	0.78	0.94	0.6
Metribuzin	70	1.6	0.48	0.77	8.5
Paraquat	25	1.2	0.56	0.67	2.6
S-Metolachlor	8	1.2	1.19	1.42	1.7
Terbacil	3	1.3	0.27	0.35	0.2
Insecticides					
Carbaryl	85	3.1	0.66	2.04	27.0
Fungicides					
Chlorothalonil	58	2.5	1.28	3.26	29.2
Mancozeb	36	2.3	1.46	3.36	19.0

[1] Planted acreage in 2004 for Michigan was 15,500 acres.

Asparagus: Agricultural Chemical Applications, Washington, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Diuron	48	1.2	1.17	1.40	10.0
Glyphosate	11	1.1	0.69	0.76	1.2
Linuron	16	1.5	0.68	1.02	2.5
Trifluralin	52	1.0	1.03	1.05	8.3
Insecticides					
Disulfoton	58	1.3	1.05	1.38	11.9
Fungicides					
Mancozeb	41	1.2	1.39	1.70	10.4

[1] Planted acreage in 2004 for Washington was 15,000 acres.

Lima Beans, Proc.: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States		
	ALL	DE	MD
Herbicides			
Alachlor	*		*
Bentazon	P	*	*
Halosulfuron	*	*	
Imazethapyr	P	P	P
Paraquat	*		*
Pendimethalin	*	*	
S-Metolachlor	P	P	P
Sethoxydim	*	*	*
Trifluralin	P	*	*
Insecticides			
Bifenthrin	*	*	
Dimethoate	*	*	
Lambda-cyhalothrin	P	P	P
Methomyl	P	*	*
Zeta-cypermethrin	P	P	P
Fungicides			
Boscalid	*	*	
Copper hydroxide	P	P	P
Mefenoxam	*	*	
Metalaxyl	*	*	
Thiophanate-methyl	P	P	P

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Lima Beans, Proc.: Pesticide, Planted Acreage, Percent of Area Receiving Applications and Total Applied Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
DE	16,300	91	18.0	88	2.7	94	30.6		
MD	500	99	0.7	91	0.2	95	1.4		
Total	16,800	91	18.7	88	2.9	94	32.0		

Lima Beans, Proc.: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	18	1.0	0.99	1.00	3.1
Imazethapyr	79	1.0	0.04	0.04	0.5
S-Metolachlor	48	1.0	0.84	0.84	6.8
Trifluralin	69	1.0	0.57	0.57	6.5
Insecticides					
Lambda-cyhalothrin	65	1.2	0.03	0.03	0.3
Methomyl	13	1.1	0.65	0.69	1.5
Zeta-cypermethrin	53	1.5	0.04	0.06	0.5
Fungicides					
Copper hydroxide	92	2.1	0.71	1.52	23.5
Thiophanate-methyl	28	1.1	1.41	1.56	7.4

[1] Planted acreage in 2004 for the 2 Program States was 16,800 acres. States included are DE and MD.

Lima Beans, Proc.: Agricultural Chemical Applications, Delaware, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Imazethapyr	80	1.0	0.04	0.04	0.5
S-Metolachlor	47	1.0	0.84	0.84	6.5
Insecticides					
Lambda-cyhalothrin	65	1.2	0.03	0.03	0.3
Zeta-cypermethrin	53	1.4	0.04	0.06	0.5
Fungicides					
Copper hydroxide	92	2.1	0.71	1.50	22.5
Thiophanate-methyl	27	1.1	1.41	1.57	7.0

[1] Planted acreage in 2004 for Delaware was 16,300 acres.

Lima Beans, Proc.: Agricultural Chemical Applications, Maryland, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Imazethapyr	45	1.0	0.03	0.03	([2])
S-Metolachlor	70	1.0	0.78	0.80	0.3
Insecticides					
Lambda-cyhalothrin	62	1.1	0.03	0.03	([2])
Zeta-cypermethrin	61	1.5	0.03	0.04	([2])
Fungicides					
Copper hydroxide	95	2.5	0.84	2.12	1.0
Thiophanate-methyl	52	1.0	1.40	1.40	0.4

[1] Planted acreage in 2004 for Maryland was 500 acres.
[2] Total applied is less than 50 lbs.

Snap Beans, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States						
	ALL	CA	FL	GA	NY	NC	TN
Herbicides							
Alachlor	*	*				*	
Bensulide	*		*				
Bentazon	P			*	P	*	P
Butoxy. ester 2,4-D	*					*	
Clethodim	*					*	
Clomazone	P				*		*
Diuron	*				*		
EPTC	P	*	*		P		
Ethalfluralin	*					*	
Fluazifop-P-butyl	*			*			*
Fomesafen	P				*	*	
Glyphosate	P		*	*	*	*	*
Halosulfuron	*			*	*		
Metribuzin	*				*		*
Napropamide	*		*			*	
Paraquat	P	*	*			*	*
Pendimethalin	P	*	*	P	*		*
S-Metolachlor	P	*	P	P	P	P	*
Sethoxydim	P	*	*		*	P	P
Trifluralin	P	*	P	P	P	P	*

See footnote(s) at end of table.

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Snap Beans, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States						
	ALL	CA	FL	GA	NY	NC	TN
Insecticides							
Acephate	P		P	P	*	P	*
Azadirachtin	P	*	*				*
Azinphos-methyl	*						*
Bifenthrin	P		*	P		*	*
Bt (Bacillus thur.)	P	*	P	*	*	*	*
Carbaryl	P		P	P	P	P	P
Chlorpyrifos	P		*	*		*	
Diazinon	P		*	*	*	*	*
Dicofol	*		*				
Dimethoate	P	*	*		*	*	
Disulfoton	*					*	*
Endosulfan	P		P	*		P	*
Esfenvalerate	P	*	*	P		P	P
Ethoprop	*			*			
Fenamiphos	*			*			
Imidacloprid	*	*	*				
Lambda-cyhalothrin	P		*	*	P	P	*
Malathion	P	*	*	*	*		*
Methomyl	P		P	P	*	P	*
Methoxychlor	*				*		*
Methyl parathion	*					*	
Naled	*	*	*				
Oxamyl	*		*				
Permethrin	P			P	*	*	*
Petroleum distillate	*		*		*		*
Phorate	*		*			*	
Piperonyl butoxide	*		*				
Potassium salts	*		*				
Pyrethrins	*		*		*		*
Rotenone	*						*
Spinosad	P	*	P			*	
Toxaphene	*					*	
Zeta-cypermethrin	P	*		*		*	*

See footnote(s) at end of table.

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Snap Beans, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

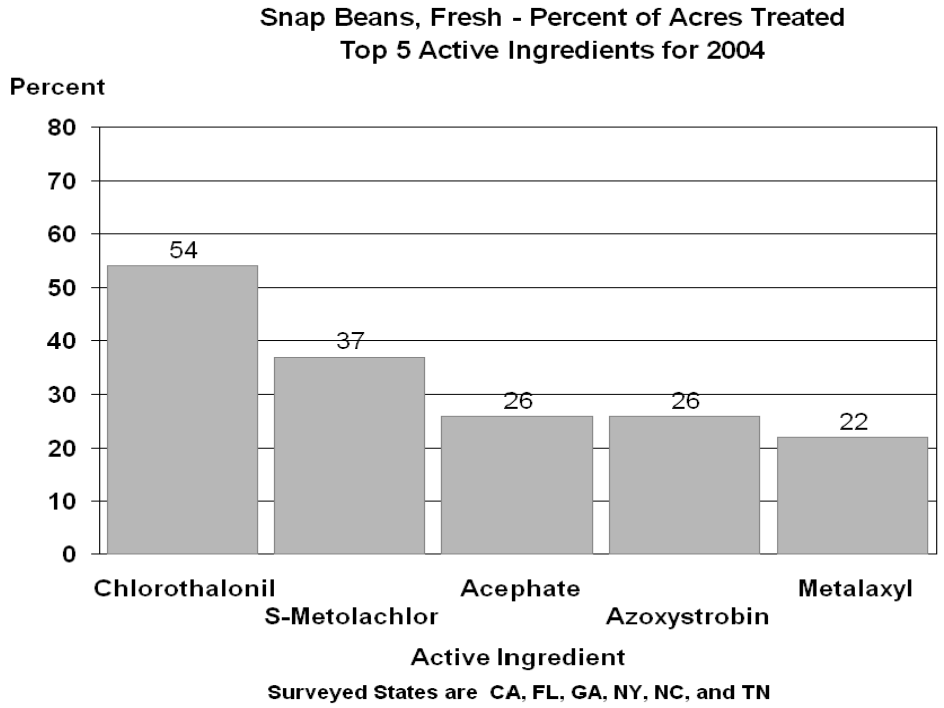
Active Ingredient	Program States						
	ALL	CA	FL	GA	NY	NC	TN
Fungicides							
Azoxystrobin	P		P	*		P	*
Bacillus subtilus	*		*		*		
Basic copper sulfate	*	*					
Benomyl	*		*				
Borax Decahydrate	*			*			
Captan	*		*		*	*	
Chlorothalonil	P	*	P	P	P	*	P
Copper amm. complex	*		*			*	
Copper hydroxide	P		P	*	*	P	*
Copper sulfate	P		*	*		*	*
Iprodione	*		*		*		
Mancozeb	P		P	*		P	*
Maneb	*		*			*	
Mefenoxam	P	*	*	*		*	
Metalaxyl	P		P	*		*	
Myclobutanil	P	*	*	*	*		*
PCNB	P		*	P		*	
Potassium bicarbon.	*	*					
Pyraclostrobin	*		*				
Sulfur	P	*	P	*		*	*
Thiophanate-methyl	P		P	*	*	*	
Vinclozolin	P				P		
Other Chemicals							
Chloropicrin	*		*				
Dichloropropene	*			*			
Ethephon	*	*					
GABA	*		*				
Garlic oil	*			*			
L-Glutamic acid	*		*				
Metam-sodium	*	*					
Methyl bromide	*		*				

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Snap Beans, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	7,000	8	2.1	21	1.2	10	2.7		
FL	33,800	59	31.1	85	62.5	98	302.0	2	40.7
GA [2]	20,000	86	13.1	61	9.1	94	42.6		
NY	7,900	79	25.4	76	2.0	71	8.7		
NC	7,500	73	5.8	95	11.4	86	53.7		
TN	10,000	23	4.2	96	2.0	36	12.0		
Total	86,200	60	81.7	76	88.2	79	421.7	2	149.0

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Snap Beans, Fresh: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	11	1.2	0.60	0.72	6.9
Clomazone	*	1.0	0.20	0.20	([2])
EPTC	12	1.2	1.92	2.34	24.7
Fomesafen	8	1.0	0.21	0.21	1.4
Glyphosate	2	1.0	0.31	0.31	0.5
Paraquat	1	1.7	0.57	0.97	0.6
Pendimethalin	4	1.2	0.63	0.72	2.8
S-Metolachlor	37	1.3	0.76	0.98	31.0
Sethoxydim	4	1.3	0.25	0.33	1.1
Trifluralin	16	1.2	0.49	0.58	8.3
Insecticides					
Acephate	26	2.1	0.76	1.59	35.6
Azadirachtin	*	1.9	0.01	0.02	([2])
Bifenthrin	6	1.2	0.07	0.08	0.4
Bt (Bacillus thur.) [3]	7	3.0			
Carbaryl	1	2.1	0.77	1.59	1.9
Chlorpyrifos	4	1.0	0.38	0.38	1.3
Diazinon	*	1.3	0.31	0.42	([2])
Dimethoate	5	2.1	0.41	0.85	3.8
Endosulfan	9	3.7	0.64	2.32	18.0
Esfenvalerate	22	2.7	0.04	0.11	2.0
Lambda-cyhalothrin	13	1.2	0.02	0.03	0.3
Malathion	*	1.7	1.48	2.44	0.5
Methomyl	19	2.4	0.40	0.97	16.1
Permethrin	1	1.0	0.14	0.14	0.1
Spinosad	3	7.2	0.07	0.54	1.5
Zeta-cypermethrin	3	2.2	0.03	0.06	0.1
Fungicides					
Azoxystrobin	26	1.2	0.16	0.19	4.2
Chlorothalonil	54	2.6	1.26	3.26	152.3
Copper hydroxide	7	2.3	0.47	1.08	6.2
Copper sulfate	*	3.1	1.06	3.32	0.3
Mancozeb	8	3.1	2.22	6.78	46.4
Mefenoxam	8	1.0	0.37	0.38	2.7
Metalaxyl	22	1.0	0.17	0.17	3.2
Myclobutanil	2	1.8	0.11	0.20	0.3
PCNB	17	1.0	0.83	0.85	12.3
Sulfur	21	4.2	2.18	9.07	167.0
Thiophanate-methyl	13	1.4	0.63	0.88	9.9
Vinclozolin	6	1.0	0.52	0.52	2.9

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 6 Program States was 86,200 acres. States included are CA, FL, GA, NY, NC, and TN.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Snap Beans, Fresh: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
S-Metolachlor	46	1.6	0.68	1.06	16.5
Trifluralin	10	1.6	0.65	1.05	3.7
Insecticides					
Acephate	38	2.7	0.77	2.09	27.0
Bt (Bacillus thur.) [2]	19	3.0			
Carbaryl	2	2.0	0.74	1.51	1.1
Endosulfan	21	3.4	0.66	2.25	15.7
Methomyl	40	1.8	0.44	0.80	10.7
Spinosad	4	5.2	0.09	0.48	0.7
Fungicides					
Azoxystrobin	33	1.0	0.14	0.15	1.6
Chlorothalonil	73	2.8	1.29	3.66	90.7
Copper hydroxide	4	2.1	0.66	1.36	1.9
Mancozeb	16	1.0	5.74	5.75	31.8
Metalaxyl	29	1.0	0.24	0.24	2.4
Sulfur	50	4.2	2.27	9.60	161.8
Thiophanate-methyl	17	1.8	0.61	1.08	6.2

[1] Planted acreage in 2004 for Florida was 33,800 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Snap Beans, Fresh: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Pendimethalin	12	1.2	0.63	0.72	1.8
S-Metolachlor	48	1.0	0.87	0.89	8.6
Trifluralin	25	1.1	0.40	0.44	2.2
Insecticides					
Acephate	19	1.5	0.78	1.18	4.5
Bifenthrin	11	1.4	0.06	0.08	0.2
Carbaryl	1	2.0	0.82	1.68	0.4
Esfenvalerate	28	2.1	0.03	0.07	0.4
Methomyl	8	1.6	0.57	0.91	1.5
Permethrin	3	1.0	0.15	0.15	0.1
Fungicides					
Chlorothalonil	69	1.7	1.00	1.74	24.1
PCNB	33	1.0	0.89	0.89	5.9

[1] Planted acreage in 2004 for Georgia was 20,000 acres.

Snap Beans, Fresh: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	60	1.0	0.48	0.48	2.3
EPTC	66	1.0	3.42	3.42	17.8
S-Metolachlor	49	1.0	0.50	0.50	1.9
Trifluralin	67	1.0	0.42	0.42	2.2
Insecticides					
Carbaryl	1	2.4	0.96	2.29	0.1
Lambda-cyhalothrin	62	1.0	0.02	0.02	0.1
Fungicides					
Chlorothalonil	49	1.2	0.88	1.04	4.0
Vinclozolin	70	1.0	0.52	0.52	2.9

[1] Planted acreage in 2004 for New York was 7,900 acres.

Snap Beans, Fresh: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
S-Metolachlor	37	1.0	1.41	1.41	3.9
Sethoxydim	6	1.0	0.17	0.18	0.1
Trifluralin	5	1.0	0.56	0.56	0.2
Insecticides					
Acephate	68	1.0	0.70	0.72	3.7
Carbaryl	2	1.8	0.81	1.51	0.3
Endosulfan	9	6.4	0.51	3.26	2.1
Esfenvalerate	25	2.3	0.03	0.06	0.1
Lambda-cyhalothrin	5	6.5	0.01	0.08	([2])
Methomyl	13	12.6	0.30	3.79	3.7
Fungicides					
Azoxystrobin	67	1.1	0.11	0.12	0.6
Copper hydroxide	8	5.1	0.53	2.68	1.5
Mancozeb	17	11.8	0.95	11.20	14.6

[1] Planted acreage in 2004 for North Carolina was 7,500 acres.
[2] Total applied is less than 50 lbs.

Snap Beans, Fresh: Agricultural Chemical Applications, Tennessee, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	21	1.9	0.82	1.56	3.3
Sethoxydim	12	1.8	0.24	0.44	0.5
Insecticides					
Carbaryl	*	4.0	0.51	2.02	0.1
Esfenvalerate	95	3.2	0.04	0.14	1.4
Fungicides					
Chlorothalonil	30	2.7	1.49	4.00	12.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Tennessee was 10,000 acres.

Snap Beans, Proc.: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States						
	ALL	IL	MI	NY	OR	PA	WI
Herbicides							
2,4-D	*	*				*	
Acetic acid (2,4-D)	*					*	
Alachlor	*		*			*	
Atrazine	*			*			
Bentazon	P	P	P	P	P	*	*
Carfentrazone-ethyl	*					*	
Clethodim	*					*	
Clomazone	P	*				*	
Cyanazine	*			*			
EPTC	P		P	P	P	P	P
Fomesafen	P		P	P		P	
Glyphosate	P	*	*	*	P	P	P
Halosulfuron	P	*		*		P	P
Imazamox	P				*		*
Imazethapyr	P	P					P
Lactofen	P				P		
MCPA	*				*		
Metolachlor	*					*	
Paraquat	*					*	
Pendimethalin	P	P	*	*		*	P
Pyridate	*	*					
Quizalofop-P-ethyl	P		P	*	*	*	P
S-Metolachlor	P	P	P	P	P	P	P
Sethoxydim	P	P	P	*	P	*	P
Simazine	*				*		
Trifluralin	P	P	P	P	P	P	P

See footnote(s) at end of table.

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Snap Beans, Proc.: Active Ingredients and Publication Status By Program States, 2004 (continued)

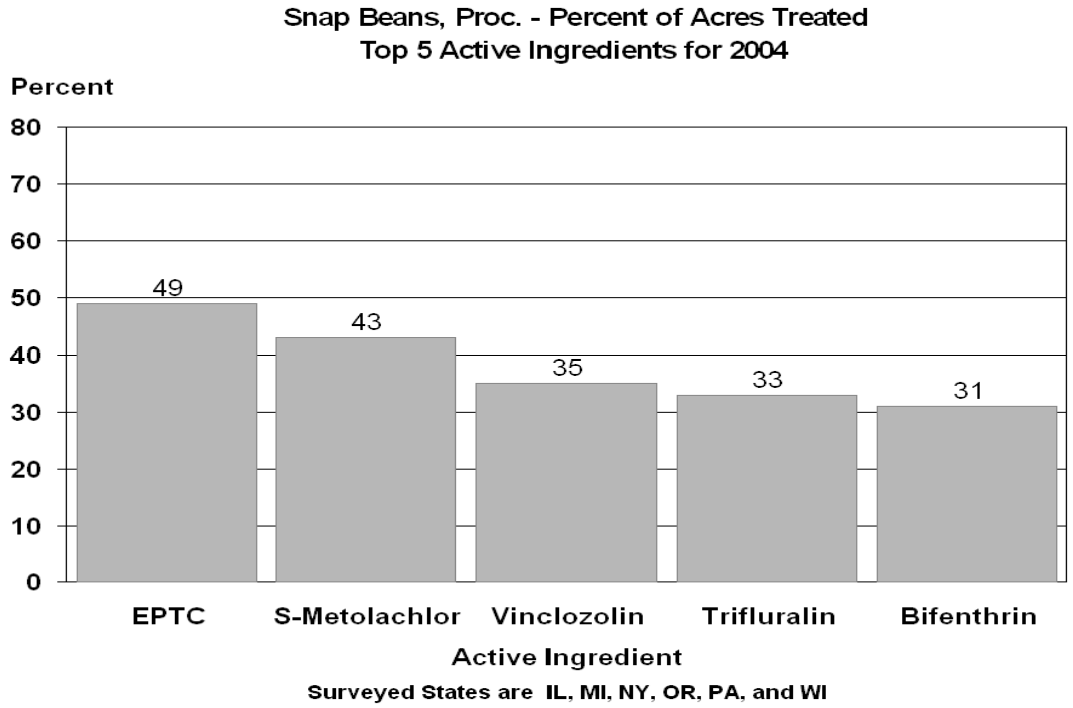
Active Ingredient	Program States						
	ALL	IL	MI	NY	OR	PA	WI
Insecticides							
Acephate	P		P	P		P	P
Bifenthrin	P	P	P	*	*	P	P
Bt (Bacillus thur.)	*			*			
Carbaryl	P	*			*		
Chlorpyrifos	*				*		
Dimethoate	P	*	P	*		P	*
Disulfoton	P		P			P	
Esfenvalerate	P		*	*	P		
Ethoprop	P				P		
Ethyl parathion	*						*
Lambda-cyhalothrin	P	*	*	P	*	*	P
Methomyl	*					*	
Methyl parathion	*						*
Permethrin	*		*		*		
Petroleum distillate	P		*				*
Phorate	*		*				
Pyrethrins	*		*				
Zeta-cypermethrin	P	P	*		*	P	P
Fungicides							
Bacillus subtilus	*		*				
Boscalid	P					*	*
Captan	*		*				
Chlorothalonil	*		*	*			
Copper hydroxide	P	P	*				*
Copper oxychlo. sul.	*			*			
Dicloran	*			*			
Iprodione	P						P
Mefenoxam	*				*		
Metalaxyl	*			*			
Myclobutanil	*		*				
PCNB	*			*			
Propiconazole	*		*				
Sulfur	*					*	
Thiophanate-methyl	P	P	*	*	*		P
Vinclozolin	P		P	P	P	P	
Other Chemicals							
Metaldehyde	*			*		*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Snap Beans, Proc.: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
IL	12,900	71	16.7	80	1.5	43	8.6		
MI	17,700	98	30.6	99	22.4	64	6.3		
NY [2]	20,900	94	64.7	85	9.4	91	15.0		
OR	18,200	96	79.4	88	33.4	84	9.2		
PA [2]	14,000	95	47.4	97	12.9	93	7.5		
WI	76,000	89	150.7	83	9.6	51	91.3		
Total [2]	159,700	91	389.5	87	89.2	65	137.9		

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Snap Beans, Proc.: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	30	1.1	0.55	0.59	28.8
Clomazone	*	1.0	0.16	0.16	0.1
EPTC	49	1.0	2.91	2.94	228.2
Fomesafen	18	1.0	0.16	0.16	4.8
Glyphosate	8	1.1	0.80	0.87	10.4
Halosulfuron	11	1.0	0.02	0.03	0.5
Imazamox	4	1.1	0.03	0.03	0.2
Imazethapyr	8	1.1	0.02	0.03	0.3
Lactofen	2	1.0	0.13	0.13	0.5
Pendimethalin	7	1.1	0.63	0.69	7.3
Quizalofop-P-ethyl	3	1.0	0.06	0.06	0.3
S-Metolachlor	43	1.1	1.03	1.13	77.8
Sethoxydim	11	1.0	0.16	0.17	2.8
Trifluralin	33	1.0	0.51	0.52	26.6
Insecticides					
Acephate	27	1.0	0.74	0.77	32.4
Bifenthrin	31	1.7	0.04	0.07	3.4
Carbaryl	1	1.0	0.78	0.79	1.3
Dimethoate	4	1.0	0.31	0.31	2.2
Disulfoton	2	1.1	1.11	1.17	4.4
Esfenvalerate	10	1.2	0.04	0.04	0.6
Ethoprop	7	1.0	2.90	2.93	31.6
Lambda-cyhalothrin	14	1.1	0.02	0.02	0.6
Petroleum distillate	4	1.0	0.51	0.51	3.6
Zeta-cypermethrin	24	2.0	0.03	0.05	2.0
Fungicides					
Boscalid	*	1.1	0.37	0.40	0.1
Copper hydroxide	15	2.0	1.09	2.15	50.9
Iprodione	2	1.1	0.99	1.07	3.4
Thiophanate-methyl	23	1.1	1.20	1.31	48.2
Vinclozolin	35	1.1	0.53	0.59	33.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 6 Program States was 159,700 acres. States included are IL, MI, NY, OR, PA, and WI.

Snap Beans, Proc.: Agricultural Chemical Applications, Illinois, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	42	1.2	0.74	0.86	4.6
Imazethapyr	11	1.3	0.03	0.04	0.1
Pendimethalin	13	1.3	0.70	0.89	1.5
S-Metolachlor	39	1.4	1.21	1.73	8.7
Sethoxydim	22	1.0	0.22	0.22	0.6
Trifluralin	7	1.5	0.51	0.77	0.7
Insecticides					
Bifenthrin	63	2.2	0.04	0.09	0.8
Zeta-cypermethrin	56	2.4	0.03	0.07	0.5
Fungicides					
Copper hydroxide	17	1.1	1.02	1.13	2.4
Thiophanate-methyl	39	1.0	1.21	1.22	6.2

[1] Planted acreage in 2004 for Illinois was 12,900 acres.

Snap Beans, Proc.: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	65	1.1	0.43	0.47	5.5
EPTC	18	1.0	2.59	2.59	8.3
Fomesafen	62	1.1	0.11	0.12	1.3
Quizalofop-P-ethyl	8	1.0	0.05	0.05	0.1
S-Metolachlor	71	1.2	0.87	1.03	12.8
Sethoxydim	11	1.0	0.17	0.17	0.3
Trifluralin	18	1.0	0.58	0.58	1.8
Insecticides					
Acephate	56	1.1	0.75	0.85	8.4
Bifenthrin	41	1.3	0.04	0.06	0.4
Dimethoate	25	1.0	0.26	0.26	1.2
Disulfoton	15	1.1	1.02	1.09	2.9
Fungicides					
Vinclozolin	58	1.0	0.53	0.53	5.4

[1] Planted acreage in 2004 for Michigan was 17,700 acres.

Snap Beans, Proc.: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	65	1.0	0.38	0.39	5.4
EPTC	62	1.0	3.19	3.19	41.1
Fomesafen	66	1.0	0.16	0.16	2.3
S-Metolachlor	38	1.0	1.00	1.04	8.3
Trifluralin	41	1.0	0.57	0.57	4.8
Insecticides					
Acephate	58	1.0	0.76	0.76	9.1
Lambda-cyhalothrin	29	1.0	0.02	0.02	0.1
Fungicides					
Vinclozolin	90	1.1	0.57	0.62	11.7

[1] Planted acreage in 2004 for New York was 20,900 acres.

Snap Beans, Proc.: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	49	1.1	0.62	0.67	6.0
EPTC	88	1.0	3.14	3.27	52.7
Glyphosate	19	1.1	0.71	0.79	2.8
Lactofen	20	1.0	0.13	0.13	0.5
S-Metolachlor	62	1.0	1.08	1.08	12.2
Sethoxydim	12	1.0	0.21	0.21	0.5
Trifluralin	38	1.0	0.64	0.65	4.4
Insecticides					
Esfenvalerate	68	1.2	0.04	0.05	0.6
Ethoprop	59	1.0	2.90	2.93	31.6
Fungicides					
Vinclozolin	79	1.2	0.50	0.60	8.6

[1] Planted acreage in 2004 for Oregon was 18,200 acres.

Snap Beans, Proc.: Agricultural Chemical Applications, Pennsylvania, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
EPTC	61	1.0	3.26	3.26	27.8
Fomesafen	32	1.0	0.28	0.28	1.2
Glyphosate	23	1.1	0.96	1.05	3.4
Halosulfuron	15	1.0	0.03	0.03	0.1
S-Metolachlor	79	1.0	1.21	1.22	13.4
Trifluralin	3	1.0	0.59	0.59	0.2
Insecticides					
Acephate	92	1.0	0.76	0.77	10.0
Bifenthrin	3	1.0	0.04	0.04	([2])
Dimethoate	13	1.0	0.42	0.42	0.8
Disulfoton	8	1.0	1.35	1.35	1.5
Zeta-cypermethrin	11	1.1	0.04	0.04	0.1
Fungicides					
Vinclozolin	91	1.2	0.49	0.57	7.3

[1] Planted acreage in 2004 for Pennsylvania was 14,000 acres.
[2] Total applied is less than 50 lbs.

Snap Beans, Proc.: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
EPTC	49	1.0	2.61	2.61	98.3
Glyphosate	4	1.2	0.67	0.77	2.3
Halosulfuron	20	1.0	0.02	0.02	0.4
Imazethapyr	15	1.1	0.02	0.02	0.3
Pendimethalin	10	1.0	0.53	0.55	4.0
Quizalofop-P-ethyl	2	1.0	0.06	0.06	0.1
S-Metolachlor	28	1.1	0.97	1.06	22.4
Sethoxydim	13	1.1	0.13	0.14	1.3
Trifluralin	43	1.0	0.45	0.45	14.5
Insecticides					
Acephate	10	1.0	0.66	0.66	4.9
Bifenthrin	42	1.8	0.04	0.07	2.1
Lambda-cyhalothrin	6	1.1	0.03	0.03	0.1
Zeta-cypermethrin	37	2.0	0.03	0.05	1.4
Fungicides					
Iprodione	4	1.1	0.99	1.07	3.4
Thiophanate-methyl	39	1.1	1.27	1.34	39.4

[1] Planted acreage in 2004 for Wisconsin was 76,000 acres.

Broccoli: Active Ingredients and Publication Status

Active Ingredient	CA
Herbicides	
Acifluorfen	*
Bensulide	P
Bentazon	*
Clethodim	*
DCPA	P
EPTC	*
Glyphosate	P
Glyphosate diam salt	*
Napropamide	*
Oxyfluorfen	P
Paraquat	*
Sethoxydim	*
Trifluralin	P

See footnote(s) at end of table.

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Broccoli: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	CA
Insecticides	
Acetamiprid	P
Azadirachtin	*
Azinphos-methyl	*
Benzoic acid	P
Bifenthrin	*
Bt (Bacillus thur.)	P
Chlorpyrifos	P
Cypermethrin	*
Diazinon	P
Dimethoate	P
Disulfoton	P
Emamectin benzoate	P
Endosulfan	*
Esfenvalerate	P
Fenpropathrin	*
Imidacloprid	P
Indoxacarb	P
Lambda-cyhalothrin	P
Malathion	P
Methamidophos	*
Methomyl	P
Naled	P
Neem oil	*
Oxydemeton-methyl	P
Permethrin	P
Piperonyl butoxide	*
Potassium salts	*
Pymetrozine	P
Pyrethrins	*
Rotenone	*
Spinosad	P
Tebufenozide	*
Thiodicarb	*
Tralomethrin	*
Zeta-cypermethrin	P

See footnote(s) at end of table.

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Broccoli: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	CA
Fungicides	
Azoxystrobin	*
Chlorothalonil	P
Copper hydroxide	*
Cyprodinil	*
Fludioxonil	*
Fosetyl-al	*
Iprodione	*
Maneb	P
Mefenoxam	P
Metalaxyl	*
Phosphorous acid	*
Sulfur	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Broccoli: Pesticide, Planted Acreage, Percent of Area Receiving Applications and Total Applied California, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	128,000	34	115.8	74	239.5	12	19.3		

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

Broccoli: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	1	1.0	1.63	1.64	2.2
DCPA	25	1.0	3.03	3.15	102.4
Glyphosate	1	1.4	1.07	1.49	2.6
Oxyfluorfen	2	1.0	0.18	0.18	0.5
Trifluralin	5	1.0	0.36	0.36	2.2
Insecticides					
Acetamiprid	1	1.0	0.07	0.07	0.1
Benzoic acid	*	1.2	0.12	0.15	([2])
Bt (Bacillus thur.) [3]	2	1.0			
Chlorpyrifos	39	1.1	1.57	1.69	84.4
Diazinon	13	1.2	1.44	1.72	28.7
Dimethoate	43	1.0	0.50	0.51	27.7
Disulfoton	6	1.0	1.43	1.46	11.6
Emamectin benzoate	4	1.1	0.01	0.01	0.1
Esfenvalerate	8	1.1	0.04	0.05	0.5
Imidacloprid	19	1.0	0.05	0.05	1.2
Indoxacarb	35	1.1	0.06	0.07	3.1
Lambda-cyhalothrin	8	1.1	0.03	0.03	0.3
Malathion	1	1.0	1.82	1.85	3.1
Methomyl	4	1.0	0.76	0.77	4.3
Naled	7	1.0	1.38	1.44	13.5
Oxydemeton-methyl	55	1.0	0.50	0.51	36.2
Permethrin	6	1.1	0.10	0.10	0.8
Pymetrozine	2	1.1	0.09	0.09	0.2
Spinosad	26	1.4	0.24	0.34	11.1
Zeta-cypermethrin	11	1.1	0.04	0.04	0.6
Fungicides					
Chlorothalonil	6	1.0	1.04	1.05	7.8
Maneb	4	1.0	1.25	1.28	7.0
Mefenoxam	9	1.0	0.10	0.10	1.1

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for California was 128,000 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	CA	FL	GA	NY	NC	TX	WI
Herbicides								
Alachlor	*				*			
Benefin	*						*	
Bensulide	P	*			*		P	
Clethodim	*					*	*	
Clomazone	P				*			*
Clopyralid	P				*	*		
DCPA	P	*		*		*	P	
Diquat	*					*		
Ethalfluralin	*				*	*	*	
Glyphosate	P	*	*	*	P	*	*	*
Metribuzin	*					*		
Napropamide	P		P		*	*		*
Oxyfluorfen	P	*		*	P	P		*
Paraquat	*			*				
Pendimethalin	P			*			*	
Phenmedipham	*					*		
Prometryn	*						*	
S-Metolachlor	P		*	*	P	*	*	
Sethoxydim	P	*	*	*	*	*	*	*
Trifluralin	P	*	*	P	P	P	P	P

See footnote(s) at end of table. --continued

Cabbage, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	NY	NC	TX	WI
Insecticides								
Acephate	P			*		P	*	
Acetamiprid	P	*		*	*			
Azadirachtin	*	*						
Azinphos-methyl	*	*			*			
Benzoic acid	P	*				*	P	
Bifenthrin	P			*	P			*
Bt (Bacillus thur.)	P	P	P	P	P	P	P	P
Carbaryl	P	*	*	*	P	P	*	P
Chlorpyrifos	P	P	*	*	P	*	*	*
Cryolite	*	*						
Cyfluthrin	P				*		*	*
Cypermethrin	P	*				*		
Diazinon	P	P	*	*	*	*	P	
Dimethoate	P	P		*	P	*	P	*
Disulfoton	P	*			*	*	*	
Emamectin benzoate	P	P		*		P	*	
Endosulfan	P		*	*	P	*	P	*
Esfenvalerate	P	P	*	P	P	P	*	P
Ethoprop	*	*						
Fenamiphos	*		*	*		*		
Imidacloprid	P	P			*	*	P	
Indoxacarb	P	P	*	P	*	P	P	
Lambda-cyhalothrin	P	P		*	P	P	*	P
Malathion	P	*		*	*			*
Methamidophos	*						*	
Methomyl	P	P	*	*	*	P	P	
Methyl parathion	*					*		
Naled	*	*						
Oxydemeton-methyl	P	*			P		*	
Permethrin	P	P	*	P	P	P	P	*
Piperonyl butoxide	*						*	
Pymetrozine	*	*						
Pyrethrins	P	*					*	*
Rotenone	*				*			*
Silicon dioxide	*							*
Spinosad	P	P	P	P	*	P	P	*
Tebufenozide	*	*					*	
Thiodicarb	*				*	*		
Toxaphene	*					*		
Zeta-cypermethrin	P	P	*	*		*	*	*

See footnote(s) at end of table.

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Cabbage, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

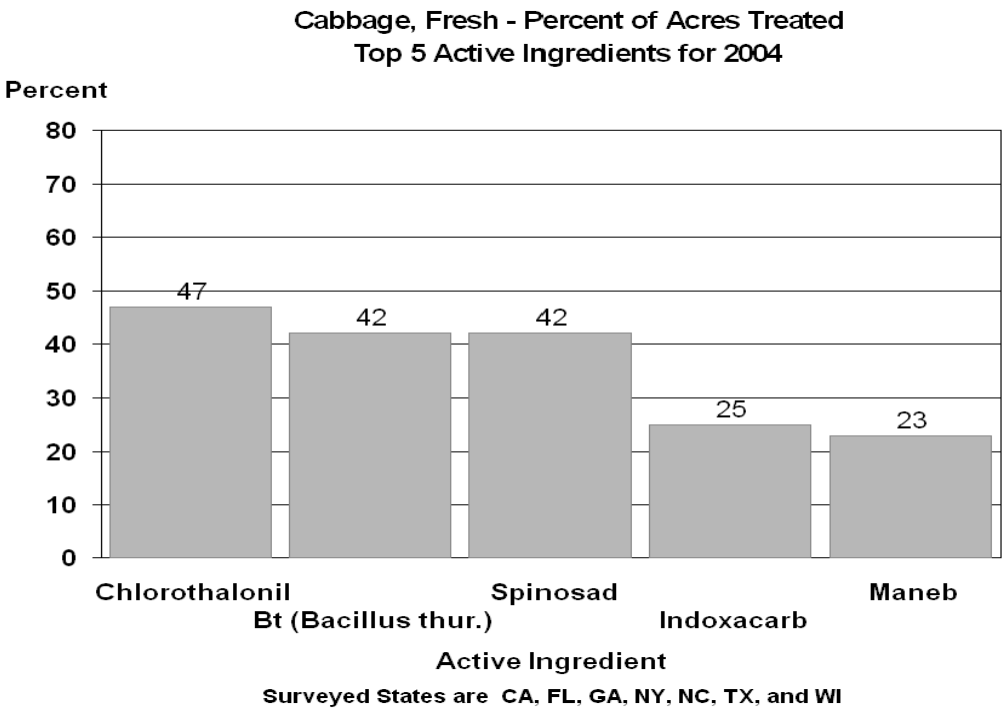
Active Ingredient	Program States							
	ALL	CA	FL	GA	NY	NC	TX	WI
Fungicides								
Azoxystrobin	P	*		*	*	*	P	
Bacillus subtilus	*				*			
Basic copper sulfate	*				*			
Captan	*					*		
Chlorothalonil	P	P	P	P	P	P	P	
Copper hydroxide	P	*	*	*	P	*	*	*
Copper oxychloride	*				*			
Copper resinate	*					*		
Copper sulfate	*			*				
Cymoxanil	*			*				
Famoxadone	*			*				
Fosetyl-al	*		*					
Iprodione	*			*				
Mancozeb	P		*	*	*	*	*	
Maneb	P	P	*	P	*	*	P	
Mefenoxam	P	*	*	P	*		P	
Metalaxyl	P		*	*	*		P	
PCNB	*				*			
Pyraclostrobin	*						*	
Sulfur	*				*			
Other Chemicals								
Busan 881	*	*						
Chloropicrin	*		*					
Dichloropropene	*		*	*				
Diphacinone	*						*	
Garlic oil	*						*	
Gibberellic acid	*						*	
Hydrogen peroxide	*		*					
Indolebutyric acid	*						*	
Metam-sodium	*	*	*					

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Cabbage, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	13,600	16	8.2	60	16.0	15	2.4		
FL [2]	7,900	80	6.5	97	4.1	99	46.1		
GA [2]	12,000	46	1.7	95	4.1	99	130.9		
NY	10,700	78	9.9	89	10.9	56	13.2		
NC	8,000	76	6.2	96	3.4	42	8.6		
TX [2]	8,500	72	14.4	97	17.0	76	18.9		
WI [2]	4,400	60	2.1	67	0.6				
Total	65,100	57	49.0	85	56.1	58	220.1	4	181.3

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Cabbage, Fresh: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	3	1.6	2.52	4.13	7.4
Clomazone	1	1.0	0.39	0.39	0.3
Clopyralid	4	1.0	0.11	0.11	0.3
DCPA	3	1.0	4.71	4.82	9.0
Glyphosate	3	1.0	0.84	0.84	1.8
Napropamide	11	1.0	1.04	1.04	7.3
Oxyfluorfen	14	1.0	0.24	0.24	2.2
Pendimethalin	*	1.0	0.70	0.70	0.2
S-Metolachlor	14	1.3	0.76	1.01	9.1
Sethoxydim	5	1.0	0.14	0.14	0.5
Trifluralin	22	1.0	0.73	0.74	10.8
Insecticides					
Acephate	*	2.2	0.69	1.50	0.2
Acetamiprid	3	2.1	0.07	0.14	0.3
Benzoic acid	3	2.1	0.07	0.15	0.3
Bifenthrin	13	2.4	0.05	0.13	1.1
Bt (Bacillus thur.) [2]	42	5.5			
Carbaryl	2	1.2	0.30	0.35	0.4
Chlorpyrifos	2	1.0	1.12	1.17	1.7
Cyfluthrin	4	2.1	0.05	0.10	0.2
Cypermethrin	2	1.2	0.08	0.10	0.2
Diazinon	16	1.8	0.77	1.39	14.6
Dimethoate	16	1.6	0.47	0.74	7.8
Disulfoton	1	1.0	1.36	1.37	1.1
Emamectin benzoate	5	2.0	0.009	0.02	0.1
Endosulfan	1	1.6	0.87	1.41	1.4
Esfenvalerate	15	1.9	0.03	0.06	0.6
Imidacloprid	5	1.1	0.19	0.21	0.7
Indoxacarb	25	2.6	0.06	0.16	2.6
Lambda-cyhalothrin	15	1.7	0.03	0.04	0.4
Malathion	*	1.0	1.98	1.99	0.3
Methomyl	11	1.5	0.47	0.69	4.8
Oxydemeton-methyl	8	1.1	0.45	0.48	2.5
Permethrin	17	2.1	0.16	0.33	3.8
Pyrethrins	*	1.9	0.007	0.01	([3])
Spinosad	42	2.5	0.07	0.17	4.6
Zeta-cypermethrin	15	1.8	0.04	0.07	0.6
Fungicides					
Azoxystrobin	14	2.0	0.16	0.32	2.9
Chlorothalonil	47	4.0	1.04	4.19	128.7
Copper hydroxide	12	2.4	0.56	1.31	10.4
Mancozeb	10	3.9	1.16	4.60	30.2
Maneb	23	2.7	1.07	2.91	43.2
Mefenoxam	11	1.4	0.07	0.10	0.7
Metalaxyl	6	2.6	0.16	0.41	1.6

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 7 Program States was 65,100 acres.
States included are CA, FL, GA, NY, NC, TX, and WI.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Cabbage, Fresh: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Bt (Bacillus thur.) [2]	9	1.2			
Chlorpyrifos	4	1.0	1.42	1.47	0.9
Diazinon	21	1.0	1.12	1.14	3.2
Dimethoate	9	1.0	0.41	0.42	0.5
Emamectin benzoate	7	1.1	0.01	0.01	([3])
Esfenvalerate	16	1.1	0.04	0.04	0.1
Imidacloprid	3	1.5	0.04	0.06	([3])
Indoxacarb	45	1.2	0.06	0.07	0.5
Lambda-cyhalothrin	25	1.6	0.03	0.04	0.1
Methomyl	23	1.0	0.72	0.72	2.2
Permethrin	36	1.4	0.19	0.27	1.3
Spinosad	43	2.4	0.09	0.21	1.2
Zeta-cypermethrin	30	1.1	0.05	0.05	0.2
Fungicides					
Chlorothalonil	8	1.1	1.01	1.10	1.2
Maneb	5	1.0	1.18	1.23	0.9

[1] Planted acreage in 2004 for California was 13,600 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Cabbage, Fresh: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Napropamide	54	1.0	1.05	1.05	4.5
Insecticides					
Bt (Bacillus thur.) [2]	82	5.6			
Spinosad	32	2.2	0.07	0.16	0.4
Fungicides					
Chlorothalonil	75	5.4	0.93	5.01	29.6

[1] Planted acreage in 2004 for Florida was 7,900 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Fresh: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Trifluralin	15	1.0	0.60	0.60	1.0
Insecticides					
Bt (Bacillus thur.) [2]	89	8.3			
Esfenvalerate	25	1.9	0.04	0.08	0.2
Indoxacarb	26	4.1	0.07	0.27	0.8
Permethrin	1	3.4	0.17	0.56	0.1
Spinosad	25	4.1	0.07	0.30	0.9
Fungicides					
Chlorothalonil	95	6.2	1.09	6.70	76.2
Maneb	63	3.5	1.11	3.94	29.6
Mefenoxam	24	2.0	0.07	0.14	0.4

[1] Planted acreage in 2004 for Georgia was 12,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Fresh: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	1	1.0	1.27	1.27	0.1
Oxyfluorfen	45	1.0	0.20	0.20	1.0
S-Metolachlor	54	1.0	0.95	0.95	5.5
Trifluralin	26	1.0	0.82	0.84	2.3
Insecticides					
Bifenthrin	45	1.7	0.05	0.08	0.4
Bt (Bacillus thur.) [2]	28	1.4			
Carbaryl	1	2.2	0.90	1.98	0.1
Chlorpyrifos	5	1.1	0.87	0.95	0.5
Dimethoate	72	1.8	0.50	0.88	6.8
Endosulfan	4	1.1	0.78	0.87	0.3
Esfenvalerate	5	1.1	0.04	0.05	([3])
Lambda-cyhalothrin	38	1.6	0.02	0.04	0.2
Oxydemeton-methyl	33	1.1	0.38	0.42	1.5
Permethrin	8	1.3	0.13	0.16	0.1
Fungicides					
Chlorothalonil	52	1.6	0.90	1.40	7.7
Copper hydroxide	30	1.4	0.37	0.51	1.6

[1] Planted acreage in 2004 for New York was 10,700 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Cabbage, Fresh: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Oxyfluorfen	35	1.0	0.31	0.31	0.8
Trifluralin	8	1.2	0.91	1.05	0.7
Insecticides					
Acephate	1	1.1	0.52	0.58	([2])
Bt (Bacillus thur.) [3]	50	3.6			
Carbaryl	*	3.4	0.51	1.77	0.1
Emamectin benzoate	10	2.1	0.009	0.02	([2])
Esfenvalerate	35	2.4	0.03	0.06	0.2
Indoxacarb	5	1.9	0.07	0.12	0.1
Lambda-cyhalothrin	10	4.0	0.02	0.09	0.1
Methomyl	26	2.0	0.39	0.77	1.6
Permethrin	5	2.7	0.08	0.22	0.1
Spinosad	75	2.3	0.05	0.12	0.7
Fungicides					
Chlorothalonil	11	2.4	1.10	2.62	2.3

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for North Carolina was 8,000 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Fresh: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	16	1.8	2.08	3.69	5.1
DCPA	12	1.0	3.07	3.07	3.1
Trifluralin	56	1.0	0.71	0.71	3.4
Insecticides					
Benzoic acid	18	2.4	0.07	0.16	0.2
Bt (Bacillus thur.) [2]	26	3.4			
Diazinon	55	2.8	0.78	2.17	10.1
Dimethoate	14	1.0	0.18	0.19	0.2
Endosulfan	5	1.8	1.14	1.99	0.8
Imidacloprid	32	1.1	0.22	0.23	0.6
Indoxacarb	28	1.8	0.06	0.12	0.3
Methomyl	5	1.2	0.36	0.44	0.2
Permethrin	56	2.8	0.16	0.44	2.1
Spinosad	83	2.9	0.06	0.16	1.1
Fungicides					
Azoxystrobin	36	2.0	0.16	0.31	1.0
Chlorothalonil	70	1.7	1.13	1.94	11.6
Maneb	34	1.6	1.02	1.63	4.7
Mefenoxam	20	1.0	0.07	0.07	0.1
Metalaxyl	8	3.3	0.13	0.41	0.3

[1] Planted acreage in 2004 for Texas was 8,500 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Fresh: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Trifluralin	56	1.0	0.85	0.85	2.1
Insecticides					
Bt (Bacillus thur.) [2]	*	2.8			
Carbaryl	*	2.5	1.21	2.98	([3])
Esfenvalerate	1	2.4	0.03	0.06	([3])
Lambda-cyhalothrin	4	1.8	0.03	0.05	([3])

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Wisconsin was 4,400 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Cantaloupes: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Herbicides				
Acifluorfen	*		*	
Bensulide	P	P	*	*
Bentazon	*		*	
Clethodim	*	*	*	*
Clomazone	*			*
Ethalfluralin	P		*	*
Fluazifop-P-butyl	*			*
Glyphosate	P	*	*	P
Halosulfuron	*			*
Lactofen	*	*		
Paraquat	*		*	
Pendimethalin	P			P
Prometryn	*			*
Sethoxydim	*	*	*	*
Trifluralin	P	*	*	P

See footnote(s) at end of table.

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Cantaloupes: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Insecticides				
Abamectin	P	*	*	
Bifenthrin	P	P	P	
Bt (Bacillus thur.)	P	*	P	P
Buprofezin	P	P	*	
Carbaryl	P	*	P	*
Chlorpyrifos	*			*
Cypermethrin	*			*
Cyromazine	*	*		
Diazinon	P	P	*	*
Dicofol	*		*	
Dimethoate	*		*	*
Endosulfan	P	*	P	*
Esfenvalerate	P	*	*	*
Fenpropathrin	*	*	*	
Imidacloprid	P	P		P
Malathion	*			*
Methomyl	P		*	*
Neem oil, clar. hyd.	*	*		
Oxamyl	P	*		*
Oxydemeton-methyl	*			*
Permethrin	P	*	*	*
Piperonyl butoxide	*		*	
Potassium salts	*		*	
Pymetrozine	*		*	
Pyrethrins	*		*	*
Rotenone	*			*
Spinosad	P	P	*	*
Thiamethoxam	P	*	*	*
Zeta-cypermethrin	*			*

See footnote(s) at end of table.

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Cantaloupes: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Fungicides				
Azoxystrobin	P	*	*	P
Basic copper sulfate	*			*
Boscalid	P		*	*
Chlorothalonil	P	*	*	P
Copper hydroxide	*	*		*
Mancozeb	P	*		*
Maneb	*	*	*	*
Mefenoxam	P	*	*	*
Metalaxyl	P			P
Myclobutanil	P	*	*	*
PCNB	*	*		
Propiconazole	*	*		
Pyraclostrobin	P	*	*	P
Sulfur	P	P	*	*
Thiophanate-methyl	P	P		
Trifloxystrobin	P	*		*
Triflumizole	P	*	*	*
Zoxamide	*			*
Other Chemicals				
Capsaicin	*	*		
Chloropicrin	*	*	*	
Cytokinins	*	*		
Dichloropropene	*	*	*	*
GABA	*		*	
Gibberellic acid	*	*		*
Harpin protein	*	*		*
Indolebutyric acid	*	*		*
L-Glutamic acid	*		*	
Metam-sodium	*	*	*	
Methyl bromide	*		*	
Strychnine	*		*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Cantaloupes: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ	17,800	45	13.2	81	19.2	84	54.6	63	1,096.2
CA	52,000	28	27.8	48	40.9	35	372.9	8	877.5
TX	8,000	74	5.3	32	2.8	76	13.0	24	28.9
Total	77,800	37	46.3	54	62.9	51	440.5	22	2,002.6

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

**Cantaloupes: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	11	1.1	3.04	3.49	31.1
Ethalfluralin	4	1.1	0.46	0.52	1.6
Glyphosate	5	1.2	0.94	1.13	4.0
Pendimethalin	2	1.0	0.55	0.55	1.0
Trifluralin	18	1.1	0.47	0.52	7.3
Insecticides					
Abamectin	9	1.2	0.007	0.009	0.1
Bifenthrin	6	1.4	0.07	0.10	0.5
Bt (Bacillus thur.) [2]	22	1.5			
Buprofezin	6	1.1	0.36	0.38	1.7
Carbaryl	7	1.1	0.49	0.54	3.0
Diazinon	14	1.3	0.76	0.99	10.5
Endosulfan	18	1.3	0.87	1.15	16.2
Esfenvalerate	7	1.1	0.04	0.04	0.2
Imidacloprid	16	1.5	0.14	0.21	2.6
Methomyl	4	1.6	0.74	1.19	3.8
Oxamyl	9	1.4	0.26	0.36	2.6
Permethrin	6	1.2	0.13	0.16	0.7
Spinosad	16	1.5	0.08	0.12	1.4
Thiamethoxam	3	1.0	0.10	0.10	0.2
Fungicides					
Azoxystrobin	4	1.3	0.16	0.21	0.7
Boscalid	5	1.4	0.14	0.20	0.7
Chlorothalonil	6	1.7	1.22	2.12	10.4
Mancozeb	4	1.5	1.53	2.23	6.9
Mefenoxam	14	1.1	0.12	0.13	1.5
Metalaxyl	3	3.2	0.11	0.36	0.8
Myclobutanil	15	1.2	0.11	0.13	1.5
Pyraclostrobin	8	1.3	0.12	0.17	1.1
Sulfur	31	1.3	12.89	16.97	408.8
Thiophanate-methyl	12	1.5	0.34	0.53	5.0
Trifloxystrobin	5	1.1	0.09	0.09	0.4
Triflumizole	5	1.2	0.22	0.26	1.0

[1] Planted acreage in 2004 for the 3 Program States was 77,800 acres. States included are AZ, CA, and TX.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cantaloupes: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	15	1.1	3.25	3.58	9.8
Insecticides					
Bifenthrin	8	2.0	0.07	0.13	0.2
Buprofezin	11	1.1	0.36	0.38	0.7
Diazinon	26	1.2	0.88	1.07	4.9
Imidacloprid	65	1.5	0.14	0.21	2.4
Spinosad	32	1.2	0.08	0.09	0.5
Fungicides					
Sulfur	52	1.3	3.24	4.19	38.8
Thiophanate-methyl	53	1.5	0.34	0.53	5.0

[1] Planted acreage in 2004 for Arizona was 17,800 acres.

Cantaloupes: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Bifenthrin	6	1.2	0.08	0.09	0.3
Bt (Bacillus thur.) [2]	25	1.2			
Carbaryl	7	1.1	0.64	0.71	2.7
Endosulfan	14	1.3	0.97	1.27	9.4

[1] Planted acreage in 2004 for California was 52,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cantaloupes: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	32	1.2	0.74	0.87	2.3
Pendimethalin	23	1.0	0.55	0.55	1.0
Trifluralin	11	1.0	0.85	0.85	0.7
Insecticides					
Bt (Bacillus thur.) [2]	28	3.1			
Imidacloprid	13	1.2	0.17	0.19	0.2
Fungicides					
Azoxystrobin	28	1.4	0.17	0.24	0.5
Chlorothalonil	42	2.1	1.12	2.30	7.6
Metalaxyl	27	3.2	0.11	0.36	0.8
Pyraclostrobin	42	1.5	0.07	0.10	0.3

[1] Planted acreage in 2004 for Texas was 8,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Carrots, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States		
	ALL	CA	MI
Herbicides			
Acifluorfen	*	*	
Bentazon	*	*	
Bromoxynil	*	*	
Clethodim	P	*	*
Fluazifop-P-butyl	P	*	*
Glyphosate	*	*	*
Linuron	P	P	P
Metribuzin	*		*
Sethoxydim	*	*	*
Trifluralin	P	*	*
Insecticides			
Bifenthrin	*	*	
Bt (Bacillus thur.)	*	*	
Carbaryl	*	*	*
Cyfluthrin	*	*	*
Diazinon	*	*	
Esfenvalerate	P	*	*
Lambda-cyhalothrin	*	*	
Malathion	*		*
Methomyl	*	*	
Oxamyl	*		*
Permethrin	*		*
Spinosad	*	*	
Fungicides			
Azoxystrobin	*	*	
Chlorothalonil	P	P	P
Copper hydroxide	P	*	*
Copper oxide	*	*	
Copper resinate	*		*
Copper sulfate	*		*
Iprodione	P	P	
Mefenoxam	P	P	
Pyraclostrobin	*	*	
Sulfur	P	P	
Other Chemicals			
Chloropicrin	*	*	
Dichloropropene	*	*	
Metam-sodium	P	P	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Carrots, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	66,500	42	44.5	12	15.5	53	187.0	25	3,163.6
MI	4,400	97	6.5	60	4.4	57	14.4		
Total	70,900	46	51.0	15	19.9	53	201.4	23	3,163.6

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

**Carrots, Fresh: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clethodim	2	1.1	0.11	0.13	0.2
Fluazifop-P-butyl	5	1.5	0.14	0.20	0.7
Linuron	38	1.4	0.78	1.12	30.2
Trifluralin	25	1.2	0.86	1.02	18.3
Insecticides					
Esfenvalerate	7	2.4	0.04	0.09	0.4
Fungicides					
Chlorothalonil	8	2.8	1.06	2.97	16.5
Copper hydroxide	11	1.2	0.53	0.62	4.9
Iprodione	17	1.1	0.56	0.60	7.3
Mefenoxam	41	2.1	0.19	0.40	11.8
Sulfur	13	1.1	14.67	16.64	158.4
Other Chemicals					
Metam-sodium	19	1.2	179.00	218.98	2,990.9

[1] Planted acreage in 2004 for the 2 Program States was 70,900 acres. States included are CA and MI.

Carrots, Fresh: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Linuron	34	1.3	0.83	1.07	24.2
Fungicides					
Chlorothalonil	4	1.0	1.07	1.09	3.3
Iprodione	18	1.1	0.56	0.60	7.3
Mefenoxam	44	2.1	0.19	0.40	11.8
Sulfur	14	1.1	14.67	16.64	158.4
Other Chemicals					
Metam-sodium	21	1.2	179.00	218.98	2,990.9

[1] Planted acreage in 2004 for California was 66,500 acres.

Carrots, Fresh: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Linuron	97	2.3	0.60	1.40	6.0
Fungicides					
Chlorothalonil	57	5.1	1.06	5.34	13.3

[1] Planted acreage in 2004 for Michigan was 4,400 acres.

Carrots, Proc.: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States				
	ALL	CA	TX	WA	WI
Herbicides					
Bentazon	*			*	*
Clethodim	P			*	*
Fluazifop-P-butyl	P				P
Glyphosate	*				*
Linuron	P	P	P	P	P
Metribuzin	*				*
Pendimethalin	*		*		
Sethoxydim	*			*	*
Trifluralin	P	*	*	*	
Insecticides					
Azadirachtin	*				*
Carbaryl	*		*		
Cyfluthrin	*				*
Diazinon	*			*	
Endosulfan	*			*	
Esfenvalerate	P			*	*
Lambda-cyhalothrin	*		*		
Malathion	*		*		
Oxamyl	*		*		
Fungicides					
Azoxystrobin	*		*	*	*
Boscalid	*		*		*
Chlorothalonil	P		*	*	P
Copper hydroxide	P	*		*	*
Copper oxide	*	*			
Copper resinate	*				*
Iprodione	*			*	
Mefenoxam	*	*	*	*	
Pyraclostrobin	*	*	*		*
Sulfur	*	*	*	*	
Other Chemicals					
Chloropicrin	*	*		*	
Dichloropropene	P	*		*	
Metam-sodium	*	*		*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Carrots, Proc.: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	4,300	38	2.4	16	3.6	37	343.2		
TX	1,000	87	1.3	46	0.3	55	3.8		
WA [1]	5,600	100	7.7	82	13.9				
WI	4,200	100	8.1	96	0.5	88	20.8		
Total	15,100	81	19.5	50	1.9	63	42.1	36	1,060.5

[1] Insufficient reports to publish data for one or more pesticide classes.

**Carrots, Proc.: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clethodim	11	1.2	0.11	0.12	0.2
Fluazifop-P-butyl	17	1.2	0.13	0.16	0.4
Linuron	81	2.1	0.56	1.17	14.3
Trifluralin	27	1.0	0.68	0.68	2.8
Insecticides					
Esfenvalerate	42	3.7	0.02	0.09	0.6
Fungicides					
Chlorothalonil	48	3.7	0.93	3.46	25.3
Copper hydroxide	22	1.0	0.44	0.45	1.5
Other Chemicals					
Dichloropropene	32	1.0	118.86	118.86	579.0

[1] Planted acreage in 2004 for the 4 Program States was 15,100 acres.
States included are CA, TX, WA, and WI.

Carrots, Proc.: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Linuron	37	1.4	0.66	0.95	1.5

[1] Planted acreage in 2004 for California was 4,300 acres.

Carrots, Proc.: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Linuron	87	1.0	1.00	1.00	0.9

[1] Planted acreage in 2004 for Texas was 1,000 acres.

Carrots, Proc.: Agricultural Chemical Applications, Washington, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Linuron	100	1.6	0.60	0.97	5.4

[1] Planted acreage in 2004 for Washington was 5,600 acres.

Carrots, Proc.: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Fluazifop-P-butyl	62	1.2	0.13	0.16	0.4
Linuron	100	3.2	0.49	1.55	6.5
Fungicides					
Chlorothalonil	88	5.9	0.92	5.36	19.8

[1] Planted acreage in 2004 for Wisconsin was 4,200 acres.

Cauliflower: Active Ingredients and Publication Status

Active Ingredient	CA
Herbicides	
Bensulide	*
DCPA	P
Glyphosate	*
Napropamide	*
Oxyfluorfen	P
Trifluralin	*
Insecticides	
Acephate	P
Acetamiprid	P
Azinphos-methyl	*
Benzoic acid	*
Bifenthrin	*
Bt (Bacillus thur.)	P
Chlorpyrifos	P
Cryolite	*
Cypermethrin	*
Diazinon	P
Dimethoate	P
Disulfoton	*
Emamectin benzoate	P
Endosulfan	*
Esfenvalerate	P
Fenpropathrin	*
Imidacloprid	P
Indoxacarb	P
Lambda-cyhalothrin	P
Malathion	*
Methomyl	P
Naled	P
Oxydemeton-methyl	P
Permethrin	P
Petroleum distillate	*
Pymetrozine	*
Spinosad	P
Tebufenozide	*
Thiodicarb	*
Zeta-cypermethrin	P

See footnote(s) at end of table.

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Cauliflower: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	CA
Fungicides	
Chlorothalonil	P
Copper hydroxide	*
Iprodione	*
Maneb	*
Mefenoxam	P
Other Chemicals	
Metam-sodium	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Cauliflower: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
California, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	36,000	26	15.2	81	51.6	8	3.5		

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.

**Cauliflower: Agricultural Chemical Applications,
California, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
DCPA	12	1.0	3.01	3.02	13.4
Oxyfluorfen	11	1.2	0.23	0.28	1.1
Insecticides					
Acephate	11	1.0	0.99	1.01	4.2
Acetamiprid	2	1.1	0.06	0.07	0.1
Bt (Bacillus thur.) [2]	2	1.1			
Chlorpyrifos	24	1.0	1.14	1.17	10.2
Diazinon	11	1.0	0.83	0.85	3.3
Dimethoate	27	1.1	0.48	0.51	5.0
Emamectin benzoate	11	1.0	0.01	0.01	([3])
Esfenvalerate	16	2.0	0.04	0.09	0.5
Imidacloprid	10	1.2	0.05	0.06	0.2
Indoxacarb	40	1.3	0.06	0.08	1.1
Lambda-cyhalothrin	22	1.6	0.03	0.04	0.3
Methomyl	7	1.2	0.72	0.86	2.0
Naled	5	1.0	1.24	1.25	2.2
Oxydemeton-methyl	39	1.1	0.50	0.55	7.6
Permethrin	5	1.1	0.09	0.10	0.2
Spinosad	46	1.5	0.08	0.12	2.0
Zeta-cypermethrin	6	1.1	0.04	0.05	0.1
Fungicides					
Chlorothalonil	5	1.2	1.08	1.28	2.4
Mefenoxam	3	1.0	0.21	0.23	0.2

[1] Planted acreage in 2004 for California was 36,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Celery: Active Ingredients and Publication Status

Active Ingredient	CA
Herbicides	
Glyphosate	*
Linuron	*
Prometryn	P
Insecticides	
Abamectin	P
Acephate	P
Acetamiprid	P
Azadirachtin	*
Benzoic acid	P
Bt (Bacillus thur.)	P
Cyromazine	P
Diazinon	*
Dimethoate	P
Emamectin benzoate	P
Endosulfan	*
Malathion	P
Methomyl	P
Oxamyl	P
Permethrin	P
Piperonyl butoxide	*
Pymetrozine	P
Pyrethrins	*
Rotenone	*
Spinosad	P
Tebufenozide	P
Thiodicarb	*
Zeta-cypermethrin	P
Fungicides	
Azoxystrobin	*
Chlorothalonil	P
Copper hydroxide	P
Dicloran	P
Propiconazole	P
Sulfur	*
Other Chemicals	
Metam-sodium	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Celery: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
California, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	25,100	39	13.7	57	34.8	38	29.0		

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.

**Celery: Agricultural Chemical Applications,
California, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Prometryn	36	1.0	1.29	1.35	12.4
Insecticides					
Abamectin	26	1.4	0.01	0.02	0.1
Acephate	33	1.3	0.88	1.18	9.7
Acetamiprid	15	1.3	0.06	0.07	0.3
Benzoic acid	28	1.4	0.13	0.18	1.3
Bt (Bacillus thur.) [2]	2	1.1			
Cyromazine	21	1.2	0.12	0.15	0.8
Dimethoate	18	1.5	0.49	0.71	3.1
Emamectin benzoate	8	1.2	0.01	0.01	([3])
Malathion	12	1.4	1.41	2.00	6.0
Methomyl	8	1.4	0.84	1.13	2.3
Oxamyl	33	1.1	0.72	0.79	6.5
Permethrin	23	1.2	0.18	0.22	1.2
Pymetrozine	1	1.9	0.08	0.15	([3])
Spinosad	47	1.8	0.09	0.16	1.9
Tebufenozide	4	1.3	0.12	0.16	0.2
Zeta-cypermethrin	27	1.9	0.05	0.09	0.6
Fungicides					
Chlorothalonil	32	1.4	1.09	1.52	12.2
Copper hydroxide	15	1.6	0.53	0.83	3.2
Dicloran	19	1.1	2.44	2.75	13.4
Propiconazole	15	1.1	0.02	0.02	0.1

[1] Planted acreage in 2004 for California was 25,100 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	CA	FL	GA	IL	MI	NJ	NY
Herbicides								
2,4-D	P		*	*	*	P		*
2,4-D, Dimeth. salt	P			*		*		*
Acetochlor	P					P	*	
Alachlor	P	*		*	P	P	P	P
Atrazine	P	*	P	P	P	P	P	P
Bensulide	*						*	
Bentazon	P				P	P	*	P
Bromoxynil	*							
Butylate	P			*			*	P
Carfentrazone-ethyl	P		*		*	*		
Clomazone	*				*		*	*
Clopyralid	P							
Cyanazine	P					*	*	*
DCPA	*			*		*		
Dicamba	P					*		*
Dicamba, Dimet. salt	*							
Diflufenzopyr-sodium	*							
Dimethenamid	P				*	*		P
Dimethenamid-P	P				*	P		*
Diuron	*							*
EPTC	*							*
Ethalfluralin	*							
Flumetsulam	*							
Glyphosate	P	*	*	*	*	P	*	P
Halosulfuron	P					*		*
Linuron	*							
Mesotrione	P				*			
Metolachlor	*					*		
Metribuzin	*		*					
Naptalam	*						*	
Nicosulfuron	P				*	*		
Oxyfluorfen	*	*						
Paraquat	P	*	*	*				*
Pendimethalin	P	*	*	*	*	P	*	P
Pyridate	*							*
Rimsulfuron	*					*		
S-Metolachlor	P	*	P	*	P	P	P	P
Sethoxydim	*				*			
Simazine	P			*		*		*
Trifluralin	P		*	*		*		

See footnote(s) at end of table. --continued

Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	IL	MI	NJ	NY
Insecticides								
Acephate	*		*					
Azadirachtin	*			*		*		
Azinphos-methyl	*							
Benzoic acid	*			*				
Bifenthrin	P	*	*		P	*	*	P
Bt (Bacillus thur.)	P		*	*		*	*	*
Carbaryl	P	*	*	P	P	P	P	P
Carbofuran	P				*	*	*	*
Chlorpyrifos	P	*	P	P		*	*	*
Cyfluthrin	P	*	P	*	P	P	*	*
Cyromazine	*		*					
Diazinon	P	*		*		P	*	
Diflubenzuron	*							
Dimethoate	*							
Disulfoton	*							
Endosulfan	P		*		*	*	*	*
Esfenvalerate	P	P	*	P	*	P	P	P
Ethoprop	*		*					
Ethyl parathion	*							*
Gamma-cyhalothrin	*							
Imidacloprid	*		*					
Indoxacarb	*		*					*
Lambda-cyhalothrin	P	P	P	*	P	P	P	P
Malathion	P	*	*		*	*		*
Methomyl	P	P	P	P	*	P	P	P
Methyl parathion	P	*		*		*		*
Neem oil, clar. hyd.	*					*		
Oxamyl	*						*	
Oxydemeton-methyl	P	*						*
Permethrin	P	*	*	P	P	P	*	P
Petroleum distillate	P		*					*
Phorate	P		*					
Piperonyl butoxide	*							
Propargite	*	*						
Pyrethrins	*				*	*		
Rotenone	*				*			
Spinosad	P	*	*			*	*	*
Tebufenozide	*		*					
Tebupirimphos	P				P	*		
Tefluthrin	P				*		*	*
Terbufos	P		P	*	*	*	P	*
Thiamethoxam	*		*					
Thiodicarb	P		P			P	*	P
Zeta-cypermethrin	P	P	*	*	P	*		

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	IL	MI	NJ	NY
Fungicides								
Azoxystrobin	P	*	*		P	*	*	*
Bacillus subtilus	*					*		*
Boscalid	*				*			
Captan	*							*
Chlorothalonil	P	*	*	*	*		P	*
Copper hydroxide	P	*	*			*	*	
Iprodione	*					*		
Mancozeb	P		P		*	P	*	*
Maneb	P		*		*			
Mefenoxam	*		*					
Metalaxyl	*		*					
Propiconazole	P		P	*	P	P	*	
Pyraclostrobin	*				*			
Sulfur	*	*						
Thiophanate-methyl	*			*				
Thiram	*						*	
Other Chemicals								
Chloropicrin	*		*					
Dichloropropene	*						*	
Garlic oil	*						*	
Hydrogen peroxide	*		*					
Methyl bromide	*		*					

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States					
	NC	OH	OR	PA	TX	WI
Herbicides						
2,4-D	P	*	*	P		*
2,4-D, Dimeth. salt		*		P	*	
Acetochlor		*		*		
Alachlor	*	P		P		*
Atrazine	P	P	P	P	*	P
Bensulide						
Bentazon	*	P	*	P		P
Bromoxynil		*				
Butylate						
Carfentrazone-ethyl				P		*
Clomazone		*				
Clopyralid		*		*		*
Cyanazine	*	P		*		*
DCPA						
Dicamba				*		*
Dicamba, Dimet. salt				*		
Diflufenzopyr-sodium				*		
Dimethenamid		P	*	P		*
Dimethenamid-P	*	P	*	*		P
Diuron						
EPTC			*			
Ethalfluralin	*				*	
Flumetsulam		*		*		
Glyphosate	*	P	P	P	*	*
Halosulfuron	*	*		*		
Linuron	*					
Mesotrione		*		*		*
Metolachlor	*			*		
Metribuzin						
Naptalam						
Nicosulfuron		*		*		*
Oxyfluorfen						
Paraquat	*	*		*		
Pendimethalin	*	P		P	*	P
Pyridate						
Rimsulfuron				*		*
S-Metolachlor	P	P	P	P	*	P
Sethoxydim	*					*
Simazine	*	P		*		*
Trifluralin	*	*			*	*

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States					
	NC	OH	OR	PA	TX	WI
Insecticides						
Acephate	*					
Azadirachtin						
Azinphos-methyl				*		
Benzoic acid						
Bifenthrin	*	P	*	P		*
Bt (Bacillus thur.)	*	*	*		*	*
Carbaryl	P	P	P	*	*	*
Carbofuran		*		P		
Chlorpyrifos	*	P	*	P	*	*
Cyfluthrin	P	P		P	*	P
Cyromazine						
Diazinon	*			*		
Diflubenzuron					*	
Dimethoate	*					
Disulfoton	*					
Endosulfan	*	*	*	P		
Esfenvalerate	P	P	*	P	P	*
Ethoprop						
Ethyl parathion						
Gamma-cyhalothrin				*		
Imidacloprid						
Indoxacarb				*		
Lambda-cyhalothrin	P	P	*	P	*	P
Malathion	*	*		*	*	
Methomyl	*	P		P		
Methyl parathion		*		P		
Neem oil, clar. hyd.						
Oxamyl				*		
Oxydemeton-methyl		*				
Permethrin	P	P	*	P	*	P
Petroleum distillate				*		
Phorate		*		*		
Piperonyl butoxide						*
Propargite						
Pyrethrins		*				*
Rotenone		*				
Spinosad	*			P		
Tebufenozide		*				
Tebupirimphos				*		*
Tefluthrin		P	*	*		*
Terbufos	P	*		*	*	*
Thiamethoxam						
Thiodicarb	P	P		*		
Zeta-cypermethrin	*	P		P		*

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

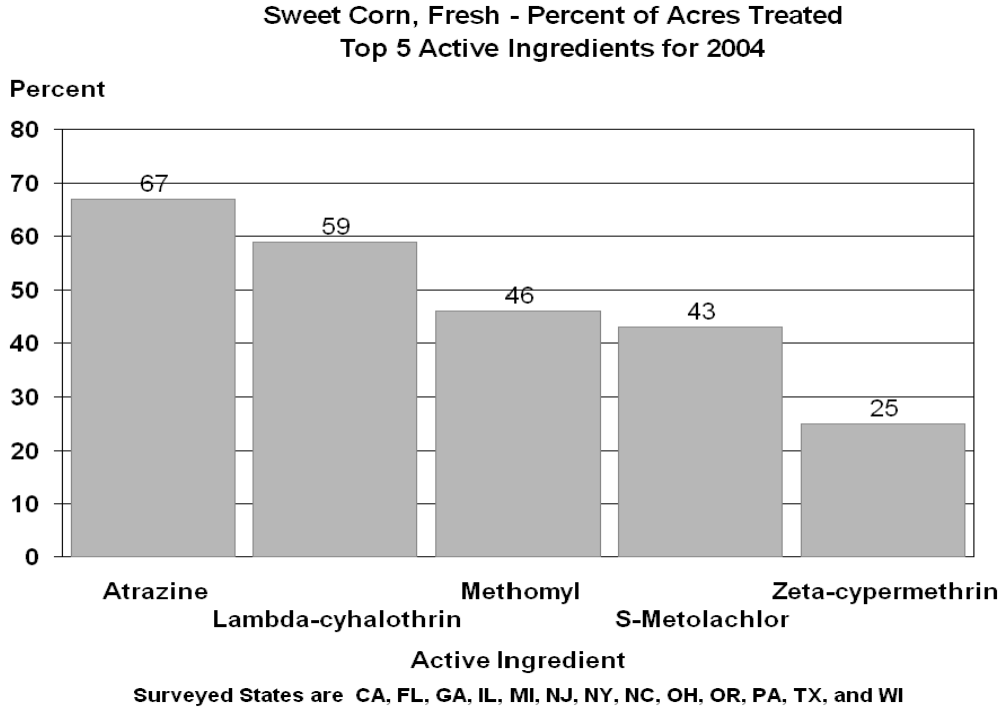
Active Ingredient	Program States					
	NC	OH	OR	PA	TX	WI
Fungicides						
Azoxystrobin	*	*		P		*
Bacillus subtilus						
Boscalid						
Captan	*					
Chlorothalonil	P	*		P	*	*
Copper hydroxide	*					
Iprodione						
Mancozeb	P	*		*		
Maneb				*		
Mefenoxam						
Metalaxyl						
Propiconazole		P		P		*
Pyraclostrobin						
Sulfur				*		
Thiophanate-methyl						
Thiram						
Other Chemicals						
Chloropicrin						
Dichloropropene						
Garlic oil						
Hydrogen peroxide						
Methyl bromide						

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Sweet Corn, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	28,000	24	13.8	81	99.5	3	0.5		
FL	38,900	94	54.5	98	213.2	94	259.1	9	652.4
GA	28,000	81	93.0	99	205.6	85	6.2		
IL	6,000	78	13.1	87	1.4	42	1.4		
MI	10,500	88	20.9	84	6.0	15	0.9		
NJ [2]	8,200	76	17.0	88	9.2	7	0.6		
NY	29,000	86	76.1	77	14.1	5	1.6		
NC	8,200	83	15.5	94	22.4	4	1.6		
OH	16,700	93	40.4	86	20.1	27	8.5		
OR	4,700	95	7.1	94	2.3				
PA	21,800	93	69.0	88	15.4	9	2.6		
TX [2]	2,800	55	3.8	68	0.7				
WI [2]	7,700	87	14.5	66	0.8				
Total	210,500	79	438.7	88	610.7	36	283.0	2	657.5

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Sweet Corn, Fresh: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	1	1.2	0.50	0.60	0.7
2,4-D, Dimeth. salt	1	1.0	0.55	0.55	0.7
Acetochlor	*	1.0	1.81	1.81	1.7
Alachlor	10	1.1	1.93	2.04	44.0
Atrazine	67	1.0	1.19	1.24	176.1
Bentazon	6	1.0	0.71	0.72	8.8
Butylate	11	1.0	2.52	2.53	58.2
Carfentrazone-ethyl	1	1.0	0.008	0.008	([2])
Clopyralid	1	1.0	0.23	0.23	0.6
Cyanazine	*	1.0	1.35	1.35	0.9
Dicamba	*	1.3	0.28	0.36	0.1
Dimethenamid	2	1.0	1.12	1.12	3.9
Dimethenamid-P	4	1.0	0.79	0.80	6.3
Glyphosate	4	1.0	0.72	0.74	6.1
Halosulfuron	1	1.0	0.03	0.03	0.1
Mesotrione	*	1.0	0.16	0.16	0.1
Nicosulfuron	*	1.4	0.02	0.03	([2])
Paraquat	1	1.0	0.47	0.48	1.2
Pendimethalin	7	1.1	0.95	1.02	14.0
S-Metolachlor	43	1.0	1.21	1.23	111.5
Simazine	1	1.1	1.07	1.20	2.1
Trifluralin	*	2.8	1.08	3.00	0.3
Insecticides					
Bifenthrin	7	1.3	0.08	0.11	1.5
Bt (Bacillus thur.) [3]	1	6.0			
Carbaryl	3	1.7	1.20	2.08	12.0
Carbofuran	4	1.0	0.98	0.98	8.6
Chlorpyrifos	24	3.0	0.75	2.24	114.6
Cyfluthrin	20	3.2	0.03	0.09	3.7
Diazinon	2	1.1	0.72	0.79	2.8
Endosulfan	1	2.8	0.67	1.86	3.4
Esfenvalerate	9	3.6	0.04	0.14	2.6
Lambda-cyhalothrin	59	3.9	0.03	0.10	12.2
Malathion	*	1.7	0.61	1.06	0.5
Methomyl	46	6.9	0.40	2.78	268.4
Methyl parathion	9	1.8	0.65	1.17	21.4
Oxydemeton-methyl	8	1.0	0.47	0.47	7.6
Permethrin	7	2.2	0.17	0.38	5.6
Petroleum distillate	*	1.0	1.78	1.78	0.3
Phorate	11	1.0	1.14	1.14	26.1
Spinosad	1	2.6	0.08	0.20	0.3
Tebupirimphos	1	1.1	0.12	0.13	0.3
Tefluthrin	2	1.0	0.12	0.13	0.6
Terbufos	6	1.0	1.09	1.09	13.3
Thiodicarb	21	3.2	0.52	1.64	74.3
Zeta-cypermethrin	25	3.1	0.03	0.10	5.3

See footnote(s) at end of table.

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Sweet Corn, Fresh: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	5	2.3	0.11	0.25	2.4
Chlorothalonil	1	2.5	1.37	3.47	8.6
Copper hydroxide	1	16.9	0.50	8.46	9.0
Mancozeb	16	8.7	0.83	7.24	244.4
Maneb	1	4.4	1.00	4.38	7.4
Propiconazole	20	1.5	0.11	0.16	6.9

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 13 Program States was 210,500 acres.
States included are CA, FL, GA, IL, MI, NJ, NY, NC, OH, OR, PA, TX, and WI.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Sweet Corn, Fresh: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Esfenvalerate	22	4.5	0.04	0.20	1.2
Lambda-cyhalothrin	5	5.1	0.04	0.20	0.3
Methomyl	74	4.3	0.45	1.94	40.1
Zeta-cypermethrin	56	1.7	0.05	0.09	1.4

[1] Planted acreage in 2004 for California was 28,000 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Atrazine	79	1.0	1.39	1.41	43.3
S-Metolachlor	20	1.0	1.19	1.19	9.3
Insecticides					
Chlorpyrifos	41	3.1	0.67	2.08	32.8
Cyfluthrin	66	3.8	0.03	0.10	2.6
Lambda-cyhalothrin	80	4.8	0.03	0.12	3.9
Methomyl	90	7.2	0.33	2.39	83.6
Terbufos	13	1.0	0.99	0.99	5.1
Thiodicarb	81	3.2	0.51	1.64	51.8
Fungicides					
Mancozeb	74	9.9	0.83	8.16	233.6
Propiconazole	32	2.3	0.11	0.26	3.2

[1] Planted acreage in 2004 for Florida was 38,900 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Atrazine	79	1.0	1.00	1.00	22.1
Insecticides					
Carbaryl	*	1.4	0.55	0.75	([2])
Chlorpyrifos	97	3.5	0.76	2.64	71.6
Esfenvalerate	4	1.7	0.03	0.05	0.1
Methomyl	98	10.5	0.45	4.73	129.3
Permethrin	*	3.3	0.19	0.61	([2])

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Georgia was 28,000 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Agricultural Chemical Applications, Illinois, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	23	1.0	2.20	2.20	3.1
Atrazine	57	1.1	1.27	1.45	5.0
Bentazon	24	1.0	0.71	0.72	1.0
S-Metolachlor	30	1.1	1.53	1.65	3.0
Insecticides					
Bifenthrin	12	1.7	0.06	0.10	0.1
Carbaryl	2	1.9	1.46	2.72	0.3
Cyfluthrin	18	2.0	0.02	0.04	([2])
Lambda-cyhalothrin	56	3.8	0.02	0.09	0.3
Permethrin	8	3.5	0.15	0.51	0.3
Tebupirimphos	17	1.2	0.12	0.14	0.1
Zeta-cypermethrin	17	2.0	0.03	0.06	0.1
Fungicides					
Azoxystrobin	21	2.6	0.13	0.34	0.4
Propiconazole	15	1.9	0.09	0.18	0.2

[1] Planted acreage in 2004 for Illinois was 6,000 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	1	1.2	1.06	1.27	0.1
Acetochlor	2	1.0	1.54	1.54	0.3
Alachlor	17	1.0	2.00	2.00	3.6
Atrazine	75	1.0	1.04	1.08	8.4
Bentazon	26	1.0	0.53	0.53	1.4
Dimethenamid-P	5	1.0	0.58	0.58	0.3
Glyphosate	3	1.0	0.60	0.60	0.2
Pendimethalin	17	1.0	0.97	0.97	1.7
S-Metolachlor	34	1.1	1.15	1.29	4.6
Insecticides					
Carbaryl	3	3.1	1.29	3.96	1.1
Cyfluthrin	13	1.7	0.03	0.05	0.1
Diazinon	1	1.4	1.82	2.53	0.3
Esfenvalerate	13	1.8	0.03	0.06	0.1
Lambda-cyhalothrin	57	3.4	0.03	0.09	0.5
Methomyl	12	1.9	0.33	0.61	0.8
Permethrin	10	2.8	0.14	0.39	0.4
Thiodicarb	12	2.6	0.62	1.59	2.0
Fungicides					
Mancozeb	2	2.0	1.28	2.57	0.6
Propiconazole	11	1.6	0.11	0.17	0.2

[1] Planted acreage in 2004 for Michigan was 10,500 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, New Jersey, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	20	1.0	1.61	1.61	2.6
Atrazine	56	1.1	1.35	1.46	6.8
S-Metolachlor	55	1.0	1.32	1.34	6.1
Insecticides					
Carbaryl	3	6.1	0.97	5.87	1.4
Esfenvalerate	6	5.8	0.04	0.21	0.1
Lambda-cyhalothrin	81	6.9	0.03	0.19	1.3
Methomyl	22	4.0	0.47	1.89	3.4
Terbufos	7	1.1	0.90	1.00	0.5
Fungicides					
Chlorothalonil	4	1.3	0.71	0.91	0.3

[1] Planted acreage in 2004 for New Jersey was 8,200 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	23	1.0	2.02	2.09	13.7
Atrazine	80	1.1	1.21	1.30	30.2
Bentazon	8	1.0	0.86	0.86	2.1
Butylate	2	1.0	3.77	3.80	2.4
Dimethenamid	7	1.0	1.06	1.06	2.2
Glyphosate	3	1.1	0.84	0.92	0.7
Pendimethalin	23	1.1	0.95	1.00	6.6
S-Metolachlor	40	1.0	1.30	1.35	15.8
Insecticides					
Bifenthrin	6	1.9	0.06	0.12	0.2
Carbaryl	2	1.8	1.40	2.46	1.2
Esfenvalerate	6	2.7	0.04	0.11	0.2
Lambda-cyhalothrin	55	2.5	0.03	0.07	1.0
Methomyl	18	2.5	0.41	1.01	5.2
Permethrin	15	1.9	0.16	0.31	1.3
Thiodicarb	7	1.3	0.54	0.72	1.5

[1] Planted acreage in 2004 for New York was 29,000 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	1	1.0	0.78	0.78	0.1
Atrazine	62	1.0	1.12	1.12	5.7
S-Metolachlor	52	1.0	1.27	1.27	5.4
Insecticides					
Carbaryl	8	2.3	0.92	2.10	1.3
Cyfluthrin	45	3.0	0.04	0.11	0.4
Esfenvalerate	41	3.8	0.04	0.14	0.5
Lambda-cyhalothrin	44	3.3	0.02	0.06	0.2
Permethrin	4	7.5	0.16	1.18	0.4
Terbufos	52	1.0	1.27	1.27	5.4
Thiodicarb	59	4.9	0.53	2.57	12.4
Fungicides					
Chlorothalonil	2	3.8	1.23	4.67	0.9
Mancozeb	1	6.4	1.17	7.55	0.6

[1] Planted acreage in 2004 for North Carolina was 8,200 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, Ohio, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	11	1.0	1.77	1.77	3.2
Atrazine	85	1.0	1.18	1.22	17.3
Bentazon	11	1.0	0.72	0.75	1.4
Cyanazine	1	1.0	1.56	1.56	0.3
Dimethenamid	3	1.0	1.32	1.32	0.6
Dimethenamid-P	7	1.0	0.89	0.89	1.0
Glyphosate	6	1.0	0.91	0.92	0.9
Pendimethalin	3	1.2	0.84	1.04	0.6
S-Metolachlor	70	1.0	1.12	1.15	13.4
Simazine	5	1.3	1.01	1.27	1.0
Insecticides					
Bifenthrin	2	1.2	0.05	0.06	([2])
Carbaryl	13	1.4	1.47	2.04	4.5
Chlorpyrifos	1	1.0	1.15	1.15	0.3
Cyfluthrin	32	1.6	0.03	0.04	0.2
Esfenvalerate	2	3.7	0.03	0.11	([2])
Lambda-cyhalothrin	44	2.9	0.02	0.06	0.4
Methomyl	8	3.4	0.22	0.75	0.9
Permethrin	7	1.8	0.12	0.22	0.3
Tefluthrin	1	1.0	0.09	0.09	([2])
Thiodicarb	27	2.0	0.61	1.20	5.3
Zeta-cypermethrin	27	3.8	0.02	0.09	0.4
Fungicides					
Propiconazole	25	1.1	0.11	0.12	0.5

[1] Planted acreage in 2004 for Ohio was 16,700 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Atrazine	91	1.0	0.78	0.78	3.3
Glyphosate	1	1.0	0.57	0.57	([2])
S-Metolachlor	7	1.0	1.14	1.17	0.4
Insecticides					
Carbaryl	4	2.1	1.55	3.32	0.6

[1] Planted acreage in 2004 for Oregon was 4,700 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Agricultural Chemical Applications, Pennsylvania, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	1	1.0	1.00	1.00	0.1
2,4-D, Dimeth. salt	1	1.0	0.43	0.43	0.1
Alachlor	9	1.6	1.34	2.09	3.9
Atrazine	90	1.1	1.28	1.41	27.7
Bentazon	8	1.0	0.86	0.89	1.6
Carfentrazone-ethyl	1	1.0	0.01	0.01	([2])
Dimethenamid	2	1.0	1.16	1.16	0.6
Glyphosate	9	1.0	0.77	0.78	1.5
Pendimethalin	13	1.1	1.11	1.17	3.4
S-Metolachlor	71	1.0	1.76	1.80	27.7
Insecticides					
Bifenthrin	1	2.2	0.05	0.11	([2])
Carbofuran	4	1.0	1.03	1.03	0.8
Chlorpyrifos	9	1.1	0.88	0.98	2.0
Cyfluthrin	5	1.4	0.03	0.04	([2])
Endosulfan	1	2.1	0.45	0.93	0.2
Esfenvalerate	5	1.6	0.04	0.07	0.1
Lambda-cyhalothrin	71	2.7	0.02	0.07	1.0
Methomyl	15	2.8	0.44	1.24	4.2
Methyl parathion	7	4.6	0.53	2.44	3.9
Permethrin	12	1.4	0.15	0.22	0.5
Spinosad	3	1.1	0.06	0.07	([2])
Zeta-cypermethrin	8	4.5	0.04	0.19	0.3
Fungicides					
Azoxystrobin	3	2.3	0.13	0.30	0.2
Chlorothalonil	2	3.2	1.48	4.72	2.2
Propiconazole	3	1.8	0.11	0.19	0.1

[1] Planted acreage in 2004 for Pennsylvania was 21,800 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Esfenvalerate	54	4.1	0.03	0.13	0.2

[1] Planted acreage in 2004 for Texas was 2,800 acres.

Sweet Corn, Fresh: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Atrazine	68	1.0	0.67	0.67	3.5
Bentazon	20	1.0	0.62	0.62	1.0
Dimethenamid-P	10	1.0	0.58	0.58	0.5
Pendimethalin	5	1.0	1.04	1.04	0.4
S-Metolachlor	70	1.0	1.47	1.47	7.9
Insecticides					
Cyfluthrin	4	2.1	0.03	0.07	([2])
Lambda-cyhalothrin	37	2.9	0.02	0.07	0.2
Permethrin	12	2.8	0.17	0.46	0.4

[1] Planted acreage in 2004 for Wisconsin was 7,700 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Proc.: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Herbicides						
2,4-D	P	*	*	*		*
2,4-D, Dimeth. salt	*	*		*	*	
Acetic acid (2,4-D)	*					*
Alachlor	P	P	P	P	P	P
Ametryn	*			*		
Atrazine	P	P	P	P	P	P
Bentazon	P	P	P	P	P	P
Bromoxynil	*				*	
Carfentrazone-ethyl	P	P		P	P	P
Clomazone	*	*				
Clopyralid	*	*				
Cyanazine	*			*		
Dicamba	*	*				
Dimethenamid	P	P		*	*	*
Dimethenamid-P	P	P	*	P	P	*
EPTC	P	*		P	*	
Ethalfluralin	*					*
Fluroxypyr	P	*			*	
Glyphosate	P	*	*	P	P	P
Glyphosate diam salt	*					*
Halosulfuron	*					*
MCPA	*				*	
MCPB	*		*			
Metolachlor	P	*				*
Metribuzin	*				*	
Nicosulfuron	P	P	*	*	P	P
Paraquat	P			*	*	*
Pendimethalin	P	*	P	*	P	P
S-Metolachlor	P	P	P	P	P	P
Simazine	P					P

See footnote(s) at end of table.

--continued

Sweet Corn, Proc.: Active Ingredients and Publication Status By Program States, 2004 (continued)

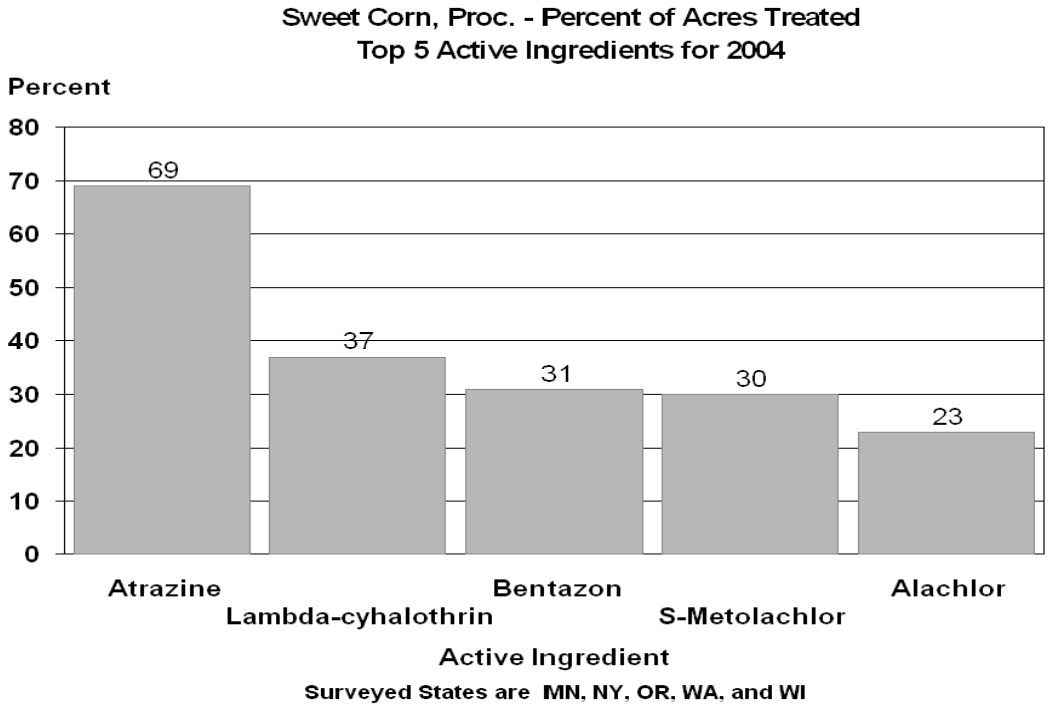
Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Insecticides						
Bifenthrin	P	P	*	*	P	P
Chlorethoxyfos	P	*		*	*	
Chlorpyrifos	P	*		P	P	*
Cyfluthrin	P	*	*			*
Dimethoate	*				*	
Esfenvalerate	P				*	*
Ethoprop	P			P		
Lambda-cyhalothrin	P	P	P	P	P	P
Malathion	*					*
Methomyl	*		*			
Methyl parathion	*					*
Mevinphos	*			*		
Permethrin	P		*		P	*
Petroleum distillate	*	*		*		
Tebupirimphos	P	*				*
Tefluthrin	P		*	*	*	*
Zeta-cypermethrin	P	P	*	*	P	P
Fungicides						
Azoxystrobin	P	P	P		*	*
Captan	*			*		
Mancozeb	*					*
Propiconazole	P	P				P
Thiophanate-methyl	*					*
Other Chemicals						
Aminopyridine	*					*
Garlic oil	*			*		
Monocarbamide dihyd.	*				*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Sweet Corn, Proc.: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
MN	138,000	91	240.8	83	10.3	25	7.9		
NY	19,500	95	63.4	44	1.3	13	0.3		
OR [1]	28,500	98	106.4	69	14.6				
WA [1]	96,100	95	227.7	75	20.3				
WI [1]	80,700	87	175.7	53	4.5	27	2.5		
Total [1]	362,800	92	814.0	71	51.0	17	11.2		

[1] Insufficient reports to publish data for one or more pesticide classes.



Sweet Corn, Proc.: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
2,4-D	1	1.4	0.38	0.52	1.7
Alachlor	23	1.1	1.97	2.16	178.1
Atrazine	69	1.1	0.64	0.72	181.9
Bentazon	31	1.0	0.55	0.56	64.2
Carfentrazone-ethyl	13	1.1	0.01	0.01	0.7
Dimethenamid	2	1.0	1.23	1.24	8.6
Dimethenamid-P	15	1.2	0.77	0.89	48.4
EPTC	7	1.0	3.35	3.38	84.0
Fluroxypyr	2	1.3	0.07	0.09	0.6
Glyphosate	8	1.1	0.75	0.85	25.9
Metolachlor	1	1.3	1.20	1.51	4.7
Nicosulfuron	10	1.0	0.03	0.03	1.0
Paraquat	1	1.0	0.49	0.50	1.4
Pendimethalin	10	1.2	0.61	0.74	27.2
S-Metolachlor	30	1.1	1.50	1.66	176.8
Simazine	2	1.0	0.87	0.90	5.8
Insecticides					
Bifenthrin	8	2.0	0.05	0.09	2.6
Chlorethoxyfos	1	1.0	0.19	0.19	0.6
Chlorpyrifos	4	1.1	1.20	1.34	17.8
Cyfluthrin	*	1.0	0.02	0.02	([2])
Esfenvalerate	1	1.9	0.03	0.06	0.2
Ethoprop	1	1.0	0.96	0.99	5.2
Lambda-cyhalothrin	37	2.7	0.02	0.07	8.9
Permethrin	6	2.5	0.12	0.30	6.4
Tebupirimphos	*	1.0	0.13	0.13	0.1
Tefluthrin	2	1.0	0.13	0.13	0.9
Zeta-cypermethrin	17	2.7	0.04	0.11	6.7
Fungicides					
Azoxystrobin	15	1.5	0.09	0.13	7.0
Propiconazole	10	1.3	0.09	0.11	3.9

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 5 Program States was 362,800 acres. States included are MN, NY, OR, WA, and WI.
[2] Total applied is less than 50 lbs.

Sweet Corn, Proc.: Agricultural Chemical Applications, Minnesota, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	1	1.1	1.91	2.14	3.4
Atrazine	78	1.0	0.55	0.56	59.8
Bentazon	64	1.0	0.54	0.55	48.9
Carfentrazone-ethyl	10	1.0	0.01	0.01	0.2
Dimethenamid	3	1.0	1.23	1.23	5.6
Dimethenamid-P	19	1.0	0.89	0.91	23.9
Nicosulfuron	13	1.0	0.03	0.03	0.5
S-Metolachlor	37	1.0	1.87	1.87	94.6
Insecticides					
Bifenthrin	7	2.1	0.04	0.08	0.8
Lambda-cyhalothrin	65	2.8	0.02	0.07	6.0
Zeta-cypermethrin	12	2.9	0.05	0.13	2.3
Fungicides					
Azoxystrobin	24	1.8	0.08	0.15	5.0
Propiconazole	17	1.1	0.11	0.13	2.9

[1] Planted acreage in 2004 for Minnesota was 138,000 acres.

Sweet Corn, Proc.: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	66	1.0	2.61	2.61	33.6
Atrazine	94	1.0	0.64	0.66	12.1
Bentazon	77	1.0	0.56	0.58	8.8
Pendimethalin	12	1.0	1.26	1.26	2.8
S-Metolachlor	25	1.0	1.18	1.18	5.8
Insecticides					
Lambda-cyhalothrin	11	1.0	0.02	0.02	([2])
Fungicides					
Azoxystrobin	13	1.0	0.12	0.12	0.3

[1] Planted acreage in 2004 for New York was 19,500 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Proc.: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	22	1.0	2.47	2.47	15.3
Atrazine	82	1.2	0.88	1.03	24.0
Bentazon	12	1.0	0.52	0.52	1.7
Carfentrazone-ethyl	5	1.0	0.01	0.01	([2])
Dimethenamid-P	23	1.2	0.75	0.89	5.8
EPTC	33	1.0	3.41	3.43	32.7
Glyphosate	25	1.2	0.84	1.04	7.5
S-Metolachlor	27	1.2	1.57	1.91	14.6
Insecticides					
Chlorpyrifos	21	1.1	1.29	1.45	8.5
Ethoprop	19	1.0	0.96	0.99	5.2
Lambda-cyhalothrin	7	2.8	0.03	0.08	0.2

[1] Planted acreage in 2004 for Oregon was 28,500 acres.
[2] Total applied is less than 50 lbs.

Sweet Corn, Proc.: Agricultural Chemical Applications, Washington, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	40	1.0	1.99	2.01	77.7
Atrazine	45	1.2	0.60	0.70	30.2
Bentazon	5	1.0	0.65	0.65	3.1
Carfentrazone-ethyl	19	1.2	0.02	0.02	0.4
Dimethenamid-P	16	1.4	0.68	0.96	14.6
Glyphosate	15	1.1	0.78	0.86	12.2
Nicosulfuron	4	1.0	0.03	0.03	0.1
Pendimethalin	31	1.2	0.56	0.70	20.6
S-Metolachlor	7	1.7	1.31	2.24	16.1
Insecticides					
Bifenthrin	15	1.9	0.05	0.10	1.4
Chlorpyrifos	7	1.1	1.12	1.24	8.8
Lambda-cyhalothrin	13	2.3	0.03	0.07	0.8
Permethrin	16	2.9	0.12	0.34	5.3
Zeta-cypermethrin	33	2.7	0.04	0.10	3.3

[1] Planted acreage in 2004 for Washington was 96,100 acres.

Sweet Corn, Proc.: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Alachlor	29	1.4	1.51	2.05	48.0
Atrazine	71	1.4	0.72	0.98	55.9
Bentazon	3	1.0	0.59	0.60	1.7
Carfentrazone-ethyl	16	1.0	0.008	0.009	0.1
Glyphosate	11	1.1	0.59	0.66	5.6
Nicosulfuron	16	1.0	0.03	0.03	0.4
Pendimethalin	4	1.2	0.73	0.89	2.9
S-Metolachlor	47	1.1	1.06	1.21	45.7
Simazine	8	1.0	0.87	0.90	5.8
Insecticides					
Bifenthrin	4	3.0	0.04	0.12	0.4
Lambda-cyhalothrin	36	2.6	0.02	0.06	1.8
Zeta-cypermethrin	10	2.1	0.03	0.05	0.5
Fungicides					
Propiconazole	17	1.6	0.05	0.07	1.0

[1] Planted acreage in 2004 for Wisconsin was 80,700 acres.

Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	CA	FL	GA	MI	NJ	NY	NC
Herbicides								
Alachlor	*				*			
Bensulide	P	*			*	P	P	
Bromoxynil	*		*	*				
Clomazone	P			*	*	P	P	P
Clopyralid	*					*		
DCPA	*							*
Ethalfluralin	P			*	P	*	P	P
Fluazifop-P-butyl	*				*			
Glyphosate	P	*	*	*	P	*	P	*
Halosulfuron	P		*	*	*	*	P	*
Napropamide	*					*		
Naptalam	P		*		*	*	*	*
Oxyfluorfen	*						*	
Paraquat	P	*	P	*	*	*	*	*
Pendimethalin	*				*			
Prometryn	*				*			
S-Metolachlor	P		*	*	P	*		
Sethoxydim	P		*				*	P
Trifluralin	P			*	*	*		*

See footnote(s) at end of table.

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Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	MI	NJ	NY	NC
Insecticides								
Abamectin	*	*	*					
Acephate	P		*	*				*
Acetamiprid	*			*				
Azadirachtin	*		*		*			
Azinphos-methyl	P				*	*	*	
Benzoic acid	*		*					
Bifenazate	*	*						
Bifenthrin	P	*	*	*	*		*	*
Bt (Bacillus thur.)	P	*	P	P		*		*
Buprofezin	*	*						
Canola oil	*				*			
Carbaryl	P	*	*	P	P	P	P	P
Carbofuran	P				*	*		
Diazinon	P		*	*	*		*	
Dimethoate	*				*			*
Disulfoton	*							*
Endosulfan	P		P	P	P	P	P	P
Esfenvalerate	P	*	*	P	P	P	P	P
Ethoprop	*			*				*
Fenamiphos	*			*				
Imidacloprid	P		*		*	P	P	*
Indoxacarb	*							*
Lambda-cyhalothrin	P		*	*	*		P	
Malathion	P		*	*			*	*
Methomyl	P	*	P		*	*	*	*
Methoxychlor	*						*	
Naled	*		*					
Neem oil, clar. hyd.	*				*			
Oxamyl	P		P	*		*		
Oxydemeton-methyl	*					*		
Permethrin	P	*		*	P	P	P	*
Petroleum distillate	P	*	*	*	*			
Phosmet	*				*			
Piperonyl butoxide	*		*					
Potassium salts	*		*					
Pyrethrins	P	*	*		*		*	
Pyriproxyfen	*		*					
Rotenone	*				*			
Spinosad	P	*	P	*		*	*	*
Thiamethoxam	*		*					
Zeta-cypermethrin	*					*		

See footnote(s) at end of table.

--continued

Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

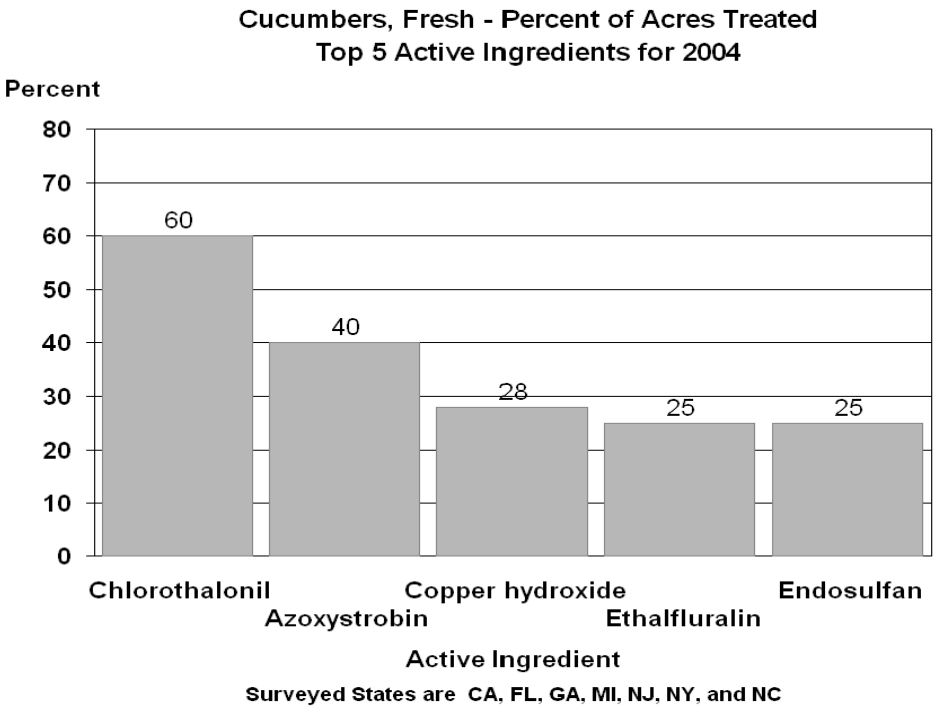
Active Ingredient	Program States							
	ALL	CA	FL	GA	MI	NJ	NY	NC
Fungicides								
Azoxystrobin	P		P	P	P	P	P	P
Bacillus subtilus	*		*			*		
Basic copper sulfate	*					*		
Borax Decahydrate	*							*
Boscalid	*					*		*
Captan	P		*		*		*	*
Chlorothalonil	P		P	P	P	P	P	P
Copper amm. complex	P		*		*	*	*	*
Copper hydroxide	P	*	P	*	P	P	P	*
Copper oxychlo. sul.	*				*		*	
Copper oxychloride	*					*		
Copper resinate	P					*	*	P
Copper sulfate	P		*	*	*		*	*
Cymoxanil	P		*	*		P		*
Dicloran	*						*	
Dimethomorph	P				*	*		
Famoxadone	P		*	*		P		*
Mancozeb	P		P	*	P	P	*	P
Maneb	P		P	P	*	P	*	P
Mefenoxam	P		*	*	*	P	*	*
Metalaxyl	P		*		*	P		
Myclobutanil	P				*	*	*	*
Phosphorous acid	*				*	*		
Potassium bicarbon.	*	*				*		
Propamocarb hydroch.	*					*		
Pyraclostrobin	P	*	*	*	*	*		*
Sulfur	P	*	P			*	*	*
Thiophanate-methyl	P		P	*		*	*	
Thiram	*						*	
Trifloxystrobin	*	*		*			*	
Zoxamide	*				*			
Other Chemicals								
Chlorophacinone	*	*						
Chloropicrin	P		*	*	*			*
Dichloropropene	P			*				*
Gibberellic acid	*			*				
Harpin protein	*			*				
Hydrogen peroxide	*		*					
Metam-sodium	*	*	*	*				
Methyl bromide	P		*	*	*			*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Cucumbers, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	3,400	34	1.7	36	1.2	28	0.6		
FL	11,000	38	5.7	86	10.9	96	69.8	11	122.5
GA	15,000	43	7.1	88	37.6	100	61.4	33	145.6
MI [2]	7,500	66	4.2	66	5.6	96	38.3		
NJ	3,100	59	3.3	73	6.3	93	40.1		
NY	4,700	70	3.2	88	1.5	86	7.3		
NC	7,000	47	2.4	64	6.3	73	33.7	31	207.5
Total	51,700	49	27.6	77	69.4	88	251.2	17	522.9

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Cucumbers, Fresh: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	1	1.1	5.00	5.33	2.9
Clomazone	14	1.0	0.23	0.23	1.7
Ethalfluralin	25	1.0	0.60	0.61	7.9
Glyphosate	4	1.1	1.81	1.94	4.1
Halosulfuron	11	1.0	0.03	0.03	0.2
Naptalam	1	1.0	1.36	1.36	0.7
Paraquat	10	1.1	0.64	0.68	3.5
S-Metolachlor	5	1.0	1.04	1.06	3.0
Sethoxydim	3	1.0	0.20	0.20	0.3
Trifluralin	*	1.0	0.76	0.76	([2])
Insecticides					
Acephate	1	2.0	0.59	1.18	0.6
Azinphos-methyl	2	2.4	0.50	1.22	1.0
Bifenthrin	7	1.3	0.08	0.10	0.4
Bt (Bacillus thur.) [3]	17	5.2			
Carbaryl	8	1.3	0.84	1.12	4.5
Carbofuran	7	1.0	0.99	0.99	3.5
Diazinon	*	1.8	0.47	0.86	([2])
Endosulfan	25	2.6	0.62	1.62	21.0
Esfenvalerate	13	3.1	0.03	0.09	0.6
Imidacloprid	7	1.0	0.14	0.15	0.5
Lambda-cyhalothrin	8	1.8	0.03	0.06	0.2
Malathion	*	2.7	0.79	2.10	([2])
Methomyl	10	2.3	0.53	1.23	6.1
Oxamyl	3	1.7	0.87	1.45	1.9
Permethrin	9	2.8	0.10	0.26	1.3
Petroleum distillate	5	2.0	4.72	9.47	26.5
Pyrethrins	*	1.4	0.01	0.02	([2])
Spinosad	8	2.2	0.10	0.22	0.9

See footnote(s) at end of table.

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Cucumbers, Fresh: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	40	1.8	0.17	0.31	6.4
Captan	*	1.8	2.54	4.48	0.9
Chlorothalonil	60	2.8	1.57	4.31	133.0
Copper amm. complex	3	4.2	0.12	0.51	0.7
Copper hydroxide	28	3.7	0.57	2.10	31.2
Copper resinate	2	5.1	0.12	0.64	0.5
Copper sulfate	1	5.0	0.39	1.92	0.6
Cymoxanil	8	1.2	0.12	0.15	0.6
Dimethomorph	1	3.1	0.04	0.11	0.1
Famoxadone	8	1.2	0.12	0.15	0.6
Mancozeb	15	3.3	1.09	3.59	27.0
Maneb	16	6.5	0.79	5.15	42.9
Mefenoxam	4	1.4	0.27	0.39	0.9
Metalaxyl	7	1.0	0.13	0.13	0.5
Myclobutanil	*	2.0	0.10	0.20	([2])
Pyraclostrobin	7	1.9	0.10	0.20	0.7
Sulfur	1	2.0	1.08	2.15	0.6
Thiophanate-methyl	5	1.9	0.41	0.77	2.0
Other Chemicals					
Chloropicrin	4	1.0	76.45	76.45	147.8
Dichloropropene	6	1.0	56.18	56.18	167.3
Methyl bromide	4	1.0	80.72	80.72	156.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 7 Program States was 51,700 acres. States included are CA, FL, GA, MI, NJ, NY, and NC.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cucumbers, Fresh: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Paraquat	15	1.0	0.42	0.42	0.7
Insecticides					
Bt (Bacillus thur.) [2]	56	7.0			
Endosulfan	8	1.0	0.33	0.34	0.3
Methomyl	37	2.4	0.55	1.29	5.2
Oxamyl	10	1.6	0.95	1.57	1.8
Spinosad	33	2.0	0.11	0.21	0.8
Fungicides					
Azoxystrobin	25	1.9	0.19	0.38	1.0
Chlorothalonil	38	3.6	1.24	4.49	18.8
Copper hydroxide	34	4.4	0.50	2.19	8.3
Mancozeb	44	2.9	0.97	2.79	13.5
Maneb	33	10.1	0.68	6.89	24.7
Sulfur	2	2.3	0.90	2.04	0.4
Thiophanate-methyl	14	1.8	0.51	0.91	1.4

[1] Planted acreage in 2004 for Florida was 11,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cucumbers, Fresh: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Bt (Bacillus thur.) [2]	13	1.5			
Carbaryl	*	2.6	0.95	2.50	([3])
Endosulfan	62	2.1	0.64	1.35	12.7
Esfenvalerate	30	2.8	0.03	0.09	0.4
Fungicides					
Azoxystrobin	66	2.0	0.17	0.34	3.4
Chlorothalonil	75	2.6	1.53	3.92	44.3
Maneb	21	3.0	0.87	2.58	8.1

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Georgia was 15,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Cucumbers, Fresh: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	56	1.0	0.62	0.64	2.7
Glyphosate	2	1.4	1.19	1.64	0.3
S-Metolachlor	5	1.2	1.57	1.86	0.7
Insecticides					
Carbaryl	3	1.9	0.70	1.33	0.3
Endosulfan	6	2.0	0.53	1.08	0.5
Esfenvalerate	12	3.1	0.03	0.10	0.1
Permethrin	47	2.9	0.09	0.27	1.0
Fungicides					
Azoxystrobin	63	1.4	0.17	0.23	1.1
Chlorothalonil	87	2.4	1.42	3.39	22.3
Copper hydroxide	90	3.4	0.54	1.87	12.6
Mancozeb	5	4.1	0.91	3.78	1.4

[1] Planted acreage in 2004 for Michigan was 7,500 acres.

Cucumbers, Fresh: Agricultural Chemical Applications, New Jersey, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	14	1.0	5.38	5.38	2.4
Clomazone	34	1.0	0.18	0.18	0.2
Insecticides					
Carbaryl	14	3.1	0.83	2.56	1.1
Endosulfan	45	5.0	0.64	3.19	4.5
Esfenvalerate	4	1.4	0.04	0.05	([2])
Imidacloprid	4	2.1	0.08	0.17	([2])
Permethrin	11	1.6	0.07	0.12	([2])
Fungicides					
Azoxystrobin	16	2.8	0.18	0.50	0.2
Chlorothalonil	79	5.1	1.46	7.44	18.2
Copper hydroxide	20	13.5	1.03	13.85	8.8
Cymoxanil	29	2.0	0.11	0.23	0.2
Famoxadone	29	2.0	0.11	0.23	0.2
Mancozeb	22	2.8	0.57	1.60	1.1
Maneb	27	9.1	1.14	10.35	8.5
Mefenoxam	16	2.8	0.14	0.41	0.2
Metalaxyl	4	2.0	0.17	0.34	([2])

[1] Planted acreage in 2004 for New Jersey was 3,100 acres.
[2] Total applied is less than 50 lbs.

Cucumbers, Fresh: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	1	1.6	2.50	3.95	0.2
Clomazone	59	1.0	0.26	0.27	0.7
Ethalfluralin	56	1.0	0.78	0.78	2.0
Glyphosate	6	1.0	1.18	1.18	0.3
Halosulfuron	1	1.0	0.03	0.03	([2])
Insecticides					
Carbaryl	1	2.0	0.88	1.77	0.1
Endosulfan	7	2.7	0.92	2.49	0.8
Esfenvalerate	2	1.5	0.03	0.05	([2])
Imidacloprid	51	1.0	0.13	0.13	0.3
Lambda-cyhalothrin	18	1.0	0.03	0.03	([2])
Permethrin	3	1.5	0.14	0.21	([2])
Fungicides					
Azoxystrobin	3	1.2	0.19	0.22	([2])
Chlorothalonil	78	1.4	1.01	1.43	5.3
Copper hydroxide	4	1.0	0.92	0.94	0.2

[1] Planted acreage in 2004 for New York was 4,700 acres.
[2] Total applied is less than 50 lbs.

Cucumbers, Fresh: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	32	1.0	0.19	0.19	0.4
Ethalfluralin	33	1.0	0.75	0.75	1.8
Sethoxydim	4	1.0	0.24	0.25	0.1
Insecticides					
Carbaryl	46	1.0	0.87	0.91	2.9
Endosulfan	6	9.8	0.50	4.90	2.2
Esfenvalerate	8	7.2	0.03	0.20	0.1
Fungicides					
Azoxystrobin	39	1.7	0.12	0.20	0.6
Chlorothalonil	37	2.9	3.21	9.31	24.0
Copper resinate	2	6.0	0.10	0.58	0.1
Mancozeb	7	10.4	1.43	14.88	7.2
Maneb	10	1.8	1.06	1.95	1.4

[1] Planted acreage in 2004 for North Carolina was 7,000 acres.

Cucumbers, Pickles: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Herbicides								
Bensulide	P				*		*	*
Clethodim	*		*					
Clomazone	P	*	P	P	P			*
DSMA	*						*	
Ethalfluralin	P	*	P	P	P	*	P	P
Fluazifop-P-butyl	*		*					
Glyphosate	P	*	*		P		*	
Glyphosate diam salt	*			*				
Halosulfuron	P	*	P	*	*		*	*
Naptalam	P		P	*	P		*	*
Paraquat	*	*						
Pendimethalin	*						*	
Prometryn	*		*			*		
S-Metolachlor	*				*			
Sethoxydim	P	*	*	P	*	*	P	*
Trifluralin	*						*	

See footnote(s) at end of table.

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Cucumbers, Pickles: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Insecticides								
Acephate	*	*					*	
Azadirachtin	*	*						
Azinphos-methyl	*				*			
Bifenthrin	*	*	*		*			
Bt (Bacillus thur.)	*	*					*	
Canola oil	*				*			
Carbaryl	P		*	P	P		*	
Carbofuran	P		*		*			
Chlorpyrifos	*		*					
Cyfluthrin	*		*					
Diazinon	*						*	*
Endosulfan	P	*	*	*	P		*	
Esfenvalerate	P		*	*	*		*	
Ethoprop	*			*				
Imidacloprid	P				*		*	
Indoxacarb	*					*		
Lambda-cyhalothrin	*		*		*			
Malathion	*				*		*	
Methomyl	P	*	*	*			P	
Methoxychlor	*					*		
Permethrin	P		*	*	P	*	*	*
Petroleum distillate	*		*					
Pyrethrins	*				*		*	
Rotenone	*						*	
Spinosad	P	*			*		*	
Zeta-cypermethrin	P		*		*		*	

See footnote(s) at end of table.

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Cucumbers, Pickles: Active Ingredients and Publication Status By Program States, 2004 (continued)

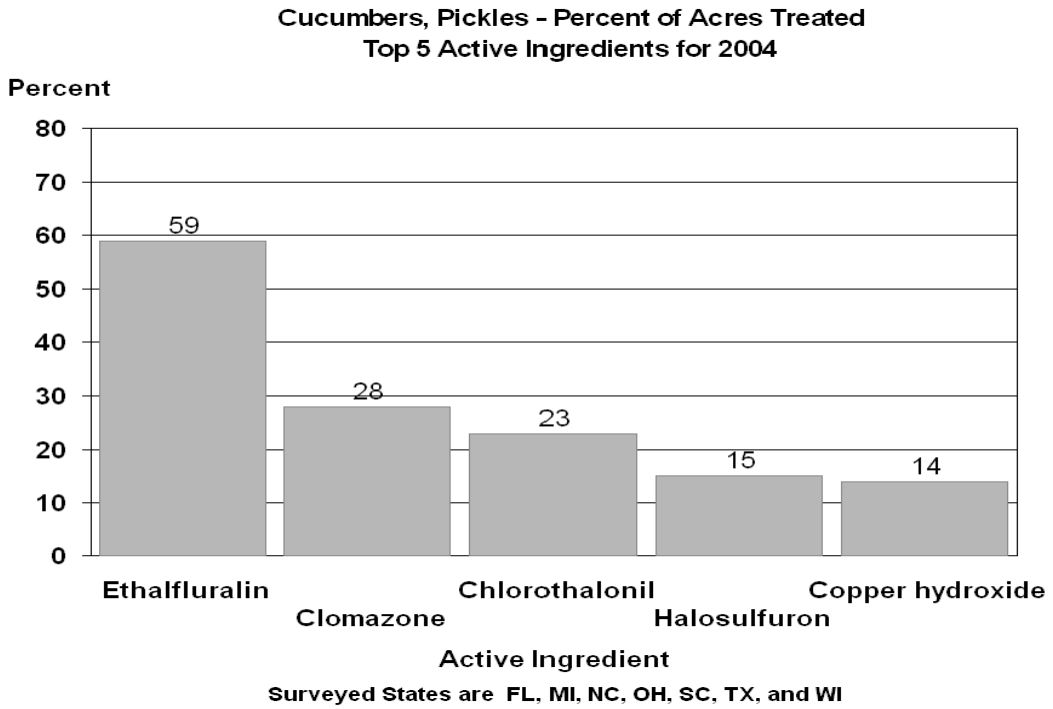
Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Fungicides								
Azoxystrobin	P	*	*	*	*	*	P	
Bacillus subtilus	*			*				
Chlorothalonil	P	*	P	P	P	*	*	
Copper Soap	*				*			
Copper amm. complex	*		*					
Copper hydroxide	P	P	P	*	P		*	
Copper resinate	*			*				
Copper sulfate	*			*				
Cymoxanil	*		*		*			
Dimethomorph	*		*		*			
Famoxadone	*		*		*			
Fosetyl-al	*				*			
Mancozeb	P		*	*	*	*	*	
Maneb	*			*			*	
Mefenoxam	P	*	*	*			*	
Metalaxyl	*				*		*	
Myclobutanil	*				*			
Pyraclostrobin	P		*	*	P			
Sulfur	*	*						
Thiophanate-methyl	*				*	*		
Thiram	*	*						
Trifloxystrobin	*				*		*	
Other Chemicals								
Chloropicrin	*			*		*		
Dichloropropene	*			*				
Garlic oil	*						*	
Harpin protein	*	*						
Methyl bromide	*					*		

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Cucumbers, Pickles: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
FL [2]	6,500	97	15.2	100	2.3	100	8.9		
MI	35,000	85	24.5	9	1.5	12	6.4		
NC [2]	17,000	79	7.9	49	4.9	77	24.7		
OH	5,500	97	5.1	63	3.2	77	15.6		
SC [2]	4,200	50	0.5						
TX [2]	7,500	83	4.9	39	2.4	21	1.8		
WI [2]	4,600	98	3.8						
Total	80,300	84	61.9	32	14.7	37	57.4	2	55.6

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Cucumbers, Pickles: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	*	1.3	2.50	3.35	1.1
Clomazone	28	1.0	0.19	0.19	4.3
Ethalfluralin	59	1.0	0.68	0.68	32.2
Glyphosate	11	1.5	1.34	2.03	17.0
Halosulfuron	15	1.6	0.03	0.04	0.5
Naptalam	4	1.0	1.46	1.51	4.7
Sethoxydim	5	1.0	0.13	0.13	0.6
Insecticides					
Carbaryl	7	1.1	0.57	0.63	3.8
Carbofuran	2	1.0	0.89	0.89	1.1
Endosulfan	3	1.2	0.62	0.77	2.0
Esfenvalerate	2	1.1	0.04	0.04	0.1
Imidacloprid	*	1.0	0.08	0.08	([2])
Methomyl	4	2.0	0.37	0.73	2.0
Permethrin	5	2.9	0.12	0.34	1.4
Spinosad	8	3.0	0.09	0.28	1.7
Zeta-cypermethrin	1	1.7	0.04	0.06	0.1
Fungicides					
Azoxystrobin	3	1.6	0.19	0.31	0.7
Chlorothalonil	23	1.9	1.15	2.17	40.2
Copper hydroxide	14	2.4	0.41	0.99	11.3
Mancozeb	1	1.1	1.11	1.25	1.4
Mefenoxam	10	1.0	0.11	0.11	0.9
Pyraclostrobin	2	1.1	0.12	0.13	0.2

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 7 Program States was 80,300 acres. States included are FL, MI, NC, OH, SC, TX, and WI.
[2] Total applied is less than 50 lbs.

Cucumbers, Pickles: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Copper hydroxide	92	3.0	0.35	1.05	6.3

[1] Planted acreage in 2004 for Florida was 6,500 acres.

Cucumbers, Pickles: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	44	1.0	0.16	0.16	2.5
Ethalfluralin	72	1.0	0.70	0.70	17.6
Halosulfuron	25	1.0	0.03	0.03	0.2
Naptalam	5	1.0	1.74	1.74	2.8
Fungicides					
Chlorothalonil	4	1.7	1.19	2.08	3.0
Copper hydroxide	8	1.4	0.58	0.85	2.5

[1] Planted acreage in 2004 for Michigan was 35,000 acres.

Cucumbers, Pickles: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	15	1.0	0.18	0.18	0.5
Ethalfluralin	60	1.0	0.64	0.64	6.5
Sethoxydim	15	1.0	0.12	0.12	0.3
Insecticides					
Carbaryl	29	1.0	0.50	0.50	2.5
Fungicides					
Chlorothalonil	71	1.8	0.95	1.75	21.1

[1] Planted acreage in 2004 for North Carolina was 17,000 acres.

Cucumbers, Pickles: Agricultural Chemical Applications, Ohio, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	80	1.0	0.30	0.30	1.3
Ethalfluralin	19	1.0	0.51	0.51	0.5
Glyphosate	16	1.1	0.67	0.75	0.7
Naptalam	13	1.0	1.38	1.38	1.0
Insecticides					
Carbaryl	11	1.9	0.91	1.70	1.0
Endosulfan	20	1.0	0.71	0.71	0.8
Permethrin	41	2.3	0.15	0.34	0.8
Fungicides					
Chlorothalonil	77	1.8	1.77	3.10	13.1
Copper hydroxide	28	2.8	0.41	1.16	1.8
Pyraclostrobin	6	1.1	0.18	0.19	0.1

[1] Planted acreage in 2004 for Ohio was 5,500 acres.

Cucumbers, Pickles: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	73	1.1	0.62	0.66	3.6
Sethoxydim	10	1.0	0.06	0.06	([2])
Insecticides					
Methomyl	29	1.5	0.42	0.62	1.3
Fungicides					
Azoxystrobin	15	1.6	0.19	0.32	0.4

[1] Planted acreage in 2004 for Texas was 7,500 acres.
[2] Total applied is less than 50 lbs.

Cucumbers, Pickles: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	82	1.0	0.95	0.95	3.6

[1] Planted acreage in 2004 for Wisconsin was 4,600 acres.

Garlic: Active Ingredients and Publication Status

Active Ingredient	CA
Herbicides	
Acifluorfen	*
Bentazon	*
Bromoxynil	P
Clethodim	*
Fluazifop-P-butyl	*
Glyphosate	P
Oxyfluorfen	P
Paraquat	*
Pendimethalin	P
Sethoxydim	*
Insecticides	
Cypermethrin	*
Lambda-cyhalothrin	*
Malathion	*
Methomyl	*
Permethrin	*
Zeta-cypermethrin	P
Fungicides	
Azoxystrobin	P
Pyraclostrobin	*
Tebuconazole	*
Other Chemicals	
Metam-sodium	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Garlic: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
California, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [1]	28,000	75	36.5	57	21.4	63	5.3		

[1] Insufficient reports to publish data for one or more pesticide classes.

**Garlic: Agricultural Chemical Applications,
California, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bromoxynil	23	1.2	0.49	0.57	3.6
Glyphosate	21	1.2	1.71	2.11	12.2
Oxyfluorfen	36	1.2	0.30	0.36	3.7
Pendimethalin	41	1.4	0.95	1.34	15.2
Insecticides					
Zeta-cypermethrin	46	1.8	0.05	0.09	1.1
Fungicides					
Azoxystrobin	53	1.4	0.17	0.25	3.7

[1] Planted acreage in 2004 for California was 28,000 acres.

Honeydews: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Acifluorfen	*	*	*
Bensulide	P	*	*
Bentazon	*	*	*
Clethodim	*	*	*
DCPA	*	*	
Glyphosate	*	*	*
Lactofen	*	*	
Sethoxydim	*	*	
Trifluralin	P	*	*
Insecticides			
Abamectin	P		P
Bifenthrin	P	*	*
Bt (Bacillus thur.)	P	*	*
Buprofezin	P	*	*
Carbaryl	*	*	*
Cryolite	*		*
Cyromazine	*		*
Diazinon	P	*	*
Dicofol	*		*
Dimethoate	*		*
Endosulfan	P	P	
Esfenvalerate	*	*	*
Fenpropathrin	*	*	*
Imidacloprid	P	P	
Kaolin	*		*
Methomyl	*		*
Neem oil	*		*
Neem oil, clar. hyd.	*	*	
Oxamyl	*	*	
Permethrin	*	*	*
Piperonyl butoxide	*		*
Pymetrozine	*		*
Pyrethrins	*		*
Spinosad	P	*	*
Thiamethoxam	*	*	*

See footnote(s) at end of table.

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Honeydews: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States		
	ALL	AZ	CA
Fungicides			
Azoxystrobin	*	*	
Benomyl	*	*	
Boscalid	*		*
Chlorothalonil	*	*	
Copper hydroxide	*	*	
Mancozeb	*	*	
Mefenoxam	P	*	*
Myclobutanil	*	*	*
Propiconazole	*	*	
Pyraclostrobin	*	*	*
Sulfur	*	*	
Thiophanate-methyl	P	*	*
Trifloxystrobin	*	*	*
Triflumizole	P	*	*
Other Chemicals			
Capsaicin	*	*	
Cytokinins	*	*	
Dichloropropene	*	*	
Gibberellic acid	*	*	
Harpin protein	*	*	
Indolebutyric acid	*	*	
Metam-sodium	*	*	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Honeydews: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ	2,700	55	1.6	80	2.9	95	7.9	69	143.4
CA [2]	17,900	12	3.0	85	48.3	19	0.5		
Total	20,600	17	4.6	84	51.2	29	8.4	11	180.7

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.

**Honeydews: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	2	1.1	4.89	5.13	2.2
Trifluralin	8	1.2	0.56	0.66	1.2
Insecticides					
Abamectin	4	1.3	0.01	0.01	([2])
Bifenthrin	62	1.8	0.08	0.14	1.8
Bt (Bacillus thur.) [3]	7	1.3			
Buprofezin	2	1.0	0.41	0.42	0.2
Diazinon	7	1.1	0.38	0.42	0.6
Endosulfan	5	1.5	0.81	1.21	1.3
Imidacloprid	8	1.2	0.20	0.23	0.4
Spinosad	43	1.1	0.10	0.10	0.9
Fungicides					
Mefenoxam	6	1.1	0.10	0.11	0.1
Thiophanate-methyl	9	1.8	0.34	0.62	1.1
Triflumizole	3	1.2	0.23	0.28	0.2

[1] Planted acreage in 2004 for the 2 Program States was 20,600 acres.
States included are AZ and CA.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Honeydews: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Endosulfan	41	1.5	0.81	1.21	1.3
Imidacloprid	62	1.2	0.20	0.23	0.4

[1] Planted acreage in 2004 for Arizona was 2,700 acres.

Honeydews: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Abamectin	5	1.3	0.01	0.01	([2])

[1] Planted acreage in 2004 for California was 17,900 acres.
[2] Total applied is less than 50 lbs.

Head Lettuce: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Acifluorfen	P	P	
Atrazine	*	*	
Benefin	P	P	P
Bensulide	P	P	P
Bentazon	P	P	
Bromoxynil	*	*	
Glyphosate	*		*
Lactofen	*	*	
Metolachlor	*	*	
Paraquat	*	*	*
Pronamide	P	P	P
Sethoxydim	P	*	*
Trifluralin	*	*	*

See footnote(s) at end of table.

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Head Lettuce: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States		
	ALL	AZ	CA
Insecticides			
Abamectin	P	*	*
Acephate	P	P	P
Acetamiprid	P		P
Azadirachtin	*	*	*
Benzoic acid	P	P	P
Bifenthrin	*	*	
Bt (Bacillus thur.)	P	*	P
Carbaryl	*	*	*
Cyfluthrin	P	P	P
Cypermethrin	P	*	*
Cyromazine	P		P
Diazinon	P	P	P
Dimethoate	P	P	P
Disulfoton	P		P
Emamectin benzoate	P	P	P
Endosulfan	P	P	P
Esfenvalerate	P	P	P
Imidacloprid	P	P	P
Indoxacarb	P	P	P
Lambda-cyhalothrin	P	P	P
Malathion	P	P	P
Methomyl	P	P	P
Neem oil	*		*
Neem oil, clar. hyd.	P		P
Oxydemeton-methyl	P		P
Permethrin	P	P	P
Piperonyl butoxide	*	*	*
Pymetrozine	P	P	P
Pyrethrins	P	*	*
Rotenone	P		P
Spinosad	P	P	P
Tebufenozide	P	*	*
Thiodicarb	*		*
Tralomethrin	*		*
Zeta-cypermethrin	P	P	P

See footnote(s) at end of table.

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Head Lettuce: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States		
	ALL	AZ	CA
Fungicides			
Azoxystrobin	P		P
Bacillus subtilus	*	*	
Boscalid	P	*	*
Coniothyrium minitan	P	P	
Dicloran	P		P
Dimethomorph	P	P	P
Fosetyl-al	P		P
Iprodione	P	P	P
Maneb	P	P	P
Mefenoxam	P	*	*
PCNB	*	*	
Phosphorous acid	P		P
Pyraclostrobin	*	*	
Sulfur	P	*	*
Vinclozolin	P	P	P
Other Chemicals			
Chloropicrin	*		*
Metaldehyde	*		*
Metam-sodium	*		*
Methyl bromide	*		*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Head Lettuce: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ	47,900	55	103.8	94	73.6	47	49.8		
CA	139,000	31	102.5	87	283.4	69	373.0	1	73.3
Total	186,900	38	206.3	89	357.0	63	422.8	1	73.3

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

**Head Lettuce: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	*	1.0	0.12	0.13	0.1
Benefin	8	1.2	1.22	1.40	21.1
Bensulide	20	1.0	3.84	3.93	144.6
Bentazon	*	1.0	0.56	0.58	0.4
Pronamide	25	1.1	0.68	0.72	34.5
Sethoxydim	1	1.0	0.28	0.29	0.3
Insecticides					
Abamectin	14	1.0	0.007	0.008	0.2
Acephate	42	1.1	0.88	0.97	76.0
Acetamiprid	4	1.0	0.07	0.07	0.5
Benzoic acid	23	1.0	0.14	0.14	6.2
Bt (Bacillus thur.) [2]	2	1.3			
Cyfluthrin	5	1.3	0.04	0.05	0.5
Cypermethrin	2	1.1	0.08	0.09	0.3
Cyromazine	4	1.0	0.12	0.12	0.9
Diazinon	42	1.4	0.78	1.11	87.3
Dimethoate	20	1.1	0.25	0.28	10.3
Disulfoton	4	1.0	1.92	1.94	14.8
Emamectin benzoate	14	1.0	0.009	0.009	0.2
Endosulfan	6	1.1	0.91	0.98	10.5
Esfenvalerate	16	1.1	0.04	0.04	1.3
Imidacloprid	35	1.1	0.14	0.14	9.2
Indoxacarb	10	1.1	0.07	0.08	1.5
Lambda-cyhalothrin	34	1.2	0.03	0.03	2.2
Malathion	6	1.0	1.45	1.49	17.0
Methomyl	32	1.1	0.72	0.77	46.1
Neem oil, clar. hyd.	1	1.0	0.99	0.99	1.0
Oxydemeton-methyl	35	1.1	0.50	0.56	37.1
Permethrin	29	1.2	0.16	0.19	10.5
Pymetrozine	4	1.0	0.09	0.09	0.7
Pyrethrins	1	1.0	0.01	0.01	([3])
Rotenone	1	1.0	0.008	0.008	([3])
Spinosad	57	1.6	0.08	0.12	12.9
Tebufenozide	3	1.0	0.12	0.13	0.7
Zeta-cypermethrin	54	1.4	0.05	0.07	6.6

See footnote(s) at end of table.

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Head Lettuce: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	1	1.0	0.23	0.24	0.3
Boscalid	3	1.0	0.34	0.35	2.1
Coniothyrium minitan	1	1.0	0.10	0.10	0.2
Dicloran	1	1.0	2.06	2.15	5.4
Dimethomorph	19	1.2	0.20	0.23	8.0
Fosetyl-al	17	1.0	2.75	2.87	90.7
Iprodione	22	1.0	0.99	1.02	40.9
Maneb	59	1.5	1.44	2.22	246.2
Mefenoxam	5	1.0	0.12	0.12	1.2
Phosphorous acid	2	1.0	1.51	1.54	6.4
Sulfur	2	1.2	2.55	3.02	12.1
Vinclozolin	5	1.0	0.87	0.90	9.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 2 Program States was 186,900 acres. States included are AZ and CA.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Head Lettuce: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	1	1.0	0.12	0.13	0.1
Benefin	29	1.2	1.23	1.44	19.7
Bensulide	32	1.0	4.24	4.25	64.9
Bentazon	1	1.0	0.56	0.58	0.4
Pronamide	35	1.1	0.76	0.86	14.3
Insecticides					
Acephate	16	1.1	0.71	0.77	6.0
Benzoic acid	39	1.0	0.15	0.16	3.0
Cyfluthrin	18	1.3	0.04	0.05	0.5
Diazinon	26	1.2	0.59	0.69	8.7
Dimethoate	19	1.3	0.23	0.30	2.7
Emamectin benzoate	6	1.0	0.01	0.01	([2])
Endosulfan	20	1.0	0.91	0.94	9.1
Esfenvalerate	12	1.0	0.04	0.04	0.3
Imidacloprid	58	1.1	0.24	0.27	7.5
Indoxacarb	18	1.1	0.07	0.08	0.7
Lambda-cyhalothrin	4	1.0	0.03	0.03	0.1
Malathion	4	1.1	1.79	1.93	4.1
Methomyl	51	1.1	0.69	0.79	19.4
Permethrin	32	1.1	0.17	0.18	2.8
Pymetrozine	1	1.0	0.09	0.09	([2])
Spinosad	73	1.9	0.08	0.15	5.1
Zeta-cypermethrin	79	1.9	0.05	0.08	3.2
Fungicides					
Coniothyrium minitan	5	1.0	0.10	0.10	0.2
Dimethomorph	4	1.2	0.19	0.23	0.4
Iprodione	17	1.1	0.98	1.08	9.0
Maneb	35	1.2	1.28	1.49	25.0
Vinclozolin	10	1.0	0.95	0.98	4.9

[1] Planted acreage in 2004 for Arizona was 47,900 acres.
[2] Total applied is less than 50 lbs.

Head Lettuce: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Benefin	1	1.0	1.01	1.03	1.4
Bensulide	15	1.0	3.56	3.71	79.7
Pronamide	22	1.0	0.64	0.65	20.2
Insecticides					
Acephate	51	1.1	0.90	0.99	70.0
Acetamiprid	5	1.0	0.07	0.07	0.5
Benzoic acid	17	1.0	0.13	0.13	3.1
Bt (Bacillus thur.) [2]	2	1.4			
Cyfluthrin	1	1.1	0.04	0.04	0.1
Cyromazine	5	1.0	0.12	0.12	0.9
Diazinon	47	1.5	0.80	1.20	78.6
Dimethoate	20	1.1	0.25	0.27	7.6
Disulfoton	5	1.0	1.92	1.94	14.8
Emamectin benzoate	17	1.0	0.009	0.009	0.2
Endosulfan	1	1.5	0.89	1.33	1.4
Esfenvalerate	17	1.1	0.04	0.04	1.0
Imidacloprid	26	1.0	0.05	0.05	1.7
Indoxacarb	7	1.2	0.08	0.09	0.9
Lambda-cyhalothrin	44	1.2	0.03	0.03	2.1
Malathion	7	1.0	1.37	1.39	12.9
Methomyl	25	1.0	0.73	0.76	26.8
Neem oil, clar. hyd.	1	1.0	0.99	0.99	1.0
Oxydemeton-methyl	47	1.1	0.50	0.56	37.1
Permethrin	28	1.2	0.16	0.20	7.7
Pymetrozine	5	1.0	0.09	0.09	0.6
Rotenone	1	1.0	0.008	0.008	([3])
Spinosad	52	1.4	0.08	0.11	7.7
Zeta-cypermethrin	45	1.2	0.05	0.05	3.4
Fungicides					
Azoxystrobin	1	1.0	0.23	0.24	0.3
Dicloran	2	1.0	2.06	2.15	5.4
Dimethomorph	24	1.2	0.20	0.23	7.6
Fosetyl-al	23	1.0	2.75	2.87	90.7
Iprodione	23	1.0	0.99	1.00	32.0
Maneb	68	1.6	1.47	2.36	221.2
Phosphorous acid	3	1.0	1.51	1.54	6.4
Vinclozolin	4	1.0	0.80	0.82	4.2

[1] Planted acreage in 2004 for California was 139,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Other Lettuce: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Acifluorfen	P	P	
Atrazine	*	*	
Benefin	P	*	*
Bensulide	P	P	P
Bentazon	P	P	
Clethodim	*	*	
EPTC	*		*
Glyphosate	P		P
Lactofen	*	*	
MCPA	*	*	
Metolachlor	*	*	
Paraquat	*	*	*
Pronamide	P	P	P
Sethoxydim	P	*	*
Trifluralin	*	*	*

See footnote(s) at end of table.

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Other Lettuce: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States		
	ALL	AZ	CA
Insecticides			
Acephate	*	*	
Acetamiprid	P		P
Azadirachtin	P	*	*
Benzoic acid	P	P	P
Bt (Bacillus thur.)	P	*	P
Cyfluthrin	P	P	P
Cypermethrin	*	*	
Cyromazine	P		P
Diazinon	P	P	P
Dimethoate	P	P	P
Disulfoton	*		*
Emamectin benzoate	P	P	P
Endosulfan	P	P	P
Esfenvalerate	*	*	
Imidacloprid	P	P	P
Indoxacarb	P	P	P
Lambda-cyhalothrin	P	P	P
Malathion	P	*	*
Methomyl	P	P	P
Neem oil	*		*
Neem oil, clar. hyd.	P		P
Permethrin	P	P	P
Petroleum distillate	*		*
Piperonyl butoxide	*		*
Potassium salts	*		*
Pymetrozine	P	P	P
Pyrethrins	P	*	*
Rotenone	P		P
Spinosad	P	P	P
Tebufenozide	P	*	*
Thiodicarb	*		*
Zeta-cypermethrin	P	P	P

See footnote(s) at end of table.

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Other Lettuce: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States		
	ALL	AZ	CA
Fungicides			
Azoxystrobin	P	*	*
Bacillus subtilus	*		*
Borax Decahydrate	*		*
Boscalid	P	*	*
Coniothyrium minitan	*	*	
Copper hydroxide	*		*
Copper resinate	*		*
Dicloran	P		P
Dimethomorph	P	P	P
Fosetyl-al	P	*	*
Iprodione	P	P	P
Maneb	P	P	P
Mefenoxam	P	*	*
PCNB	*	*	
Phosphorous acid	P		P
Potassium bicarbon.	*		*
Sulfur	P	*	*
Vinclozolin	P	*	*
Other Chemicals			
Busan 881	*		*
Chloropicrin	*		*
Dichloropropene	*		*
Metam-sodium	P		P
Methyl bromide	*		*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Other Lettuce: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ	24,400	66	57.7	97	38.9	43	19.4		
CA	111,000	38	126.4	82	152.9	71	290.0	5	382.1
Total	135,400	43	184.1	85	191.8	66	309.4	4	382.1

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

Other Lettuce: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	*	1.0	0.12	0.12	0.1
Benefin	3	1.0	1.21	1.22	4.9
Bensulide	22	1.0	4.09	4.20	126.5
Bentazon	*	1.0	0.55	0.56	0.4
Glyphosate	1	1.0	0.54	0.55	0.9
Pronamide	35	1.0	1.01	1.03	49.2
Sethoxydim	1	1.0	0.27	0.28	0.2
Insecticides					
Acetamiprid	7	1.0	0.07	0.07	0.6
Azadirachtin	2	1.2	0.03	0.04	0.1
Benzoic acid	12	1.0	0.13	0.13	2.2
Bt (Bacillus thur.) [2]	1	1.2			
Cyfluthrin	8	1.2	0.04	0.05	0.5
Cyromazine	7	1.1	0.12	0.13	1.2
Diazinon	44	1.4	0.69	0.95	56.8
Dimethoate	10	1.1	0.25	0.26	3.7
Emamectin benzoate	3	1.1	0.01	0.01	([3])
Endosulfan	6	1.2	0.92	1.08	8.2
Imidacloprid	48	1.5	0.07	0.11	6.8
Indoxacarb	7	1.1	0.07	0.08	0.8
Lambda-cyhalothrin	32	1.5	0.03	0.04	1.8
Malathion	4	1.0	1.74	1.77	8.8
Methomyl	30	1.3	0.67	0.87	35.6
Neem oil, clar. hyd.	10	1.5	1.50	2.18	28.9
Permethrin	33	1.6	0.16	0.25	11.2
Pymetrozine	10	1.0	0.09	0.09	1.2
Pyrethrins	5	1.0	0.02	0.02	0.1
Rotenone	1	1.0	0.007	0.007	([3])
Spinosad	51	1.6	0.08	0.13	8.8
Tebufenozide	3	1.0	0.12	0.13	0.4
Zeta-cypermethrin	53	1.8	0.04	0.08	5.7
Fungicides					
Azoxystrobin	2	1.2	0.16	0.20	0.6
Boscalid	4	1.0	0.33	0.33	1.6
Dicloran	2	1.1	2.15	2.28	5.5
Dimethomorph	31	1.1	0.20	0.22	9.1
Fosetyl-al	24	1.1	2.59	2.78	90.4
Iprodione	13	1.0	0.98	1.02	18.0
Maneb	59	1.4	1.45	2.09	168.6
Mefenoxam	9	1.2	0.20	0.23	2.7
Phosphorous acid	4	1.0	1.77	1.82	9.4
Sulfur	1	1.0	2.18	2.25	2.0
Vinclozolin	1	1.2	0.73	0.84	1.2
Other Chemicals					
Metam-sodium	1	1.0	196.53	197.38	311.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 2 Program States was 135,400 acres. States included are AZ and CA.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Other Lettuce: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	3	1.0	0.12	0.12	0.1
Bensulide	32	1.0	5.04	5.05	39.9
Bentazon	3	1.0	0.55	0.56	0.4
Pronamide	53	1.0	0.92	0.94	12.2
Insecticides					
Benzoic acid	23	1.0	0.14	0.15	0.8
Cyfluthrin	41	1.2	0.04	0.05	0.5
Diazinon	26	1.0	0.49	0.49	3.1
Dimethoate	13	1.0	0.24	0.24	0.8
Emamectin benzoate	4	1.0	0.01	0.01	([2])
Endosulfan	24	1.1	0.93	0.98	5.7
Imidacloprid	73	1.1	0.17	0.18	3.3
Indoxacarb	8	1.2	0.08	0.09	0.2
Lambda-cyhalothrin	6	1.1	0.03	0.03	([2])
Methomyl	69	1.5	0.68	1.01	16.9
Permethrin	45	1.4	0.17	0.23	2.6
Pymetrozine	9	1.0	0.08	0.09	0.2
Spinosad	77	1.8	0.08	0.14	2.6
Zeta-cypermethrin	75	1.9	0.05	0.09	1.6
Fungicides					
Dimethomorph	3	1.0	0.20	0.20	0.2
Iprodione	12	1.1	0.99	1.07	3.0
Maneb	40	1.0	1.32	1.36	13.1

[1] Planted acreage in 2004 for Arizona was 24,400 acres.
[2] Total applied is less than 50 lbs.

Other Lettuce: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	20	1.0	3.76	3.90	86.6
Glyphosate	1	1.0	0.54	0.55	0.9
Pronamide	31	1.0	1.04	1.06	37.0
Insecticides					
Acetamiprid	8	1.0	0.07	0.07	0.6
Benzoic acid	10	1.0	0.12	0.13	1.3
Bt (Bacillus thur.) [2]	1	1.2			
Cyfluthrin	1	1.0	0.04	0.04	0.1
Cyromazine	8	1.1	0.12	0.13	1.2
Diazinon	48	1.4	0.71	1.01	53.7
Dimethoate	10	1.1	0.25	0.27	2.9
Emamectin benzoate	3	1.2	0.01	0.01	([3])
Endosulfan	2	1.6	0.90	1.43	2.5
Imidacloprid	42	1.6	0.05	0.08	3.6
Indoxacarb	7	1.0	0.07	0.08	0.6
Lambda-cyhalothrin	38	1.5	0.03	0.04	1.7
Methomyl	22	1.2	0.66	0.77	18.7
Neem oil, clar. hyd.	12	1.5	1.50	2.18	28.9
Permethrin	30	1.7	0.15	0.26	8.6
Pymetrozine	10	1.0	0.09	0.09	1.0
Rotenone	1	1.0	0.007	0.007	([3])
Spinosad	45	1.6	0.08	0.12	6.2
Zeta-cypermethrin	48	1.8	0.04	0.08	4.1
Fungicides					
Dicloran	2	1.1	2.15	2.28	5.5
Dimethomorph	37	1.1	0.20	0.22	9.0
Iprodione	13	1.0	0.98	1.02	14.9
Maneb	64	1.5	1.46	2.20	155.5
Phosphorous acid	5	1.0	1.77	1.82	9.4
Other Chemicals					
Metam-sodium	1	1.0	196.53	197.38	311.0

[1] Planted acreage in 2004 for California was 111,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Bulb Onions: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Herbicides							
2,4-D	*			*			*
Acifluorfen	P	P					
Alachlor	*			*			*
Atrazine	*			*			*
Bensulide	P	*		*		P	
Bentazon	P	P			*		*
Bromoxynil	P	P		P	P	P	P
Clethodim	P	P		*	P	*	P
DCPA	P	*			*	P	*
Dimethenamid	P			P			
Dimethenamid-P	P			P			
Diuron	*			*		*	
Ethalfluralin	*					*	
Fluazifop-P-butyl	P	P		P	P		P
Glyphosate	P	*	*	*	P	*	P
Glyphosate diam salt	*	*					*
Napropamide	*						*
Oxyfluorfen	P	P	P	P	P	P	P
Paraquat	*				*		*
Pendimethalin	P	P	P	P	P	P	P
S-Metolachlor	P			*	P	*	
Sethoxydim	P	*	*		P		
Simazine	*				*		
Trifluralin	P		*			P	*

See footnote(s) at end of table.

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Bulb Onions: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Insecticides							
Acephate	*			*			
Azadirachtin	P				P	*	*
Azinphos-methyl	*						*
Bifenthrin	*			*			
Bt (Bacillus thur.)	*	*		*			
Carbaryl	*			*		*	
Chlorpyrifos	P	*	P	P	P	*	P
Clove oil	*						*
Cottonseed oil	*						*
Cypermethrin	P	P	*	*		P	
Cyromazine	*			*			
Diazinon	P	*	*	*	P	P	P
Dimethoate	*						*
Endosulfan	*			*	*		
Esfenvalerate	*					*	
Imidacloprid	*				*		
Kaolin	*						*
Lambda-cyhalothrin	P	P	P	P	P	P	P
Malathion	P	*	*		P	*	*
Methomyl	P	P		P	P	P	P
Methoxychlor	*			*			
Methyl parathion	P			*	P		*
Neem oil	*	*					
Oxamyl	P	*		*	P		P
Oxydemeton-methyl	P			*	P		*
Permethrin	P	P	*	P	*	*	*
Petroleum distillate	*			*			*
Piperonyl butoxide	*				*		
Potassium salts	*			*			
Pyrethrins	*	*					*
Spinosad	*			*		*	
Zeta-cypermethrin	P	P		*	P	*	P

See footnote(s) at end of table.

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Bulb Onions: Active Ingredients and Publication Status By Program States, 2004 (continued)

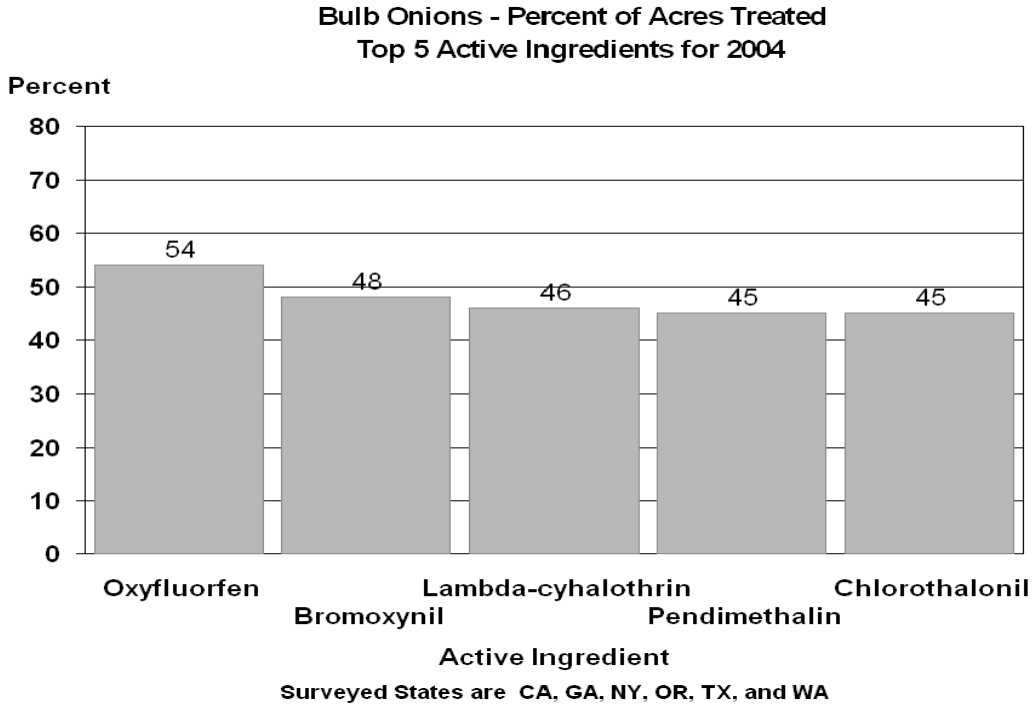
Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Fungicides							
Azoxystrobin	P	*	*	P	P	P	*
Bacillus subtilus	*			*			
Basic copper sulfate	*					*	
Boscalid	P	*	P			*	*
Captan	*			*	*		
Chlorothalonil	P	P	P	P	P	P	P
Copper amm. complex	*				*		*
Copper hydroxide	P	P	P	P	P	P	P
Copper oxide	*	*					*
Copper resinate	*						*
Copper sulfate	*				*		*
Cyprodinil	*			*			*
Dicloran	P	*			P		*
Dimethomorph	*	*					
Fludioxonil	*			*			*
Fosetyl-al	*	*				*	
Iprodione	P	P	P	P	*	P	*
Mancozeb	P	P	P	P	P	P	P
Maneb	P	P	*	*	*	P	
Mefenoxam	P	P	*	P	P	P	*
Metalaxyl	P	*		*	P	P	*
Phosphorous acid	*					*	
Pyraclostrobin	P	*	P		*	*	*
Sulfur	P	*			*	*	*
Triadimefon	*			*			
Other Chemicals							
Busan 881	*				*		
Chloropicrin	P	*			P	*	
Cytokinins	*						*
Dichloropropene	P	*	*		P	*	*
GABA	P	*			*		
Garlic oil	*					*	*
Gibberellic acid	*					*	
Hydrogen peroxide	*			*		*	
Indolebutyric acid	*					*	
L-Glutamic acid	P	*			*		
Maleic hydrazide	P	*		P	P		*
Metaldehyde	*			*			
Metam-sodium	P	*	*		P		*
Methyl bromide	*				*		
Monocarbamide dihyd.	*				*		

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Bulb Onions: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	45,500	59	33.7	49	31.2	49	86.7	5	186.4
GA [2]	16,500	52	9.9	77	13.3	100	182.1		
NY	13,500	97	61.6	96	40.3	97	306.5	54	16.3
OR	20,500	96	46.1	98	60.4	82	72.0	48	1,548.1
TX	17,400	90	68.7	90	31.6	91	91.7	4	45.1
WA	20,500	98	37.7	92	72.5	85	52.4	19	238.0
Total	133,900	78	257.7	77	249.3	76	791.4	18	2,177.1

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Bulb Onions: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	3	1.0	0.17	0.18	0.8
Bensulide	6	1.3	2.69	3.61	30.9
Bentazon	5	1.1	0.42	0.46	2.8
Bromoxynil	48	1.6	0.22	0.35	22.4
Clethodim	8	1.1	0.14	0.16	1.7
DCPA	6	1.0	3.98	4.17	32.3
Dimethenamid	5	2.2	0.72	1.58	11.1
Dimethenamid-P	4	2.0	0.46	0.94	4.6
Fluazifop-P-butyl	22	1.2	0.17	0.21	6.2
Glyphosate	21	1.1	0.69	0.79	21.9
Oxyfluorfen	54	2.1	0.09	0.18	13.2
Pendimethalin	45	1.6	0.85	1.36	81.4
S-Metolachlor	3	1.3	1.34	1.71	7.7
Sethoxydim	5	1.3	0.25	0.33	2.2
Trifluralin	3	1.0	0.93	0.93	4.3
Insecticides					
Azadirachtin	2	1.9	0.008	0.01	([2])
Chlorpyrifos	26	1.1	1.34	1.46	51.5
Cypermethrin	7	1.6	0.09	0.14	1.3
Diazinon	23	1.9	0.86	1.62	49.2
Lambda-cyhalothrin	46	2.3	0.03	0.06	3.9
Malathion	4	1.9	0.56	1.10	5.8
Methomyl	33	1.8	0.58	1.07	47.9
Methyl parathion	7	1.9	0.45	0.88	8.6
Oxamyl	19	2.6	0.52	1.36	33.6
Oxydemeton-methyl	6	1.6	0.46	0.72	5.5
Permethrin	8	1.7	0.14	0.24	2.6
Zeta-cypermethrin	26	2.3	0.05	0.11	3.8
Fungicides					
Azoxystrobin	11	1.9	0.15	0.28	4.2
Boscalid	6	1.4	0.18	0.25	2.1
Chlorothalonil	45	3.8	1.09	4.13	246.5
Copper hydroxide	28	3.1	0.76	2.33	86.7
Dicloran	1	1.1	1.47	1.59	2.0
Iprodione	20	2.3	0.57	1.33	36.1
Mancozeb	43	4.0	1.45	5.76	333.4
Maneb	10	2.2	1.69	3.78	51.8
Mefenoxam	18	1.2	0.11	0.14	3.4
Metalaxyl	5	1.2	0.12	0.15	1.0
Pyraclostrobin	6	1.5	0.14	0.21	1.8
Sulfur	3	1.9	1.87	3.59	12.9

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Bulb Onions: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Other Chemicals					
Chloropicrin	3	1.0	41.58	41.74	192.2
Dichloropropene	4	1.0	175.10	175.67	955.7
GABA	2	1.1	0.09	0.10	0.2
L-Glutamic acid	2	1.1	0.09	0.10	0.2
Maleic hydrazide	11	1.1	2.02	2.22	32.0
Metam-sodium	4	1.0	134.85	139.32	819.4

[1] Planted acreage in 2004 for the 6 Program States was 133,900 acres. States included are CA, GA, NY, OR, TX, and WA.
[2] Total applied is less than 50 lbs.

Bulb Onions: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Acifluorfen	10	1.0	0.17	0.18	0.8
Bentazon	10	1.0	0.35	0.35	1.6
Bromoxynil	42	1.7	0.16	0.27	5.1
Clethodim	10	1.0	0.12	0.12	0.6
Fluazifop-P-butyl	14	1.3	0.26	0.34	2.2
Oxyfluorfen	22	2.0	0.12	0.24	2.5
Pendimethalin	20	1.2	0.75	0.88	8.1
Insecticides					
Cypermethrin	10	1.3	0.10	0.13	0.6
Lambda-cyhalothrin	28	2.1	0.03	0.06	0.8
Methomyl	25	1.2	0.81	0.99	11.1
Permethrin	3	1.3	0.26	0.33	0.5
Zeta-cypermethrin	35	2.4	0.05	0.12	1.9
Fungicides					
Chlorothalonil	33	1.3	1.43	1.81	27.5
Copper hydroxide	9	1.9	0.57	1.07	4.2
Iprodione	6	1.1	0.68	0.76	2.0
Mancozeb	21	1.3	1.90	2.43	23.7
Maneb	17	1.6	2.02	3.28	25.4
Mefenoxam	31	1.2	0.09	0.10	1.5

[1] Planted acreage in 2004 for California was 45,500 acres.

Bulb Onions: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Oxyfluorfen	52	1.1	0.30	0.33	2.8
Pendimethalin	47	1.1	0.80	0.88	6.8
Insecticides					
Chlorpyrifos	43	1.1	1.55	1.72	12.3
Lambda-cyhalothrin	51	2.0	0.02	0.03	0.3
Fungicides					
Boscalid	37	1.5	0.17	0.25	1.6
Chlorothalonil	82	5.2	1.34	6.96	94.6
Copper hydroxide	59	3.9	0.82	3.24	31.6
Iprodione	71	2.2	0.61	1.34	15.6
Mancozeb	57	4.5	0.82	3.72	35.2
Pyraclostrobin	37	1.6	0.15	0.24	1.5

[1] Planted acreage in 2004 for Georgia was 16,500 acres.

Bulb Onions: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bromoxynil	46	1.7	0.36	0.61	3.8
Dimethenamid	52	2.2	0.72	1.58	11.1
Dimethenamid-P	36	2.0	0.46	0.94	4.6
Fluazifop-P-butyl	71	1.4	0.15	0.20	2.0
Oxyfluorfen	85	4.8	0.01	0.06	0.7
Pendimethalin	94	2.5	1.00	2.49	31.6
Insecticides					
Chlorpyrifos	61	1.0	2.46	2.58	21.4
Lambda-cyhalothrin	85	3.4	0.03	0.09	1.0
Methomyl	42	1.8	0.43	0.79	4.5
Permethrin	35	2.0	0.12	0.25	1.2
Fungicides					
Azoxystrobin	64	2.2	0.13	0.29	2.5
Chlorothalonil	96	7.5	0.86	6.49	84.1
Copper hydroxide	26	4.6	0.35	1.58	5.5
Iprodione	34	3.1	0.54	1.69	7.7
Mancozeb	97	9.2	1.72	15.73	205.2
Mefenoxam	14	1.6	0.21	0.33	0.6
Other Chemicals					
Maleic hydrazide	49	1.0	2.42	2.42	15.9

[1] Planted acreage in 2004 for New York was 13,500 acres.

Bulb Onions: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bromoxynil	78	1.9	0.17	0.33	5.3
Clethodim	7	1.1	0.14	0.16	0.2
Fluazifop-P-butyl	34	1.2	0.16	0.19	1.3
Glyphosate	56	1.1	0.76	0.83	9.6
Oxyfluorfen	84	2.0	0.08	0.16	2.7
Pendimethalin	67	1.6	0.82	1.30	17.8
S-Metolachlor	11	1.5	1.61	2.49	5.6
Sethoxydim	15	1.6	0.22	0.36	1.1
Insecticides					
Azadirachtin	13	1.9	0.007	0.01	([2])
Chlorpyrifos	61	1.0	0.91	0.94	11.7
Diazinon	28	2.0	0.88	1.80	10.3
Lambda-cyhalothrin	77	2.4	0.03	0.07	1.2
Malathion	8	1.1	1.05	1.19	2.0
Methomyl	48	1.4	0.78	1.13	11.1
Methyl parathion	34	1.7	0.46	0.78	5.4
Oxamyl	40	2.6	0.60	1.55	12.6
Oxydemeton-methyl	31	1.7	0.47	0.78	5.0
Zeta-cypermethrin	32	1.4	0.04	0.06	0.4
Fungicides					
Azoxystrobin	5	1.0	0.19	0.19	0.2
Chlorothalonil	18	1.6	1.32	2.08	7.8
Copper hydroxide	34	1.7	0.90	1.56	11.0
Dicloran	5	1.1	1.25	1.38	1.4
Mancozeb	54	2.9	1.48	4.28	47.4
Mefenoxam	10	1.5	0.11	0.17	0.3
Metalaxyl	4	1.8	0.08	0.14	0.1
Other Chemicals					
Chloropicrin	20	1.0	41.15	41.32	172.6
Dichloropropene	23	1.0	183.04	183.72	875.4
Maleic hydrazide	21	1.3	1.53	1.93	8.2
Metam-sodium	12	1.0	125.30	125.30	314.9

[1] Planted acreage in 2004 for Oregon was 20,500 acres.
[2] Total applied is less than 50 lbs.

Bulb Onions: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	46	1.3	2.72	3.60	28.7
Bromoxynil	24	1.9	0.08	0.15	0.6
DCPA	39	1.0	3.86	4.04	27.6
Oxyfluorfen	39	1.6	0.08	0.13	0.9
Pendimethalin	24	1.0	0.73	0.75	3.2
Trifluralin	26	1.0	0.94	0.94	4.3
Insecticides					
Cypermethrin	14	1.4	0.07	0.10	0.2
Diazinon	42	1.8	1.05	1.90	13.8
Lambda-cyhalothrin	14	1.0	0.04	0.04	0.1
Methomyl	82	2.5	0.39	0.95	13.6
Fungicides					
Azoxystrobin	22	1.8	0.19	0.33	1.3
Chlorothalonil	37	2.1	1.17	2.50	16.1
Copper hydroxide	38	3.0	0.84	2.49	16.6
Iprodione	44	2.7	0.51	1.34	10.2
Mancozeb	35	2.1	1.11	2.30	13.8
Maneb	30	3.2	1.43	4.56	23.9
Mefenoxam	25	1.2	0.12	0.15	0.6
Metalaxyl	25	1.1	0.15	0.16	0.7

[1] Planted acreage in 2004 for Texas was 17,400 acres.

Bulb Onions: Agricultural Chemical Applications, Washington, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bromoxynil	89	1.2	0.35	0.42	7.7
Clethodim	20	1.2	0.16	0.19	0.8
Fluazifop-P-butyl	32	1.0	0.10	0.11	0.7
Glyphosate	43	1.1	0.46	0.52	4.6
Oxyfluorfen	91	1.2	0.16	0.19	3.5
Pendimethalin	61	1.5	0.74	1.12	13.9
Insecticides					
Chlorpyrifos	15	1.1	0.85	0.97	2.9
Diazinon	41	1.8	1.01	1.77	14.9
Lambda-cyhalothrin	52	1.9	0.03	0.06	0.6
Methomyl	18	2.4	0.86	2.06	7.5
Oxamyl	63	2.8	0.45	1.27	16.4
Zeta-cypermethrin	37	2.4	0.05	0.11	0.8
Fungicides					
Chlorothalonil	38	2.4	0.88	2.13	16.4
Copper hydroxide	31	3.3	0.84	2.80	17.8
Mancozeb	42	1.2	0.81	0.94	8.1

[1] Planted acreage in 2004 for Washington was 20,500 acres.

Green Peas, Proc.: Active Ingredients and Publication Status By Program States, 2004

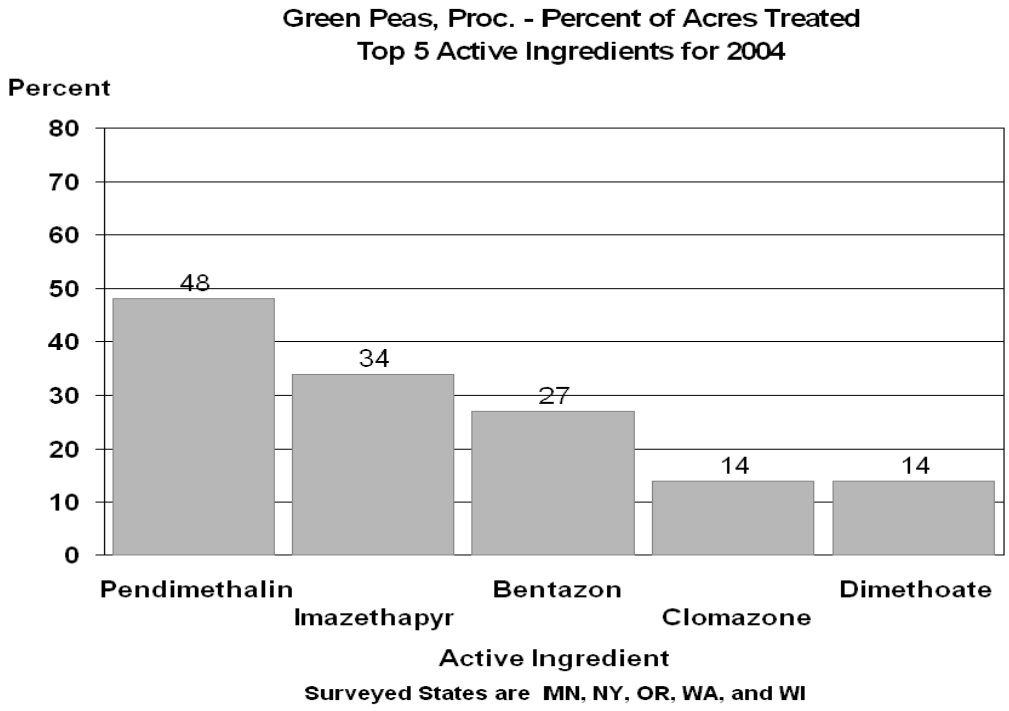
Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Herbicides						
Bentazon	P	*	P	*	P	P
Clomazone	P	P			P	
Dicamba	*		*		*	
Dimethenamid-P	*				*	
Ethalfluralin	*		*			
Fluroxypyr	*				*	
Glyphosate	P		*	P	P	*
Glyphosate diam salt	*					*
Imazamox	P	*				*
Imazethapyr	P	P		P	P	P
MCPA	P			P	P	
MCPA, dimethyl. salt	P				P	
MCPB	P	P	P			P
Metribuzin	P		*	*	P	
Pendimethalin	P	P		*	*	P
Quizalofop-P-ethyl	P		*	*	P	
S-Metolachlor	P	*				*
Sethoxydim	P	*	*	P	P	*
Triallate	P			*	*	
Trifluralin	P	P	P	P	P	P
Insecticides						
Acephate	*		*			
Bifenthrin	P	*	*			P
Carbaryl	*		*			
Cyromazine	*					*
Diazinon	*			*	*	
Dimethoate	P			P	P	P
Esfenvalerate	P	*			*	
Lambda-cyhalothrin	*				*	*
Methoxychlor	*		*			
Petroleum distillate	*				*	
Phosmet	*				*	
Zeta-cypermethrin	P		*		P	*
Fungicides						
Azoxystrobin	P					P
Captan	*		*			
Copper hydroxide	*			*		
Sulfur	*			*	*	
Other Chemicals						
Cytokinins	*				*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Green Peas, Proc.: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
MN	71,700	84	53.2	3	([1])				
NY [2]	19,000	99	17.2	5	0.1				
OR [2]	17,700	99	18.0	55	2.2				
WA [2]	35,600	89	35.5	46	6.7				
WI	38,400	84	32.3	26	1.0	3	0.2		
Total [2]	182,400	88	156.2	21	10.0	2	4.3		

[1] Total applied is less than 50 pounds.
[2] Insufficient reports to publish data for one or more pesticide classes.



Green Peas, Proc.: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	27	1.0	0.74	0.77	38.2
Clomazone	14	1.0	0.44	0.44	10.9
Glyphosate	10	1.0	0.58	0.60	10.6
Imazamox	1	1.0	0.02	0.02	0.1
Imazethapyr	34	1.0	0.04	0.04	2.3
MCPA	9	1.0	0.28	0.29	4.6
MCPA, dimethyl. salt	2	1.1	0.34	0.39	1.1
MCPB	11	1.0	0.45	0.45	9.3
Metribuzin	3	1.1	0.12	0.14	0.7
Pendimethalin	48	1.0	0.58	0.60	52.5
Quizalofop-P-ethyl	3	1.1	0.07	0.07	0.4
S-Metolachlor	2	1.1	1.09	1.16	3.6
Sethoxydim	8	1.0	0.28	0.28	4.0
Triallate	3	1.0	1.14	1.19	6.1
Trifluralin	13	1.0	0.47	0.47	11.1
Insecticides					
Bifenthrin	1	1.0	0.03	0.03	0.1
Dimethoate	14	1.0	0.22	0.23	5.9
Esfenvalerate	1	1.0	0.03	0.03	0.1
Zeta-cypermethrin	6	1.1	0.03	0.04	0.4
Fungicides					
Azoxystrobin	1	1.0	0.13	0.13	0.2

[1] Planted acreage in 2004 for the 5 Program States was 182,400 acres. States included are MN, NY, OR, WA, and WI.

Green Peas, Proc.: Agricultural Chemical Applications, Minnesota, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	32	1.0	0.46	0.46	10.7
Imazethapyr	35	1.0	0.04	0.05	1.1
MCPB	2	1.0	0.99	0.99	1.6
Pendimethalin	72	1.0	0.70	0.71	36.7
Trifluralin	3	1.0	0.45	0.45	0.9

[1] Planted acreage in 2004 for Minnesota was 71,700 acres.

Green Peas, Proc.: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	74	1.0	0.56	0.56	7.8
MCPB	95	1.0	0.39	0.39	7.0
Trifluralin	11	1.0	0.56	0.56	1.2

[1] Planted acreage in 2004 for New York was 19,000 acres.

Green Peas, Proc.: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	58	1.0	0.57	0.57	5.8
Imazethapyr	71	1.0	0.01	0.01	0.1
MCPA	24	1.0	0.26	0.27	1.2
Sethoxydim	16	1.0	0.31	0.31	0.9
Trifluralin	67	1.0	0.44	0.44	5.2
Insecticides					
Dimethoate	55	1.0	0.22	0.22	2.2

[1] Planted acreage in 2004 for Oregon was 17,700 acres.

Green Peas, Proc.: Agricultural Chemical Applications, Washington, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	51	1.1	0.72	0.80	14.5
Clomazone	4	1.0	0.16	0.17	0.3
Glyphosate	16	1.1	0.61	0.66	3.7
Imazethapyr	23	1.0	0.03	0.03	0.3
MCPA	33	1.0	0.28	0.29	3.4
MCPA, dimethyl. salt	8	1.1	0.34	0.39	1.1
Metribuzin	13	1.1	0.11	0.13	0.6
Quizalofop-P-ethyl	17	1.1	0.07	0.07	0.4
Sethoxydim	22	1.0	0.29	0.29	2.3
Trifluralin	14	1.0	0.51	0.52	2.6
Insecticides					
Dimethoate	30	1.0	0.25	0.25	2.8
Zeta-cypermethrin	18	1.1	0.04	0.05	0.3

[1] Planted acreage in 2004 for Washington was 35,600 acres.

Green Peas, Proc.: Agricultural Chemical Applications, Wisconsin, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bentazon	31	1.0	0.99	0.99	11.6
Imazethapyr	43	1.0	0.04	0.05	0.7
MCPB	3	1.0	0.72	0.73	0.7
Pendimethalin	62	1.1	0.55	0.59	14.2
Trifluralin	6	1.0	0.48	0.48	1.2
Insecticides					
Bifenthrin	2	1.0	0.03	0.03	([2])
Dimethoate	15	1.0	0.17	0.17	0.9
Fungicides					
Azoxystrobin	3	1.0	0.13	0.13	0.2

[1] Planted acreage in 2004 for Wisconsin was 38,400 acres.
[2] Total applied is less than 50 lbs.

Bell Peppers: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States			
	ALL	CA	FL	NC
Herbicides				
Bensulide	*	*		
Bromoxynil	*		*	
Clomazone	*			*
Glyphosate	P	*	*	*
Glyphosate diam salt	*	*		
Metribuzin	*			*
Napropamide	P	*	*	*
Oxyfluorfen	*	*		
Paraquat	P	P	P	
S-Metolachlor	P	*		*
Sethoxydim	*	*	*	*
Trifluralin	P	P	*	*

See footnote(s) at end of table.

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Bell Peppers: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	CA	FL	NC
Insecticides				
Abamectin	P	*	*	
Acephate	P	*	*	P
Acetamiprid	*	*		
Azadirachtin	*	*	*	
Benzoic acid	P	P	*	*
Bifenazate	*	*		
Bifenthrin	P	*	*	
Bt (Bacillus thur.)	P	P	P	P
Buprofezin	*		*	
Carbaryl	P	P	*	*
Chlorpyrifos	*		*	*
Cryolite	*	*		
Cyfluthrin	P		*	*
Cyromazine	*	*		
Diazinon	*	*		
Dicofol	*		*	
Dimethoate	P	P		P
Disulfoton	*	*		
Emamectin benzoate	P	*		*
Endosulfan	P	*	P	*
Esfenvalerate	P	P	*	*
Fenpropathrin	*			*
Imidacloprid	P	*	*	
Indoxacarb	P	P	*	*
Lambda-cyhalothrin	P	P	*	*
Malathion	*	*		
Methomyl	P	P	P	P
Naled	*	*		
Neem oil, clar. hyd.	*	*		
Oxamyl	P	*	P	*
Oxydemeton-methyl	P	P		
Permethrin	*	*		*
Petroleum distillate	*	*	*	
Piperonyl butoxide	*		*	
Potassium salts	*	*		
Pymetrozine	*	*		
Pyrethrins	*		*	
Pyriproxyfen	*	*	*	
Spinosad	P	P	P	P
Tebufenozide	P	*	*	
Thiamethoxam	P	*	*	
Zeta-cypermethrin	P	*	*	

See footnote(s) at end of table.

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Bell Peppers: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	CA	FL	NC
Fungicides				
Azoxystrobin	P	*	*	P
Bacillus subtilus	*		*	
Boscalid	*	*		
Captan	*		*	
Chlorothalonil	P	*	*	P
Copper amm. complex	*		*	*
Copper hydroxide	P	P	P	P
Copper resinate	*			*
Copper sulfate	*		*	*
Cymoxanil	*		*	*
Famoxadone	*		*	*
Mancozeb	P		P	P
Maneb	P	*	P	*
Mefenoxam	P	P	*	*
Metalaxyl	*		*	
Myclobutanil	P	*	*	
Pyraclostrobin	P	*	*	
Sulfur	P	P	*	*
Thiophanate-methyl	*		*	
Triadimefon	*	*		
Trifloxystrobin	P	P		
Other Chemicals				
Busan 881	*		*	
Chloropicrin	P	P	P	P
Dichloropropene	P	*	*	
Ethephon	*	*		
Gibberellic acid	*			*
Harpin protein	*		*	
Hydrogen peroxide	*		*	
Metam-sodium	P	*	*	
Methyl bromide	P	*	P	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Bell Peppers: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	21,300	19	7.1	79	56.5	65	204.1	27	1,006.3
FL	18,500	26	5.1	100	43.3	96	286.3	77	2,502.0
NC	5,000	61	4.5	93	4.1	89	22.1	47	103.1
Total	44,800	27	16.7	89	103.9	80	512.5	50	3,611.4

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

Bell Peppers: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	3	1.2	1.84	2.28	3.4
Napropamide	9	1.0	1.22	1.22	5.0
Paraquat	9	1.0	0.45	0.46	1.8
S-Metolachlor	2	1.1	1.48	1.64	1.4
Trifluralin	4	1.1	0.63	0.68	1.1
Insecticides					
Abamectin	7	1.1	0.01	0.01	([2])
Acephate	7	1.8	0.75	1.33	4.3
Benzoic acid	10	3.4	0.13	0.45	2.0
Bifenthrin	3	1.2	0.08	0.09	0.1
Bt (Bacillus thur.) [3]	29	8.3			
Carbaryl	4	1.3	1.59	2.07	3.8
Cyfluthrin	3	1.4	0.03	0.04	0.1
Dimethoate	11	1.2	0.29	0.34	1.7
Emamectin benzoate	8	1.0	0.02	0.02	0.1
Endosulfan	6	1.6	0.74	1.22	3.3
Esfenvalerate	19	1.3	0.04	0.06	0.5
Imidacloprid	9	1.3	0.08	0.11	0.4
Indoxacarb	14	1.6	0.07	0.10	0.7
Lambda-cyhalothrin	3	1.9	0.03	0.06	0.1
Methomyl	31	5.3	0.42	2.21	31.1
Oxamyl	7	4.2	0.54	2.29	7.0
Oxydemeton-methyl	1	1.0	0.50	0.52	0.3
Spinosad	42	2.7	0.08	0.22	4.1
Tebufenozide	4	2.5	0.08	0.19	0.4
Thiamethoxam	7	1.4	0.08	0.11	0.3
Zeta-cypermethrin	8	1.3	0.05	0.06	0.2
Fungicides					
Azoxystrobin	6	2.2	0.11	0.24	0.6
Chlorothalonil	1	1.8	0.93	1.67	0.7
Copper hydroxide	39	8.2	0.48	3.98	68.7
Mancozeb	14	2.7	1.07	2.89	18.0
Maneb	39	9.1	0.69	6.31	109.8
Mefenoxam	36	1.1	0.31	0.35	5.6
Myclobutanil	4	1.4	0.11	0.16	0.3
Pyraclostrobin	13	1.4	0.16	0.23	1.3
Sulfur	40	4.2	4.05	17.01	303.2
Trifloxystrobin	6	1.3	0.10	0.13	0.3
Other Chemicals					
Chloropicrin	21	1.1	56.32	59.80	553.1
Dichloropropene	7	1.2	84.63	101.09	294.6
Metam-sodium	6	1.2	168.63	199.76	564.8
Methyl bromide	31	1.0	159.31	159.31	2,187.3

[1] Planted acreage in 2004 for the 3 Program States was 44,800 acres. States included are CA, FL, and NC.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Bell Peppers: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Paraquat	3	1.1	0.77	0.88	0.6
Trifluralin	7	1.1	0.63	0.68	1.0
Insecticides					
Benzoic acid	14	1.2	0.14	0.17	0.5
Bt (Bacillus thur.) [2]	9	1.9			
Carbaryl	8	1.2	1.78	2.15	3.5
Dimethoate	9	1.2	0.26	0.30	0.6
Esfenvalerate	33	1.1	0.05	0.05	0.4
Indoxacarb	20	1.3	0.06	0.08	0.4
Lambda-cyhalothrin	3	1.5	0.03	0.04	([3])
Methomyl	4	1.6	0.78	1.24	1.0
Oxydemeton-methyl	2	1.0	0.50	0.52	0.3
Spinosad	49	2.5	0.09	0.23	2.4
Fungicides					
Copper hydroxide	9	1.9	0.57	1.08	2.0
Mefenoxam	35	1.1	0.17	0.19	1.4
Sulfur	39	2.6	9.38	24.01	198.0
Trifloxystrobin	12	1.3	0.10	0.13	0.3
Other Chemicals					
Chloropicrin	14	1.2	50.96	60.81	179.6

[1] Planted acreage in 2004 for California was 21,300 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Bell Peppers: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Paraquat	18	1.0	0.38	0.38	1.2
Insecticides					
Bt (Bacillus thur.) [2]	58	9.6			
Endosulfan	3	1.4	0.44	0.63	0.4
Methomyl	70	5.6	0.41	2.30	29.9
Oxamyl	10	6.3	0.50	3.12	5.5
Spinosad	35	3.0	0.09	0.26	1.7
Fungicides					
Copper hydroxide	76	9.4	0.48	4.47	63.0
Mancozeb	17	2.8	1.26	3.49	10.8
Maneb	85	9.7	0.67	6.49	102.4
Other Chemicals					
Chloropicrin	31	1.0	58.11	58.11	329.0
Methyl bromide	71	1.0	162.52	162.52	2,126.0

[1] Planted acreage in 2004 for Florida was 18,500 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Bell Peppers: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Acephate	17	2.7	0.74	1.97	1.7
Bt (Bacillus thur.) [2]	10	3.5			
Dimethoate	61	1.2	0.30	0.37	1.1
Methomyl	6	2.9	0.30	0.88	0.3
Spinosad	37	2.2	0.02	0.04	0.1
Fungicides					
Azoxystrobin	37	2.4	0.10	0.24	0.4
Chlorothalonil	7	1.9	0.93	1.71	0.6
Copper hydroxide	27	4.8	0.59	2.82	3.7
Mancozeb	63	2.6	0.87	2.29	7.2
Other Chemicals					
Chloropicrin	13	1.0	70.19	70.19	44.5

[1] Planted acreage in 2004 for North Carolina was 5,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Pumpkins: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States					
	ALL	CA	IL	MI	NY	PA
Herbicides						
2,4-D	*					*
Alachlor	*					*
Atrazine	*				*	*
Bensulide	P		*	*	*	P
Chloramben	*			*		
Clethodim	P		P		*	*
Clomazone	P		P	P	P	P
DCPA	*		*			
EPTC	*			*		
Ethalfluralin	P	*	*	P	P	P
Glyphosate	P		*	P	*	P
Glyphosate diam salt	*		*	*		
Halosulfuron	P		P	P	P	P
Linuron	*			*		
Metolachlor	*		*			
Napropamide	*					*
Naptalam	P			*	*	
Paraquat	P		*	*	*	P
Pendimethalin	P				*	*
Prometryn	*					*
Pyrazon	*				*	
S-Metolachlor	P		*	P	*	P
Sethoxydim	P	*	P	*	*	P
Simazine	*		*		*	
Trifluralin	*			*		

See footnote(s) at end of table.

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Pumpkins: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States					
	ALL	CA	IL	MI	NY	PA
Insecticides						
Abamectin	*	*				
Azinphos-methyl	P			*	*	*
Bifenazate	*	*				
Bifenthrin	P	*	P	*	*	P
Bt (Bacillus thur.)	*	*			*	
Canola oil	*			*		
Carbaryl	P		P	P	P	P
Carbofuran	P		*	P		*
Chlorpyrifos	*			*	*	
Cryolite	*	*				
Cyfluthrin	*			*		*
Diazinon	P		*	*		*
Dicofol	*					*
Dimethoate	*			*		
Endosulfan	P		*	P	*	P
Esfenvalerate	P	*	*	P	P	P
Imidacloprid	P			P	P	P
Lambda-cyhalothrin	P		*		*	P
Malathion	P	*		P	*	
Methomyl	P	*		*	*	P
Methoxychlor	*				*	
Mevinphos	*				*	
Oxamyl	*					*
Oxydemeton-methyl	*	*				*
Permethrin	P	*	P	P	*	P
Phosmet	*			*		*
Pymetrozine	*	*	*			*
Pyrethrins	*	*	*	*		
Rotenone	*		*	*		
Spinosad	*	*			*	
Thiamethoxam	*		*	*		*
Zeta-cypermethrin	*		*			*

See footnote(s) at end of table.

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Pumpkins: Active Ingredients and Publication Status By Program States, 2004 (continued)

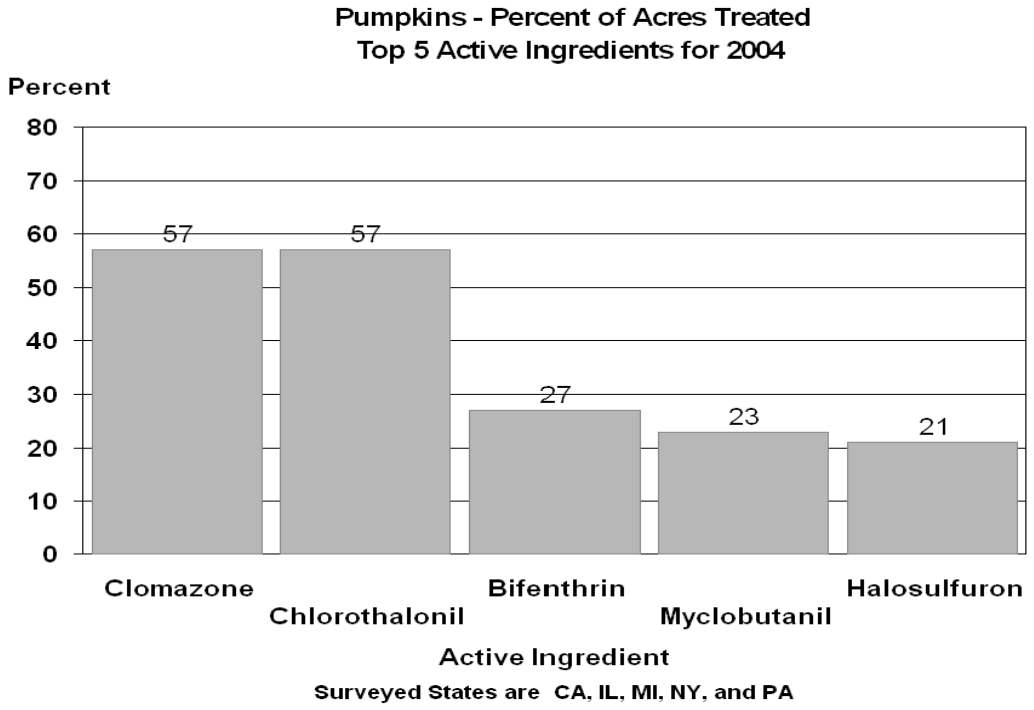
Active Ingredient	Program States					
	ALL	CA	IL	MI	NY	PA
Fungicides						
Azoxystrobin	P		P	P	P	P
Bacillus subtilus	*				*	
Basic copper sulfate	*				*	*
Benomyl	P		*	*	*	P
Boscalid	P	*	*	*		*
Captan	P		*	*	*	*
Chlorothalonil	P	*	P	P	*	P
Copper amm. complex	P				*	*
Copper hydroxide	P		P	P	P	P
Copper oxychlo. sul.	P			*	*	*
Copper oxychloride	*				*	*
Copper resinate	P		*	*	*	*
Copper sulfate	P		*	*	*	*
Cymoxanil	P				*	*
Dimethomorph	P		*	*		P
Dodine	*				*	
Famoxadone	P					P
Mancozeb	P		P	P	P	P
Maneb	P		*	*	P	*
Mefenoxam	P	*	*	P	*	P
Metalaxyl	P		*	*	*	P
Myclobutanil	P	*	*	P	P	P
PCNB	*					*
Phosphorous acid	P				*	*
Potassium bicarbon.	P	*			*	P
Pyraclostrobin	P	*	P	*		P
Quintec	P				*	*
Sulfur	P	*	*	*	P	*
Thiophanate-methyl	P		*	P	*	P
Thiram	*				*	
Triadimefon	*			*	*	*
Trifloxystrobin	P	*		P	*	P
Triflumizole	*	*	*			*
Vinclozolin	*					*
Other Chemicals						
Hydrogen peroxide	P		*		*	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Pumpkins: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA [2]	4,400	71	8.5	69	114.8				
IL [2]	13,600	94	9.5	75	3.9	78	19.9		
MI	7,800	68	5.9	59	10.5	68	28.4		
NY [2]	7,000	62	4.2	45	3.5	66	18.4		
PA [2]	10,400	84	15.0	80	11.5	87	64.0		
Total	43,200	74	35.4	68	37.9	76	245.5	1	1.3

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Pumpkins: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	1	1.0	2.85	2.88	1.5
Clethodim	2	1.0	0.11	0.11	0.1
Clomazone	57	1.0	0.55	0.56	13.8
Ethalfluralin	20	1.0	0.81	0.85	7.2
Glyphosate	17	1.1	1.02	1.11	8.0
Halosulfuron	21	1.0	0.04	0.04	0.4
Naptalam	1	1.0	0.87	0.87	0.2
Paraquat	1	1.0	0.59	0.60	0.3
Pendimethalin	*	1.4	0.79	1.09	0.1
S-Metolachlor	3	1.0	1.37	1.37	1.7
Sethoxydim	2	1.1	0.31	0.34	0.3
Insecticides					
Azinphos-methyl	*	1.4	0.59	0.79	0.1
Bifenthrin	27	1.9	0.08	0.14	1.7
Carbaryl	11	2.8	0.98	2.75	12.8
Carbofuran	2	1.3	0.84	1.09	0.8
Diazinon	*	3.6	0.77	2.73	0.2
Endosulfan	16	1.7	0.73	1.25	8.9
Esfenvalerate	8	2.8	0.04	0.10	0.4
Imidacloprid	3	1.4	0.14	0.19	0.2
Lambda-cyhalothrin	3	4.2	0.02	0.09	0.1
Malathion	3	2.1	1.31	2.71	3.3
Methomyl	5	1.5	0.38	0.55	1.1
Permethrin	9	2.2	0.15	0.32	1.2

See footnote(s) at end of table.

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Pumpkins: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	21	1.6	0.17	0.27	2.4
Benomyl	1	1.9	0.28	0.53	0.3
Boscalid	1	1.6	0.21	0.33	0.2
Captan	1	1.4	2.08	2.93	1.4
Chlorothalonil	57	2.5	1.45	3.68	90.5
Copper amm. complex	*	2.9	0.27	0.78	0.1
Copper hydroxide	18	2.5	0.54	1.36	10.9
Copper oxychlo. sul.	1	3.2	0.97	3.05	1.0
Copper resinate	*	2.8	0.14	0.40	([2])
Copper sulfate	1	2.7	0.63	1.70	1.0
Cymoxanil	1	1.5	0.16	0.24	0.1
Dimethomorph	5	1.6	0.10	0.16	0.3
Famoxadone	1	1.2	0.12	0.15	([2])
Mancozeb	8	2.0	1.13	2.24	7.4
Maneb	1	2.2	1.23	2.70	1.6
Mefenoxam	4	1.7	0.19	0.33	0.5
Metalaxyl	2	1.6	0.16	0.26	0.2
Myclobutanil	23	2.3	0.14	0.32	3.2
Phosphorous acid	1	2.4	1.16	2.74	1.4
Potassium bicarbon.	1	1.1	2.12	2.26	1.1
Pyraclostrobin	9	1.5	0.15	0.22	0.8
Quintec	1	1.5	0.07	0.10	0.1
Sulfur	9	1.6	19.18	30.87	118.9
Thiophanate-methyl	4	1.8	0.35	0.63	1.1
Trifloxystrobin	2	1.5	0.06	0.09	0.1
Other Chemicals					
Hydrogen peroxide	1	2.4	1.83	4.30	1.3

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 5 Program States was 43,200 acres. States included are CA, IL, MI, NY, and PA.
[2] Total applied is less than 50 lbs.

Pumpkins: Agricultural Chemical Applications, Illinois, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clethodim	6	1.0	0.11	0.11	0.1
Clomazone	87	1.0	0.64	0.64	7.6
Halosulfuron	40	1.0	0.04	0.04	0.2
Sethoxydim	1	1.0	0.23	0.23	([2])
Insecticides					
Bifenthrin	62	2.0	0.07	0.15	1.2
Carbaryl	5	3.3	0.81	2.65	1.6
Permethrin	10	2.7	0.15	0.39	0.5
Fungicides					
Azoxystrobin	26	1.1	0.18	0.19	0.7
Chlorothalonil	56	1.2	1.40	1.69	12.9
Copper hydroxide	14	2.4	0.41	1.01	1.9
Mancozeb	6	2.4	1.40	3.40	2.6
Pyraclostrobin	16	1.1	0.14	0.16	0.3

[1] Planted acreage in 2004 for Illinois was 13,600 acres.
[2] Total applied is less than 50 lbs.

Pumpkins: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	38	1.0	0.45	0.47	1.4
Ethalfluralin	41	1.0	0.80	0.82	2.6
Glyphosate	7	1.0	0.82	0.83	0.5
Halosulfuron	15	1.1	0.03	0.03	([2])
S-Metolachlor	3	1.0	1.41	1.41	0.3
Insecticides					
Carbaryl	23	3.3	1.14	3.76	6.7
Carbofuran	5	1.0	0.62	0.62	0.2
Endosulfan	16	2.8	0.69	1.94	2.4
Esfenvalerate	17	4.0	0.03	0.13	0.2
Imidacloprid	2	1.0	0.15	0.15	([2])
Malathion	5	1.2	0.86	1.00	0.4
Permethrin	9	1.5	0.13	0.19	0.1
Fungicides					
Azoxystrobin	4	1.8	0.15	0.26	0.1
Chlorothalonil	56	3.3	1.21	3.97	17.3
Copper hydroxide	43	2.8	0.53	1.51	5.1
Mancozeb	6	1.8	0.64	1.15	0.5
Mefenoxam	7	1.4	0.16	0.22	0.1
Myclobutanil	22	2.0	0.09	0.19	0.3
Thiophanate-methyl	9	1.5	0.31	0.47	0.3
Trifloxystrobin	4	1.2	0.06	0.07	([2])

[1] Planted acreage in 2004 for Michigan was 7,800 acres.
[2] Total applied is less than 50 lbs.

Pumpkins: Agricultural Chemical Applications, New York, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	34	1.1	0.25	0.26	0.6
Ethalfluralin	30	1.0	0.65	0.68	1.4
Halosulfuron	22	1.0	0.04	0.04	0.1
Insecticides					
Carbaryl	17	1.7	0.85	1.44	1.8
Esfenvalerate	10	2.4	0.04	0.09	0.1
Imidacloprid	5	1.4	0.19	0.27	0.1
Fungicides					
Azoxystrobin	39	1.9	0.18	0.35	1.0
Copper hydroxide	12	2.2	0.53	1.17	1.0
Mancozeb	9	1.8	1.07	1.95	1.2
Maneb	5	2.6	1.36	3.54	1.4
Myclobutanil	34	1.6	0.10	0.16	0.4
Sulfur	7	1.2	1.58	1.94	1.0

[1] Planted acreage in 2004 for New York was 7,000 acres.

Pumpkins: Agricultural Chemical Applications, Pennsylvania, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	1	1.0	4.27	4.42	0.6
Clomazone	72	1.0	0.55	0.56	4.2
Ethalfluralin	17	1.1	0.84	0.91	1.6
Glyphosate	55	1.1	1.08	1.17	6.7
Halosulfuron	11	1.1	0.03	0.03	([2])
Paraquat	2	1.0	0.30	0.30	0.1
S-Metolachlor	8	1.0	1.50	1.50	1.3
Sethoxydim	3	1.0	0.32	0.32	0.1
Insecticides					
Bifenthrin	8	1.3	0.08	0.10	0.1
Carbaryl	9	3.1	0.89	2.76	2.7
Endosulfan	47	1.4	0.75	1.09	5.3
Esfenvalerate	11	2.1	0.04	0.08	0.1
Imidacloprid	6	1.5	0.11	0.16	0.1
Lambda-cyhalothrin	9	2.5	0.03	0.06	0.1
Methomyl	6	1.8	0.35	0.61	0.4
Permethrin	12	2.4	0.15	0.36	0.5
Fungicides					
Azoxystrobin	23	2.0	0.15	0.30	0.7
Benomyl	3	1.5	0.37	0.56	0.2
Chlorothalonil	82	3.5	1.62	5.72	48.5
Copper hydroxide	17	2.2	0.71	1.56	2.8
Dimethomorph	8	1.7	0.06	0.11	0.1
Famoxadone	2	1.2	0.12	0.15	([2])
Mancozeb	14	1.9	1.11	2.06	3.1
Mefenoxam	6	2.3	0.21	0.47	0.3
Metalaxyl	6	1.7	0.17	0.28	0.2
Myclobutanil	51	2.8	0.17	0.46	2.5
Potassium bicarbon.	4	1.1	2.11	2.25	1.0
Pyraclostrobin	7	2.8	0.17	0.46	0.3
Thiophanate-methyl	7	1.6	0.43	0.66	0.5
Trifloxystrobin	3	1.4	0.06	0.08	([2])

[1] Planted acreage in 2004 for Pennsylvania was 10,400 acres.
[2] Total applied is less than 50 lbs.

Spinach, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Herbicides				
Clethodim	*	*		
Cycloate	P		P	P
Glyphosate	*		*	
Phenmedipham	*	*		*
S-Metolachlor	P	P		P
Insecticides				
Abamectin	P		P	
Acetamiprid	*		*	
Azadirachtin	P	*	*	
Azinphos-methyl	*	*		
Benzoic acid	P	*	P	*
Bt (Bacillus thur.)	P	*	*	P
Carbaryl	*			*
Cyromazine	P		P	
Diazinon	P	*	*	P
Dimethoate	P	*	*	
Emamectin benzoate	*	*		
Endosulfan	*			*
Esfenvalerate	*			*
Imidacloprid	P	P	P	P
Indoxacarb	*		*	
Malathion	*		*	
Methomyl	P	P	*	*
Neem oil, clar. hyd.	*		*	
Permethrin	P	P	P	P
Piperonyl butoxide	*	*		
Potassium salts	*		*	
Pymetrozine	P	*	*	
Pyrethrins	P	*	*	
Pyriproxyfen	*		*	
Rotenone	P	*	*	
Spinosad	P	P	P	P
Tebufenozide	P		*	*
Thiodicarb	*	*		
Zeta-cypermethrin	P	P	*	*

See footnote(s) at end of table.

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Spinach, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Fungicides				
Azoxystrobin	P	*	*	*
Chlorothalonil	*			*
Copper hydroxide	P		*	*
Copper resinate	*	*		
Fosetyl-al	P		P	
Mefenoxam	P	*	P	*
Metalaxyl	P		*	*
PCNB	P	P		
Phosphorous acid	*		*	
Potassium bicarbon.	*		*	
Other Chemicals				
Busan 881	*		*	
Dichloropropene	*		*	
Metam-sodium	*	*	*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

**Spinach, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004**

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ [2]	6,100	39	2.2	80	3.9	32	1.6		
CA [2]	28,000	16	12.4	62	28.6	51	19.3		
TX	2,100	84	1.3	82	2.6	91	1.2		
Total [2]	36,200	24	15.9	66	35.1	50	22.1		

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.

**Spinach, Fresh: Agricultural Chemical Applications,
Program States, 2004 [1]**

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Cycloate	13	1.0	2.74	2.77	12.9
S-Metolachlor	10	1.4	0.52	0.73	2.6
Insecticides					
Abamectin	9	1.0	0.01	0.01	([2])
Azadirachtin	12	1.1	0.01	0.01	0.1
Benzoic acid	4	1.0	0.13	0.13	0.2
Bt (Bacillus thur.) [3]	2	1.1			
Cyromazine	23	1.1	0.12	0.14	1.1
Diazinon	26	1.1	1.80	1.93	18.3
Dimethoate	1	1.1	0.25	0.26	0.1
Imidacloprid	12	1.4	0.09	0.12	0.5
Methomyl	9	1.2	0.72	0.86	2.7
Permethrin	33	1.6	0.16	0.25	3.0
Pymetrozine	3	1.0	0.09	0.09	0.1
Pyrethrins	18	2.0	0.007	0.01	0.1
Rotenone	17	2.0	0.006	0.01	0.1
Spinosad	49	1.6	0.09	0.14	2.4
Tebufenozide	1	1.7	0.12	0.20	0.1
Zeta-cypermethrin	24	1.0	0.05	0.05	0.4
Fungicides					
Azoxystrobin	4	1.7	0.10	0.17	0.2
Copper hydroxide	1	1.4	0.74	1.06	0.4
Fosetyl-al	11	1.0	2.45	2.55	9.8
Mefenoxam	45	1.1	0.53	0.59	9.7
Metalaxyl	3	1.2	0.33	0.41	0.4
PCNB	3	1.0	0.25	0.25	0.3

[1] Planted acreage in 2004 for the 3 Program States was 36,200 acres.
States included are AZ, CA, and TX.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Spinach, Fresh: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
S-Metolachlor	37	1.6	0.53	0.87	2.0
Insecticides					
Imidacloprid	32	1.4	0.09	0.13	0.2
Methomyl	29	1.3	0.83	1.05	1.9
Permethrin	25	1.6	0.18	0.28	0.4
Spinosad	47	1.0	0.07	0.08	0.2
Zeta-cypermethrin	40	1.1	0.05	0.05	0.1
Fungicides					
PCNB	19	1.0	0.25	0.25	0.3

[1] Planted acreage in 2004 for Arizona was 6,100 acres.

Spinach, Fresh: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Cycloate	16	1.0	2.74	2.77	12.2
Insecticides					
Abamectin	12	1.0	0.01	0.01	([2])
Benzoic acid	5	1.0	0.14	0.14	0.2
Cyromazine	30	1.1	0.12	0.14	1.1
Imidacloprid	5	1.1	0.04	0.05	0.1
Permethrin	34	1.5	0.15	0.22	2.1
Spinosad	49	1.6	0.09	0.14	2.0
Fungicides					
Fosetyl-al	14	1.0	2.45	2.55	9.8
Mefenoxam	48	1.1	0.58	0.60	8.1

[1] Planted acreage in 2004 for California was 28,000 acres.
[2] Total applied is less than 50 lbs.

Spinach, Fresh: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Cycloate	11	1.0	2.82	2.82	0.6
S-Metolachlor	61	1.0	0.48	0.49	0.6
Insecticides					
Bt (Bacillus thur.) [2]	32	1.1			
Diazinon	72	1.0	1.04	1.04	1.6
Imidacloprid	43	2.0	0.12	0.23	0.2
Permethrin	50	2.8	0.15	0.43	0.5
Spinosad	44	2.9	0.09	0.26	0.2

[1] Planted acreage in 2004 for Texas was 2,100 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Squash: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Herbicides							
2,4-D	*						*
Alachlor	*				*		
Bensulide	P	*	*		*	P	
Butoxy. ester 2,4-D	*						*
Chloramben	*				*		
Clethodim	*		*	*			
Clomazone	P		*	*	P	P	P
Clopyralid	*					*	
Diquat	*						*
EPTC	*				*		
Ethalfluralin	P			P	P	P	P
Glyphosate	P	*	P	P	P	*	P
Glyphosate diam salt	*				*		
Halosulfuron	P		*	*	*		
Linuron	*				*		*
Napropamide	*		*			*	*
Naptalam	P				*	*	
Paraquat	P	*	P	*	*		P
Pendimethalin	*				*		
Rimsulfuron	*						*
S-Metolachlor	P		*	*	P	*	
Sethoxydim	P		*	*	*		*
Trifluralin	P		*	*	*		*

See footnote(s) at end of table.

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Squash: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Insecticides							
Acephate	P		*	*			*
Acetamiprid	*			*			
Azadirachtin	P		*		*		
Azinphos-methyl	*					*	
Benzoic acid	*		*				*
Bifenthrin	P	*	*	P	*		*
Bt (Bacillus thur.)	P	*	P	*		*	P
Canola oil	*				*		
Carbaryl	P	*	*	P	P	P	P
Carbofuran	P				*	*	
Chlorpyrifos	P			*	*		
Cyromazine	*	*					
Diazinon	P		*	*	*	*	*
Dimethoate	*		*	*	*		
Disulfoton	*						*
Endosulfan	P	*	P	P	P	P	*
Esfenvalerate	P	*	P	P	P	*	P
Ethoprop	*		*	*			
Fenpropathrin	*					*	
Imidacloprid	P		P	*	*	P	
Indoxacarb	*						*
Lambda-cyhalothrin	*					*	
Malathion	P	*	*	*	P	*	*
Methomyl	P	*	P	*	*	P	P
Methyl parathion	*						*
Mevinphos	*					*	
Naled	*		*				*
Neem oil, clar. hyd.	*				*		
Oxamyl	P		P	*	*	*	*
Oxydemeton-methyl	*	*				*	
Permethrin	P	*	*	P	P	P	*
Petroleum distillate	P		*	P	*		
Phosmet	*				*		
Piperonyl butoxide	*	*	*				
Potassium salts	*		*				
Pymetrozine	*	*					
Pyrethrins	P		*		*		
Rotenone	*				*	*	
Spinosad	P	P	P	*		*	*
Thiamethoxam	*	*			*		
Toxaphene	*						*
Zeta-cypermethrin	*			*		*	

See footnote(s) at end of table.

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Squash: Active Ingredients and Publication Status By Program States, 2004 (continued)

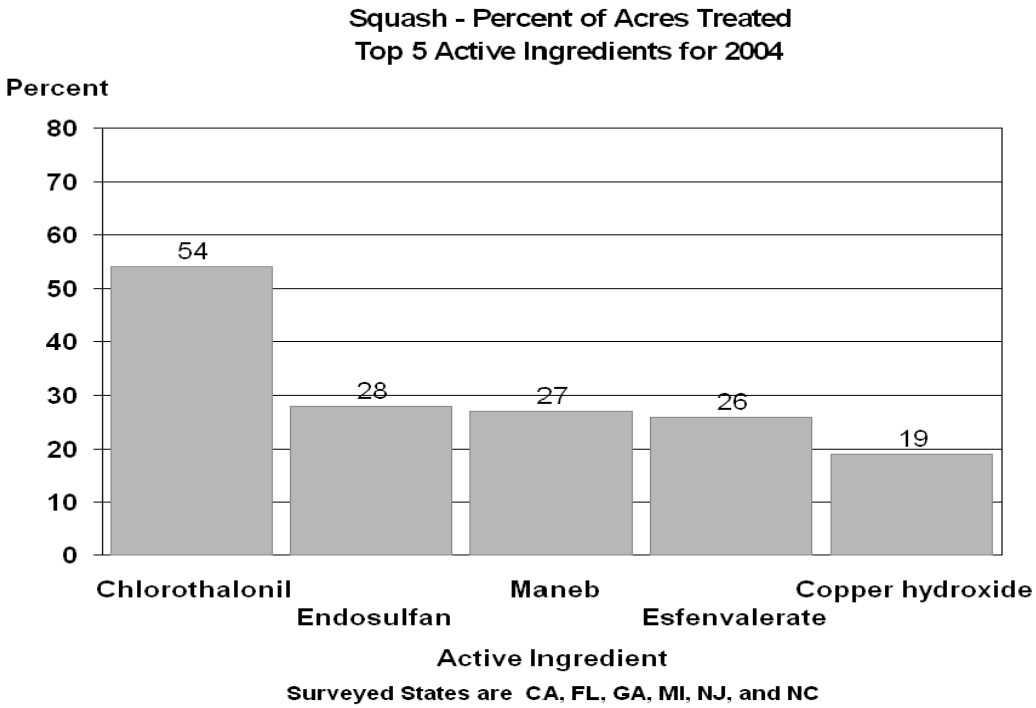
Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Fungicides							
Azoxystrobin	P	*	P	P	*	P	P
Bacillus subtilus	P		*		*	*	
Basic copper sulfate	*		*			*	
Benomyl	*				*		
Borax Decahydrate	*						*
Boscalid	*	*				*	*
Captan	P		*		*		
Chlorothalonil	P	*	P	P	P	P	*
Copper amm. complex	P			*	*	*	P
Copper hydroxide	P	*	P	P	P	P	*
Copper oxychloride	*					*	
Copper resinate	P				*	P	*
Copper sulfate	P			*	*	*	*
Cymoxanil	P		*	*		P	*
Dimethomorph	P			*	P	*	
Famoxadone	P		*	*		P	*
Fosetyl-al	*	*	*		*		
Mancozeb	P	*	P	*	P	P	P
Maneb	P		P	P	*	P	*
Mefenoxam	P		*	P	P	P	*
Metalaxyl	P	*	*	*	*	P	*
Myclobutanil	P	*	*	*	P	P	*
PCNB	*		*			*	
Phosphorous acid	*		*		*	*	
Potassium bicarbon.	*	*				*	
Propamocarb hydroch.	*			*		*	
Pyraclostrobin	P	*	*	P	P	*	*
Sulfur	P	*	P		*	*	
Thiophanate-methyl	P		*		P	*	*
Triadimefon	*				*		
Trifloxystrobin	P	*	*	*	P	*	
Triflumizole	*	*					
Zoxamide	*				*		
Other Chemicals							
Chloropicrin	P		P	*	*	*	*
Dichloropropene	*			*			
Gibberellic acid	*			*			
Harpin protein	*		*				
Hydrogen peroxide	*		*				
Metam-sodium	*		*	*			*
Methyl bromide	P		P	*	*	*	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Squash: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	7,500	4	0.7	13	1.0	7	7.4		
FL	10,500	41	7.3	87	19.5	93	56.3	14	146.8
GA	12,000	35	8.7	91	98.5	93	75.1	22	62.1
MI [2]	7,200	75	5.2	85	4.9	88	27.5		
NJ [2]	3,200	50	1.6	70	3.0	86	15.5		
NC	3,900	44	1.2	50	2.2	54	13.1	2	12.4
Total	44,300	39	24.7	71	129.1	74	194.9	9	231.4

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
[2] Insufficient reports to publish data for one or more pesticide classes.



Squash: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	3	1.3	2.21	2.81	3.8
Clomazone	10	1.0	0.20	0.21	0.9
Ethalfluralin	19	1.1	0.60	0.64	5.4
Glyphosate	7	1.0	1.31	1.34	3.9
Halosulfuron	1	1.0	0.01	0.01	([2])
Naptalam	*	1.0	2.26	2.26	0.5
Paraquat	7	1.2	0.58	0.67	2.1
S-Metolachlor	6	1.1	1.46	1.67	4.5
Sethoxydim	1	1.1	0.24	0.26	0.1
Trifluralin	*	1.0	0.82	0.85	0.1
Insecticides					
Acephate	1	4.3	0.78	3.39	1.1
Azadirachtin	1	7.7	0.003	0.03	([2])
Bifenthrin	12	2.1	0.07	0.15	0.8
Bt (Bacillus thur.) [3]	18	4.9			
Carbaryl	6	2.0	0.68	1.38	3.7
Carbofuran	4	1.0	0.33	0.33	0.5
Chlorpyrifos	*	1.0	1.00	1.02	0.1
Diazinon	2	1.0	1.95	1.96	2.1
Endosulfan	28	3.9	0.53	2.04	25.5
Esfenvalerate	26	2.3	0.03	0.08	0.9
Imidacloprid	5	1.9	0.18	0.34	0.7
Malathion	1	1.9	1.59	3.05	1.9
Methomyl	9	4.4	0.26	1.13	4.3
Oxamyl	1	1.5	0.57	0.86	0.4
Permethrin	12	2.1	0.12	0.25	1.3
Petroleum distillate	11	5.6	3.19	17.80	83.2
Pyrethrins	*	3.4	0.006	0.02	([2])
Spinosad	6	2.6	0.10	0.27	0.8

See footnote(s) at end of table.

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Squash: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	14	1.7	0.16	0.28	1.8
Bacillus subtilus [3]	3	2.1			
Captan	*	1.1	2.04	2.22	0.2
Chlorothalonil	54	2.9	1.24	3.64	87.5
Copper amm. complex	2	6.4	0.28	1.81	1.2
Copper hydroxide	19	3.7	0.53	1.98	17.0
Copper resinate	2	2.9	0.13	0.38	0.4
Copper sulfate	1	5.1	0.49	2.49	1.2
Cymoxanil	3	2.0	0.12	0.24	0.3
Dimethomorph	6	2.1	0.05	0.11	0.3
Famoxadone	3	2.0	0.12	0.24	0.3
Mancozeb	19	2.9	0.89	2.61	22.4
Maneb	27	3.1	1.00	3.09	36.5
Mefenoxam	10	1.4	0.26	0.37	1.6
Metalaxyl	13	1.6	0.18	0.29	1.7
Myclobutanil	6	2.0	0.08	0.16	0.4
Pyraclostrobin	5	1.6	0.15	0.25	0.6
Sulfur	7	2.0	2.69	5.32	15.4
Thiophanate-methyl	10	1.4	0.55	0.78	3.4
Trifloxystrobin	3	1.0	0.07	0.07	0.1
Other Chemicals					
Chloropicrin	1	1.0	60.71	60.71	23.5
Methyl bromide	1	1.0	90.27	90.27	35.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 6 Program States was 44,300 acres. States included are CA, FL, GA, MI, NJ, and NC.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Squash: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Spinosad	2	1.0	0.10	0.10	([2])

[1] Planted acreage in 2004 for California was 7,500 acres.
[2] Total applied is less than 50 lbs.

Squash: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	4	1.1	0.97	1.09	0.5
Paraquat	4	1.4	0.60	0.83	0.3
Insecticides					
Bt (Bacillus thur.) [2]	67	5.3			
Endosulfan	23	5.6	0.33	1.86	4.5
Esfenvalerate	3	3.8	0.04	0.15	([3])
Imidacloprid	13	2.0	0.21	0.43	0.6
Methomyl	29	4.2	0.23	0.98	3.0
Oxamyl	2	1.8	0.54	0.99	0.3
Spinosad	23	2.6	0.11	0.29	0.7
Fungicides					
Azoxystrobin	14	1.9	0.15	0.29	0.4
Chlorothalonil	58	2.4	1.27	3.10	18.8
Copper hydroxide	16	5.4	0.66	3.58	6.1
Mancozeb	33	3.1	1.04	3.20	11.1
Maneb	33	4.1	0.55	2.25	7.7
Sulfur	24	2.0	1.56	3.15	8.0
Other Chemicals					
Chloropicrin	2	1.0	57.81	57.81	15.0
Methyl bromide	2	1.0	79.16	79.16	20.6

[1] Planted acreage in 2004 for Florida was 10,500 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Squash: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	33	1.1	0.51	0.55	2.2
Glyphosate	15	1.0	1.49	1.49	2.7
Insecticides					
Bifenthrin	37	2.3	0.07	0.17	0.8
Carbaryl	1	1.4	0.76	1.02	0.1
Endosulfan	67	3.8	0.61	2.31	18.5
Esfenvalerate	64	2.2	0.03	0.08	0.6
Permethrin	2	2.2	0.17	0.37	0.1
Petroleum distillate	37	5.7	3.07	17.52	77.6
Fungicides					
Azoxystrobin	30	1.7	0.16	0.28	1.0
Chlorothalonil	77	3.1	1.17	3.67	34.0
Copper hydroxide	23	2.7	0.42	1.13	3.1
Maneb	64	2.6	1.29	3.40	26.2
Mefenoxam	15	1.7	0.36	0.61	1.1
Pyraclostrobin	12	1.8	0.15	0.28	0.4

[1] Planted acreage in 2004 for Georgia was 12,000 acres.

Squash: Agricultural Chemical Applications, Michigan, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	29	1.1	0.25	0.26	0.5
Ethalfluralin	43	1.1	0.79	0.85	2.6
Glyphosate	5	1.1	1.04	1.10	0.4
S-Metolachlor	8	1.1	1.52	1.70	0.9
Insecticides					
Carbaryl	25	1.8	0.66	1.17	2.1
Endosulfan	12	1.8	0.62	1.13	0.9
Esfenvalerate	32	2.7	0.03	0.09	0.2
Malathion	4	1.4	1.29	1.75	0.4
Permethrin	35	2.3	0.12	0.28	0.7
Fungicides					
Chlorothalonil	68	2.7	1.35	3.64	17.7
Copper hydroxide	45	3.7	0.52	1.94	6.2
Dimethomorph	7	3.0	0.03	0.09	([2])
Mancozeb	9	3.6	0.89	3.18	2.1
Mefenoxam	12	1.0	0.10	0.11	0.1
Myclobutanil	13	1.6	0.09	0.14	0.1
Pyraclostrobin	4	1.0	0.16	0.16	0.1
Thiophanate-methyl	8	1.5	0.31	0.46	0.3
Trifloxystrobin	2	1.0	0.06	0.06	([2])

[1] Planted acreage in 2004 for Michigan was 7,200 acres.
[2] Total applied is less than 50 lbs.

Squash: Agricultural Chemical Applications, New Jersey, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	9	1.5	1.62	2.41	0.7
Clomazone	41	1.0	0.15	0.16	0.2
Ethalfluralin	15	1.0	0.44	0.44	0.2
Insecticides					
Carbaryl	15	3.1	0.65	2.02	1.0
Endosulfan	32	2.2	0.56	1.26	1.3
Imidacloprid	13	2.2	0.07	0.16	0.1
Methomyl	3	2.8	0.58	1.62	0.2
Permethrin	10	2.1	0.13	0.26	0.1
Fungicides					
Azoxystrobin	11	1.7	0.15	0.25	0.1
Chlorothalonil	68	2.9	1.47	4.28	9.2
Copper hydroxide	25	3.9	0.46	1.81	1.5
Copper resinate	7	2.9	0.14	0.41	0.1
Cymoxanil	11	2.2	0.11	0.24	0.1
Famoxadone	11	2.2	0.11	0.24	0.1
Mancozeb	22	2.4	0.82	1.97	1.4
Maneb	18	2.2	1.48	3.25	1.9
Mefenoxam	11	1.9	0.14	0.27	0.1
Metalaxyl	18	1.8	0.17	0.30	0.2
Myclobutanil	14	2.9	0.10	0.29	0.1

[1] Planted acreage in 2004 for New Jersey was 3,200 acres.

Squash: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	14	1.0	0.11	0.11	0.1
Ethalfluralin	23	1.0	0.41	0.41	0.4
Glyphosate	3	1.0	0.73	0.73	0.1
Paraquat	14	1.5	0.37	0.56	0.3
Insecticides					
Bt (Bacillus thur.) [2]	2	2.0			
Carbaryl	8	2.3	0.75	1.70	0.5
Esfenvalerate	18	2.3	0.04	0.09	0.1
Methomyl	13	6.9	0.30	2.10	1.0
Fungicides					
Azoxystrobin	16	1.5	0.19	0.29	0.2
Copper amm. complex	4	9.5	0.10	0.93	0.2
Mancozeb	17	7.1	0.82	5.80	3.9

[1] Planted acreage in 2004 for North Carolina was 3,900 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Strawberries: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States			
	ALL	CA	FL	OR
Herbicides				
Chloroxuron	*			*
Clethodim	P			P
Clopyralid	*			*
Diuron	*			*
Glyphosate	P	*	*	
Napropamide	P	*	*	P
Paraquat	P	*	P	*
Pendimethalin	*			*
Prometryn	*	*		
S-Metolachlor	*		*	
Sethoxydim	P		*	*
Simazine	P			P
Sulfentrazone	P			P
Terbacil	*			*

See footnote(s) at end of table. --continued

Strawberries: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	CA	FL	OR
Insecticides				
Abamectin	P	*	P	*
Azadirachtin	P	*	P	*
Azinphos-methyl	*			*
Bifenazate	P	P	*	*
Bifenthrin	P	P	P	P
Bt (Bacillus thur.)	P	P	P	*
Carbaryl	*	*	*	*
Chlorpyrifos	P	*		*
Diazinon	P	*	P	*
Dimethoate	*		*	
Endosulfan	P		*	*
Esfenvalerate	*		*	
Etoxazole	*		*	
Fenbutatin-oxide	P	*	P	*
Fenpropathrin	P	P	P	
Hexythiazox	P	*	*	
Imidacloprid	*		*	
Malathion	P	P	P	
Methomyl	P	P	P	
Naled	P	P	P	
Oxamyl	*		*	
Oxydemeton-methyl	*			*
Petroleum distillate	*	*	*	
Piperonyl butoxide	*		*	*
Potassium salts	*	*		*
Pyrethrins	*	*	*	*
Pyriproxyfen	P	P		
Rotenone	*	*		
Spinosad	P	P	P	

See footnote(s) at end of table. --continued

Strawberries: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States			
	ALL	CA	FL	OR
Fungicides				
Anilazine	*	*		
Azoxystrobin	P	*	P	*
Benomyl	*	*	*	
Borax Decahydrate	*	*		
Boscalid	P	P	*	*
Captan	P	P	P	P
Chlorothalonil	P	*	*	
Copper amm. complex	*		*	
Copper hydroxide	P		P	
Copper oxide	*	*		
Copper resinate	*	*		
Cyprodinil	P	P	P	P
Fenhexamid	P	P	P	P
Fludioxonil	P	P	P	P
Fosetyl-al	P	*	*	P
Iprodione	P	*	*	
Mancozeb	P		P	
Mefenoxam	P	*	*	
Myclobutanil	P	P	*	*
Phosphorous acid	*			*
Potassium bicarbon.	P	*	P	*
Pyraclostrobin	P	P	*	*
Sulfur	P	P	P	P
Thiophanate-methyl	P	P	P	
Thiram	P	P	P	P
Triflumizole	P	P	*	*
Other Chemicals				
Aluminum phosphide	*	*		
Busan 881	*	*	*	
Chloropicrin	P	P	P	
Dichloropropene	P	*	*	
Harpin protein	P	P	P	
Hydrogen peroxide	P		P	
Metaldehyde	P	*		*
Metam-sodium	P	*	*	
Methyl bromide	P	P	P	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Strawberries: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	33,200	2	1.0	68	72.9	73	394.1	36	3,664.8
FL	7,100	53	9.2	96	32.0	98	293.3	97	1,443.0
OR	3,300	83	7.7	66	4.8	80	10.9	8	0.4
Total	43,600	16	17.9	72	109.7	77	698.3	44	5,108.2

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

Strawberries: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clethodim	1	1.2	0.13	0.16	([2])
Glyphosate	6	1.5	1.88	2.87	7.6
Napropamide	4	1.0	3.53	3.53	6.2
Paraquat	4	1.5	0.46	0.68	1.3
Sethoxydim	1	1.0	0.17	0.17	0.1
Simazine	4	1.0	1.05	1.07	2.0
Sulfentrazone	2	1.0	0.25	0.25	0.2
Insecticides					
Abamectin	23	1.9	0.02	0.03	0.3
Azadirachtin	2	2.5	0.02	0.05	([2])
Bifenazate	19	1.5	0.48	0.70	6.0
Bifenthrin	12	2.7	0.11	0.29	1.5
Bt (Bacillus thur.) [3]	27	3.7			
Chlorpyrifos	9	1.2	0.92	1.08	4.0
Diazinon	6	2.4	0.62	1.48	4.1
Endosulfan	4	1.1	1.76	1.98	3.3
Fenbutatin-oxide	4	1.5	0.67	1.02	1.8
Fenpropathrin	18	1.9	0.29	0.54	4.3
Hexythiazox	20	1.1	0.18	0.21	1.8
Malathion	23	2.2	1.76	3.83	38.5
Methomyl	27	3.2	0.68	2.17	25.8
Naled	10	2.4	0.68	1.64	7.3
Pyriproxyfen	2	1.1	0.05	0.06	0.1
Spinosad	23	2.1	0.09	0.19	1.9
Fungicides					
Azoxystrobin	29	2.2	0.18	0.40	5.2
Boscalid	19	1.5	0.32	0.46	3.9
Captan	62	5.8	1.74	10.17	276.0
Chlorothalonil	2	1.7	1.05	1.78	1.4
Copper hydroxide	2	2.0	0.48	0.97	0.7
Cyprodinil	18	1.5	0.29	0.44	3.5
Fenhexamid	29	2.8	0.64	1.78	22.8
Fludioxonil	18	1.5	0.19	0.30	2.4
Fosetyl-al	5	1.4	2.33	3.29	6.5
Iprodione	1	1.0	0.62	0.64	0.2
Mancozeb	2	3.6	0.74	2.67	2.8
Mefenoxam	7	1.4	0.36	0.51	1.6
Myclobutanil	20	1.4	0.10	0.13	1.2
Potassium bicarbon.	5	3.3	1.75	5.72	11.9
Pyraclostrobin	24	1.9	0.17	0.31	3.3
Sulfur	52	3.2	4.09	13.10	295.3
Thiophanate-methyl	11	4.0	0.70	2.78	13.4
Thiram	19	3.4	1.50	5.11	42.9
Triflumizole	11	1.9	0.23	0.43	2.1

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Strawberries: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Other Chemicals					
Chloropicrin	32	1.1	102.18	116.31	1,603.5
Dichloropropene	8	1.2	167.63	196.10	714.8
Harpin protein	5	2.7	0.01	0.04	0.1
Hydrogen peroxide	1	2.2	1.53	3.42	1.8
Metaldehyde	1	1.7	0.69	1.21	0.4
Metam-sodium	1	1.0	117.07	119.70	72.8
Methyl bromide	33	1.1	177.34	188.37	2,708.9

[1] Planted acreage in 2004 for the 3 Program States was 43,600 acres. States included are CA, FL, and OR.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Strawberries: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Bifenazate	21	1.4	0.47	0.66	4.5
Bifenthrin	9	1.3	0.09	0.11	0.3
Bt (Bacillus thur.) [2]	22	1.6			
Fenpropathrin	21	1.7	0.28	0.47	3.3
Malathion	29	2.2	1.80	3.92	37.2
Methomyl	20	1.7	0.73	1.25	8.4
Naled	9	1.9	0.79	1.49	4.4
Pyriproxyfen	3	1.1	0.05	0.06	0.1
Spinosad	28	2.0	0.09	0.19	1.7
Fungicides					
Boscalid	24	1.5	0.32	0.47	3.7
Captan	56	3.0	1.55	4.57	85.7
Cyprodinil	14	1.4	0.32	0.46	2.1
Fenhexamid	27	1.9	0.65	1.22	10.9
Fludioxonil	14	1.4	0.21	0.30	1.4
Myclobutanil	25	1.4	0.10	0.13	1.1
Pyraclostrobin	30	1.9	0.17	0.31	3.1
Sulfur	59	3.1	4.27	13.14	256.3
Thiophanate-methyl	3	1.2	0.64	0.77	0.8
Thiram	15	1.3	1.80	2.36	11.7
Triflumizole	14	1.8	0.24	0.42	1.9
Other Chemicals					
Chloropicrin	27	1.2	119.07	144.73	1,280.6
Harpin protein	4	2.6	0.008	0.02	([3])
Methyl bromide	23	1.1	192.77	215.66	1,624.5

[1] Planted acreage in 2004 for California was 33,200 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Strawberries: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Paraquat	19	1.5	0.45	0.65	0.9
Insecticides					
Abamectin	41	2.8	0.02	0.05	0.1
Azadirachtin	8	1.9	0.01	0.02	([2])
Bifenthrin	30	4.8	0.12	0.56	1.2
Bt (Bacillus thur.) [3]	58	7.5			
Diazinon	16	4.3	0.61	2.59	3.0
Fenbutatin-oxide	18	1.6	0.54	0.86	1.1
Fenpropathrin	13	3.6	0.30	1.09	1.0
Malathion	8	2.2	1.03	2.21	1.3
Methomyl	72	5.2	0.65	3.40	17.3
Naled	21	3.5	0.56	1.96	2.9
Spinosad	10	2.9	0.07	0.20	0.1
Fungicides					
Azoxystrobin	61	3.9	0.18	0.71	3.1
Captan	96	14.9	1.83	27.23	185.2
Copper hydroxide	10	2.0	0.48	0.97	0.7
Cyprodinil	17	2.2	0.25	0.55	0.7
Fenhexamid	43	5.9	0.63	3.68	11.3
Fludioxonil	17	2.2	0.16	0.36	0.5
Mancozeb	15	3.6	0.74	2.67	2.8
Potassium bicarbon.	14	3.6	1.85	6.73	6.5
Sulfur	40	4.2	3.19	13.34	38.0
Thiophanate-methyl	54	4.7	0.70	3.29	12.7
Thiram	43	7.1	1.39	9.90	30.1
Other Chemicals					
Chloropicrin	70	1.0	65.38	65.38	322.8
Harpin protein	9	3.0	0.02	0.07	([2])
Hydrogen peroxide	7	2.2	1.53	3.42	1.8
Methyl bromide	96	1.0	158.35	158.35	1,084.4

[1] Planted acreage in 2004 for Florida was 7,100 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Strawberries: Agricultural Chemical Applications, Oregon, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clethodim	10	1.2	0.13	0.16	([2])
Napropamide	39	1.0	3.92	3.92	5.0
Simazine	56	1.0	1.05	1.07	2.0
Sulfentrazone	30	1.0	0.25	0.25	0.2
Insecticides					
Bifenthrin	5	1.2	0.10	0.12	([2])
Fungicides					
Captan	48	1.3	2.42	3.19	5.1
Cyprodinil	63	1.3	0.28	0.35	0.7
Fenhexamid	25	1.2	0.70	0.82	0.7
Fludioxonil	63	1.3	0.19	0.24	0.5
Fosetyl-al	16	1.2	2.13	2.48	1.3
Sulfur	6	1.0	5.57	5.57	1.0
Thiram	12	1.0	2.68	2.68	1.0

[1] Planted acreage in 2004 for Oregon was 3,300 acres.
[2] Total applied is less than 50 lbs.

Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	CA	FL	GA	NJ	NC	OH	TN
Herbicides								
Acetochlor	*						*	
Acifluorfen	*	*						
Alachlor	*					*		
Atrazine	*		*				*	
Bensulide	*						*	
Bentazon	*	*						*
Bromoxynil	*							*
Clethodim	*	*	*			*		*
Clomazone	*			*	*			
Cyanazine	*					*		
Cycloate	*							*
DCPA	*			*				
Diquat	*		*			*		
Diuron	*							*
Glyphosate	P	P	*	*	*	*	P	*
Glyphosate diam salt	*	*						
Halosulfuron	P		*				*	
Linuron	*							*
Metribuzin	P	*	P	P	P	*	P	P
Napropamide	P	*	*		P	*	*	P
Oryzalin	*			*				
Oxyfluorfen	P	*	*					
Paraquat	P		P	*	*	*	*	P
Pendimethalin	P		*	*	*			*
Rimsulfuron	P	*	*	*			*	
S-Metolachlor	P	P	*	*	P	*	P	*
Sethoxydim	P		P		*	*	*	P
Trifluralin	P	P		P	*	*	P	P

See footnote(s) at end of table. --continued

Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	NJ	NC	OH	TN
Insecticides								
Abamectin	P	P	P	*	*	P		*
Acephate	*			*		*		
Acetamiprid	*	*		*				
Azadirachtin	P	*	*	*		*		*
Azinphos-methyl	P		*		*			
Benzoic acid	P	P	*	*				
Bifenazate	P		*	*	*	*		
Bifenthrin	P		*	*	*	*	*	P
Bt (Bacillus thur.)	P	P	P	P	*	P		P
Buprofezin	P	*	*					
Canola oil	*						*	
Carbaryl	P	P	*	*	P	P	P	P
Chlorpyrifos	*						*	
Cyfluthrin	P	*	P	P	P	P	*	*
Cyromazine	P	*	*					
Diazinon	P		*	*		*		*
Dicofol	P	*	*	*	*			
Dimethoate	P	P	*	*	*	P	*	P
Emamectin benzoate	P	P	*	*				
Endosulfan	P		P	P	P	P	P	P
Esfenvalerate	P	P	P	P	P	P	P	P
Fenamiphos	*			*	*			
Fenpropathrin	P	P	*			*		P
Imidacloprid	P	P	P	*	P	*	*	P
Indoxacarb	P	P	P	*		P		*
Kaolin	*	*						
Lambda-cyhalothrin	P	*	P	P	P	*	P	P
Malathion	P		*	P		*	P	P
Methamidophos	P	P	P		*	*		P
Methomyl	P	P	P	*	P	P	*	P
Methoxychlor	*							*
Methyl parathion	*					*		
Neem oil, clar. hyd.	*	*						
Oxamyl	P	*	P	*	P	*		*
Permethrin	P	P	P	P	*	*	P	P
Petroleum distillate	*	*	*					
Phosmet	*							*
Piperonyl butoxide	P	*	*				*	
Potassium salts	*	*	*					
Pymetrozine	P	*	P	*				
Pyrethrins	P	*	*				*	
Pyriproxyfen	P	*	P	*				
Rotenone	P	*				*	*	
Spinosad	P	*	P	P	P	P	*	P
Tebufenozide	P	P	*		*	*		*
Terbufos	*		*					
Thiamethoxam	*	*		*	*			
Toxaphene	*					*		
Zeta-cypermethrin	P	P	*	*	*		P	P

See footnote(s) at end of table.

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Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	CA	FL	GA	NJ	NC	OH	TN
Fungicides								
Azoxystrobin	P	P	P	P	P	P	P	P
Bacillus subtilus	P		P					
Basic copper sulfate	P		*		*	*	*	*
Benomyl	*		*				*	
Borax Decahydrate	*		*			*		
Captan	P			*	*	*	*	*
Chlorothalonil	P	P	P	P	P	P	P	P
Copper Soap	*						*	
Copper amm. complex	P		*	*	*	*	*	
Copper hydroxide	P	P	P	P	P	P	P	P
Copper oxychloride	*				*		*	
Copper resinate	P				P	P	*	*
Copper sulfate	P		*	P	*	*	*	P
Cymoxanil	P		P	*	*		*	
Dimethomorph	P	*		*	*			*
Famoxadone	P		P	*	*		*	
Fosetyl-al	*	*						*
Mancozeb	P	P	P	P	P	P	P	P
Maneb	P	*	P	P	P	P	*	P
Mefenoxam	P	P	P		*	P		*
Metalaxyl	P		*	*	*		*	*
Myclobutanil	P	P			*		*	
PCNB	*			*			*	*
Potassium bicarbon.	*	*						
Propamocarb hydroch.	*			*				
Pyraclostrobin	P	P	P	*	*	*	P	P
Streptomyces gris.	*	*						
Streptomycin	*					*		
Sulfur	P	P	*		*	*		P
Thiophanate-methyl	P		P	*	*		*	*
Thiram	*						*	
Trifloxystrobin	*				*			
Triforine	*			*				

See footnote(s) at end of table.

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Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2004 (continued)

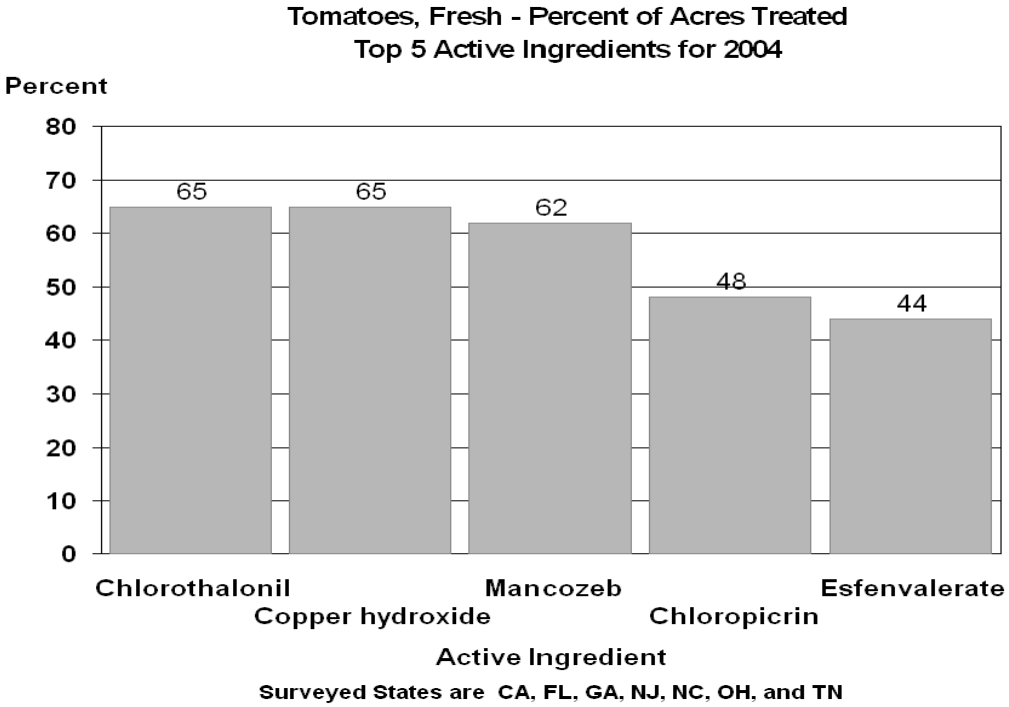
Active Ingredient	Program States							
	ALL	CA	FL	GA	NJ	NC	OH	TN
Other Chemicals								
Busan 881	*		*					
Chloropicrin	P	*	P	P	*	P	*	P
Dichloropropene	*	*		*				
Ethephon	*	*						*
Garlic oil	*			*				
Harpin protein	*		*					
Hydrogen peroxide	P		*		*	*	*	
Metam-sodium	*	*						
Methyl bromide	P	*	P	P	*	P	*	P
Strychnine	*					*		

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Tomatoes, Fresh: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	37,500	37	15.5	80	78.3	73	362.9	8	481.6
FL	42,400	86	42.3	100	165.2	100	1,600.6	81	7,524.8
GA	6,000	47	8.2	65	6.1	99	204.5	67	546.2
NJ	3,000	34	1.5	81	5.0	85	30.6	13	5.7
NC	2,700	55	2.1	91	3.3	89	25.8	62	250.7
OH	7,000	89	26.6	93	5.7	97	169.5	71	730.3
TN	6,700	92	13.2	99	73.7	98	389.4	82	956.5
Total	105,300	64	109.4	90	337.3	89	2,783.3	51	10,495.8

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.



Tomatoes, Fresh: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	5	1.1	0.53	0.58	3.0
Halosulfuron	5	1.0	0.02	0.02	0.1
Metribuzin	44	1.3	0.45	0.59	26.6
Napropamide	3	3.0	1.20	3.59	10.9
Oxyfluorfen	4	1.1	0.16	0.17	0.7
Paraquat	31	1.6	0.52	0.81	27.0
Pendimethalin	*	1.0	1.06	1.06	0.4
Rimsulfuron	3	1.8	0.03	0.05	0.2
S-Metolachlor	14	1.7	1.03	1.80	26.7
Sethoxydim	11	1.0	0.30	0.31	3.7
Trifluralin	11	1.1	0.54	0.61	7.2
Insecticides					
Abamectin	18	2.6	0.009	0.02	0.5
Azadirachtin	6	2.8	0.01	0.03	0.2
Azinphos-methyl	*	2.9	0.76	2.23	0.9
Benzoic acid	14	1.5	0.10	0.15	2.1
Bifenazate	3	1.0	0.29	0.29	1.0
Bifenthrin	7	1.6	0.06	0.09	0.7
Bt (Bacillus thur.) [2]	34	8.9			
Buprofezin	5	1.0	0.37	0.37	1.8
Carbaryl	1	1.8	0.92	1.68	2.4
Cyfluthrin	25	4.5	0.03	0.13	3.6
Cyromazine	16	2.6	0.11	0.30	4.9
Diazinon	3	5.9	1.03	6.13	16.7
Dicofol	2	2.0	0.71	1.42	3.7
Dimethoate	20	1.5	0.41	0.63	13.4
Emamectin benzoate	7	1.8	0.008	0.01	0.1
Endosulfan	26	4.1	0.76	3.12	85.9
Esfenvalerate	44	4.6	0.04	0.18	8.6
Fenpropathrin	17	3.5	0.16	0.56	10.1
Imidacloprid	35	1.7	0.19	0.32	11.8
Indoxacarb	18	1.6	0.06	0.10	1.9
Lambda-cyhalothrin	24	5.6	0.02	0.13	3.3
Malathion	5	1.0	0.54	0.56	3.0
Methamidophos	16	4.6	0.78	3.64	59.4
Methomyl	7	2.6	0.65	1.69	12.8
Oxamyl	7	3.0	0.54	1.64	13.0
Permethrin	5	3.7	0.12	0.45	2.3
Piperonyl butoxide	1	3.9	0.25	0.99	0.8
Pymetrozine	6	2.5	0.06	0.15	0.9
Pyrethrins	*	1.1	0.01	0.02	([3])
Pyriproxyfen	12	1.1	0.05	0.06	0.7
Rotenone	1	4.9	0.10	0.48	0.6
Spinosad	31	4.3	0.07	0.32	10.4
Tebufenozide	13	1.9	0.16	0.30	4.2
Zeta-cypermethrin	7	3.1	0.04	0.12	1.0

See footnote(s) at end of table.

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Tomatoes, Fresh: Agricultural Chemical Applications, Program States, 2004 [1] (continued)

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Fungicides					
Azoxystrobin	25	4.1	0.10	0.42	11.1
Bacillus subtilus [2]	10	9.0			
Basic copper sulfate	2	17.1	0.82	13.96	29.3
Captan	*	4.1	3.78	15.33	2.6
Chlorothalonil	65	6.4	1.35	8.65	589.9
Copper amm. complex	2	2.4	0.20	0.49	1.1
Copper hydroxide	65	16.0	0.71	11.37	792.9
Copper resinate	1	4.7	0.15	0.70	0.8
Copper sulfate	3	19.8	0.72	14.20	49.7
Cymoxanil	21	2.1	0.11	0.24	5.3
Dimethomorph	1	1.5	0.14	0.21	0.2
Famoxadone	21	2.1	0.11	0.24	5.3
Mancozeb	62	14.1	0.97	13.69	893.3
Maneb	10	6.2	1.01	6.23	66.4
Mefenoxam	32	1.5	0.37	0.55	18.9
Metalaxyl	1	1.6	0.14	0.23	0.3
Myclobutanil	7	1.1	0.10	0.11	0.8
Pyraclostrobin	22	1.7	0.13	0.22	5.2
Sulfur	10	2.3	11.72	26.45	290.0
Thiophanate-methyl	15	2.4	0.41	0.98	15.6
Other Chemicals					
Chloropicrin	48	1.0	77.60	77.62	3,875.4
Hydrogen peroxide	2	2.6	1.75	4.51	8.4
Methyl bromide	42	1.0	144.38	144.41	6,456.5

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 7 Program States was 105,300 acres. States included are CA, FL, GA, NJ, NC, OH, and TN.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Tomatoes, Fresh: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	8	1.2	0.69	0.79	2.4
S-Metolachlor	8	1.2	0.93	1.11	3.5
Trifluralin	31	1.1	0.54	0.61	7.1
Insecticides					
Abamectin	4	1.0	0.01	0.01	([2])
Benzoic acid	20	1.1	0.16	0.17	1.3
Bt (Bacillus thur.) [3]	12	7.0			
Carbaryl	3	1.2	1.25	1.47	1.6
Dimethoate	30	1.1	0.34	0.39	4.4
Emamectin benzoate	13	1.2	0.01	0.01	0.1
Esfenvalerate	35	1.3	0.05	0.06	0.8
Fenpropathrin	32	1.2	0.19	0.23	2.8
Imidacloprid	6	1.2	0.04	0.05	0.1
Indoxacarb	33	1.3	0.06	0.08	1.0
Methamidophos	11	1.3	0.84	1.07	4.2
Methomyl	11	1.8	0.86	1.57	6.7
Permethrin	3	2.2	0.18	0.40	0.5
Tebufenozide	16	1.3	0.15	0.20	1.2
Zeta-cypermethrin	8	1.5	0.05	0.07	0.2
Fungicides					
Azoxystrobin	7	2.1	0.10	0.21	0.6
Chlorothalonil	24	4.5	1.67	7.47	65.9
Copper hydroxide	33	1.3	1.32	1.68	20.6
Mancozeb	27	1.2	1.40	1.72	17.4
Mefenoxam	37	1.4	0.13	0.18	2.5
Myclobutanil	21	1.1	0.10	0.11	0.8
Pyraclostrobin	26	1.2	0.16	0.19	1.9
Sulfur	24	1.5	19.13	27.95	250.5

[1] Planted acreage in 2004 for California was 37,500 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Fresh: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Metribuzin	73	1.2	0.37	0.43	13.4
Paraquat	53	1.6	0.54	0.86	19.4
Sethoxydim	20	1.0	0.35	0.36	3.1
Insecticides					
Abamectin	34	3.2	0.009	0.03	0.4
Bt (Bacillus thur.) [2]	62	10.2			
Cyfluthrin	44	5.3	0.03	0.14	2.7
Endosulfan	44	3.8	0.71	2.72	50.6
Esfenvalerate	47	5.9	0.04	0.24	4.8
Imidacloprid	74	1.8	0.20	0.35	11.0
Indoxacarb	11	1.9	0.06	0.12	0.6
Lambda-cyhalothrin	35	7.3	0.02	0.16	2.4
Methamidophos	21	3.4	0.84	2.88	25.3
Methomyl	4	2.9	0.46	1.32	2.0
Oxamyl	8	4.4	0.50	2.16	7.7
Permethrin	9	4.3	0.11	0.47	1.7
Pymetrozine	13	2.6	0.06	0.15	0.8
Pyriproxyfen	23	1.0	0.05	0.05	0.4
Spinosad	37	5.2	0.06	0.33	5.2
Fungicides					
Azoxystrobin	23	3.0	0.10	0.31	3.0
Bacillus subtilus [2]	26	9.0			
Chlorothalonil	88	6.7	1.31	8.71	325.3
Copper hydroxide	92	23.0	0.68	15.72	610.2
Cymoxanil	43	2.1	0.11	0.22	4.0
Famoxadone	43	2.1	0.11	0.22	4.0
Mancozeb	92	18.6	0.75	13.96	546.0
Maneb	7	5.7	1.00	5.73	18.1
Mefenoxam	43	1.5	0.58	0.86	15.9
Pyraclostrobin	23	2.0	0.11	0.22	2.1
Thiophanate-methyl	29	2.6	0.37	0.97	11.9
Other Chemicals					
Chloropicrin	81	1.0	69.10	69.10	2,358.9
Methyl bromide	81	1.0	151.14	151.14	5,159.4

[1] Planted acreage in 2004 for Florida was 42,400 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Fresh: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Metribuzin	41	1.9	1.08	2.00	4.9
Trifluralin	*	1.0	0.71	0.71	([2])
Insecticides					
Bt (Bacillus thur.) [3]	19	7.4			
Cyfluthrin	23	5.6	0.04	0.23	0.3
Endosulfan	17	2.1	0.55	1.14	1.2
Esfenvalerate	56	5.4	0.04	0.22	0.7
Lambda-cyhalothrin	40	4.2	0.03	0.12	0.3
Malathion	*	2.9	0.63	1.81	([2])
Permethrin	*	1.8	0.09	0.16	([2])
Spinosad	60	6.8	0.07	0.51	1.9
Fungicides					
Azoxystrobin	57	4.4	0.13	0.58	2.0
Chlorothalonil	93	5.0	1.10	5.44	30.2
Copper hydroxide	96	14.3	0.61	8.72	50.2
Copper sulfate	1	8.3	0.28	2.31	0.2
Mancozeb	89	13.9	1.41	19.68	105.4
Maneb	26	9.4	1.01	9.51	14.9
Other Chemicals					
Chloropicrin	45	1.0	67.23	67.23	181.3
Methyl bromide	45	1.0	135.03	135.03	364.2

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Georgia was 6,000 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Fresh: Agricultural Chemical Applications, New Jersey, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Metribuzin	16	1.0	0.37	0.37	0.2
Napropamide	22	1.0	1.20	1.20	0.8
S-Metolachlor	7	1.0	0.73	0.73	0.2
Insecticides					
Carbaryl	2	5.8	0.51	2.98	0.2
Cyfluthrin	18	3.1	0.04	0.13	0.1
Endosulfan	33	2.6	0.56	1.49	1.5
Esfenvalerate	15	2.0	0.02	0.05	([2])
Imidacloprid	23	2.0	0.09	0.18	0.1
Lambda-cyhalothrin	29	3.6	0.02	0.09	0.1
Methomyl	11	1.6	0.49	0.77	0.2
Oxamyl	13	4.5	0.44	1.97	0.8
Spinosad	48	4.4	0.08	0.37	0.5
Fungicides					
Azoxystrobin	49	4.1	0.10	0.39	0.6
Chlorothalonil	61	4.0	1.43	5.66	10.4
Copper hydroxide	38	6.8	0.62	4.25	4.8
Copper resinate	18	5.4	0.18	0.97	0.5
Mancozeb	30	3.3	1.52	5.05	4.5
Maneb	29	6.2	1.23	7.63	6.5

[1] Planted acreage in 2004 for New Jersey was 3,000 acres.
[2] Total applied is less than 50 lbs.

Tomatoes, Fresh: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Abamectin	50	1.3	0.01	0.01	([2])
Bt (Bacillus thur.) [3]	6	1.9			
Carbaryl	2	5.0	0.42	2.10	0.1
Cyfluthrin	11	14.1	0.05	0.66	0.2
Dimethoate	15	2.7	0.33	0.88	0.4
Endosulfan	9	7.3	0.50	3.64	0.9
Esfenvalerate	23	4.2	0.03	0.11	0.1
Indoxacarb	44	1.9	0.08	0.15	0.2
Methomyl	6	7.4	0.34	2.47	0.4
Spinosad	25	5.7	0.07	0.39	0.3
Fungicides					
Azoxystrobin	28	6.9	0.14	0.94	0.7
Chlorothalonil	58	3.2	1.29	4.10	6.4
Copper hydroxide	69	3.9	0.62	2.40	4.5
Copper resinate	3	8.2	0.08	0.63	0.1
Mancozeb	78	5.0	1.12	5.60	11.9
Maneb	7	6.2	1.09	6.80	1.3
Mefenoxam	43	1.3	0.23	0.29	0.3
Other Chemicals					
Chloropicrin	51	1.0	60.02	60.02	81.9
Methyl bromide	51	1.0	122.62	122.62	168.8

[1] Planted acreage in 2004 for North Carolina was 2,700 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Fresh: Agricultural Chemical Applications, Ohio, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	*	2.0	0.52	1.03	([2])
Metribuzin	74	2.0	0.35	0.69	3.5
S-Metolachlor	86	2.7	0.98	2.61	15.6
Trifluralin	1	1.0	0.84	0.84	0.1
Insecticides					
Carbaryl	1	3.0	1.08	3.20	0.3
Endosulfan	53	1.1	0.71	0.74	2.7
Esfenvalerate	50	3.1	0.04	0.13	0.4
Lambda-cyhalothrin	71	3.7	0.02	0.09	0.5
Malathion	1	2.0	0.56	1.12	0.1
Permethrin	*	5.8	0.10	0.58	([2])
Zeta-cypermethrin	21	1.0	0.04	0.04	0.1
Fungicides					
Azoxystrobin	39	2.8	0.12	0.35	1.0
Chlorothalonil	96	8.0	1.14	9.15	61.6
Copper hydroxide	75	12.1	0.77	9.32	49.1
Mancozeb	24	9.1	1.49	13.60	22.4
Pyraclostrobin	50	2.0	0.15	0.30	1.0

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Ohio was 7,000 acres.
[2] Total applied is less than 50 lbs.

Tomatoes, Fresh: Agricultural Chemical Applications, Tennessee, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Metribuzin	73	1.1	0.59	0.67	3.3
Napropamide	13	2.0	1.96	3.90	3.4
Paraquat	52	1.8	0.47	0.84	2.9
Sethoxydim	32	1.1	0.19	0.21	0.5
Trifluralin	*	1.0	1.64	1.64	([2])
Insecticides					
Bifenthrin	8	2.0	0.06	0.11	0.1
Bt (Bacillus thur.) [3]	55	3.1			
Carbaryl	1	3.4	0.39	1.32	0.1
Dimethoate	22	1.9	0.38	0.72	1.1
Endosulfan	47	10.0	0.92	9.18	29.0
Esfenvalerate	85	8.7	0.03	0.30	1.7
Fenpropathrin	80	8.7	0.15	1.30	7.0
Imidacloprid	13	1.4	0.11	0.16	0.1
Lambda-cyhalothrin	7	1.1	0.02	0.03	([2])
Malathion	*	2.4	1.19	2.81	0.1
Methamidophos	55	10.9	0.74	8.03	29.8
Methomyl	18	4.7	0.59	2.74	3.3
Permethrin	*	3.5	0.14	0.48	([2])
Spinosad	47	4.1	0.09	0.38	1.2
Zeta-cypermethrin	3	8.6	0.06	0.48	0.1
Fungicides					
Azoxystrobin	89	6.5	0.09	0.56	3.3
Chlorothalonil	95	8.7	1.63	14.21	90.2
Copper hydroxide	51	14.1	1.10	15.50	53.5
Copper sulfate	37	23.9	0.76	18.14	44.7
Mancozeb	89	15.2	2.04	31.12	185.7
Maneb	5	2.8	1.77	4.95	1.7
Pyraclostrobin	2	4.4	0.10	0.43	([2])
Sulfur	2	5.5	5.04	27.69	4.5
Other Chemicals					
Chloropicrin	77	1.0	114.77	114.77	592.4
Methyl bromide	46	1.0	119.27	119.27	364.1

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Tennessee was 6,700 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Proc.: Active Ingredients and Publication Status

Active Ingredient	CA
Herbicides	
Acifluorfen	*
Bentazon	*
Clethodim	*
DCPA	*
Glyphosate	P
Glyphosate diam salt	P
Halosulfuron	P
MCPA	*
Metribuzin	P
Napropamide	P
Oxyfluorfen	P
Paraquat	P
Pebulate	*
Rimsulfuron	P
S-Metolachlor	P
Sethoxydim	*
Trifluralin	P

See footnote(s) at end of table.

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Tomatoes, Proc.: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	CA
Insecticides	
Abamectin	P
Acetamiprid	*
Benzoic acid	P
Bt (Bacillus thur.)	P
Carbaryl	P
Cyfluthrin	*
Cyromazine	*
Diazinon	P
Dicofol	*
Dimethoate	P
Emamectin benzoate	P
Endosulfan	P
Esfenvalerate	P
Fenpropathrin	*
Imidacloprid	P
Indoxacarb	P
Kaolin	P
Lambda-cyhalothrin	P
Malathion	*
Methamidophos	P
Methomyl	P
Oxamyl	*
Permethrin	*
Spinosad	*
Tebufenozide	P
Thiamethoxam	P
Zeta-cypermethrin	P
Fungicides	
Azoxystrobin	P
Chlorothalonil	P
Copper hydroxide	P
Copper oxide	*
Dimethomorph	*
Fosetyl-al	*
Mancozeb	P
Maneb	P
Mefenoxam	P
Myclobutanil	P
Pyraclostrobin	P
Sulfur	P

See footnote(s) at end of table.

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Tomatoes, Proc.: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	CA
Other Chemicals	
Busan 881	*
Ethephon	P
GABA	P
L-Glutamic acid	P
Metam-sodium	P
Tridecen-1-YL-Acetat	*
Tridecenyl acetate	*

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Tomatoes, Proc.: Pesticide, Planted Acreage, Percent of Area Receiving Applications and Total Applied California, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
CA	301,000	70	357.4	53	248.0	63	5,999.7	22	3,479.8

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Proc.: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	25	1.1	0.88	0.94	71.9
Glyphosate diam salt	1	1.2	0.97	1.15	4.9
Halosulfuron	1	1.0	0.02	0.02	([2])
Metribuzin	5	1.0	0.36	0.37	5.9
Napropamide	1	1.0	0.80	0.81	3.3
Oxyfluorfen	3	1.1	0.24	0.27	2.1
Paraquat	7	1.0	0.50	0.52	10.4
Rimsulfuron	39	1.2	0.01	0.02	1.9
S-Metolachlor	36	1.1	1.30	1.38	148.5
Trifluralin	52	1.1	0.60	0.66	101.9
Insecticides					
Abamectin	2	1.0	0.005	0.005	([2])
Benzoic acid	7	1.1	0.14	0.14	3.2
Bt (Bacillus thur.) [3]	10	1.3			
Carbaryl	2	1.1	0.80	0.85	5.9
Diazinon	2	1.0	0.58	0.59	3.4
Dimethoate	27	1.1	0.36	0.40	31.9
Emamectin benzoate	2	1.3	0.009	0.01	0.1
Endosulfan	5	1.0	0.88	0.91	13.3
Esfenvalerate	9	1.1	0.05	0.05	1.4
Imidacloprid	9	1.1	0.03	0.03	0.8
Indoxacarb	15	1.1	0.06	0.06	2.9
Kaolin	2	1.6	16.25	25.99	165.7
Lambda-cyhalothrin	11	1.4	0.03	0.04	1.2
Methamidophos	1	1.1	0.95	1.03	2.0
Methomyl	3	1.0	0.57	0.59	5.0
Tebufenozide	7	1.2	0.16	0.19	4.1
Thiamethoxam	1	1.1	0.09	0.10	0.4
Zeta-cypermethrin	1	1.0	0.04	0.04	0.1
Fungicides					
Azoxystrobin	7	1.1	0.10	0.10	2.2
Chlorothalonil	17	1.1	1.72	1.95	97.3
Copper hydroxide	4	1.2	0.55	0.64	8.4
Mancozeb	2	1.2	1.38	1.63	10.6
Maneb	2	1.8	0.61	1.12	7.5
Mefenoxam	11	1.1	0.11	0.12	3.9
Myclobutanil	3	1.1	0.09	0.10	1.0
Pyraclostrobin	14	1.1	0.14	0.16	6.7
Sulfur	55	1.3	28.21	35.62	5,849.3
Other Chemicals					
Ethephon	2	1.1	0.37	0.40	2.4
GABA	6	1.4	0.07	0.10	1.7
L-Glutamic acid	6	1.4	0.07	0.10	1.7
Metam-sodium	17	1.0	65.40	68.45	3,421.6

[1] Planted acreage in 2004 for California was 301,000 acres.
[2] Total applied is less than 50 lbs.
[3] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Watermelons: Active Ingredients and Publication Status By Program States, 2004

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Herbicides								
Acifluorfen	*		*					
Alachlor	*						*	
Atrazine	*						*	
Bensulide	P	*				*		P
Bentazon	*		*					
Clethodim	P		*	*	*			*
Clomazone	P			*		P	*	
DCPA	*	*						
Diuron	*					*		
Ethalfluralin	P			*	P	P	*	P
Fluazifop-P-butyl	*						*	
Glyphosate	P	*	*	P	P	P	P	P
Glyphosate diam salt	*					*		
Halosulfuron	P				*			*
Lactofen	*	*						
Napropamide	*			*		*		
Naptalam	P			*	*	P	P	P
Oryzalin	*				*			
Paraquat	P		*	P	*	*	*	
Pendimethalin	P				*			*
Prometryn	*							*
S-Metolachlor	*				*			*
Sethoxydim	P		*	P	P	P	*	P
Trifluralin	P	*		*	P	*	P	P

See footnote(s) at end of table. --continued

Watermelons: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Insecticides								
Abamectin	P	*	P	*		*		
Acephate	P			*	*		*	
Azinphos-methyl	*			*				
Benzoic acid	*			*				
Bifenazate	*		*					
Bifenthrin	P	P	P		*	*	*	
Bt (Bacillus thur.)	P	P	P	P	*	*	*	P
Buprofezin	*	*		*				
Carbaryl	P	*	*	*	*	P	P	P
Chlorpyrifos	*				*		*	
Cryolite	*		*					
Cyfluthrin	*				*			
Cyromazine	*			*				
Diazinon	P	*	*				*	*
Dicofol	P	*	*				*	
Dimethoate	P		*	*	*	*	*	P
Endosulfan	P	P	*	P	*	*	*	P
Esfenvalerate	P	*		P	P	P	*	*
Ethoprop	*					*		
Ethyl parathion	*						*	
Fenamiphos	*				*			
Imidacloprid	P	P		P	*	*		P
Indoxacarb	*					*		
Lambda-cyhalothrin	*						*	*
Malathion	P				*	*	*	*
Methomyl	P		*	*	*	*	*	*
Mevinphos	*					*		
Neem oil	*		*					
Oxamyl	P	*	*	P	*			*
Oxydemeton-methyl	*							*
Permethrin	P	*		*	*	*	*	*
Petroleum distillate	*	*						
Pyrethrins	*		*					
Spinosad	P	P	P	*	*	*		*
Zeta-cypermethrin	*							*

See footnote(s) at end of table.

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Watermelons: Active Ingredients and Publication Status By Program States, 2004 (continued)

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Fungicides								
Azoxystrobin	P	*		P	P	P	*	P
Bacillus subtilus	*			*				
Basic copper sulfate	*			*				*
Benomyl	P		*	*	P		*	
Boscalid	P		*	P	P	P	P	*
Captan	*					*		*
Chlorothalonil	P	*	*	P	P	P	P	P
Copper amm. complex	*						*	
Copper hydroxide	P			P	*	P	*	P
Copper resinate	P					*		*
Copper sulfate	P			*		*	*	
Cymoxanil	*			*		*		
Dimethomorph	*							*
Famoxadone	*			*		*		
Fosetyl-al	P			P				
Mancozeb	P	*		P	P	*	P	P
Maneb	P			*	P	*	*	P
Mefenoxam	P	*	*	P	*	*		P
Metalaxyl	P			*		*		P
Myclobutanil	P	*	*					*
Phosphorous acid	*							*
Potassium bicarbon.	*		*					
Propiconazole	*	*				*		
Pyraclostrobin	P	*	*	P	P	P	P	*
Sulfur	P	*	*	*	*			*
Tebuconazole	*				*			
Thiophanate-methyl	P	P	*	P	P		*	*
Trifloxystrobin	P	*	*					*
Triflumizole	P	*	*					

See footnote(s) at end of table.

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Watermelons: Active Ingredients and Publication Status By Program States, 2004 (continued)

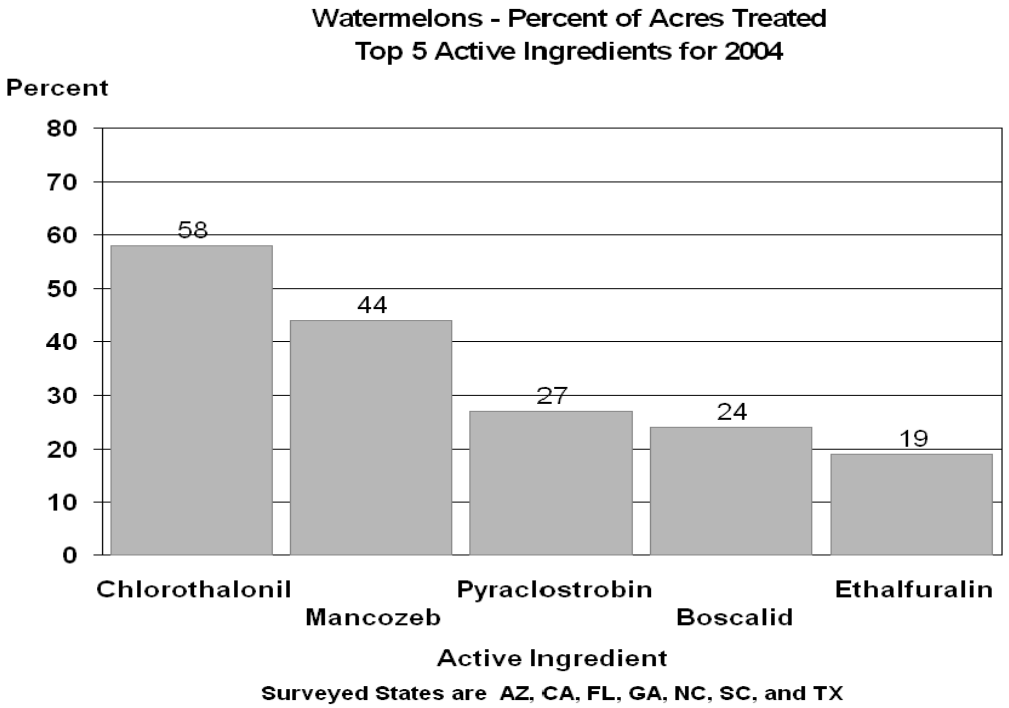
Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Other Chemicals								
Busan 881	*		*	*				
Chloropicrin	P		*	P	*	P	*	
Cytokinins	*	*						
Dichloropropene	P	P	*	P	*	*	*	*
GABA	*						*	
Gibberellic acid	P	*					*	*
Harpin protein	*	*						*
Hydrogen peroxide	*					*		
Indolebutyric acid	*	*						*
L-Glutamic acid	*						*	
Metam-sodium	P	*	*	*	*			
Methyl bromide	P			P	*	P	*	

P Usage data are published for this active ingredient.
* Usage data are not published for this active ingredient.

Watermelons: Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied
Program States and Total, 2004

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	1,000 Acres	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*	*Percent*	*1,000 lbs*
AZ	6,600	37	2.9	73	5.4	62	6.9	46	130.8
CA	13,500	11	2.9	65	29.4	52	110.5	20	442.7
FL	27,000	24	5.0	71	20.5	99	319.8	21	947.6
GA	30,000	56	49.3	19	2.2	97	181.6	5	59.8
NC	8,000	74	5.7	38	1.6	74	18.5	16	87.6
SC	8,000	32	3.0	19	0.9	77	42.7	2	27.4
TX	31,000	69	48.0	67	19.5	85	124.1	14	102.9
Total	124,100	46	116.8	51	79.5	85	804.1	15	1,798.8

[1] Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.



Watermelons: Agricultural Chemical Applications, Program States, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	5	1.0	3.05	3.05	20.1
Clethodim	2	1.0	0.07	0.07	0.2
Clomazone	3	1.0	0.29	0.29	1.1
Ethalfluralin	19	1.0	0.46	0.47	10.9
Glyphosate	11	1.3	0.87	1.10	15.7
Halosulfuron	3	1.0	0.04	0.04	0.1
Naptalam	10	2.0	1.95	3.99	51.7
Paraquat	2	1.2	0.35	0.41	0.9
Pendimethalin	2	1.0	0.72	0.72	1.7
Sethoxydim	10	1.1	0.13	0.14	1.7
Trifluralin	10	1.0	0.86	0.86	11.1
Insecticides					
Abamectin	5	1.3	0.009	0.01	0.1
Acephate	1	1.5	0.39	0.60	0.5
Bifenthrin	5	1.5	0.08	0.12	0.7
Bt (Bacillus thur.) [2]	16	5.1			
Carbaryl	2	1.5	0.69	1.05	2.1
Diazinon	1	1.6	0.71	1.15	1.9
Dicofol	2	1.1	0.51	0.58	1.2
Dimethoate	5	1.9	0.39	0.72	4.6
Endosulfan	14	2.6	0.55	1.45	25.7
Esfenvalerate	6	2.7	0.03	0.09	0.7
Imidacloprid	12	1.4	0.19	0.27	3.9
Malathion	*	1.0	0.63	0.67	0.1
Methomyl	4	2.1	0.51	1.07	5.4
Oxamyl	3	1.5	0.56	0.82	3.4
Permethrin	3	1.7	0.12	0.20	0.7
Spinosad	8	1.8	0.09	0.17	1.6
Fungicides					
Azoxystrobin	15	1.7	0.13	0.22	4.1
Benomyl	7	1.9	0.46	0.88	7.7
Boscalid	24	1.8	0.20	0.35	10.1
Chlorothalonil	58	3.4	1.16	3.95	286.5
Copper hydroxide	10	3.5	0.61	2.17	26.9
Copper resinate	2	1.9	0.13	0.25	0.8
Copper sulfate	1	2.3	0.51	1.21	1.5
Fosetyl-al	1	1.2	0.82	1.00	1.8
Mancozeb	44	4.3	1.15	4.97	268.7
Maneb	9	2.7	1.29	3.50	37.0
Mefenoxam	11	1.8	0.13	0.24	3.4
Metalaxyl	8	1.7	0.09	0.15	1.5
Myclobutanil	3	1.2	0.09	0.11	0.3
Pyraclostrobin	27	1.8	0.11	0.19	6.5
Sulfur	6	2.2	7.04	15.66	120.6
Thiophanate-methyl	9	3.1	0.49	1.51	17.1
Trifloxystrobin	5	1.2	0.06	0.07	0.4
Triflumizole	1	1.5	0.21	0.33	0.6
Other Chemicals					
Chloropicrin	4	1.0	50.91	52.89	281.3
Dichloropropene	7	1.0	59.00	60.42	520.1
Gibberellic acid	5	2.4	0.002	0.004	([3])
Metam-sodium	3	1.2	109.31	127.55	405.4
Methyl bromide	3	1.0	131.30	131.30	523.4

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for the 7 Program States was 124,100 acres. States included are AZ, CA, FL, GA, NC, SC, and TX.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Watermelons: Agricultural Chemical Applications, Arizona, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Bifenthrin	28	1.8	0.08	0.15	0.3
Bt (Bacillus thur.) [2]	39	1.6			
Endosulfan	20	2.2	0.70	1.56	2.0
Imidacloprid	41	1.4	0.17	0.24	0.7
Spinosad	34	1.8	0.08	0.14	0.3
Fungicides					
Thiophanate-methyl	18	2.1	0.35	0.73	0.9
Other Chemicals					
Dichloropropene	29	1.0	57.83	57.83	112.1

[1] Planted acreage in 2004 for Arizona was 6,600 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Watermelons: Agricultural Chemical Applications, California, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Insecticides					
Abamectin	39	1.3	0.009	0.01	0.1
Bifenthrin	27	1.4	0.08	0.11	0.4
Bt (Bacillus thur.) [2]	26	1.3			
Spinosad	32	2.0	0.10	0.19	0.8

[1] Planted acreage in 2004 for California was 13,500 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Watermelons: Agricultural Chemical Applications, Florida, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	5	1.2	0.93	1.16	1.6
Paraquat	6	1.2	0.30	0.36	0.6
Sethoxydim	5	1.2	0.19	0.24	0.3
Insecticides					
Bt (Bacillus thur.) [2]	35	9.0			
Endosulfan	29	2.8	0.52	1.43	11.3
Esfenvalerate	12	3.8	0.03	0.12	0.4
Imidacloprid	16	1.3	0.25	0.33	1.4
Oxamyl	13	1.4	0.63	0.87	2.9
Fungicides					
Azoxystrobin	13	1.3	0.13	0.16	0.6
Boscalid	25	1.4	0.22	0.30	2.0
Chlorothalonil	79	3.1	1.48	4.53	97.0
Copper hydroxide	19	4.8	0.61	2.92	14.7
Fosetyl-al	7	1.2	0.82	1.00	1.8
Mancozeb	76	7.0	1.19	8.34	170.0
Mefenoxam	13	2.1	0.21	0.44	1.5
Pyraclostrobin	36	1.4	0.12	0.17	1.6
Thiophanate-methyl	24	3.6	0.56	2.03	13.1
Other Chemicals					
Chloropicrin	13	1.0	52.65	52.65	184.7
Dichloropropene	6	1.0	68.62	68.62	118.5
Methyl bromide	9	1.0	187.63	187.63	436.3

[1] Planted acreage in 2004 for Florida was 27,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Watermelons: Agricultural Chemical Applications, Georgia, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Ethalfluralin	37	1.0	0.32	0.33	3.7
Glyphosate	6	1.0	0.74	0.74	1.4
Sethoxydim	24	1.0	0.07	0.07	0.5
Trifluralin	9	1.0	0.72	0.72	1.9
Insecticides					
Esfenvalerate	9	2.1	0.04	0.08	0.2
Fungicides					
Azoxystrobin	10	1.4	0.17	0.24	0.7
Benomyl	27	1.9	0.48	0.91	7.4
Boscalid	41	2.0	0.16	0.32	3.9
Chlorothalonil	97	4.3	0.99	4.26	123.4
Mancozeb	36	3.0	0.75	2.22	24.2
Maneb	7	3.7	1.05	3.84	8.0
Pyraclostrobin	41	2.0	0.08	0.16	2.0
Thiophanate-methyl	11	2.6	0.35	0.91	3.0

[1] Planted acreage in 2004 for Georgia was 30,000 acres.

Watermelons: Agricultural Chemical Applications, North Carolina, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Clomazone	28	1.1	0.35	0.37	0.8
Ethalfluralin	30	1.0	0.76	0.76	1.8
Glyphosate	10	1.2	0.52	0.62	0.5
Naptalam	13	1.3	1.20	1.56	1.7
Sethoxydim	8	1.1	0.17	0.20	0.1
Insecticides					
Carbaryl	7	2.0	0.92	1.81	1.1
Esfenvalerate	7	1.7	0.03	0.05	([2])
Fungicides					
Azoxystrobin	34	1.3	0.17	0.21	0.6
Boscalid	34	1.3	0.23	0.30	0.8
Chlorothalonil	51	2.4	1.24	2.94	12.0
Copper hydroxide	19	2.4	0.72	1.71	2.6
Pyraclostrobin	40	1.7	0.14	0.24	0.8
Other Chemicals					
Chloropicrin	6	1.0	30.35	30.35	15.1
Methyl bromide	3	1.0	87.29	87.29	21.4

[1] Planted acreage in 2004 for North Carolina was 8,000 acres.
[2] Total applied is less than 50 lbs.

Watermelons: Agricultural Chemical Applications, South Carolina, 2004 [1]

Active Ingredient	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Glyphosate	13	1.0	0.67	0.69	0.7
Naptalam	13	1.0	1.67	1.67	1.8
Trifluralin	1	1.0	0.85	0.85	0.1
Insecticides					
Carbaryl	6	1.4	0.69	0.95	0.4
Fungicides					
Boscalid	54	2.5	0.23	0.57	2.4
Chlorothalonil	68	3.8	1.32	4.96	27.1
Mancozeb	44	2.7	1.20	3.22	11.4
Pyraclostrobin	54	2.5	0.12	0.29	1.3

[1] Planted acreage in 2004 for South Carolina was 8,000 acres.

Watermelons: Agricultural Chemical Applications, Texas, 2004 [1]

Active Ingredient	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 lbs*
Herbicides					
Bensulide	16	1.0	3.54	3.54	17.7
Ethalfluralin	25	1.0	0.55	0.55	4.2
Glyphosate	26	1.4	0.77	1.06	8.6
Naptalam	11	1.0	2.04	2.04	6.9
Sethoxydim	7	1.1	0.20	0.22	0.5
Trifluralin	31	1.0	0.92	0.92	8.7
Insecticides					
Bt (Bacillus thur.) [2]	8	1.5			
Carbaryl	*	1.9	0.52	0.98	([3])
Dimethoate	5	1.4	0.29	0.40	0.6
Endosulfan	27	2.6	0.57	1.46	12.1
Imidacloprid	24	1.4	0.17	0.24	1.8
Fungicides					
Azoxystrobin	25	1.7	0.13	0.23	1.8
Chlorothalonil	39	2.1	1.01	2.12	25.3
Copper hydroxide	11	1.6	0.73	1.17	3.9
Mancozeb	59	2.6	1.29	3.36	61.1
Maneb	16	2.2	1.41	3.07	14.7
Mefenoxam	23	1.7	0.09	0.15	1.1
Metalaxyl	26	1.8	0.08	0.15	1.2

* Area applied is less than 0.5 percent.
[1] Planted acreage in 2004 for Texas was 31,000 acres.
[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.
[3] Total applied is less than 50 lbs.

Agricultural Chemical Rate Per Crop Year - Highlights

This report contains a new set of tables created to provide useful and relevant information on the distribution of rate data. The following tables show the 10th percentile, median, 90th percentile, mean and coefficient of variation (cv) distribution of the most commonly used active ingredients for each commodity at the program state level. The active ingredient needed to have been reported in the Program State on at least 30 reports, in order to be published in the following tables.

The cv is a relative measure of the variability, expressed as a percentage of the estimate. For a specific commodity, the states have different agricultural practices which can lead to a wide range of pesticide rate uses. These ranges can lead to higher cv rates for different active ingredients. Some active ingredients are only applied in one manner resulting in smaller cv's, while other active ingredients have more varied agricultural uses which will have larger cv's. Please see the Survey and Estimation Procedures and Reliability sections for more information.

Asparagus: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Diuron	0.99	1.80	3.00	1.91	7
Glyphosate	0.75	1.16	2.06	1.25	11
Linuron	0.67	1.15	1.78	1.14	11
Metribuzin	0.56	0.83	1.50	0.94	6
Trifluralin	0.50	1.00	2.00	1.23	13
Insecticides					
Carbaryl	0.75	2.00	3.13	2.02	14
Chlorpyrifos	0.50	1.00	1.01	1.00	6
Disulfoton	1.00	1.02	2.00	1.32	7
Permethrin	0.08	0.19	0.40	0.19	16
Fungicides					
Chlorothalonil	0.83	3.00	6.01	3.14	14
Mancozeb	1.13	1.78	4.80	2.48	20

Snap Beans, Fresh: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
S-Metolachlor	0.18	0.72	1.43	0.98	21
Trifluralin	0.25	0.38	1.25	0.58	28
Insecticides					
Acephate	0.38	0.75	2.92	1.59	35
Carbaryl	0.80	1.50	2.00	1.59	14
Endosulfan	1.00	1.69	4.50	2.32	28
Esfenvalerate	0.03	0.08	0.19	0.11	42
Methomyl	0.44	0.60	2.40	0.97	34
Fungicides					
Chlorothalonil	0.75	2.25	6.75	3.26	27

Snap Beans, Proc.: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	0.25	0.50	1.00	0.59	10
EPTC	2.19	3.06	3.50	2.94	5
Fomesafen	0.08	0.13	0.25	0.16	18
Glyphosate	0.38	0.75	1.50	0.87	16
Halosulfuron	0.02	0.02	0.03	0.03	6
Imazamox	0.03	0.03	0.03	0.03	7
Imazethapyr	0.02	0.02	0.03	0.03	8
S-Metolachlor	0.71	0.96	1.67	1.13	12
Sethoxydim	0.09	0.19	0.23	0.17	15
Trifluralin	0.38	0.50	0.67	0.52	6
Insecticides					
Acephate	0.68	0.75	0.86	0.77	6
Bifenthrin	0.03	0.07	0.10	0.07	11
Dimethoate	0.17	0.25	0.50	0.31	77
Esfenvalerate	0.03	0.04	0.07	0.04	10
Ethoprop	1.60	3.00	3.00	2.93	4
Lambda-cyhalothrin	0.02	0.02	0.03	0.02	6
Zeta-cypermethrin	0.03	0.05	0.09	0.05	28
Fungicides					
Copper hydroxide	0.86	2.74	3.20	2.15	37
Thiophanate-methyl	1.05	1.40	1.42	1.31	4
Vinclozolin	0.50	0.50	1.00	0.59	7

Broccoli: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Chlorpyrifos	0.78	1.49	2.38	1.69	28
Dimethoate	0.48	0.50	0.53	0.51	1
Imidacloprid	0.05	0.05	0.05	0.05	1
Indoxacarb	0.06	0.07	0.07	0.07	3
Oxydemeton-methyl	0.49	0.50	0.55	0.51	1
Spinosad	0.07	0.10	1.79	0.34	67

Cabbage: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Oxyfluorfen	0.20	0.20	0.30	0.24	12
Trifluralin	0.50	0.75	1.00	0.74	11
Insecticides					
Diazinon	0.50	1.00	2.00	1.39	54
Dimethoate	0.25	0.50	1.50	0.74	58
Esfenvalerate	0.04	0.06	0.08	0.06	21
Indoxacarb	0.07	0.13	0.33	0.16	18
Lambda-cyhalothrin	0.02	0.05	0.07	0.04	21
Methomyl	0.45	0.69	0.90	0.69	14
Permethrin	0.15	0.32	0.45	0.33	12
Spinosad	0.05	0.14	0.32	0.17	19
Fungicides					
Chlorothalonil	0.75	3.75	9.63	4.19	16
Maneb	1.00	3.01	5.00	2.91	15

Carrots, Fresh: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	0.62	1.22	1.54	1.12	10

Carrots, Proc.: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	0.63	1.14	1.75	1.17	12

Sweet Corn, Fresh: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2, 4-D	0.24	0.47	0.94	0.60	56
Alachlor	1.09	2.00	3.00	2.04	11
Atrazine	0.75	1.00	1.80	1.24	6
Bentazon	0.47	0.63	1.00	0.72	11
Glyphosate	0.38	0.75	1.02	0.74	15
Pendimethalin	0.50	0.83	1.50	1.02	17
S-Metolachlor	0.72	1.19	1.91	1.23	17
Insecticides					
Bifenthrin	0.10	0.10	0.13	0.11	7
Carbaryl	1.03	1.75	4.50	2.08	20
Chlorpyrifos	1.00	3.00	3.00	2.24	34
Cyfluthrin	0.03	0.10	0.12	0.09	8
Esfenvalerate	0.03	0.12	0.30	0.14	17
Lambda-cyhalothrin	0.03	0.10	0.14	0.10	15
Methomyl	0.81	2.40	5.85	2.78	38
Permethrin	0.08	0.23	0.75	0.38	28
Terbufos	0.90	1.00	1.40	1.09	8
Thiodicarb	0.50	1.80	2.00	1.64	15
Zeta-cypermethrin	0.05	0.08	0.15	0.10	24
Fungicides					
Chlorothalonil	0.75	4.50	6.00	3.47	32
Propiconazole	0.11	0.11	0.25	0.16	23

Sweet Corn, Proc.: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Alachlor	1.13	2.25	3.00	2.16	11
Atrazine	0.31	0.63	1.40	0.72	9
Bentazon	0.31	0.48	0.83	0.56	25
Carfentrazone-ethyl	0.00	0.01	0.03	0.01	31
Dimethenamid-P	0.56	0.85	1.08	0.89	9
EPTC	1.99	3.35	4.19	3.38	4
Glyphosate	0.53	0.75	1.31	0.85	16
Nicosulfuron	0.02	0.03	0.03	0.03	8
Pendimethalin	0.13	0.65	1.75	0.74	24
S-Metolachlor	0.96	1.91	1.91	1.66	9
Insecticides					
Bifenthrin	0.05	0.09	0.14	0.09	33
Chlorpyrifos	0.75	1.00	2.00	1.34	14
Lambda-cyhalothrin	0.04	0.07	0.08	0.07	7
Zeta-cypermethrin	0.05	0.11	0.14	0.11	21
Fungicides					
Azoxystrobin	0.07	0.13	0.17	0.13	27
Propiconazole	0.03	0.11	0.13	0.11	31

Cucumbers, Fresh: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0.12	0.25	0.38	0.23	19
Ethalfluralin	0.38	0.56	0.75	0.61	12
Insecticides					
Carbaryl	0.50	1.00	2.00	1.12	16
Endosulfan	0.75	1.13	2.50	1.62	20
Esfenvalerate	0.04	0.09	0.17	0.09	28
Permethrin	0.15	0.28	0.30	0.26	11
Fungicides					
Azoxystrobin	0.16	0.33	0.45	0.31	15
Chlorothalonil	0.87	3.00	7.38	4.31	33
Copper hydroxide	0.37	1.73	3.75	2.10	38
Mancozeb	1.20	3.00	6.00	3.59	40
Maneb	1.13	3.38	12.00	5.15	27

Cucumbers, Pickles: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0.07	0.19	0.38	0.19	24
Ethalfluralin	0.38	0.75	1.13	0.68	9
Insecticides					
Carbaryl	0.50	0.50	1.00	0.63	20
Fungicides					
Chlorothalonil	0.96	1.44	5.25	2.17	47

Head Lettuce: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Pronamide	0.49	0.68	0.95	0.72	13
Insecticides					
Abamectin	0.01	0.01	0.01	0.01	6
Acephate	0.63	0.96	1.28	0.97	6
Benzoic acid	0.12	0.13	0.18	0.14	5
Diazinon	0.49	0.57	3.03	1.11	30
Dimethoate	0.22	0.25	0.39	0.28	7
Esfenvalerate	0.03	0.04	0.05	0.04	4
Imidacloprid	0.05	0.05	0.31	0.14	21
Indoxacarb	0.06	0.08	0.13	0.08	10
Lambda-cyhalothrin	0.03	0.03	0.05	0.03	9
Methomyl	0.60	0.81	0.90	0.77	5
Oxydemeton-methyl	0.50	0.50	0.72	0.56	3
Permethrin	0.14	0.18	0.22	0.19	9
Pymetrozine	0.09	0.09	0.09	0.09	1
Spinosad	0.06	0.12	0.18	0.12	8
Zeta-cypermethrin	0.05	0.05	0.09	0.07	8
Fungicides					
Dimethomorph	0.20	0.20	0.36	0.23	7
Iprodione	0.99	0.99	1.10	1.02	2
Maneb	1.30	2.16	3.29	2.22	7

Other Lettuce: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bensulide	2.15	4.45	5.76	4.20	8
Pronamide	0.54	0.95	1.95	1.03	18
Insecticides					
Benzoic acid	0.12	0.13	0.16	0.13	4
Diazinon	0.49	0.71	1.64	0.95	23
Dimethoate	0.23	0.25	0.34	0.26	4
Imidacloprid	0.05	0.08	0.25	0.11	20
Lambda-cyhalothrin	0.03	0.04	0.06	0.04	8
Methomyl	0.65	0.71	1.36	0.87	6
Permethrin	0.14	0.18	0.47	0.25	21
Pymetrozine	0.08	0.09	0.09	0.09	2
Spinosad	0.08	0.12	0.21	0.13	9
Zeta-cypermethrin	0.05	0.09	0.11	0.08	10
Fungicides					
Dimethomorph	0.20	0.20	0.27	0.22	5
Fosetyl-al	2.23	2.61	3.96	2.78	8
Iprodione	0.99	1.00	1.05	1.02	2
Maneb	1.09	1.87	3.62	2.09	15

Bulb Onions: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bromoxynil	0.13	0.34	0.50	0.35	11
Clethodim	0.11	0.14	0.25	0.16	9
Fluazifop-P-butyl	0.09	0.19	0.38	0.21	17
Glyphosate	0.38	0.75	1.26	0.79	14
Oxyfluorfen	0.05	0.14	0.35	0.18	10
Pendimethalin	0.62	1.03	2.25	1.36	9
Insecticides					
Chlorpyrifos	0.57	1.01	3.00	1.46	14
Diazinon	1.00	2.00	2.00	1.62	11
Lambda-cyhalothrin	0.03	0.06	0.09	0.06	7
Methomyl	0.45	0.90	2.10	1.07	13
Oxamyl	1.00	1.00	2.09	1.36	16
Zeta-cypermethrin	0.04	0.11	0.15	0.11	12
Fungicides					
Azoxystrobin	0.18	0.23	0.39	0.28	14
Chlorothalonil	1.35	3.00	7.50	4.13	12
Copper hydroxide	0.53	1.97	4.61	2.33	22
Iprodione	0.64	1.00	2.25	1.33	16
Mancozeb	0.38	2.77	20.25	5.76	16
Maneb	1.61	3.48	6.00	3.78	14
Mefenoxam	0.06	0.09	0.18	0.14	13
Other					
Maleic hydrazide	1.31	1.97	3.60	2.22	10

Green Peas, Proc.: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	0.50	0.75	1.00	0.77	8
Imazethapyr	0.00	0.05	0.05	0.04	14
MCPA	0.13	0.38	0.38	0.29	17
MCPB	0.25	0.50	0.75	0.45	13
Pendimethalin	0.04	0.63	0.88	0.60	12
Trifluralin	0.38	0.38	0.63	0.47	24
Insecticides					
Dimethoate	0.17	0.17	0.50	0.23	9
Zeta-cypermethrin	0.02	0.04	0.05	0.04	10

Bell Peppers: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Spinosad	0.06	0.23	0.31	0.22	18
Fungicides					
Copper hydroxide	0.86	5.25	5.25	3.98	22
Maneb	4.15	5.00	12.00	6.31	25

Pumpkins: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0.19	0.56	0.75	0.56	5
Ethalfluralin	0.30	0.80	1.50	0.85	28
Glyphosate	0.56	1.25	1.50	1.11	10
Halosulfuron	0.02	0.05	0.05	0.04	9
Insecticides					
Bifenthrin	0.04	0.15	0.22	0.14	17
Carbaryl	0.50	2.00	6.00	2.75	42
Endosulfan	0.75	0.75	2.25	1.25	49
Esfenvalerate	0.04	0.08	0.17	0.10	28
Permethrin	0.10	0.20	0.70	0.32	24
Fungicides					
Azoxystrobin	0.10	0.18	0.59	0.27	26
Chlorothalonil	1.32	2.75	6.45	3.68	22
Copper hydroxide	0.25	1.13	2.38	1.36	33
Mancozeb	0.23	1.63	4.80	2.24	55
Myclobutanil	0.08	0.24	0.60	0.32	63
Pyraclostrobin	0.13	0.15	0.52	0.22	25

Spinach: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Permethrin	0.08	0.21	0.51	0.25	13
Spinosad	0.08	0.14	0.20	0.14	13

Squash: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0.07	0.19	0.38	0.21	26
Ethalfluralin	0.38	0.56	1.13	0.64	9
Glyphosate	0.94	1.50	1.50	1.34	9
Insecticides					
Carbaryl	0.40	1.00	3.00	1.38	29
Endosulfan	0.75	1.88	3.00	2.04	13
Esfenvalerate	0.02	0.08	0.13	0.08	15
Methomyl	0.60	0.68	2.40	1.13	30
Permethrin	0.15	0.20	0.32	0.25	15
Fungicides					
Azoxystrobin	0.13	0.25	0.54	0.28	32
Chlorothalonil	1.04	3.00	6.26	3.64	15
Copper hydroxide	0.49	1.10	4.05	1.98	27
Mancozeb	0.24	2.25	6.00	2.61	26
Maneb	1.71	2.40	4.50	3.09	15
Myclobutanil	0.10	0.10	0.30	0.16	39

Strawberries: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate	0.07	2.50	5.00	2.87	32
Insecticides					
Abamectin	0.01	0.03	0.05	0.03	21
Bifenazate	0.49	0.62	1.00	0.70	6
Bifenthrin	0.07	0.12	0.74	0.29	22
Fenpropathrin	0.21	0.44	1.20	0.54	20
Hexythiazox	0.19	0.19	0.26	0.21	4
Malathion	2.02	3.15	6.95	3.83	20
Methomyl	0.90	1.07	5.40	2.17	19
Spinosad	0.09	0.14	0.33	0.19	12
Fungicides					
Azoxystrobin	0.07	0.29	0.59	0.40	28
Boscalid	0.29	0.38	0.68	0.46	12
Captan	2.02	4.57	30.00	10.17	14
Cyprodinil	0.23	0.35	0.68	0.44	14
Fenhexamid	0.75	1.40	6.00	1.78	19
Fludioxonil	0.16	0.24	0.45	0.30	14
Myclobutanil	0.09	0.11	0.22	0.13	7
Pyraclostrobin	0.18	0.29	0.55	0.31	9
Sulfur	2.48	6.14	26.00	13.10	64
Thiophanate-methyl	0.71	2.10	5.60	2.78	12
Thiram	1.63	2.39	13.00	5.11	23
Other					
Chloropicrin	66.00	120.01	178.27	116.31	6
Methyl bromide	134.00	188.76	242.05	188.37	3

Tomatoes, Fresh: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate	0.05	0.74	0.96	0.58	31
Metribuzin	0.22	0.50	1.00	0.59	20
Napropamide	0.90	4.00	6.00	3.59	32
Paraquat	0.31	0.52	1.25	0.81	17
S-Metolachlor	0.74	1.43	2.22	1.80	20
Trifluralin	0.25	0.50	1.12	0.61	29
Insecticides					
Carbaryl	0.50	1.52	2.25	1.68	24
Cyfluthrin	0.05	0.10	0.17	0.13	30
Dimethoate	0.21	0.50	1.00	0.63	25
Endosulfan	0.75	1.50	12.00	3.12	36
Esfenvalerate	0.05	0.12	0.37	0.18	15
Imidacloprid	0.08	0.25	0.50	0.32	19
Lambda-cyhalothrin	0.05	0.12	0.19	0.13	16
Methomyl	0.45	1.60	2.25	1.69	15
Permethrin	0.15	0.29	0.95	0.45	26
Spinosad	0.09	0.21	0.59	0.32	33
Fungicides					
Azoxystrobin	0.10	0.25	0.98	0.42	27
Chlorothalonil	2.34	6.00	16.50	8.65	14
Copper hydroxide	1.29	7.00	31.20	11.37	37
Mancozeb	1.50	10.50	30.30	13.69	18
Maneb	1.59	6.38	9.00	6.23	30
Mefenoxam	0.13	0.25	0.78	0.55	38
Pyraclostrobin	0.11	0.18	0.50	0.22	21
Sulfur	8.85	28.50	41.41	26.45	13
Other					
Chloropicrin	49.50	66.00	125.45	77.62	20
Methyl bromide	117.25	134.00	201.00	144.41	7

Tomatoes, Proc.: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate	0.40	0.75	1.74	0.94	14
Rimsulfuron	0.01	0.01	0.03	0.02	13
S-Metolachlor	0.98	1.33	1.91	1.38	8
Trifluralin	0.44	0.60	1.00	0.66	9
Insecticides					
Dimethoate	0.18	0.49	0.53	0.40	20
Indoxacarb	0.03	0.07	0.08	0.06	11
Fungicides					
Chlorothalonil	1.44	1.86	2.85	1.95	4
Pyraclostrobin	0.12	0.13	0.22	0.16	9
Sulfur	9.42	34.30	59.52	35.62	6

Watermelons: Agricultural Chemicals Rate Per Crop Year Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Ethalfluralin	0.19	0.38	0.75	0.47	30
Glyphosate	0.56	0.75	1.83	1.10	18
Naptalam	2.00	6.00	6.00	3.99	29
Sethoxydim	0.06	0.06	0.28	0.14	33
Trifluralin	0.50	1.00	1.00	0.86	10
Insecticides					
Carbaryl	0.25	0.50	2.00	1.05	32
Endosulfan	0.25	1.50	1.88	1.45	11
Esfenvalerate	0.03	0.05	0.19	0.09	23
Fungicides					
Azoxystrobin	0.10	0.20	0.41	0.22	11
Boscalid	0.19	0.27	0.50	0.35	12
Chlorothalonil	1.50	3.00	7.50	3.95	10
Copper hydroxide	0.40	1.15	5.10	2.17	25
Mancozeb	1.19	3.00	11.25	4.97	15
Maneb	0.10	0.15	0.32	0.19	11
Pyraclostrobin	0.35	1.05	2.28	1.51	33

2004 Vegetable Crops Pest Management Practices

Overview: NASS continues to publish data on pest management practices that growers use on vegetable acres in an effort to enhance and improve the statistics that are available to control pests. Prior to the 2002 crop year, vegetable crop pest management practices data were collected and published separately from the Vegetable Chemical Use Survey. The Pest Management Practices 2004 Summary is based on data compiled from respondents participating in the Vegetable Chemical Use Survey.

For this report, each question has been categorized into one of four pest management categories: prevention, avoidance, monitoring, and suppression. The actual questions used to collect these data are shown in the survey instrument**.** It is important to note that the practice of good pest management techniques is site-specific in nature, and individual tactics are principally determined by the particular crop/pest/environment scenario. This series of pest management practices data has been helpful in identifying crops where alternative pest management practices are needed.

The data are published in two tables: percent of farms receiving the specific pest management practice, and percent of acres using the specific pest management practice. These percentages are published at the Program States and State levels. For all the crops in this survey, the percentages refer only to farms and vegetable acres.

Producers were first asked how many total acres of vegetable crops they grew in 2004, followed by questions regarding the use of specific pest management practices, in a yes/no format. Pests were defined as weeds, insects, and diseases. If the respondent used a specific practice on any vegetable crop, it was assumed that the practice was used on all acres of vegetable crops. For example, if a producer had 500 acres of various vegetable crops, and used field mapping of previous weed problems to assist in making weed management decisions, it was assumed that all 500 acres were mapped.

Highlights: Field cultivation for weed control was the most commonly reported pest management practice for prevention, used by 73 percent of the vegetable farms on 82 percent of the acres. The second most common prevention practice was chopping, mowing/etc. field edges, used by 69 percent of the vegetable farms on 82 percent of the acres. Also, use of tillage/etc. to manage pests ranked second as a prevention practice with 67 percent of the vegetable farms and 83 percent of the acres.

For avoidance practices, rotating crops was used by the majority of farms, 87 percent, on 85 percent of the acreage. The majority of farms scouted as a monitoring practice. Scouting for weeds occurred on 89 percent of the farms and 94 percent of the acres. Percentages of scouting for insects and diseases are similar: 92 percent of the farms and 99 percent of the acres for insects and mites, and 88 percent of the farms and 97 percent of the acres for diseases.

The most used pest suppression practice was to maintain ground cover or physical barriers with nearly half of the vegetable farms (46 percent) reporting it on 50 percent of the planted vegetable acres.

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2004

Practice	States						
	AZ	CA	DE	FL	GA	IL	MD
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:							
No-till/minimum till used manage pests	29	23	19	22	11	17	15
Remove or plow down crop residue	81	73	86	81	77	49	94
Clean implements after fieldwork	61	62	95	84	62	40	85
Field cultivated for weed control	92	83	100	51	75	88	100
Field edges/etc, chopped, mowed/etc.	83	78	100	78	79	83	50
Water management practices	47	45	76	65	23	15	71
Avoidance Practices:							
Adjust planting/harvesting dates	37	24	65	27	25	22	65
Rotate crops to control pests	89	70	100	59	84	86	100
Planting locations planned to avoid pests	53	37	67	28	37	40	94
Grow trap crop to control insects	8	16	15	4	3	4	
Crop variety chosen for pest resistance	51	39	86	45	40	36	86
Monitoring Practices:							
Scouting by general observation	78	72	100	68	72	84	100
Deliberate scouting activites	18	26		25	25	14	
Field was not scouted	4	2		7	4	3	
Established scouting process/insect trap used	61	50	76	36	28	40	100
Scouting due to pest advisory warning	15	23	60	11	9	19	20
Scouting due to pest development model	18	21	73	13	11	20	19
Scouted for weeds	95	89	100	88	86	97	100
Scouting for weeds was done by:							
Operator, partner, or family member	41	45	14	79	83	64	66
An employee	10	12		3	7		
Farm supply or chemical dealer	25	15		1	1	1	15
Indep. crop consultant or comm. scout	24	28	86	18	9	35	19
Scouted for insects amd mites	100	95	100	93	96	98	100
Scouting for insects/mites was done by:							
Operator, partner, or family member	26	31	4	73	77	57	
An employee	3	10		3	6	1	
Farm supply or chemical dealer	42	23		1	1		15
Indep. crop consultant or comm. scout	30	36	96	23	16	42	85
Scouted for diseases	92	92	100	92	95	98	100
Scouting for diseases was done by:							
Operator, partner, or family member	26	33	4	73	77	55	
An employee	4	10		3	6	1	
Farm supply or chemical dealer	40	21		1	1		15
Indep. crop consultant or comm. scout	30	37	96	23	16	44	85
Records kept to track pests	60	51	100	41	30	41	85
Field mapping of weed problem	14	16	44	16	6	18	85
Soil/plant tissue analysis to detect pests	44	47	83	50	20	14	28
Weather monitoring	54	61	100	80	62	65	100
Biological pest controls	7	22	29	10	4	8	35
Suppression Practices:							
Biological pesticides	40	29		35	16	8	
Beneficial organisms	12	21		13	2	2	
Scouting used to make decisions	41	37	100	25	26	32	85
Maintain ground cover or physical barriers	46	49	41	64	36	27	15
Adjusted planting methods	26	27	78	31	23	23	100
Alternate pesticides with different MOA	61	52	87	53	37	31	85

* / Less than 0.5 percent

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2004

Practice	States						
	MI	MN	NJ	NY	NC	OH	OR
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:							
No-till/minimum till used manage pests	27	29	10	16	16	24	12
Remove or plow down crop residue	60	26	54	80	80	65	61
Clean implements after fieldwork	49	69	51	51	70	42	56
Field cultivated for weed control	79	48	78	80	75	70	77
Field edges/etc, chopped, mowed/etc.	70	40	53	79	85	63	65
Water management practices	12	2	15	9	21	12	55
Avoidance Practices:							
Adjust planting/harvesting dates	17	6	16	22	31	9	10
Rotate crops to control pests	79	93	55	84	90	87	76
Planting locations planned to avoid pests	46	24	32	45	44	50	29
Grow trap crop to control insects	7		3	2	8	1	5
Crop variety chosen for pest resistance	41	3	36	47	47	40	40
Monitoring Practices:							
Scouting by general observation	62	80	41	73	64	42	72
Deliberate scouting activites	33	16	48	21	32	46	23
Field was not scouted	5	4	10	6	4	12	6
Established scouting process/insect trap used	29	45	17	31	24	19	30
Scouting due to pest advisory warning	18	1	15	20	9	13	13
Scouting due to pest development model	13	1	13	19	16	13	24
Scouted for weeds	89	95	85	88	85	82	93
Scouting for weeds was done by:							
Operator, partner, or family member	84	50	90	91	93	88	71
An employee	1		2	*	1	2	3
Farm supply or chemical dealer	8	7	1	2	*	5	23
Indep. crop consultant or comm. scout	7	43	8	7	6	5	4
Scouted for insects amd mites	89	92	88	90	93	88	91
Scouting for insects/mites was done by:							
Operator, partner, or family member	81	15	88	85	93	89	65
An employee	2	1	1	*	1	2	2
Farm supply or chemical dealer	9	6	1	3	*	5	25
Indep. crop consultant or comm. scout	8	78	10	12	5	4	8
Scouted for diseases	85	90	87	82	91	85	89
Scouting for diseases was done by:							
Operator, partner, or family member	80	11	88	85	93	88	62
An employee	1	1	1	1	1	2	4
Farm supply or chemical dealer	9	7	1	2	*	6	25
Indep. crop consultant or comm. scout	9	81	10	12	5	4	9
Records kept to track pests	26	53	23	38	20	18	42
Field mapping of weed problem	7	18	22	20	10	6	14
Soil/plant tissue analysis to detect pests	11	6	19	14	25	7	19
Weather monitoring	57	69	50	62	75	57	66
Biological pest controls	7		9	10	11	6	10
Suppression Practices:							
Biological pesticides	5	1	9	10	10	16	6
Beneficial organisms	2		6	3	11	2	9
Scouting used to make decisions	35	30	30	40	22	14	32
Maintain ground cover or physical barriers	44	17	43	61	58	48	49
Adjusted planting methods	22	8	22	29	24	24	23
Alternate pesticides with different MOA	40	32	37	41	29	27	44

* / Less than 0.5 percent

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2004

Practice	States						Program States
	PA	SC	TN	TX	WA	WI	
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:							
No-till/minimum till used manage pests	28	19	27	14	18	29	21
Remove or plow down crop residue	68	48	66	78	53	49	66
Clean implements after fieldwork	40	59	67	56	60	37	56
Field cultivated for weed control	64	46	64	83	75	65	73
Field edges/etc, chopped, mowed/etc.	70	47	59	75	76	35	69
Water management practices	7	9	16	36	40	8	24
Avoidance Practices:							
Adjust planting/harvesting dates	23	9	21	29	13	8	20
Rotate crops to control pests	87	54	64	80	63	82	78
Planting locations planned to avoid pests	42	17	36	42	24	29	37
Grow trap crop to control insects	1	5	2	4	4	2	5
Crop variety chosen for pest resistance	49	28	45	39	32	22	38
Monitoring Practices:							
Scouting by general observation	67	33	60	53	70	84	67
Deliberate scouting activites	26	32	28	40	25	12	27
Field was not scouted	7	35	12	7	5	4	6
Established scouting process/insect trap used	24	9	12	21	45	67	35
Scouting due to pest advisory warning	15	6	9	5	10	32	15
Scouting due to pest development model	20	3	7	8	15	36	17
Scouted for weeds	87	62	85	90	93	95	89
Scouting for weeds was done by:							
Operator, partner, or family member	83	95	87	82	60	50	73
An employee	2		1	4	6	1	3
Farm supply or chemical dealer	4	1		6	22	2	7
Indep. crop consultant or comm. scout	12	4	12	8	12	46	17
Scouted for insects amd mites	91	63	87	91	94	94	92
Scouting for insects/mites was done by:							
Operator, partner, or family member	81	94	86	77	54	36	65
An employee	2		1	3	7	1	3
Farm supply or chemical dealer	3	1		8	23	2	8
Indep. crop consultant or comm. scout	14	5	13	12	16	62	24
Scouted for diseases	87	61	87	89	89	92	88
Scouting for diseases was done by:							
Operator, partner, or family member	80	93	85	77	58	34	65
An employee	2		1	3	5	1	3
Farm supply or chemical dealer	4	1		8	23	2	8
Indep. crop consultant or comm. scout	14	6	14	12	14	64	24
Records kept to track pests	25	9	31	18	40	62	36
Field mapping of weed problem	10	2	10	4	15	19	13
Soil/plant tissue analysis to detect pests	12	7	17	14	31	32	23
Weather monitoring	72	26	78	43	53	43	61
Biological pest controls	11	1	4	3	22	4	10
Suppression Practices:							
Biological pesticides	7	1	20	10	4	5	13
Beneficial organisms	1	2	3	4	2	2	6
Scouting used to make decisions	34	8	16	17	28	64	32
Maintain ground cover or physical barriers	56	36	50	33	38	33	46
Adjusted planting methods	17	13	31	27	19	12	23
Alternate pesticides with different MOA	66	10	45	23	37	30	40

* / Less than 0.5 percent

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2004

Practice	States						
	AZ	CA	DE	FL	GA	IL	MD
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:							
No-till/minimum till used manage pests	23	24	15	20	14	14	20
Remove or plow down crop residue	79	83	85	80	87	40	96
Clean implements after fieldwork	65	67	95	94	62	33	80
Field cultivated for weed control	94	92	100	47	86	94	100
Field edges/etc, chopped, mowed/etc.	90	90	100	89	71	91	63
Water management practices	53	44	79	83	41	38	71
Avoidance Practices:							
Adjust planting/harvesting dates	49	26	30	39	42	15	61
Rotate crops to control pests	86	84	100	58	79	81	100
Planting locations planned to avoid pests	65	37	84	37	47	23	96
Grow trap crop to control insects	4	7	13	4	2	2	
Crop variety chosen for pest resistance	68	48	91	49	46	25	85
Monitoring Practices:							
Scouting by general observation	89	86	100	83	88	88	100
Deliberate scouting activites	7	13		14	12	8	
Field was not scouted	4	*		3	*	4	
Established scouting process/insect trap used	89	71	83	67	61	59	100
Scouting due to pest advisory warning	24	30	39	20	12	43	19
Scouting due to pest development model	23	26	89	36	38	40	35
Scouted for weeds	97	91	100	92	80	99	100
Scouting for weeds was done by:							
Operator, partner, or family member	18	24	9	49	38	45	46
An employee	10	21		2	17		
Farm supply or chemical dealer	35	21		3	6	*	20
Indep. crop consultant or comm. scout	37	34	91	46	39	55	35
Scouted for insects amd mites	100	100	100	99	99	99	100
Scouting for insects/mites was done by:							
Operator, partner, or family member	7	14	2	39	33	41	
An employee	1	16		2	14	*	
Farm supply or chemical dealer	48	27		3	5		20
Indep. crop consultant or comm. scout	44	43	98	56	49	59	80
Scouted for diseases	99	98	100	99	100	100	100
Scouting for diseases was done by:							
Operator, partner, or family member	5	14	2	39	33	41	
An employee	1	15		2	13	*	
Farm supply or chemical dealer	50	27		3	5		20
Indep. crop consultant or comm. scout	45	43	98	56	49	59	80
Records kept to track pests	85	63	100	71	67	62	80
Field mapping of weed problem	16	19	67	24	8	19	80
Soil/plant tissue analysis to detect pests	68	55	39	73	52	8	39
Weather monitoring	73	77	100	93	82	75	100
Biological pest controls	10	29	55	17	8	6	51
Suppression Practices:							
Biological pesticides	83	43		50	32	6	
Beneficial organisms	12	13		14	3	1	
Scouting used to make decisions	49	44	100	52	59	50	80
Maintain ground cover or physical barriers	64	41	68	67	60	17	20
Adjusted planting methods	34	28	34	29	24	15	100
Alternate pesticides with different MOA	94	67	93	74	72	48	80

* / Less than 0.5 percent

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2004

Practice	States						
	MI	MN	NJ	NY	NC	OH	OR
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:							
No-till/minimum till used manage pests	23	16	20	23	15	42	18
Remove or plow down crop residue	75	19	87	80	92	64	65
Clean implements after fieldwork	67	79	72	69	81	41	62
Field cultivated for weed control	90	44	94	90	80	64	79
Field edges/etc, chopped, mowed/etc.	73	41	85	85	90	69	74
Water management practices	37	3	27	11	49	39	66
Avoidance Practices:							
Adjust planting/harvesting dates	31	5	19	36	61	23	13
Rotate crops to control pests	86	96	83	93	95	96	83
Planting locations planned to avoid pests	54	18	51	56	66	60	40
Grow trap crop to control insects	6		3	1	3	*	1
Crop variety chosen for pest resistance	48	2	56	51	68	76	39
Monitoring Practices:							
Scouting by general observation	86	85	62	92	51	79	83
Deliberate scouting activites	13	14	36	7	48	20	16
Field was not scouted	*	1	2	1	1	1	1
Established scouting process/insect trap used	56	38	37	72	24	53	55
Scouting due to pest advisory warning	39	2	29	40	12	42	19
Scouting due to pest development model	31	1	20	48	10	26	41
Scouted for weeds	94	98	96	97	90	92	98
Scouting for weeds was done by:							
Operator, partner, or family member	63	61	78	58	89	65	70
An employee	8		6	1	2	14	4
Farm supply or chemical dealer	11	2	*	2	*	10	21
Indep. crop consultant or comm. scout	18	37	15	40	9	11	6
Scouted for insects amd mites	97	97	97	97	97	99	99
Scouting for insects/mites was done by:							
Operator, partner, or family member	60	14	79	48	89	68	57
An employee	8	*	*	*	2	13	2
Farm supply or chemical dealer	13	3	1	5	*	9	24
Indep. crop consultant or comm. scout	19	83	20	46	9	10	18
Scouted for diseases	93	96	97	93	93	97	90
Scouting for diseases was done by:							
Operator, partner, or family member	62	8	79	49	88	67	51
An employee	5	*	*	1	2	13	4
Farm supply or chemical dealer	14	4	1	4	*	9	24
Indep. crop consultant or comm. scout	20	87	20	46	10	10	21
Records kept to track pests	51	49	41	72	23	42	60
Field mapping of weed problem	16	29	47	57	10	4	15
Soil/plant tissue analysis to detect pests	21	5	37	32	28	24	41
Weather monitoring	66	55	83	86	91	81	90
Biological pest controls	14		11	18	42	33	24
Suppression Practices:							
Biological pesticides	10	1	18	13	45	31	6
Beneficial organisms	1		3	1	37	1	2
Scouting used to make decisions	56	30	57	64	29	32	50
Maintain ground cover or physical barriers	62	16	67	85	76	36	54
Adjusted planting methods	40	7	25	18	53	22	13
Alternate pesticides with different MOA	60	17	69	71	58	58	69

* / Less than 0.5 percent

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2004

Practice	States						Program States
	PA	SC	TN	TX	WA	WI	
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:							
No-till/minimum till used manage pests	24	58	37	5	9	41	22
Remove or plow down crop residue	79	82	95	84	68	44	73
Clean implements after fieldwork	58	91	89	48	65	47	67
Field cultivated for weed control	51	72	72	87	84	84	82
Field edges/etc, chopped, mowed/etc.	76	82	91	92	86	60	82
Water management practices	5	3	38	78	62	37	44
Avoidance Practices:							
Adjust planting/harvesting dates	32	2	37	63	27	19	30
Rotate crops to control pests	95	86	62	90	83	85	85
Planting locations planned to avoid pests	43	7	77	74	35	42	43
Grow trap crop to control insects	1	2	1	2	2	1	4
Crop variety chosen for pest resistance	48	48	78	66	43	28	46
Monitoring Practices:							
Scouting by general observation	88	65	67	87	80	98	85
Deliberate scouting activites	10	28	32	12	14	2	13
Field was not scouted	1	8	1	1	6	*	1
Established scouting process/insect trap used	37	45	17	48	64	93	64
Scouting due to pest advisory warning	11	3	20	11	20	43	25
Scouting due to pest development model	18	3	11	9	24	65	29
Scouted for weeds	95	94	98	97	98	100	94
Scouting for weeds was done by:							
Operator, partner, or family member	72	64	98	42	48	48	43
An employee	2		*	10	13	6	11
Farm supply or chemical dealer	10	*		12	21	1	13
Indep. crop consultant or comm. scout	16	36	2	36	18	45	33
Scouted for insects amd mites	98	94	99	99	98	100	99
Scouting for insects/mites was done by:							
Operator, partner, or family member	69	64	98	40	43	23	31
An employee	2		*	6	14	3	9
Farm supply or chemical dealer	10	*		15	21	*	16
Indep. crop consultant or comm. scout	20	36	2	39	22	73	44
Scouted for diseases	95	94	99	98	95	99	97
Scouting for diseases was done by:							
Operator, partner, or family member	67	64	98	40	47	22	30
An employee	2		*	6	11	3	8
Farm supply or chemical dealer	10	*		15	22	*	17
Indep. crop consultant or comm. scout	21	36	2	39	20	75	45
Records kept to track pests	44	50	36	58	62	88	63
Field mapping of weed problem	10	*	23	6	26	45	23
Soil/plant tissue analysis to detect pests	20	15	5	15	57	64	45
Weather monitoring	87	24	65	86	72	63	77
Biological pest controls	23	*	11	4	43	24	23
Suppression Practices:							
Biological pesticides	8	*	39	22	3	11	29
Beneficial organisms	1	1	1	9	1	10	9
Scouting used to make decisions	40	12	37	50	37	89	49
Maintain ground cover or physical barriers	70	59	62	64	44	47	50
Adjusted planting methods	19	3	37	54	22	8	26
Alternate pesticides with different MOA	62	3	76	43	67	54	63

* / Less than 0.5 percent

Survey Procedures

Large screening samples were drawn from the NASS List Sampling Frame. This extensive sampling frame covers all types of farms and accounts for about 90 percent of all land in farms in the U.S. The sample design for the Vegetable Chemical Use Survey (VCUS) uses a Multivariate Probability Proportional to Size (MPPS) design. The probability of being selected for the sample was based on the percentage of acreage for a given crop that a grower had on a state's list frame. The maximum of these probabilities were selected to draw the sample. The general idea is to assure that the total acreage of all targeted vegetable crops that a grower has on the list frame was included when determining a grower's probability of selection.

Estimation Procedures

The chemical applications data, reported by product name, or trade name are reviewed within each State and across States for reasonableness and consistency. This review compares reported data with manufacturer's recommendations and with data from other farm operators using the same product. Following this review, product information are converted to an active ingredient level. The chemical usage estimates in this publication consist of survey estimates of those active ingredients.

Estimates of the total amount of active ingredient applied are based on the acreage estimates published in the annual NASS report "**Vegetables - 2004 Summary**"[Vg 1-2(04)] released on January 29, 2004. The estimates for total amount applied will not be revised even if there are subsequent revisions to acreage for a given crop. Detailed data within a table may not multiply across or add down due to independent rounding of the published values.

Reliability

The probability nature of the survey provides expansion of data so that the estimates are statistically representative of chemical use on the targeted crops in the surveyed States. The reliability of these survey results is affected by non-sampling errors and sampling variability. The sampling variability, expressed as a percentage of the estimate, is referred to as the coefficient of variation (cv).

Non-sampling errors are errors that occur during a survey process and, unlike sampling variability, are difficult to measure. They may be caused by interviewers failing to follow instructions, poorly worded questions, non-response, problematic survey procedures, or data handling between collection and publication. In these surveys, all survey procedures and analysis were carried out in a consistent and orderly manner to minimize the occurrence of these types of errors.

Variability for estimates of acres treated will be higher than the variability for estimates of application rates. This is because application rates have a narrower range of responses, are recommended by the manufacturer of the product, and are generally followed. Sampling variability of the estimates differed considerably by chemical and crop. In general, the more often the chemical was applied, the smaller the sampling variability. For example, estimates of a commonly used active ingredient such as Glyphosate isopropylamine salt, will exhibit less variability than a rarely used chemical.

The variability of estimates also depends on such factors such as how similar agricultural practices are across States or within a State. Some active ingredients have widely varying recommend rates with different application approaches. This can increase the variability of the rates and acres treated. The differing intensity of the pest problem can influence the variability of acres treated and rate. The more consistent the intensity of the pest problem, the more likely the acres treated and rates are to be similar. These are just a few examples of how the estimates' variability can be influenced. A commonly used active ingredient is defined as an active ingredient used on at least 40 percent of the acres planted for a crop at the U.S. level. For these active ingredients, cv's will generally be less than 35 percent at the U.S. level and less than 55 percent at the State level. Active ingredients that are less frequently used have cv's rates that are generally less than 70 percent.

Terms and Definitions

Active ingredient: The active ingredient is the specific chemical which kills or controls the target pests. Usage data are reported by pesticide product and are converted to an amount of active ingredient. A single method of conversion has been chosen for active ingredients having more than one way of being converted. For example in this report, copper compounds are expressed in their metallic copper equivalent, and others such as 2,4-D and glyphosate are expressed in their acid equivalent.

Agricultural chemicals: Refers to the active ingredients in fertilizers and pesticides.

Allelopathic: The release of chemical compounds from a plant that will inhibit the growth of another plant, such as weeds.

Application rates: Refer to the average number of pounds of a fertilizer primary nutrient or pesticide active ingredient applied to an acre of land. Rate per acre is the average number of pounds applied in one application. Rate per crop year is the average number of pounds applied counting multiple applications. Number of applications is the average number of times a treated acre receives a specific agricultural chemical.

Area applied: Represents the percentage of crop acres receiving one or more applications of a specific agricultural chemical. This report does not contain acre treatments. However, acre treatments can be calculated by multiplying the acres planted by the percent of area applied and the average number of applications.

Avoidance: May be practiced when pest populations exist in a field or site but the impact of the pest on the crop can be avoided through some cultural practice. Examples of avoidance tactics include crop rotation such that the crop of choice is not a host for the pest, choosing cultivars with genetic resistance to pests, using trap crops, choosing cultivars with maturity dates that may allow harvest before pest populations develop, fertilization programs to promote rapid crop development, and simply not planting certain areas of fields where pest populations are likely to cause crop failure. Some tactics for prevention and avoidance strategies may overlap.

The following questions were categorized as avoidance practices:

Were planting or harvesting dates adjusted to manage pests?

Were planting locations planned to avoid infestation of pests?

Was a crop variety chosen because it had resistance to a specific pest?

Was a trap crop grown to help manage insects?

Were row spacing or plant density adjusted to manage pests?

Were any beneficial organisms (insects, nematodes, fungi) applied or released to manage pests?

Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used?

Beneficial insects: Insects collected and introduced into locations because of their value in biologic control as prey on harmful insects and parasites.

Chemigation: Application of an agricultural chemical by injecting it into irrigation water.

Common name: An officially recognized name for an active ingredient. This report shows active ingredient by common name.

Crop year: Refers to the period immediately following harvest for the previous crop through harvest of the current crop.

Cultivars: A horticulturally or agriculturally derived variety of a plant, as distinguished from a natural variety.

Farm: Any establishment from which $1,000 or more of agricultural products were sold or would normally be sold during the year. Government payments are included in sales. Places with all acreage enrolled in set aside or other government programs are considered operating.

Fertilizer: Refers to applications of the primary nutrients, nitrogen, phosphate, and potash.

Fungi: A lower form of parasitic plant life which often reduces crop production and/or lowers the grade quality of its host.

Land in Farms: All land operated as part of a farming operation during the year. It includes crop and livestock acreage, wasteland, woodland, pasture, land in summer fallow, idle cropland, and land enrolled in the Conservation Reserve Program and other set-aside, conservation, or commodity acreage programs. It excludes public, industrial, and grazing association land, and nonagricultural land. It excludes all land operated by establishments not qualifying as farms.

Mechanism of Action (MOA): The method/biological pathway the pesticide uses to kill the pest.

Monitoring: Includes proper identification of pests through surveys or scouting programs, including trapping, weather monitoring, and soil testing where appropriate.

The following pest management practices questions were categorized as monitoring practices:

In 2004, how were your vegetable acres primarily scouted for insects, weeds, diseases and/or beneficial organisms? (By conducting general observations while performing routine tasks? By deliberately going to the field specifically for scouting activities? This field was not scouted?)

Was an established scouting process used (systematic sampling, recording counts, etc.) or were insect traps used in this field on any vegetable crops?

Was scouting for pests done on these vegetable acres due to a pest advisory warning?

Was scouting for pests done on these vegetable acres due to a pest development model?

Were your vegetable acres scouted for weeds? (If so, Who did the majority of the scouting? Operator, partner or family member, OR An employee, OR Farm supply or chemical dealer, OR Independent crop consultant or commercial scout?)

Were your vegetable acres scouted for insects? (If so, Who did the majority of the scouting? Operator, partner or family member, OR An employee, OR Farm supply or chemical dealer, OR Independent crop consultant or commercial scout?)

Were your vegetable acres scouted for diseases? (If so, Who did the majority of the scouting? Operator, partner or family member, OR An employee, OR Farm supply or chemical dealer, OR Independent crop consultant or commercial scout?)

Were written or electronic records kept to track the activity or numbers of weeds, insects or diseases?

Was scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests?

Was field mapping data used for making weed management decisions?

Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis?

Nematodes: Microscopic, worm-shaped parasitic animals. Damage to many crops can be severe.

Pesticides: As defined by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), pesticides include any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

The four classes of pesticides presented in this report and the pests targeted are: herbicides - weeds, insecticides - insects, fungicides - fungi, and other chemicals - other forms of life. Miticides and nematicides are included as insecticides while soil fumigants, growth regulators, defoliants, and desiccants are included as other chemicals.

Pheromone: A chemical substance produced by an insect which serves as a stimulus to other individuals of the same species for one or more behavioral responses.

Prevention: Is the practice of keeping a pest population from infesting a crop or field. It includes such tactics as using pest-free seeds and transplants, preventing weeds from reproducing, choosing cultivars with genetic resistance to insects or disease, irrigation scheduling to avoid situations conducive to disease development, cleaning tillage and harvesting equipment between fields or operations, using field sanitation procedures, and eliminating alternate hosts or sites for insect pests and disease organisms.

The following questions were categorized as prevention practices:

Was no-till or minimum till used to manage pests?

Were field edges, lanes, ditches, roadways or fence lines chopped, mowed, plowed, or burned to manage pests?

Were crop residues plowed down or removed to manage pests?

Were any vegetable acres cultivated for weed control during the growing season?

Were equipment and implements cleaned after completing fieldwork to reduce the spread of pests?

Were water management practices (excluding chemigation) such as irrigation scheduling, controlled drainage, or treatment of retention water used to mange pests?

Suppression: Tactics include cultural practices such as narrow row spacings or optimized in-row plant populations, alternative tillage approaches such as no-till or strip-till systems, cover crops or mulches, or using crops with allelopathic potential in the rotation. Physical suppression tactics may include cultivation or mowing for weed control, baited or pheromone traps for certain insects, and temperature management or exclusion devices for insect and disease management. Biological controls, including mating disruption for insects, could be considered as alternatives to conventional pesticides, especially where long-term control of an especially troublesome pest species can be obtained. Chemical pesticides are important and some use will remain necessary. However, pesticides should be applied as a last resort in suppression systems.

The following questions were categorized as suppression practices:

Were any biological pesticides such as Bt (Bacillus thuringiensis), insect growth regulators, neem or other natural/biological based products sprayed or applied to manage pests?

Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to a pesticide?

Was scouting data used to assist in determining the need for or when to make pesticide applications?

Did you maintain ground covers, mulch or physical barriers to reduce pest problems?

Did you use row spacing or make adjustments to plant density to manage insects?

Were any beneficial organisms (insects, nematodes or fungi) applied or released to manage pests?

Trade Names, Common Names, and Pesticide Classes

The following is a list showing common name, associated class, and trade name of active ingredients in this publication. The classes are herbicides (H), insecticides (I), fungicides (F), and other chemicals (O). This list is provided as an aid in reviewing pesticide data. Pre-mixes are not cataloged. The list is not complete for all pesticides used on the vegetable crops surveyed and NASS does not mean to imply use of any specific trade name.

Class	Common Name	Trade Name
H	2,4-D	Amine 4, Class LV4, Curtail (EC), Formula 40, Riverside LV4, Salvo
H	2,4-D, Dimethylamine salt	Riverdale Formula 40, Weedar 64
H	2,4-D, Triisopropanolamine salt	Riverdale Formula 40
I	Abamectin	Agri-Mek, Avid
I	Acephate	Acephate 75 WSP, Acephate 97UP, Address, Orthene
I	Acetamiprid	Assial 70 WP
H	Acetic acid	2,4-D LV 4 Easter, Riverdale, Weedone LV6 IOE
H	Acetochlor	Degree Xtra, Harness Xtra, Keystone, TopNotch
O	Acibenzolar-S-Methyl	Actigard, Blockade
H	Aciflourfen, sodium salt	Conclude Xtra B&G, Manifest B&G
H	Alachlor	Arrow, Bronco, Bullet, Confidence, Intrro, Judge, Lariat, Lasso, Lasso II, Micro-Tech, Partner, Saddle 4EC/Alachlor 4EC, Stall
O	Aluminum phosphide	Fumitoxin Tablets
H	Ametryn	Evik
O	Aminopyridine	Avitrol Corn Chops
F	Anilazine	Dyrene
H	Atrazine	AAtrex 4L, AAtrex Nine-O (WP), Atrazine 4L, Atrazine 5L, Atrazine 80 (WP), Atrazine 90DF, Basis Gold WDG, Bicep II, Bicep II Magnum, Bicep Lite II, Bicep Lite II Magnum, Bullet, Cinch ATZ, Conquest, Degree Xtra, Drexel, Trizmet II, Extrazine II, G-Max Lite, Guardsman Herbicide, Harness Xtra, Keystone, Laddok, Lariat, Lumax, Prozine
I	Azadirachtin	Agroneem, AZA-Direct, Ecozin, Margosan-O, Botanical Insectiacide, Neemix, Ornazin, SuperNeem
I	Azinphos-methyl	Azinphos, Guthion
F	Azoxystrobin	Amistar, Quadris (aka Abound), Quilt
F	Bacillus subtilus	Serenade Biofungicide (WP)
I	Bacillus thuringiensis	Agree, Biobit, Bt 320 Dust, Condor, Crymax, Deliver, Dipel, Javelin, Ketch, Lepinox, MVP II Bioinsecticide, Prolong, Thuricide HPC, Xentari
F	Basic copper sulfate	Basic Copper Sulfate, C-O-C-S, Tri-Basic Copper, Top Cop with Sulfur, Tri-Basic Copper
H	Benefin	Balan
F	Benomyl	Benlate, Tersan
H	Bensulide	Prefar
H	Bentazon	Basagran, Conclude Xtra, Laddok, Manifest, Pledge
I	Benzoic acid	Intrepid
I	Bifenazate	Acramite

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Class	Common Name	Trade Name
I	Bifenthrin	Brigade, Capture, Discipline, Empower
H	Bromoxynil	Buctril, Moxy Weed Killer
I	Buprofezin	Applaud, Courier
H	Butoxyethanol ester	2,4-D/Weedone LV4
H	Butylate	Sutan + 6.7E
I	Canola oil	NEU1161
O	Capsaicin	Hot Sauce Animal Repellent
F	Captan	Captan, Captevate
I	Carbaryl	Sevin
I	Carbofuran	Furadan
H	Carfentrasone-ethyl	Affinity, Aim, Avalanch, Aim
H	Chloramben	Amiben
I	Chlorpyrifos	Fortress
O	Chlorophacinone	Rozol
O	Chloropicrin	Chlor-o-pic, InLine, Methyl Bromide, Telone, Tri-Color, Tri-con
F	Chlorothalonil	Bravo, Chlorothalonil 4L Plus Zinc, Concorde, Daconil, Echo, Ensign, Equus, Flouronil, PathGuard, Ridomil, Tilt/Bravo
H	Chloroxuron	Tenoran
I	Chlorpyrifos	Aqua-sect, Chlorpyrifos, Govern, Lorsban, Nufos
I	Clarified hydrophobic neem oil	Triact, Trilogy
H	Clethodim	Arrow, Conclude, Prism, Select, Volunteer
H	Clomazone	Command, Strategy
H	Clopyralid	Curtail, Hornet, Stinger
I	Clove oil	GC-Mite
F	Coniothyrium minitans	Intercept
F	Copper Octanoate	NEU1140F Copper Soap
F	Copper ammonium complex	Copper-Count-N
F	Copper hydroxide	Blue Shield, Champ, Champion, Coppercide, Kocide, Mankocide, Nu-Cop, Ridomil
F	Copper oxide	Nordox
F	Copper oxychloride	C O C, C-O-C-S
F	Copper oxychloride sulfate	C-O-C-S
F	Copper resinate	Camelot, Tenn-Cop
F	Copper sulfate	Basicop, Copper Sulfate
I	Cottonseed oil	GC-Mite
I	Cryolite	Cryolite, Kryocide
H	Cyanazine	Bladex, Conquest, Cy-Pro, Extrazine
H	Cycloate	Ro-Neet
I	Cyfluthrin	Aztec, Bayer Adv Garden Powerforce, Baythroid, Renounce
F	Cymoxanil	Curzate, Tanos
I	Cypermethrin	Ammo, Battery
F	Cyprodinil	Switch
I	Cyromazine	Trigard
O	Cytokinins	Cytokin Bioregulator Concentrate, Cytoplex, Soil Trigger, X-cyto Foliar
H	DCPA	Dacthal
I	Diazinon	D- 264, Diazinon,, D-z-n Diazinon

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Class	Common Name	Trade Name
H	Dicamba	Banvel, Clarity
H	Dicamba, Dimethylamine salt	Distinct, Sterling
O	Dichoropropene	InLine, Telone
F	Dicloran	Botran, Sclerban
I	Dicofol	Dicofol, Kelthane
I	Diflubenzuron	Dimilin
H	Diflufenzopyr-sodium	Distinct
H	Dimethenamid	Frontier, Guardsman
H	Dimethenamid-P	G-Max, Guardsman, Outlook
I	Dimethoate	Cygon, Cymate, Dimate, Dimethoate
F	Dimethomorph	Acrobat
O	Diphacinone	Ramik Green
H	Diquat	Diquat
F	Disodium Tetraborate Decahyd	Prevam Ultra
H	Disodium methanearsonate	Ansar
I	Disulfoton	Di-syston
N	Diuron	Direx, Diurin, Karmax
F	Dodine	Syllit
H	EPTC	Eptam, Eradicane
I	Emamectin benzoate	Proclaim
I	Endosulfan	Endosulfan, Phaser, Thiodan, Thionex, Thirethrin
I	Esfenvalerate	Asana, Curbit, Ortho Bug-B-Gon, Sonalan, Strategy,
O	Ethephon	Ethephon, Ethrel Plant Regulator, Mocap
I	Ethyl parathion	Parathion, Parathion-Methyl Parathion
I	Etoxazole	Zeal
F	Famoxadone	Tanos
I	Fenamiphos	Nemacur
I	Fenbutatin-oxide	Vendex
F	Fenhexamid	Captevate, Decree, Elevate
I	Fenpropathrin	Danitol
H	Fluazifop-p-butyl	Fusilade
F	Fludioxnil	Switch
H	Flumetsulam	Hornet, Python
H	Fluroxypyr	Starane
H	Fomesafen	Reflex
F	Fosetyl-al	Aliette
O	Gramma aminobutyric acid	Auxigro
I	Gamma-cyhalothrin	Proaxis
O	Garlic oil	Empower, GC-Mite, Garlic, Guardian
O	Gibberellic acid	Cytoplex, PGR-IV, Pro-Gibb
H	Glyphosate iso. salt	Bronco, Buccaneer, Clear-out, Cornerstone, Credit, Engame, Eraser, Fire Power, Gly Star, Glyfos X-TRA, Glyphomax, Glyphosate, Helosate Plus, Honcho, Mirage, Ranger, Roundup, Supersate
H	Glypho.N-(phosphonometh)	Touchdown

--- continued

Class	Common Name	Trade Name
H	Halosulfuron	Permit, Sandea
O	Harpin protein	Mesaenger
O	Hexadecenal	Checkmate
O	Hexadecenyl acetate	Checkmate
I	Hexthiazox	Savey
O	Hydorgen peroxide (dioxide)	Oxidate
H	Imazamox	Raptor
H	Imazethapyr	Pursuit
I	Imidacloprid	Admire, Marathon, Provado
O	Indole-3-butyric acid	Cytoplex, PGR-IV
I	Indoxacarb	Avaunt, Steward
F	Iprodione	Iprodione, Rovral
I	Kaolin	Surround
O	L-Glutamic acid	Auxigro
H	Lactofen	Cobra, Phoenix
I	Lambda-cyhalothrin	Karate, Warrior
H	Linuron	Linex, Lorox
H	MCPA	Chiptox, MCP Amine, Rhomene, Rhonox, Weedar
H	MCPA, dimethylamine salt	MCPA Amine
H	MCPR	Thistrol
I	Malathion	Cythion, Fyfanon, Malathion
O	Maleic hydrazide	Maleic, Royal, Sprout,
F	Mancozeb	Acrobat, Curzate, Dithane, Gavel, Mancozeb, Manex II, Mankocide, Manzate, Penncozeb, Ridomil
F	Maneb	Amazin, Maneb, Manex
F	Mefenoxam	Flourish Ultra, Flouronil, Ridomil
H	Mesotrione	Callisto, Lumax
F	Metalaxyl	Ridomil
O	Metaldehyde	Deadline, Metaldehyde, Slug and Snail Bait, Sevin
O	Metan-sodium	Metam, Sectagon, Vapam
I	Methamidophos	Monitor
I	Methomyl	Lannate
I	Methoxychlor	Marlate, Methoxychlor
O	Methyl bromide	MBC-33, Methyl Bromide, Tri-con
I	Methyl parathion	Declare, Methyl Parathion, Parathion-Methyl Parathion, Penncap-M, Super Ten
H	Metolachlor	Bicep II, Drexel Trizmet II, Dual, Me-Too-Lachlor
H	Metribuzin	Lexone, Sencor
I	Mevinphos	Phosdrin
O	Monocarbamide dihyd.	Engame, Enquik
F	Mycolbutanil	Nova, Rally
I	Naled	Dibrom 8
H	Napropamide	Devrinol

--- continued

Class	Common Name	Trade Name
H	Naptalam	Alanap-L
I	Neem oil	NeemGard
H	Nicosulfuron	Accent, Basis Gold
H	Norflurazon	Solicam
H	Oryzalin	Surflan
I	Oxamyl	Vydate
I	Oxydemeton-methyl	Metasystox-R
H	Oxyfluorfen	Fire Power, Goal
H	Paraquat	Gramoxone, Starfire
H	Pebulate	Tillam
H	Pendimethalin	Pendimax, Prowl, Prozine, Pursuit
F	Pentachloronitrobenzene	Ridomil, Terraclor
I	Permethrin	Ambush, Arctic, Perm-Up, Permethrin, Pounce
I	Petroleum distillate	JMS Stylet-Oil, Oil, Saf-T-Side, Sunspray Ultra-Fine Oil, Supreme Spray
H	Phenmedipham	Spin-Aid
I	Phorate	Phorate, Thimet
I	Phosmet	Imidan
F	Phosphorous acid	Fosphite, Phostrol, Prophyt
I	Piperonyl butoxide	Butacide, Incite, PBO-8, Pyrenone, Pyrocide Pyronyl, Thirethrin
O	Potassium N-methyldithiocarb	K-Pam
F	Potassium bicarbonate	Armicarb, Kaligreen, MilStop
I	Potassium salts	Insecticidal Soap, M-Pede, Safer, Soap
H	Prometryn	Caparol, Prometryne
H	Pronamide	Kerb
F	Propamocarb hydrochloride	Previcur Flex
I	Propargite	Comite
F	Propiconazole	Bumper, Quilt, PropiMax, Tilt
I	Pymetrozine	Fulfill
F	Pyraclostrobin	Cabrio, Headline, Pristine
H	Pyrazon	Pyramin
I	Pyrethrine	Diatect, Evergreen, NEU1161, Pyganic, Pyrellin, Pyrenone, Pyrocide, Pyronyl, Rotenone, Thirethrin
H	Pyridate	Tough
F	Pyridinecarboxamide	Endura, Pristine
I	Pyriproxyfen	Knack
F	Quinoline	Quintec
H	Quizalofop-P-ethyl	Assure
H	Rimsulfuron	Basis Gold, Matrix
I	Rotenone	Pyrellin, Rotacide, Rotenone, Rotenox
H	S-Metolachlor	Bicep, Cinch, Dual Magnum, Lumax
H	Sethoxydim	BASF Poast, Manifest, Poast, Rezult G
I	Silicon dioxide	Diatect
H	Simazine	Princep Caliber, Sim-Trol, Simazine
I	Spinosad	Entrust, SpinTor, Success, Tracer
F	Streptomyces griseoviridis	Mycostop biofingicide
F	Streptomycin	Streptomycin
O	Strychnine	Strychnine

--- continued

Trade Names, Common Names, and Classes (continued)

Class	Common Name	Trade Name
H	Sulfentrazone	Spartan
F	Sulfur	Alfa, Ben-Sul, Bravo, Golden-Dew, Kolodust, Kumulus, Microsperse, Microthiol, Suffa, Sulfur, Super Six, Thiolux
F	Tebuconazole	Folicur
I	Tebufenozide	Confirm
I	Tebupirimphos	Aztec
I	Tefluthrin	Force
H	Terbacil	Sinbar
I	Terbufos	Counter
I	Thiamethoxam	Actara, Centric, Platinum
I	Tholdicarb	Larvin
F	Thiophanate-methyl	Thiophanate Methyl, Topsin
F	Thiram	Thiram
I	Toxaphene	Super Ten
I	Tralomethrin	Stryker
F	Triadimefon	Bayleton
H	Triallate	Far-Go
O	Tridecen-1YL-Acetate	Consep TPW Sprim Pheromone
F	Trifloxystrobin	Flint
F	Triflumizole	Procure
H	Trifluralin	Preen, Treflan, Tri-4, Trifluralin, Trilin, Trust
F	Triforine	Funginex
F	Vinclozolin	Ronilan, Scotts Vorlan
I	Zeta-cypermethrin	Fury, Mustang
F	Zoxamide	Gavel

D PESTICIDE APPLICATIONS D

Now I have some questions about pesticide and chemical applications to your vegetables before harvest. Please consider all applications made since the harvest of crops grown immediately before the target vegetable crops.

1. Since last year's (2003) harvest, did you use **herbicides** on any of your vegetable acreage? . . . . . ☐ YES ☐ NO
2. Since last year's (2003) harvest, did you use **insecticides, nematicides or miticides** on any of your vegetable acreage? . . . . . ☐ YES ☐ NO
3. Since last year's (2003) harvest, did you use **fungicides** on any of your vegetable acreage? . . . . . ☐ YES ☐ NO
4. Since last year's (2003) harvest, did you use any other chemicals such as growth regulators, soil fumigants, chemical thinners, microbial agents, rodenticides, etc. on any of your vegetable acreage? . . . . . ☐ YES ☐ NO
5. [**ENUMERATOR ACTION:** *Are items 1 - 4 all NO?*]

☐ **YES** - [*Go to Section* **E**, *page 14.*] ☐ **NO** -[*Go to item 6, on next page.*]

OFFICE USE LINES IN TABLE	T-TYPE 3	TABLE 001	LINE 99	399

NOTES:	LINE	1 CROP	2 CROP CODE	3 What product(s) was applied to the [*crop*]? [*Enter product code.*]	4 Was this product bought in liquid or dry form? [*Enter L or D.*]	5 [*Enter line number of first product in the tank mix.*]
	01		304	305		306
	02		304	305		306
	03		304	305		306
	04		304	305		306
	05		304	305		306
	06		304	305		306
	07		304	305		306
	08		304	305		306
	09		304	305		306
	10		304	305		306

For pesticides not listed in Respondent Booklet, specify

Line #	Pesticide Type (*Herb., Insect., Fung., etc.*)	Tradename & Formulation	Form Purchased (*Liquid or Dry*)	EPA Number
_____	_____	_____	_____	_____

6. Now I need to get complete information on all of the chemicals applied, including applications made by you and/or custom applicators during the 2004 crop year to each of the target vegetables you grew. Let's start with the first application to your [*crop*] since the 2004 crop year harvest.

[Complete the tables for all chemical applications to the target vegetables. Use supplemental tables if necessary. Exclude seed treatments, foliar applications of nutrients, and applications made to vegetables after harvest.]

CODES FOR COLUMN 8

1 POUNDS	30 GRAMS
12 GALLONS	40 KILOGRAMS
13 QUARTS	41 LITERS
14 PINTS	46 SPIRALS
15 OUNCES, LIQUID	47 PACKETS
28 OUNCES, DRY	50 OTHER (*Specify* _____)

CLASS	ABBREV.	CODE SERIES
INSECTICIDES	I	1000's
HERBICIDES	H	4000's
FUNGICIDES	F	7000's
OTHER	M, MG, MS	9000's

LINE	6 OR 7		8	9	10
	How much was applied per acre per application?	What was the total amount applied per application?	[*Enter unit code from above.*]	How many acres were treated with this product? (*include only bearing acres.*) ACRES	How many times was it applied? NUMBER
01	308 . ___	309 . ___	310	312 . ___	313
02	308 . ___	309 . ___	310	312 . ___	313
03	308 . ___	309 . ___	310	312 . ___	313
04	308 . ___	309 . ___	310	312 . ___	313
05	308 . ___	309 . ___	310	312 . ___	313
06	308 . ___	309 . ___	310	312 . ___	313
07	308 . ___	309 . ___	310	312 . ___	313
08	308 . ___	309 . ___	310	312 . ___	313
09	308 . ___	309 . ___	310	312 . ___	313
10	308 . ___	309 . ___	310	312 . ___	313

For pesticides not listed in Respondent Booklet, specify

Line #	Pesticide Type (*Herb., Insect., Fung., etc.*)	Tradename & Formulation	Form Purchased (*Liquid or Dry*)	EPA Number
_____	_____	_____	_____	_____

E PEST MANAGEMENT PRACTICES E

T-TYPE	TABLE	LINE
0	000	00

Now I have some questions about your pest management decisions and practices used on any of the TOTAL VEGETABLE ACRES on this operation (including both target and non-target vegetable crops).
By pests, we mean WEEDS, INSECTS and DISEASES.

1. **[Enumerator Action: *Were* PESTICIDE APPLICATIONS *reported in Section* D?]**

   ☐ **YES -** [*Continue.*] ☐ **NO -** [*Go to item 5.*]

		CODE
2. Was weather data used to assist in determining either the need for or when to make pesticide applications? . . . . . **YES = 1**		600
3. Were any biological pesticides such as Bt (*Bacillus thuringiensis*), insect growth regulators, (*Courier, Intrepid, etc.),* neem or other natural/biological based products sprayed or applied to manage pests? . . . . . **YES = 1**		601
4. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides? . . . . . **YES = 1**		602
5. In 2004, how were your vegetable acres primarily scouted for insects, weeds, diseases and/or beneficial organisms–	1 By deliberately going to the field specifically for scouting activities? (*Enter code 1 and go to item 6.*) 2 By conducting general observations while performing routine tasks? (*Enter code 2 and go to item 8.*) 3 This field was not scouted. (*Enter code 3 and go to item 11.*)	603
6. Was an established scouting process used (*systematic sampling, recording counts, etc.*) or were insect traps used on any vegetable acres? . . . . . **YES = 1**		604
7. Was scouting for pests done on these vegetable acres due to--		
a. a pest advisory warning? . . . . . **YES = 1**		605
b. a pest development model? . . . . . **YES = 1**		606

8. Were your vegetable acres scouted for--	1 YES = 1	2 [*If column 1* = **YES**, *ask--*] **Who did the majority of the scouting for** [*column 1*]-- (1 Operator, partner or family member; 2 An employee; 3 Farm supply or chemical dealer; 4 Independent crop consultant or commercial scout) CODE
a. weeds?	607	608
b. insects ?	609	610
c. diseases?	611	612

E PEST MANAGEMENT PRACTICES E

		CODE
9. Were written or electronic records kept to track the activity or numbers of weeds, insects or diseases?	YES = 1	613
10. Was scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests?	YES = 1	614
11. Was field mapping data used for making weed management decisions?	YES = 1	615
12. Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis?	YES = 1	616
13. Were crop residues plowed down or removed to manage pests?	YES = 1	617
14. Were crops rotated during the past 3 years for the purpose of managing pests?	YES = 1	618
15. Were ground covers, mulches, or other physical barriers maintained to manage pest problems?	YES = 1	619
16. Was a crop variety chosen because it had resistance to a specific pest?	YES = 1	620
17. Was no-till or minimum till used to manage pests?	YES = 1	621
18. Were planting locations planned to avoid infestation of pests?	YES = 1	622
19. Were planting or harvesting dates adjusted to manage pests?	YES = 1	623
20. Were row spacing or plant density adjusted to manage pests?	YES = 1	624
21. Was a trap crop grown to help manage insects?	YES = 1	625
22. Were any beneficial organisms (insects, nematodes, fungi) applied or released to manage pests?	YES = 1	626
23. Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used?	YES = 1	627
24. Were any vegetable acres cultivated for weed control during the growing season?	YES = 1	628
25. Were field edges, lanes, ditches, roadways or fence lines chopped, mowed, plowed, or burned to manage pests?	YES = 1	629

E PEST MANAGEMENT PRACTICES E

CODE

26. Were equipment and implements cleaned after completing field work to reduce the spread of pests? . . . . . YES = 1 [630]

27. Were any vegetable acres irrigated for the 2004 crop? . . . . . YES = 1 [631]

[*If item 27 = YES, ask–*]

a. Were water management practices (excluding chemigation) such as Irrigation scheduling, controlled drainage, or treatment of retention water used to manage pests? . . . . . YES = 1 [632]

PEST MANAGEMENT INFORMATION

28. [*Show Pest Management Information Sources Code List from Respondent Booklet.*]

Which outside sources of information on pest management practices and products were used for the 2004 vegetable crop?

(*Starting with the most influential in determining the pest management practices used on this operation, choose up to 3 sources, and enter code*(s).)

PEST MANAGEMENT INFORMATION SOURCES CODE LIST

1	County, Cooperative, or University Extension Advisor, Publications or Demonstrations
2	Farm Supply or Chemical Dealer
3	Commercial Scouting Service
4	Independent Crop Consultant or Pest Control Advisor/Custom Applicator
5	Other Growers or Producers
6	Producer Associations, Newsletters or Trade Magazines
7	Electronic Information Services (*DTN, Internet, World Wide Web, etc.*)
8	Employee Pest Advisor
9	Other - (*Specify:* _____)
10	None - *Operator used no* ***outside*** *information source*

[*Enter up to 3 source codes.*]

FIRST [633]

SECOND [634]

THIRD [635]

CODE

29. **Other than pesticide applicator training, have you** (*the operator*) **attended any training session on pest identification and management since October 1, 2003?** . . . . . YES = 1 [636]

Completion Code for Pest Management Practices	
1 - Incomplete/Refusal	400

Completion Code for Pesticide Table	
1 - Incomplete/Refusal 3 - Valid Zero	300

Index

-C (cont)-

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Report Features

Released July 27, 2005 by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Agricultural Chemical Usage" call (202) 720-6146, office hours 7:30 a.m. to 4:00 p.m. ET.

The next "Agricultural Chemical Usage" report will be released October 1, 2005. This report will cover agricultural chemical use of restricted use pesticides for the 2004 crop year for field crops, vegetables and postharvest applications for corn and soybeans in major states.

The next “Agricultural Chemical Usage” report for fruit crops will be released in July 2006. This report will cover agricultural chemical use for the 2005 crop year for major states.

Listed below are persons within the National Agricultural Statistics Service to contact for additional information.

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