United States
Department of
Agriculture

National
Agricultural
Statistics
Service

Ag Ch 1 (03) b

Agricultural Chemical Usage
2002 Vegetables Summary

July 2003

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2002 Agricultural Chemical Use Estimates for Vegetable Crops

Overview: This report, which summarizes the use of agricultural chemicals on vegetables in 2002, is issued by the National Agricultural Statistics Service **(NASS)** as part of its series on Agricultural Chemical Usage. Other publications in the series present statistics for on-farm agricultural chemical usage for field crops, fruits, livestock, floriculture and nursery, plus postharvest applications.

Information in this report is provided from a survey funded through the USDA Pesticide Data Program. The purpose of the Pesticide Data Program is to provide reliable pesticide use statistics and 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.

NASS collects on-farm agricultural chemical use information to support the evaluation of food safety and water quality issues. The Economic Research Service (ERS) conducts research on the impact of alternative pesticide regulations, policies, and practices. The Agricultural Marketing Service (AMS) conducts a pesticide residue monitoring program.

This report includes farm use of 2002 crop year pesticides for selected vegetable crops in 18 major producing States. Arizona, California, Florida, Georgia, Illinois, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Washington, and Wisconsin.

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.

The following table shows survey coverage for 2000 and 2002 by crop. Chemical use information for vegetables is collected in even numbered years while fruit data are collected in odd numbered years. In the table are statistics on the number of program States, the number of reports summarized, and the percent of the U. S. crop acres accounted for in the program States.

AGRICULTURAL CHEMICAL USE SURVEY COVERAGE

Crop	2002			2000		
	States Surveyed	Reports Summarized	U.S. Acreage Included	States Surveyed	Reports Summarized	U.S. Acreage Included
	Number		Percent	Number		Percent
Asparagus	3	275	100	4	278	99
Beans, Snap, Fresh	5	427	77	8	684	91
Beans, Snap, Proc.	5	277	18	6	368	74
Broccoli	1	124	91	2	139	100
Cabbage, Fresh	9	655	85	9	639	85
Carrots, Fresh	3	125	86	5	192	N/A
Carrots, Proc.	4	49	46	5	62	87
Cauliflower	1	80	87	3	146	100
Celery	1	50	92	2	78	99
Corn, Sweet, Fresh	9	1,142	66	12	1,377	75
Corn, Sweet, Proc.	5	474	22	7	535	88
Cucumbers, Fresh	5	410	71	7	633	84
Cucumbers, Pickles	7	299	29	8	355	N/A
Garlic	1	61	83	1	56	100
Lettuce, Head	2	100	98	3	157	99
Lettuce, Other	2	128	100	3	137	N/A
Melons, Cantaloupe	4	291	85	5	357	90
Melons, Honeydew	2	49	93	3	70	100
Melons, Watermelon	7	713	76	8	835	79
Onions, Dry Bulb	6	492	75	9	633	81
Peas, Green, Proc.	5	419	22	5	444	85
Peppers, Bell	4	333	84	6	527	87
Pumpkins	4	581	68	6	767	100
Spinach, Fresh	3	101	85	3	140	72
Squash	6	755	80	12	1,300	100
Strawberries	3	263	80	10	894	97
Tomatoes, Fresh	5	472	76	14	1,644	92
Tomatoes, Proc.	1	105	32	3	114	95

Highlights

Asparagus: Nitrogen was applied to 72 percent of the asparagus acreage for the 2002 crop year in the 3 States surveyed: California, Michigan, and Washington. Herbicides were applied to 68 percent of the 3 program States' planted acreage, with the greatest coverage in Michigan at 98 percent. Diuron was applied to 48 percent of the crop, followed by metribuzin and glyphosate with 33 and 32 percent, respectively. Insecticides were applied to 76 percent of the asparagus planted acres. Disulfoton was the most widely used insecticide, at 46 percent. Michigan applied insecticides to the largest percentage of the crop, 91 percent. Overall, fungicides were used on 32 percent of the acreage. Michigan applied fungicides to 80 percent of the asparagus planted acreage.

Beans, Snap: Nitrogen and phosphate were applied to 100 percent and potash to 99 percent of the snap beans acreage planted for the fresh market in the program States surveyed: Florida, Georgia, New York, North Carolina, and Tennesse.

Herbicides were applied to 58 percent of the fresh market snap beans planted acreage while 84 percent of the acreage received insecticide treatments. Fungicides were applied to 80 percent of the acreage. Major herbicides used included S-metolachlor, applied to 36 percent of the acreage, followed by trifluralin, applied to 19 percent. Acephate and esfenvalerate were the leading insecticides used, covering 24 and 20 percent of the acreage, respectively. They were followed closely by Methomyl being applied to 18 percent of the planted acreage, and Endosulfan to 16 percent. Chlorothalonil was the most widely used fungicide and was put on 55 percent of the acreage. Sulfur was the next most utilized being applied to 27 percent of the acreage. Florida growers applied fungicides to 96 percent of the fresh market snap bean acreage.

Nitrogen, phosphate, and potash were applied to 94, 91, and 87 percent, respectively, of the reported snap beans planted for processing acres in the 5 program States: Illinois, Michigan, New York, Oregon, and Wisconsin.

Pesticide use on processing snap bean acreage included 89 percent of the acres treated with herbicides; 73 percent received insecticides; and 38 percent received fungicides. The major herbicides were EPTC, applied to 57 percent of the acres, and trifluralin used on 54 percent of the acreage. Insecticides applied included bifenthrin on 44 percent of the acreage, followed by acephate and dimethoate at 24 and 17 percent, respectively. Vinclozolin and Benomyl were the leading fungicides, applied to 14 and 13 percent of the planted acreage, respectively.

Broccoli: California reported treating 96 percent of the planted broccoli acres with nitrogen, 57 percent with phosphate, and 43 percent with potash.

Herbicides were applied to 65 percent of the broccoli acreage in California. Insecticides were applied to 96 percent of the acreage whereas fungicides were applied to 14 percent of the acres. The leading herbicide reported is DCPA, which was applied to 33 percent of the acres. A wide variety of insecticides were used. The most commonly used included oxydemeton-methyl on 68 percent, dimethoate on 44 percent of the acreage, chorpyrifos on 43 percent. Indoxacarb, spinosad and imidacloprid were each used on 39, 38, and 33 percent of the broccoli acreage, respectively. There was little use of fungicides on the surveyed acreage with no single active ingredient covering 10 percent of the acres. Mefenoxam and maneb were each utilized on 6 and 5 percent of the planted broccoli acreage, respectively.

Cabbage: In the 9 States surveyed: California, Florida, Georgia, New York, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin, nitrogen was applied to 91 percent of the planted cabbage acres. Phosphate and potash were applied to 82 and 81 percent, respectively.

Herbicides were applied to 53 percent of the fresh market cabbage acres. The most commonly used herbicide was trifluralin at 29 percent, followed by s-metolachlor which was applied to 20 percent of the acreage. Insecticides were applied to 87 percent of the planted cabbage acres. The most commonly used insecticides included Bacillus thuringiensis on 52 percent of the acreage; spinosad on 38 percent; and lambda-cyhalothrin on 26 percent. Fungicides were applied on 51 percent of the acreage. Chlorothalonil was most commonly used with 33 percent of the acres being treated, followed by maneb with 17 percent.

Carrots: Nitrogen was applied to 100 percent of the carrot acreage planted for the fresh market in the 3 program States: California, Michigan, and Texas. Phosphate and potash were applied to 80 and 63 percent, respectively.

Seventy-nine percent of the carrot acreage for fresh market production utilized herbicides. The two herbicides used most were linuron on 65 percent of the acreage and trifluralin on 41 percent. Insecticides were reported on 24 percent of the acreage. The two most utilized were diazinon and esfenvalerate applied to 17 and 7 percent of the acres, respectively. Fungicides were used on 62 percent of the acreage. Chlorothalonil was the most utilized, covering 14 percent of the acreage.

Carrots acreage planted for processing was surveyed in 4 program States: California, Texas, Washington, and Wisconsin. Nitrogen was applied to 71 percent of the planted acres. Phosphate was applied to 62 and potash to 57 percent.

Herbicides were also widely utilized on carrots for processing acreage. Applications were reported on 90 percent of the surveyed acreage. Linuron was the predominant choice covering 86 percent of the acreage, followed by fluazifop-P-butyl on 55 percent, and trifluralin on 39 percent. Insecticides were applied to 64 percent of the planted acres. Esfenvalerate was used most, being applied to 40 percent of the acres. Fungicides were applied to 77 percent of the acreage. Chlorothalonil was the most utilized covering 64 percent of the acreage, followed by mefenoxam on 19 percent, and sulfur on 16 percent. Other chemicals such as dichloropropene and metam-sodium were also used on 29 and 22 percent of the acres, respectively.

Cauliflower: For the 2002 crop year, California accounted for 87 percent of all the U.S. planted acres in cauliflower. Nitrogen was applied to 98 percent of those acres. Phosphate and potash were applied to 77 and 66 percent, respectively.

Cauliflower (cont): Herbicides were applied to 34 percent of the cauliflower acreage. The most widely used were oxyfluorfen on 18 percent of the acres and DCPA on 11 percent. Insecticides were used on 96 percent of the surveyed acreage. A wide array of insecticides was utilized including indoxacarb on 41 percent of the acreage; oxydemeton-methyl on 38 percent; lambda-cyhalothrin on 29 percent; spinosad on 28 percent; and emamectin benzoate with 27 percent of the acres covered. Dimethoate and chlorpyrifos were both applied to 25 percent of the acres; and imidacloprid to 22 percent. Fungicides were least used being applied to only 7 percent of the acreage. Chlorothalonil and mefenoxam were each applied to 5 percent of the acres.

Celery: For the 2002 crop year, California accounted for 92 percent of all the U.S. planted acres in celery. Nitrogen was applied to 72 percent of those acres. Phosphate and potash were applied to 56 and 58 percent, respectively.

Herbicides were applied to 38 percent of the celery planted acreage. Prometryn was predominantly used being applied to 29 percent of the acreage, followed by linuron on 10 percent. Insecticides were widely used, being applied to 67 percent of the acreage. The most utilized were: permethrin on 40 percent of the acres, spinosad on 37 percent, oxamyl on 24 percent, acephate on 22 percent and abamectin and malathion, both on 20 percent of the acres. Fungicides were also applied to 49 percent of the acreage. Chlorothalonil was most common, being applied to 31 percent of the acreage, followed by copper hydroxide on 24 percent, and dicloran on 23 percent .

Corn, Sweet: Nitrogen was applied to 99 percent of the planted fresh sweet corn acres in the program States: California, Florida, Georgia, Michigan, New Jersey, New York, North Carolina, Ohio, and Wisconsin. Phosphate was applied to 96 percent and potash to 90 percent of the planted acres.

Herbicides were applied to 80 percent of the fresh market sweet corn acreage. Atrazine was used on 56 percent of the acres, followed by s-metolachlor on 36 percent, and pendimethalin on 13 percent. Insecticides were widely used, being applied to 90 percent of the surveyed acreage. The most commonly applied included: methomyl on 63 percent, lambda-cyhalothrin on 60 percent of the acres, thiodicarb on 26 percent, and chlorpyrifos on 20 percent of the planted acres. Fungicides were used on 28 percent of the acreage. Mancozeb was used on 15 percent of the acreage and propiconazole was used on 13 percent of the planted acreage.

Also, there were 5 program States: Minnesota, New York, Oregon, Washington, and Wisconsin surveyed for fertilizer and pesticides applications to the processing sweet corn acreage . Producers applied nitrogen to 93 percent, phosphate to 81 percent, and potash to 75 percent of the planted acres.

A slightly higher percentage of herbicides were used on processing sweet corn acres. Herbicides were used on 84 percent of the surveyed acres with Oregon, Wisconsin, and New York reporting 98, 95, and 93 percent coverage, respectively. Atrazine was applied to 65 percent of the acreage, s-metolachlor on 27 percent, and dimethenamid-P on 24 percent. Approximately 82 percent of the acreage was treated with insecticides. The three insecticides predominantly used were lambda-cyhalothrin on 51percent, zeta-cypermethrin on 16 percent, and bifenthrin on 12 percent of the acres. Fungicides were only reported used on 6 percent of the Program States acreage. Propiconazole and azoxystrobin were the primary fungicides utilized.

Highlights (cont)

Cucumbers: The 5 program States: California, Florida, Georgia, Michigan, and North Carolina applied nitrogen to 92 percent of the planted acres. Phosphate was applied to 88 percent and potash to 91 percent of the planted fresh market cucumber acreage.

Herbicides were applied to 50 percent of the acres. Paraquat was the herbicide predominantly used, being applied to 29 percent of the acreage. Insecticides were more widely used, being applied to 87 percent of the acreage. Endosulfan was used on 35 percent of the acreage, and esfenvalerate was used on 23 percent. Fungicides were applied to 85 percent of the planted acreage. Florida, Georgia and Michigan utilized fungicides most with each treating over 90 percent of their acreage. Chlorothalonil was predominantly used, being applied to 71 percent of the acreage. Azoxystrobin, maneb, copper hydroxide, and mancozeb were applied to 28, 27, 17, and 16 percent of the acreage, respectively.

Nitrogen was applied to 99 percent of the processing cucumber acreage in Program States: Florida, Michigan, North Carolina, Ohio, South Carolina, Texas, and Wisconsin. Phosphate was applied to 80 percent and potash to 95 percent of the cucumbers for pickles acreage.

Herbicides were applied to 89 percent of the crop with Florida, Michigan, North Carolina, and Texas each applying herbicides to over 90 percent of the crop. The leading herbicides used were ethalfluralin on 46 percent of the acres, clomazone on 29 percent, and glyphosate on 20 percent. Insecticides were applied to 36 percent of the acreage. Florida used insecticides on all of the cucumbers for pickles acreage. Esfenvalerate was most utilized as it was applied to 10 percent of the Program States' planted acreage. Fungicides were applied to 30 percent of the acreage. Chlorothalonil was used most covering 16 percent of the acreage.

Garlic: California's garlic growers applied nitrogen to 99 percent of the planted acres. They also applied phosphate to 76 percent and potash to 4 percent.

Herbicides were used on 79 percent of the acreage. Oxyfluorfen, at 52 percent applied, was the most widely used herbicide, followed by pendimethalin and bromoxynil, which were applied to 48 and 19 percent, respectively. There were not enough reports to publish any active ingredient data for insecticides. Fungicides were applied to 42 percent of the acreage, with azoxystrobin being the only fungicide active ingredient with sufficient reports to publish.

Lettuce, Head: Nitrogen was applied to an average of 64 percent of the planted acres for the two program States: California and Arizona. Phosphate was applied to 42 percent and potash to 37 percent of the planted acreage.

Herbicides were applied to 68 percent of the head lettuce acreage. Pronamide was applied to 43 percent of the acreage whereas benefin and bensulide were applied to 20 and 19 percent, respectively. Insecticides were more widely used, being applied to 95 percent of the planted acreage. A very wide range of insecticides were used including: spinosad on 71 percent of the planted acres, permethrin on 68 percent, acephate on 55 percent, diazinon on 52 percent, and imidachloprid on 51 percent of the acreage. Fungicides were applied to 74 percent of the acreage. Maneb was predominantly used, being applied to 66 percent of the acres followed by iprodione and fosetyl-al applied to 22 and 12 percent, respectively.

Lettuce, Other: California and Arizona growers applied nitrogen to 70 percent of the planted acres. Phosphate and potash were applied to slightly over half of the planted acres.

Herbicides were applied to 59 percent of the other lettuce acreage surveyed from the two States. Pronamide was applied to 51 percent of the acreage followed by benefin on 10 percent, and bensulide on 9 percent. Insecticides were applied to 89 percent of the acreage. There was a wide array of insecticides used including: permethrin on 69 percent, imidacloprid on 63 percent, diazinon on 59 percent, spinosad on 46 percent, and methomyl on 35 percent of the acres. Fungicides were applied to 70 percent of the acreage. Maneb was the leading fungicide as it was applied to 61 percent of the acreage.

Melons, Cantaloupe: Nitrogen was applied to 89 percent of the planted acres in the 4 program States: Arizona, California, Pennsylvania, and Texas. Phosphate was applied to 66 percent, and potash to 36 percent of the acres.

Herbicides were used on 29 percent of the planted acreage for cantaloupes. Trifluralin and bensulide were the most common herbicides used on 13 percent and 11 percent of the acreage, respectively. Insecticides were applied to 54 percent of the cantaloupe acres planted, with imidacloprid being the most used treating 20 percent. Diazinon was applied to 16 percent and carbaryl and spinosad were both applied to 11 percent of the acres . Thirty-one percent of the acreage received fungicide treatment. Sulfur (9 percent) and Metalaxyl (8 percent) were the most common fungicides used. Other chemicals were applied to 20 percent of the total cantaloupe acres.

Melons, Honeydew: Data were collected from 2 States for honeydew melons: Arizona and California. Nitrogen was applied to 85 percent of the planted acres. Phosphate and potash were applied to 41 and 54 percent, respectively.

There were not enough reports to publish herbicide treatments at the program State level, but 66 percent of the planted acres were treated with insecticides. Fungicides were applied to 34 percent of the acreage.

Melons, Watermelon: In the 7 program States: Arizona, California, Florida, Georgia, North Carolina, South Carolina, and Texas, nitrogen was applied to 94 percent of the planted watermelon acres. Phosphate was applied to 80 percent and potash to 83 percent.

Herbicides were applied to 47 percent of the planted acreage, while 57 percent of the acreage was treated with insecticides. Fungicides were applied to 78 percent of the planted acreage and 13 percent of the acreage was treated with other chemicals. Ethalfluralin and trifluralin were both used on 15 percent of the acreage, and were the most widely used herbicides. The insecticide endosulfan was applied to 17 percent of the acreage, followed by esfenvalerate on 15 percent and Bacillus thuringiensis on 13 percent of the acreage. Over half (51 percent) of the planted acres were treated with the fungicide chlorothalonil. Other major fungicides applied to planted acres included mancozeb (43 percent), azoxystrobin (25 percent), and copper hydroxide (17 percent).

Onions, Dry Bulb: Growers in 6 program States (California, Georgia, New York, Oregon, Texas, and Washington) applied nitrogen to 96 percent of the planted acres. Phosphate was applied to 89 percent, and potash to 73 percent.

Ninety percent of the dry onion acreage received at least some herbicide application. Oxyfluorfen was the most widely used herbicide, being applied to 76 percent of the dry onion acreage. Pendimethalin and bromoxynil were applied to 52 and 49 percent of the acres, respectively. Insecticides were applied to 78 percent of the dry onion acreage. The range of insecticide treatments was from 47 percent of the Georgia onion acres to 99 percent in Oregon. Lambda-cyhalothrin and chlorpyrifos were the predominant insecticides used, at 49 and 31 percent, respectively. Fungicides were applied to 87 percent of the acres planted. Mancozeb was used on 49 percent of the acreage planted and chlorothalonil was used on 40 percent.

Peas, Green, Processing: Nitrogen was applied to 77 percent of the planted green peas for processing acres in the 5 program States (Minnesota, New York, Oregon, Washington, and Wisconsin). Phosphate was applied to 52 percent and potash to 63 percent of the planted acreage.

Peas, Green, Processing (continued): Herbicides were applied to 85 percent of the planted acreage of processing green peas. Across the 5 program States, the application percentages ranged from 74 percent in Minnesota to 99 percent in Oregon. Pendimethalin received the most coverage, on 40 percent of the crop. Imazethapyr, at 32 percent coverage, and bentazon, at 27 percent, were the next two most used herbicides. Insecticides were applied to 54 percent of the acreage. Zeta-cypermethrin was applied to 27 percent, and dimethoate was applied to 17 percent of the processing green pea acreage.

Peppers, Bell: Growers in 4 program States: California, Florida, North Carolina, and Ohio applied nitrogen to 81 percent of the planted acres. Phosphate was applied to 74 percent, and potash to 69 percent.

Herbicide treatments ranged from 23 percent of the planted acreage in California to 87 percent in Ohio. Eighty-four percent of the acreage was treated with insecticides. Fungicides were applied to 61 percent of the acreage, and 54 percent of the planted acreage was treated with other chemicals. The major herbicide used was trifluralin, applied to 12 percent of the acreage. Major insecticides applied included spinosad, applied to 49 percent, Bacillus thuringiensis, applied to 34 percent, oxamyl at 30 percent, and methomyl, used on 26 percent of the acreage. Forty-eight percent of the pepper acreage received a fungicide treatment of copper hydroxide. Maneb was applied to 39 percent of the acreage. In Florida, fungicides were applied to 100 percent of the pepper acreage.

Pumpkins: Growers in California, Illinois, Michigan, and New York applied nitrogen, phosphate, and potash to 94, 77, and 84 percent of the planted acres, respectively.

Pumpkins (cont): Herbicides were applied to 63 percent of the pumpkin acreage in the 4 program States. Clomazone was the most commonly used herbicide, at 53 percent, followed by ethalfluralin, at 14 percent of the acreage**.** Sixty-one percent of the acreage received insecticide treatments, with bifenthrin, carbaryl, and permethrin the most widely used at 17, 15, and 10 percent of the acres, respectively. Fungicides were used on 50 percent of the acreage. Chlorothalonil was applied to 31 percent of the acres, myclobutanil on 22 percent, and azoxystrobin on 16 percent of the acreage.

Spinach: Collectively, Arizona, California, and Texas growers reported that nitrogen was applied to 61 percent of the planted acres. Phosphate and potash were reported on 44 and 36 percent of the planted acres, respectively.

Herbicides were used on 28 percent of the spinach planted for fresh market. Cycloate was the major herbicide, being used on 20 percent of the acreage. Fifty-two percent of the total acreage was treated with an insecticide. Permethrin and spinosad were both used on 34 percent of the acreage to treat for insects, followed by diazinon at 19 percent. Fungicides were used on 37 percent of the fresh market spinach acres. Mefenoxam and azoxystrobin were the major fungicides used, with percents treated at 25 and 11, respectively.

Squash: Six States: California, Florida, Georgia, Michigan, New Jersey, and North Carolina were surveyed for chemical usage on squash. Nitrogen was applied to 96 percent of the planted acres. Phosphate was used on 84 percent, and potash on 88 percent.

Herbicides were used on 39 percent of the planted acreage in these program States. Ethalfluralin was used on 16 percent of the acres. Insecticides were used on 76 percent of the acreage, with endosulfan the most commonly used at 34 percent. Other insecticides applied included: esfenvalerate (11 percent), carbaryl, Bacillus thuringiensis and imidacloprid (each at 10 percent). Fungicides were used on 63 percent of the acreage. Chlorothalonil, at 42 percent of the acres, was the most widely used. Other fungicides included: copper hydroxide, sulfur, mancozeb, and azoxystrobin at 17, 16, 10, and 9 percent of the acreage, respectively.

Strawberries: Nitrogen was applied to 95 percent of the planted acres in the 3 program States: California, Florida, and Oregon. Phosphate was used on 85 percent, and potash on 90 percent of the planted acres.

Herbicides were used to treat 35 percent of the strawberry acres. Paraquat was used to treat 15 percent of the acreage, followed by napropamide at 10 percent. Insecticides and fungicides were more common forms of pesticides applied to strawberries. Eighty-five percent of the planted acreage was treated to control insects; Bacillus thuringiensis was used on 46 percent, methomyl on 42 percent, and abamectin on 41 percent of the planted acres. Fungicides were used on 86 percent of the strawberry acreage, with Florida applying fungicides to 100 percent of its acres. Captan was the most common fungicide, being used on 75 percent of the acres. Other common fungicides were: sulfur, fenhexamid, thiram, and azoxystrobin. For the other chemicals class, 68 percent of all strawberry acres were treated. Sixty-four and 58 percent of the acreage were treated with chloropicrin and methyl bromide, respectively.

Tomatoes: Nitrogen was applied to 96 percent of the planted acres in the 5 program States: California, Florida, Georgia, Ohio, and Tennesee. Phosphate was used on 91 percent and potash on 88 percent of the planted acres.

Herbicides were applied to 58 percent of the fresh market tomato acreage. Metribuzin was applied to 38 percent of the acreage and paraquat was applied to 16 percent. Insecticides were applied to 85 percent of the acreage with Bacillus thuringiensis used the most, on 47 percent. Spinosad, esfenvalerate, and endosulfan were the next most common insecticides, being used to treat 38, 33, and 31 percent, respectively. Fungicides were applied to 86 percent of the acreage; Copper hydroxide was the most common fungicide, being applied to 61 percent of the total acres. Mancozeb and chlorothalonil usage followed at 59 and 57 percent, respectively. For the other chemical class, slightly over half (52 percent) of the total acres were treated. Chloropicrin (48 percent) and methyl bromide (44 percent) were used most often.

California was also surveyed for chemicals used on processing tomatoes. Growers there applied nitrogen to 94 percent, phosphate to 83 percent, and potash to 47 percent of the acres planted.

Sixty-seven percent of the acreage received herbicide treatment. Trifluralin and rimsulfuron were the leading herbicides at 46 percent and 27 percent of the acres, respectively. Insecticides were applied to 60 percent of the acres. Lambda-cyhalothrin was applied to 16 percent of the acres, while Bacillus thuringiensis and dimethoate were used on 15 and 14 percent, respectively. Fungicide usage was reported on 68 percent of the acres. Sulfur (51 percent), chlorothalonil (21 percent), and mefenoxam (10 percent) were the major fungicides used. Twenty-nine percent of the acres were treated with other chemicals, and metam-sodium was the leader at 16 percent coverage.

Asparagus : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	36,500	60	2,257	26	999	12	303
MI	16,000	98	1,285	35	148	83	1,877
WA	18,000	71	1,486	33	238	31	370
Total	70,500	72	5,028	30	1,385	33	2,550

Asparagus: Fertilizer Primary Nutrient Applications,
Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	36,500					
Nitrogen		60	1.7	60	102	2,257
Phosphate		26	1.2	86	105	999
Potash		12	1.0	70	70	303
Michigan	16,000					
Nitrogen		98	2.5	32	82	1,285
Phosphate		35	2.3	11	26	148
Potash		83	2.3	59	141	1,877
Washington	18,000					
Nitrogen		71	1.4	82	116	1,486
Phosphate		33	1.1	37	41	238
Potash		31	1.0	63	66	370
Total	70,500					
Nitrogen		72	1.8	53	99	5,028
Phosphate		30	1.4	44	66	1,385
Potash		33	1.7	61	109	2,550

Asparagus: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	MI	WA
Herbicides				
2,4-D	*		P	*
2,4-D, Dimeth. salt	*		*	*
Bromacil	*			*
Clopyralid	*			*
Dicamba	P	*	*	*
Dicamba, Sodium Salt	*			*
Diuron	P	P	P	P
Ethalfluralin	*		*	
Fluazifop-P-butyl	*	*	*	
Glyphosate	P	P	P	P
Halosulfuron	P	*	*	*
Linuron	P	P	P	P
Metribuzin	P	*	P	P
Napropamide	*	*		
Norflurazon	P	*	*	*
Paraquat	P	*	P	P
Picloram	*			*
Quizalofop-ethyl	*	*		
S-Metolachlor	*		*	
Sethoxydim	*	*		
Simazine	P		*	*
Sulfosate	*			*
Terbacil	P		*	
Trifluralin	P	P		P
Insecticides				
Bt (Bacillus thur.)	*	*		
Carbaryl	P		P	P
Chlorpyrifos	P	P	P	*
Diazinon	*			*
Dimethoate	P			*
Disulfoton	P	P		P
Esfenvalerate	*		*	
Malathion	P		*	*
Methomyl	*	*	*	
Permethrin	P	*	P	*
Phosphamidon	*			*
Pyrethrins	*	*		
Rotenone	*	*		

See footnote(s) at end of table.

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Asparagus: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	MI	WA
Fungicides				
Chlorothalonil	P		P	
Mancozeb	*	*	P	P
Mefenoxam	*	*		
Metiram	*		*	
Myclobutanil	*	*		
Sulfur	P	*	*	
Tebuconazole	P		*	
Other Chemicals				
Dichloropropene	*	*		
Monocarbamide dihyd.	*			*

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	36,500	42	36.7	68	38.7	9	14.0		
MI	16,000	98	68.1	91	38.6	80	63.7		
WA [2]	18,000	94	48.4	78	27.4	37	14.6		
Total [2]	70,500	68	153.4	76	104.7	32	92.3		

[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.

Asparagus : Agricultural Chemical Applications, Program States, 2002 [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					
Dicamba	4	1.2	0.31	0.38	1.0
Diuron	48	1.5	1.36	2.09	70.7
Glyphosate	32	1.3	0.74	1.01	22.7
Halosulfuron	*	1.0	0.04	0.04	([2])
Linuron	8	1.3	0.77	1.01	5.7
Metribuzin	33	1.5	0.58	0.89	20.8
Norflurazon	3	1.0	0.85	0.88	1.8
Paraquat	12	1.1	0.55	0.64	5.6
Simazine	1	1.0	1.76	1.76	1.3
Terbacil	*	1.2	0.43	0.52	0.3
Trifluralin	18	1.0	1.13	1.19	14.9
Insecticides					
Carbaryl	28	2.6	0.71	1.88	37.2
Chlorpyrifos	21	1.2	0.93	1.15	17.1
Dimethoate	2	1.0	0.50	0.54	0.7
Disulfoton	46	1.3	0.99	1.32	43.3
Malathion	3	1.0	0.99	1.04	2.2
Permethrin	19	2.0	0.09	0.18	2.4
Fungicides					
Chlorothalonil	15	2.9	1.41	4.08	43.2
Sulfur	2	2.1	6.88	14.54	19.3
Tebuconazole	4	1.8	0.09	0.17	0.4

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 3 program states were 70,500 acres. States included are CA, MI and WA.

[2] Total applied is less than 50 lbs.

Asparagus : Agricultural Chemical Applications, California, 2002 [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	19	1.2	1.87	2.32	16.5
Glyphosate	19	1.1	0.83	0.94	6.4
Linuron	8	1.3	0.84	1.09	3.2
Trifluralin	7	1.1	1.40	1.55	3.8
Insecticides					
Chlorpyrifos	16	1.5	1.00	1.51	8.9
Disulfoton	58	1.3	0.98	1.32	27.7

[1] Planted acres in 2002 for California were 36,500 acres.

Asparagus : Agricultural Chemical Applications, Michigan, 2002 [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	30	1.0	1.20	1.27	6.0
Diuron	96	1.8	1.24	2.30	35.3
Glyphosate	80	1.5	0.73	1.12	14.2
Linuron	8	1.2	0.62	0.74	0.9
Metribuzin	66	1.7	0.42	0.71	7.5
Paraquat	26	1.1	0.56	0.61	2.6
Insecticides					
Carbaryl	88	3.2	0.63	2.06	28.9
Chlorpyrifos	54	1.0	0.87	0.89	7.7
Permethrin	58	2.5	0.09	0.22	2.0
Fungicides					
Chlorothalonil	66	2.9	1.41	4.08	43.2
Mancozeb	26	2.2	1.43	3.27	13.4

[1] Planted acres in 2002 for Michigan were 16,000 acres.

Asparagus : Agricultural Chemical Applications, Washington, 2002 [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	63	1.2	1.31	1.66	18.9
Glyphosate	17	1.0	0.65	0.68	2.0
Linuron	8	1.3	0.77	1.07	1.6
Metribuzin	49	1.5	0.77	1.15	10.1
Paraquat	22	1.2	0.51	0.61	2.4
Trifluralin	56	1.0	1.07	1.10	11.1
Insecticides					
Carbaryl	32	1.0	1.32	1.43	8.3
Disulfoton	65	1.3	1.01	1.34	15.5
Fungicides					
Mancozeb	37	1.4	1.50	2.19	14.6

[1] Planted acres in 2002 for Washington were 18,000 acres.

Snap Beans, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
FL	35,500	100	3,091	100	3,229	100	3,925
GA	19,000	100	1,947	100	1,174	100	2,171
NY	10,300	99	269	99	651	99	350
NC	8,200	98	580	98	627	95	910
TN	8,800	100	554	100	554	100	555
Total	81,800	100	6,441	100	6,235	99	7,911

Snap Beans, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Florida	35,500					
Nitrogen		100	1.9	45	87	3,091
Phosphate		100	1.3	67	91	3,229
Potash		100	1.9	58	111	3,925
Georgia	19,000					
Nitrogen		100	2.3	45	102	1,947
Phosphate		100	1.5	41	62	1,174
Potash		100	1.6	70	114	2,171
New York	10,300					
Nitrogen		99	1.0	26	26	269
Phosphate		99	1.0	63	64	651
Potash		99	1.0	34	34	350
North Carolina	8,200					
Nitrogen		98	1.7	41	72	580
Phosphate		98	1.1	67	78	627
Potash		95	1.0	111	117	910
Tennessee	8,800					
Nitrogen		100	1.0	62	63	554
Phosphate		100	1.0	63	63	554
Potash		100	1.0	63	63	555
Total	81,800					
Nitrogen		100	1.7	44	79	6,441
Phosphate		100	1.2	59	76	6,235
Potash		99	1.5	63	97	7,911

Snap Beans, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	FL	GA	NY	NC	TN
Herbicides						
Alachlor	*			*		
Atrazine	*	*				
Bensulide	*	*			*	
Bentazon	P		*	P	P	*
Clethodim	*				*	
EPTC	P	*		*		
Ethalfluralin	*				*	
Fluazifop-P-butyl	*		*			*
Fomesafen	P			*	*	
Glyphosate	P	*	*	*	*	
Paraquat	P	*			*	*
Pendimethalin	P	*	P	*	*	
S-Metolachlor	P	P	*	P	P	*
Sethoxydim	P	*		*	P	*
Trifluralin	P	P	P	P	*	*
Insecticides						
Acephate	P	P	P	*	P	*
Azinphos-methyl	*			*		*
Bifenthrin	*	*	*	*	*	
Bt (Bacillus thur.)	P	P		*	*	
Carbaryl	P	*	P	P	P	P
Chlorpyrifos	*				*	
Diazinon	*	*	*			
Dimethoate	P	*	*		P	
Endosulfan	P	P	P	*	P	*
Esfenvalerate	P	*	P	*	P	P
Imidacloprid	P	*	*			*
Lambda-cyhalothrin	*		*	*		*
Malathion	P	*	*		*	*
Methomyl	P	P	P	P	*	*
Permethrin	P	*	P	P	P	*
Petroleum distillate	*		*	*		
Phosmet	*				*	
Pyrethrins	*			*		
Rotenone	*			*	*	
Spinosad	*	*			*	

See footnote(s) at end of table.

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Snap Beans, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	FL	GA	NY	NC	TN
Fungicides						
Azoxystrobin	*		*			
Basic copper sulfate	*				*	
Benomyl	*					*
Captan	*		*		*	
Chlorothalonil	P	P	P	P	P	P
Copper amm. complex	*		*			
Copper hydroxide	P	P		*	*	*
Copper sulfate	*					*
Fosetyl-al	*	*				
Iprodione	*			*		
Mancozeb	P	*	*			*
Maneb	P	P	*	*		
Mefenoxam	P		*		*	
Metalaxyl	P	*	*		*	
Myclobutanil	*	*		*		
PCNB	P	*	*		*	
Sulfur	P	*			*	
Thiophanate-methyl	*	*				
Trichoderma harz.	*			*		
Vinclozolin	*			*		
Other Chemicals						
Chloropicrin	P	*	*		*	
Dichloropropene	*		*			
Maleic hydrazide	*	*				
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
FL [2]	35,500	50	13.0	100	53.0	96	331.9		
GA [2]	19,000	66	9.0	55	7.9	91	101.6		
NY	10,300	94	21.1	59	4.4	58	3.2		
NC	8,200	82	9.1	96	6.6	77	12.3	(0/)	1.6
TN	8,800	7	0.2	100	0.4	23	5.1		
Total	81,800	58	52.4	84	72.5	80	454.2	1	26.8

* Applied on less than one percent of acres.

[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, 2002 [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	4	1.0	0.11	0.11	0.4
EPTC	3	1.0	0.49	0.49	1.3
Fomesafen	11	1.0	0.29	0.29	2.5
Glyphosate	*	1.3	0.59	0.81	([2])
Paraquat	*	1.3	0.43	0.58	([2])
Pendimethalin	10	1.0	0.80	0.80	6.5
S-Metolachlor	36	1.0	1.01	1.01	29.4
Sethoxydim	2	1.0	0.25	0.25	0.4
Trifluralin	19	1.0	0.54	0.54	8.4
Insecticides					
Acephate	24	1.6	0.56	0.92	18.1
Bt (Bacillus thur.) [3]	18	3.3			
Carbaryl	5	1.0	0.95	1.00	4.3
Dimethoate	5	2.6	0.49	1.28	5.1
Endosulfan	16	3.5	0.55	1.94	26.1
Esfenvalerate	20	1.1	0.03	0.03	0.6
Imidacloprid	2	1.0	0.18	0.19	0.3
Malathion	*	1.2	0.87	1.06	0.2
Methomyl	18	3.1	0.30	0.92	13.6
Permethrin	*	1.3	0.14	0.18	([2])
Fungicides					
Chlorothalonil	55	3.3	1.24	4.13	186.9
Copper hydroxide	15	2.8	0.76	2.18	26.7
Mancozeb	1	4.6	1.39	6.43	6.6
Maneb	13	3.0	1.00	3.00	32.0
Mefenoxam	7	1.0	0.24	0.24	1.4
Metalaxyl	6	1.0	0.11	0.11	0.5
PCNB	7	1.0	0.91	0.91	5.4
Sulfur	27	4.8	1.58	7.59	165.5
Other Chemicals					
Chloropicrin	*	1.0	14.30	14.30	4.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 5 program states were 81,800 acres. States included are 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, 2002 [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	29	1.0	0.69	0.69	7.2
Trifluralin	18	1.0	0.29	0.29	1.9
Insecticides					
Acephate	17	2.9	0.44	1.30	7.9
Bt (Bacillus thur.) [2]	40	3.4			
Endosulfan	36	3.5	0.54	1.88	23.9
Methomyl	32	3.5	0.31	1.10	12.5
Fungicides					
Chlorothalonil	71	4.0	1.06	4.33	108.3
Copper hydroxide	34	2.9	0.76	2.21	26.5
Maneb	20	3.0	1.00	3.01	21.8

[1] Planted acres in 2002 for Florida were 35,500 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, 2002 [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	26	1.0	0.58	0.58	2.9
Trifluralin	11	1.0	0.69	0.69	1.4
Insecticides					
Acephate	26	1.0	0.75	0.77	3.8
Carbaryl	*	3.2	0.61	1.94	0.1
Endosulfan	4	3.8	0.74	2.87	2.1
Esfenvalerate	8	1.9	0.04	0.08	0.1
Methomyl	12	1.7	0.19	0.32	0.7
Permethrin	*	1.1	0.09	0.11	([2])
Fungicides					
Chlorothalonil	84	2.5	1.67	4.32	69.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Georgia were 19,000 acres.

[2] Total applied is less than 50 lbs.

Snap Beans, Fresh : Agricultural Chemical Applications, New York, 2002 [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	*	1.0	0.10	0.10	([2])
S-Metolachlor	92	1.0	1.06	1.06	10.1
Trifluralin	66	1.0	0.73	0.73	4.9
Insecticides					
Carbaryl	*	1.0	1.32	1.40	([2])
Methomyl	2	1.1	0.22	0.26	0.1
Permethrin	*	1.8	0.13	0.25	([2])
Fungicides					
Chlorothalonil	*	2.1	1.26	2.72	0.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for New York were 10,300 acres.

[2] Total applied is less than 50 lbs.

Snap Beans, Fresh : Agricultural Chemical Applications, North Carolina, 2002 [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	24	1.0	0.09	0.09	0.2
S-Metolachlor	55	1.0	1.69	1.69	7.7
Sethoxydim	12	1.0	0.25	0.25	0.3
Insecticides					
Acephate	35	1.3	0.55	0.74	2.1
Carbaryl	47	1.0	0.99	1.02	3.9
Dimethoate	5	1.2	0.43	0.52	0.2
Endosulfan	*	1.7	0.95	1.68	([2])
Esfenvalerate	76	1.0	0.03	0.03	0.2
Permethrin	2	1.0	0.11	0.12	([2])
Fungicides					
Chlorothalonil	26	1.5	1.34	2.02	4.3

* Area applied is less than one percent.

[1] Planted acres in 2002 for North Carolina were 8,200 acres.

[2] Total applied is less than 50 lbs.

Snap Beans, Fresh : Agricultural Chemical Applications, Tennessee, 2002 [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					
Carbaryl	*	2.7	1.12	3.05	0.1
Esfenvalerate	99	1.1	0.03	0.03	0.3
Fungicides					
Chlorothalonil	23	1.8	1.35	2.47	5.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Tennessee were 8,800 acres.

Snap Beans, Proc. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
IL	22,400	68	1,606	58	651	57	1,644
MI	16,700	100	895	96	528	85	1,120
NY	21,700	100	758	100	1,499	96	1,071
OR	18,700	95	1,654	93	2,097	90	1,107
WI	79,800	99	6,826	97	3,050	93	6,348
Total	159,300	94	11,739	91	7,825	87	11,290

Snap Beans, Proc.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Illinois	22,400					
Nitrogen		68	2.7	38	105	1,606
Phosphate		58	1.1	43	50	651
Potash		57	1.3	96	129	1,644
Michigan	16,700					
Nitrogen		100	1.9	28	54	895
Phosphate		96	1.0	33	33	528
Potash		85	1.0	77	79	1,120
New York	21,700					
Nitrogen		100	1.0	32	35	758
Phosphate		100	1.0	66	69	1,499
Potash		96	1.1	47	52	1,071
Oregon	18,700					
Nitrogen		95	1.4	62	93	1,654
Phosphate		93	1.0	112	121	2,097
Potash		90	1.2	54	66	1,107
Wisconsin	79,800					
Nitrogen		99	2.7	31	87	6,826
Phosphate		97	1.0	39	39	3,050
Potash		93	1.7	49	85	6,348
Total	159,300					
Nitrogen		94	2.2	34	78	11,739
Phosphate		91	1.0	52	54	7,825
Potash		87	1.4	55	81	11,290

Snap Beans, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	IL	MI	NY	OR	WI
Herbicides						
2,4-D	*				*	
2,4-D, Dimeth. salt	*				*	
Alachlor	*	*				*
Atrazine	*			*		
Bentazon	P	P	P	P	P	P
Clomazone	*	*	*			
Dicamba	*					*
EPTC	P		P	P	P	P
Fomesafen	P	*	P	P		
Glyphosate	P	*	*	*	P	P
Imazamox	P				P	
Imazethapyr	P	*				*
Lactofen	P				P	
Metolachlor	*			*	*	
Metribuzin	*				*	
Paraquat	*				*	*
Pendimethalin	P	*		P		P
Prometryn	*				*	
Quizalofop-P-ethyl	P		*	*	*	P
S-Metolachlor	P	P	P	P	P	P
Sethoxydim	P	P	*		P	P
Sulfosate	*			*		
Trifluralin	P	P	P	P	P	P
Insecticides						
Acephate	P	P	P	P		P
Bifenthrin	P	P	P	P		P
Carbaryl	P	*	*	*	P	
Chlorpyrifos	*			*		
Diazinon	P				*	*
Dimethoate	P	*	P	P		P
Disulfoton	P		P			
Esfenvalerate	P	P	P	*	P	*
Ethoprop	P				P	
Malathion	*		*			
Permethrin	*					*
Petroleum distillate	*	*	*			
Phorate	*			*		
Zeta-cypermethrin	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, 2002

Active Ingredient	Program States					
	ALL	IL	MI	NY	OR	WI
Fungicides						
Azoxystrobin	*	*				
Benomyl	P	P				P
Captan	*		*			
Chlorothalonil	P	*		*		
Coniothyrium minitan	*					*
Copper hydroxide	P	*		*		P
Copper oxychloride	*					*
Dicloran	*			*		
Iprodione	P					P
Mefenoxam	P		*		*	
Metalaxyl	*				*	
Thiophanate-methyl	P	*	*			P
Vinclozolin	P		*	P	P	
Other Chemicals						
Cytokinins	P				*	

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
IL	22,400	67	18.1	33	5.3	15	3.4		
MI	16,700	99	36.2	69	10.3	15	1.2		
NY	21,700	90	67.9	69	10.2	24	3.1		
OR [1]	18,700	96	76.0	86	22.3	85	9.4		
WI	79,800	91	184.3	83	35.8	42	37.9		
Total [1]	159,300	89	382.8	73	84.0	38	55.0		

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

Snap Beans, Proc. : Agricultural Chemical Applications, Program States, 2002 [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	24	1.1	0.08	0.09	3.5
EPTC	57	1.0	2.78	2.81	255.1
Fomesafen	10	1.0	0.15	0.16	2.6
Glyphosate	5	1.0	0.54	0.55	3.9
Imazamox	1	1.0	0.03	0.03	0.1
Imazethapyr	6	1.0	0.02	0.02	0.2
Lactofen	3	1.0	0.13	0.14	0.7
Pendimethalin	5	1.0	0.69	0.69	5.2
Quizalofop-P-ethyl	4	1.0	0.07	0.07	0.4
S-Metolachlor	34	1.0	1.09	1.14	61.9
Sethoxydim	8	1.0	0.17	0.18	2.1
Trifluralin	54	1.0	0.51	0.52	44.5
Insecticides					
Acephate	24	1.1	0.78	0.89	33.3
Bifenthrin	44	2.1	0.04	0.08	5.3
Carbaryl	2	1.6	0.98	1.65	4.1
Diazinon	2	1.3	0.51	0.66	1.6
Dimethoate	17	1.0	0.42	0.44	11.9
Disulfoton	3	1.0	0.88	0.88	4.6
Esfenvalerate	11	1.0	0.03	0.03	0.6
Ethoprop	6	1.0	2.11	2.18	19.3
Zeta-cypermethrin	12	1.5	0.04	0.07	1.3
Fungicides					
Benomyl	13	1.0	0.75	0.79	16.6
Chlorothalonil	*	1.9	1.21	2.40	1.2
Copper hydroxide	8	1.4	0.60	0.83	11.0
Iprodione	2	1.2	1.00	1.28	3.4
Mefenoxam	*	1.0	0.16	0.16	0.2
Thiophanate-methyl	4	1.0	1.38	1.39	9.5
Vinclozolin	14	1.1	0.50	0.55	12.7
Other Chemicals					
Cytokinins	*	1.4	0.000	0.000	([2])

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 5 program states were 159,300 acres. States included are IL, MI, NY, OR and WI.

[2] Total applied is less than 50 lbs.

Snap Beans, Proc. : Agricultural Chemical Applications, Illinois, 2002 [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	1.2	0.07	0.08	0.5
S-Metolachlor	34	1.1	1.37	1.61	12.4
Sethoxydim	16	1.0	0.22	0.22	0.8
Trifluralin	17	1.0	0.71	0.77	2.9
Insecticides					
Acephate	10	1.1	0.89	1.01	2.3
Bifenthrin	29	4.2	0.04	0.17	1.1
Esfenvalerate	9	1.2	0.03	0.04	0.1
Zeta-cypermethrin	19	2.6	0.04	0.10	0.4
Fungicides					
Benomyl	13	1.0	0.75	0.75	2.2

[1] Planted acres in 2002 for Illinois were 22,400 acres.

Snap Beans, Proc. : Agricultural Chemical Applications, Michigan, 2002 [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	46	1.0	0.09	0.09	0.7
EPTC	36	1.0	3.23	3.23	19.2
Fomesafen	32	1.0	0.12	0.12	0.7
S-Metolachlor	59	1.0	1.16	1.18	11.6
Trifluralin	31	1.0	0.59	0.59	3.1
Insecticides					
Acephate	25	1.1	0.76	0.88	3.7
Bifenthrin	50	1.1	0.04	0.05	0.4
Dimethoate	23	1.0	0.33	0.36	1.4
Disulfoton	31	1.0	0.88	0.88	4.6
Esfenvalerate	20	1.0	0.04	0.04	0.1

[1] Planted acres in 2002 for Michigan were 16,700 acres.

Snap Beans, Proc. : Agricultural Chemical Applications, New York, 2002 [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	47	1.3	0.04	0.05	0.5
EPTC	70	1.0	3.00	3.12	47.7
Fomesafen	42	1.0	0.15	0.16	1.5
Pendimethalin	2	1.0	1.35	1.35	0.6
S-Metolachlor	39	1.0	0.94	0.98	8.2
Trifluralin	75	1.0	0.47	0.50	8.1
Insecticides					
Acephate	25	1.0	0.64	0.66	3.5
Bifenthrin	13	1.0	0.03	0.03	0.1
Dimethoate	35	1.0	0.40	0.42	3.1
Fungicides					
Vinclozolin	22	1.0	0.50	0.50	2.4

[1] Planted acres in 2002 for New York were 21,700 acres.

Snap Beans, Proc. : Agricultural Chemical Applications, Oregon, 2002 [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	34	1.0	0.10	0.11	0.7
EPTC	91	1.0	3.24	3.27	55.3
Glyphosate	13	1.0	0.67	0.68	1.6
Imazamox	12	1.0	0.03	0.03	0.1
Lactofen	29	1.0	0.13	0.14	0.7
S-Metolachlor	62	1.0	0.98	1.02	11.9
Sethoxydim	7	1.0	0.18	0.18	0.2
Trifluralin	53	1.0	0.49	0.49	4.9
Insecticides					
Carbaryl	8	1.0	0.95	0.95	1.4
Esfenvalerate	54	1.0	0.03	0.03	0.3
Ethoprop	47	1.0	2.11	2.18	19.3
Fungicides					
Vinclozolin	85	1.1	0.49	0.58	9.2

[1] Planted acres in 2002 for Oregon were 18,700 acres.

Snap Beans, Proc. : Agricultural Chemical Applications, Wisconsin, 2002 [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	9	1.0	0.14	0.15	1.1
EPTC	66	1.0	2.52	2.52	132.8
Glyphosate	4	1.0	0.45	0.46	1.6
Pendimethalin	8	1.0	0.62	0.62	3.8
Quizalofop-P-ethyl	2	1.0	0.06	0.06	0.1
S-Metolachlor	21	1.0	1.05	1.05	17.8
Sethoxydim	7	1.0	0.14	0.14	0.8
Trifluralin	64	1.0	0.50	0.50	25.5
Insecticides					
Acephate	32	1.1	0.80	0.92	23.7
Bifenthrin	66	2.0	0.03	0.07	3.7
Dimethoate	19	1.0	0.46	0.47	7.2
Zeta-cypermethrin	18	1.2	0.05	0.06	0.9
Fungicides					
Benomyl	23	1.0	0.75	0.79	14.4
Copper hydroxide	16	1.3	0.60	0.83	10.6
Iprodione	3	1.2	1.00	1.28	3.4
Thiophanate-methyl	8	1.0	1.38	1.39	9.3

[1] Planted acres in 2002 for Wisconsin were 79,800 acres.

Broccoli : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	115,000	96	16,640	57	6,716	43	4,221

Broccoli: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	115,000					
Nitrogen		96	2.2	67	150	16,640
Phosphate		57	1.3	76	103	6,716
Potash		43	1.4	59	86	4,221

Broccoli: Active Ingredients
Publication Status

Active Ingredient	CA
Herbicides	
Bensulide	P
DCPA	P
Glyphosate	*
Napropamide	P
Oxyfluorfen	P
Paraquat	*
Pronamide	*
Sethoxydim	P
Trifluralin	P

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

Broccoli: Active Ingredients
Publication Status
By Program States, 2002

Active Ingredient	CA
Insecticides	
Acephate	*
Acetamiprid	P
Azadirachtin	P
Bifenthrin	*
Bt (Bacillus thur.)	P
Carbaryl	*
Chlorpyrifos	P
Cypermethrin	P
Diazinon	P
Dimethoate	P
Disulfoton	*
Emamectin benzoate	P
Endosulfan	*
Esfenvalerate	P
Imidacloprid	P
Indoxacarb	P
Jojoba oil	*
Lambda-cyhalothrin	P
Lindane	*
Malathion	P
Methamidophos	*
Methomyl	P
Naled	P
Neem oil, clar. hyd.	*
Oxydemeton-methyl	P
Permethrin	P
Potassium salts	*
Pyrethrins	*
Spinosad	P
Tebufenozide	P
Thiodicarb	*
Tralomethrin	*
Fungicides	
Captan	*
Chlorothalonil	P
Copper hydroxide	P
Fosetyl-al	*
Iprodione	*
Maneb	P
Mefenoxam	P
Metalaxyl	*

See footnote(s) at end of table.
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Broccoli: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	CA
Other Chemicals	
Dichloropropene	*

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	115,000	65	148.9	96	234.8	14	15.4		

[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.

Broccoli : Agricultural Chemical Applications, California, 2002 [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	1.1	4.36	4.87	27.7
DCPA	33	1.0	2.62	2.86	107.6
Napropamide	5	1.1	0.37	0.41	2.5
Oxyfluorfen	19	1.1	0.19	0.22	4.9
Sethoxydim	3	1.1	0.25	0.29	1.0
Trifluralin	12	1.0	0.31	0.32	4.3
Insecticides					
Acetamiprid	*	1.0	5.48	5.55	3.3
Azadirachtin	*	1.4	0.02	0.02	([2])
Bt (Bacillus thur.) [3]	8	1.1			
Chlorpyrifos	43	1.1	1.52	1.75	85.7
Cypermethrin	5	1.0	0.08	0.08	0.5
Diazinon	12	1.1	0.94	1.04	14.3
Dimethoate	44	1.2	0.48	0.58	29.3
Emamectin benzoate	5	1.0	0.009	0.009	0.1
Esfenvalerate	16	1.1	0.04	0.04	0.8
Imidacloprid	33	1.2	0.09	0.12	4.6
Indoxacarb	39	1.3	0.06	0.08	3.7
Lambda-cyhalothrin	11	1.0	0.03	0.03	0.3
Malathion	*	1.0	2.04	2.10	1.0
Methomyl	4	1.0	0.78	0.78	3.3
Naled	10	1.0	1.51	1.55	18.6
Oxydemeton-methyl	68	1.2	0.49	0.63	49.4
Permethrin	14	1.0	0.09	0.10	1.6
Spinosad	38	1.0	0.07	0.07	3.1
Tebufenozide	*	1.5	0.13	0.20	0.2
Fungicides					
Chlorothalonil	*	1.0	0.98	1.04	0.8
Copper hydroxide	1	1.0	0.32	0.35	0.5
Maneb	5	1.1	1.30	1.52	9.0
Mefenoxam	6	1.0	0.39	0.42	3.0

* Area applied is less than one percent.

[1] Planted acres in 2002 for California were 115,000 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, Head, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	12,500	99	2,713	66	737	60	615
FL	8,200	100	1,637	100	291	100	2,247
GA	9,000	100	1,536	88	775	100	1,434
NY	12,000	100	1,313	98	1,490	99	2,122
NC	9,500	71	1,096	68	899	71	1,471
OH	1,700	97	147	73	145	76	183
PA	2,200	81	287	83	287	80	282
TX	9,500	100	1,554	98	814	83	275
WI	4,600	40	325	40	137	40	164
Total	69,200	91	10,608	82	5,575	81	8,793

Cabbage, Head, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	12,500					
Nitrogen		99	4.2	51	219	2,713
Phosphate		66	1.5	57	90	737
Potash		60	1.5	52	82	615
Florida	8,200					
Nitrogen		100	2.7	72	200	1,637
Phosphate		100	1.2	29	36	291
Potash		100	2.3	118	274	2,247
Georgia	9,000					
Nitrogen		100	14.0	12	171	1,536
Phosphate		88	3.7	26	98	775
Potash		100	11.5	14	159	1,434
New York	12,000					
Nitrogen		100	1.5	69	110	1,313
Phosphate		98	1.2	103	126	1,490
Potash		99	1.2	144	178	2,122
North Carolina	9,500					
Nitrogen		71	1.8	86	161	1,096
Phosphate		68	1.4	97	140	899
Potash		71	1.4	152	217	1,471
Ohio	1,700					
Nitrogen		97	1.6	54	90	147
Phosphate		73	1.6	69	116	145
Potash		76	1.5	93	141	183
Pennsylvania	2,200					
Nitrogen		81	1.3	118	161	287
Phosphate		83	1.2	122	158	287
Potash		80	1.3	123	161	282
Texas	9,500					
Nitrogen		100	2.3	71	164	1,554
Phosphate		98	1.1	75	87	814
Potash		83	1.1	31	35	275
Wisconsin	4,600					
Nitrogen		40	1.7	98	176	325
Phosphate		40	1.0	73	74	137
Potash		40	1.0	87	89	164
Total	69,200					
Nitrogen		91	4.1	40	168	10,608
Phosphate		82	1.6	60	98	5,575
Potash		81	3.0	51	156	8,793

Cabbage, Head, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	NY	NC
Herbicides						
2,4-D	*					
Bensulide	P	P				*
Clomazone	*				*	*
DCPA	P	*		*		*
Glyphosate	P				*	*
Metribuzin	*					
Napropamide	P	*	*	*	*	P
Naptalam	*					
Oxyfluorfen	P	P		*	P	P
Paraquat	P	*	*	*		*
Pendimethalin	*				*	
S-Metolachlor	P		*		P	
Sethoxydim	P	*	*		*	*
Trifluralin	P	*	*	P	P	P

See footnote(s) at end of table.

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Cabbage, Head, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	OH	PA	TX	WI
Herbicides				
2,4-D	*			
Bensulide	*	*	*	
Clomazone				
DCPA			*	*
Glyphosate	P	*		
Metribuzin	*			
Napropamide	*	P		*
Naptalam		*		
Oxyfluorfen	P	P		*
Paraquat		*		
Pendimethalin			*	*
S-Metolachlor	*	P	*	
Sethoxydim		*		*
Trifluralin	P	*	P	P

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

Cabbage, Head, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	NY	NC
Insecticides						
Acephate	P			*	*	*
Acetamiprid	*	*				
Azadirachtin	*	*		*		
Azinphos-methyl	P				P	*
Bifenthrin	P		*		P	*
Bt (Bacillus thur.)	P	P	P	P	P	P
Carbaryl	P	*	*	*	P	P
Chlorpyrifos	P	P	*		*	*
Cyfluthrin	*				*	
Cypermethrin	P	P		*		
Diazinon	P	*		*	*	*
Dicofol	*					
Dimethoate	P	P	*	*	P	P
Disulfoton	P	*			*	
Emamectin benzoate	P	P	*	*	*	*
Endosulfan	P	*	*	*	P	*
Esfenvalerate	P	P	*	*	P	P
Fenamiphos	*		*	*		
Imidacloprid	P	P	*	*	*	*
Indoxacarb	P	P	*	*	*	*
Lambda-cyhalothrin	P	P	*		P	P
Malathion	P	*	*			*
Methamidophos	P			*	*	*
Methomyl	P	P	*	*	P	P
Methoxychlor	*				*	
Mevinphos	*					
Myrothecium verruc.	*		*			
Naled	*	*				
Neem oil, clar. hyd.	*	*				
Oxamyl	*				*	
Oxydemeton-methyl	P	P			P	*
Permethrin	P	P	*	*	P	P
Potassium salts	*	*			*	
Pyrethrins	*	*				
Rotenone	*	*				
Spinosad	P	P	*	P	P	P
Tebufenozide	P	*	*		*	
Thiodicarb	P	*	*		*	*
Zeta-cypermethrin	P				*	

See footnote(s) at end of table.

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Cabbage, Head, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	OH	PA	TX	WI
Insecticides				
Acephate	*	*		
Acetamiprid				
Azadirachtin			*	
Azinphos-methyl	*	*		
Bifenthrin		P	*	*
Bt (Bacillus thur.)	P	P	P	P
Carbaryl	P	P	*	*
Chlorpyrifos		*	*	
Cyfluthrin		*	*	
Cypermethrin			*	
Diazinon	*	*	P	
Dicofol		*		
Dimethoate	*	*		*
Disulfoton			*	
Emamectin benzoate				
Endosulfan	P	P	P	*
Esfenvalerate	P	P	P	*
Fenamiphos				
Imidacloprid		P	P	
Indoxacarb		*	P	
Lambda-cyhalothrin	P	P	P	P
Malathion	*	*		*
Methamidophos		*		
Methomyl	*	P	*	*
Methoxychlor				
Mevinphos			*	
Myrothecium verruc.				
Naled		*		
Neem oil, clar. hyd.				
Oxamyl			*	
Oxydemeton-methyl		*	*	
Permethrin	P	P	P	P
Potassium salts				
Pyrethrins				
Rotenone		*		
Spinosad	*	P	P	P
Tebufenozide		*	P	
Thiodicarb	*	*		
Zeta-cypermethrin		*	*	

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

Cabbage, Head, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	NY	NC
Fungicides						
Azoxystrobin	P			*	*	
Benomyl	*					
Captan	*					
Chlorothalonil	P	P	P	P	P	P
Copper hydroxide	P	*			P	*
Copper oxide	*					
Copper resinate	*					
Copper sulfate	P			*	*	*
Fosetyl-al	*					
Mancozeb	P		*	*	*	*
Maneb	P	P	*	P	*	*
Mefenoxam	P	*		*		
Metalaxyl	P			*		
PCNB	*			*		*
Potassium bicarbon.	*		*			
Sulfur	P	*			*	
Thiophanate-methyl	*			*		
Trichoderma harz.	*				*	
Other Chemicals						
Capsaicin	*					
Chloropicrin	P		*	*		P
Dichloropropene	*		*	*		
Endothall	*					
Gibberellic acid	*					
Hydrogen peroxide	*					*
Indolebutyric acid	*					
Maleic hydrazide	*				*	
Metaldehyde	*				*	
Metam-sodium	*		*			
Methyl bromide	P			*		P
Pelargonic acid	*				*	

See footnote(s) at end of table.

--continued

Cabbage, Head, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	OH	PA	TX	WI
Fungicides				
Azoxystrobin		*	P	
Benomyl	*	*		
Captan		*		
Chlorothalonil	P	P	P	
Copper hydroxide	*	P	*	*
Copper oxide	*			
Copper resinate		*		
Copper sulfate				
Fosetyl-al		*		
Mancozeb		P	*	
Maneb	*	*	P	
Mefenoxam	*	*	*	
Metalaxyl	*	*	*	
PCNB				
Potassium bicarbon.				
Sulfur		*	*	
Thiophanate-methyl				
Trichoderma harz.				
Other Chemicals				
Capsaicin		*		
Chloropicrin				
Dichloropropene				
Endothall			*	
Gibberellic acid			*	
Hydrogen peroxide				
Indolebutyric acid			*	
Maleic hydrazide				
Metaldehyde				
Metam-sodium				
Methyl bromide				
Pelargonic acid				

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

Cabbage, Head, Fresh : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	12,500	36	12.4	68	19.5	28	5.7		
FL [2]	8,200	89	7.2	100	6.1	99	27.7		
GA [2]	9,000	18	1.6	100	2.7	99	88.9		
NY [2]	12,000	90	16.3	95	17.5	38	14.9		
NC	9,500	51	3.8	84	4.1	17	4.8	(0/)	2.2
OH	1,700	42	0.4	94	1.3	40	3.2		
PA [2]	2,200	47	1.3	81	5.3	45	3.2		
TX [2]	9,500	58	6.2	76	14.0	67	14.1		
WI [2]	4,600	10	0.2	99	0.8				
Total	69,200	53	49.4	87	71.4	51	163.2	4	114.2

* Applied on less than one percent of acres.

[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, Head, Fresh : Agricultural Chemical Applications, Program States, 2002 [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	1.1	3.45	3.87	7.5
DCPA	2	1.0	4.33	4.39	6.3
Glyphosate	*	1.3	0.82	1.09	([2])
Napropamide	4	1.0	1.13	1.14	3.3
Oxyfluorfen	8	1.0	0.38	0.39	2.1
Paraquat	*	1.7	0.63	1.10	0.2
S-Metolachlor	20	1.0	1.03	1.03	14.0
Sethoxydim	*	1.0	0.16	0.16	([2])
Trifluralin	29	1.4	0.56	0.79	15.9
Insecticides					
Acephate	*	2.8	0.86	2.41	0.4
Azinphos-methyl	4	1.1	0.51	0.56	1.6
Bifenthrin	14	1.4	0.04	0.06	0.6
Bt (Bacillus thur.) [3]	52	3.7			
Carbaryl	*	2.4	0.82	2.01	1.1
Chlorpyrifos	5	1.0	0.90	0.91	3.0
Cypermethrin	4	1.8	0.08	0.14	0.4
Diazinon	9	1.2	0.81	0.99	6.3
Dimethoate	18	2.2	0.45	1.02	13.0
Disulfoton	3	1.6	1.77	2.90	6.0
Emamectin benzoate	15	1.3	0.01	0.01	0.1
Endosulfan	7	1.9	0.65	1.29	5.8
Esfenvalerate	18	2.4	0.03	0.08	1.0
Imidacloprid	17	1.6	0.09	0.15	1.7
Indoxacarb	20	1.9	0.05	0.10	1.4
Lambda-cyhalothrin	26	2.1	0.02	0.05	0.9
Malathion	*	1.8	1.74	3.27	1.0
Methamidophos	1	1.2	0.81	0.97	0.8
Methomyl	14	1.7	0.50	0.87	8.2
Oxydemeton-methyl	10	1.3	0.61	0.81	5.8
Permethrin	19	2.0	0.11	0.23	3.0
Spinosad	38	2.0	0.06	0.12	3.2
Tebufenozide	4	1.4	0.11	0.16	0.4
Thiodicarb	1	1.3	0.62	0.83	0.7
Zeta-cypermethrin	4	1.1	0.04	0.05	0.1
Fungicides					
Azoxystrobin	8	1.4	0.17	0.24	1.3

Cabbage, Head, Fresh : Agricultural Chemical Applications, Program States, 2002 [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*
Chlorothalonil	33	4.0	1.00	4.03	92.7
Copper hydroxide	3	1.6	0.54	0.86	1.6
Copper sulfate	1	1.4	0.17	0.26	0.3
Mancozeb	9	1.5	1.50	2.33	14.8
Maneb	17	3.3	1.20	4.00	47.9
Mefenoxam	5	1.3	0.30	0.41	1.4
Metalaxyl	4	2.3	0.15	0.35	0.9
Sulfur	*	1.9	0.98	1.94	1.2
Other Chemicals					
Chloropicrin	*	1.0	42.39	42.39	6.8
Methyl bromide	*	1.0	51.76	51.76	7.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 9 program states were 69,200 acres.
States included are CA, FL, GA, NY, NC, OH, 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.

Cabbage, Head, Fresh : Agricultural Chemical Applications, California, 2002 [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	10	1.1	4.32	5.13	6.5
Oxyfluorfen	7	1.1	0.24	0.26	0.2
Insecticides					
Bt (Bacillus thur.) [2]	23	1.8			
Chlorpyrifos	16	1.0	0.89	0.90	1.8
Cypermethrin	13	1.3	0.08	0.11	0.2
Dimethoate	32	1.0	0.49	0.51	2.0
Emamectin benzoate	35	1.0	0.01	0.01	([3])
Esfenvalerate	24	1.0	0.04	0.04	0.1
Imidacloprid	45	1.2	0.10	0.12	0.7
Indoxacarb	48	1.3	0.06	0.08	0.5
Lambda-cyhalothrin	15	1.0	0.03	0.03	0.1
Methomyl	16	1.0	0.76	0.79	1.6
Oxydemeton-methyl	43	1.3	0.62	0.82	4.4
Permethrin	38	1.0	0.13	0.13	0.6
Spinosad	54	1.5	0.08	0.13	0.9
Fungicides					
Chlorothalonil	9	1.2	1.08	1.31	1.5
Maneb	16	1.3	1.29	1.67	3.4

[1] Planted acres in 2002 for California were 12,500 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.

Cabbage, Head, Fresh : Agricultural Chemical Applications, Florida, 2002 [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]	88	4.3			
Fungicides					
Chlorothalonil	54	5.7	0.91	5.18	22.7

[1] Planted acres in 2002 for Florida were 8,200 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Head, Fresh : Agricultural Chemical Applications, Georgia, 2002 [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	14	1.0	0.77	0.77	1.0
Insecticides					
Bt (Bacillus thur.) [2]	78	8.1			
Spinosad	9	2.8	0.07	0.21	0.2
Fungicides					
Chlorothalonil	91	5.4	1.07	5.84	47.7
Maneb	68	5.2	1.20	6.23	37.9

[1] Planted acres in 2002 for Georgia were 9,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Head, Fresh : Agricultural Chemical Applications, New York, 2002 [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	10	1.0	0.32	0.34	0.4
S-Metolachlor	65	1.0	1.02	1.02	8.0
Trifluralin	82	1.0	0.80	0.80	7.8
Insecticides					
Azinphos-methyl	23	1.1	0.51	0.56	1.6
Bifenthrin	28	2.2	0.05	0.12	0.4
Bt (Bacillus thur.) [2]	54	1.5			
Carbaryl	2	2.0	0.54	1.11	0.2
Dimethoate	61	2.7	0.44	1.20	8.8
Endosulfan	9	1.6	0.86	1.45	1.6
Esfenvalerate	36	3.3	0.04	0.14	0.6
Lambda-cyhalothrin	38	2.5	0.03	0.06	0.3
Methomyl	10	1.5	0.45	0.72	0.9
Oxydemeton-methyl	14	1.3	0.61	0.82	1.3
Permethrin	4	1.8	0.08	0.15	0.1
Spinosad	19	1.6	0.11	0.18	0.4
Fungicides					
Chlorothalonil	36	1.9	0.87	1.69	7.3
Copper hydroxide	4	2.7	0.72	1.98	0.8

[1] Planted acres in 2002 for New York were 12,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Head, Fresh : Agricultural Chemical Applications, North Carolina, 2002 [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	9	1.0	1.04	1.04	0.9
Oxyfluorfen	33	1.0	0.43	0.43	1.4
Trifluralin	8	1.0	1.24	1.24	0.9
Insecticides					
Bt (Bacillus thur.) [2]	51	2.8			
Carbaryl	1	3.0	0.96	2.91	0.4
Dimethoate	5	4.0	0.50	2.02	0.9
Esfenvalerate	36	2.4	0.02	0.04	0.1
Lambda-cyhalothrin	15	1.5	0.02	0.02	([3])
Methomyl	14	1.7	0.41	0.72	1.0
Permethrin	8	1.9	0.12	0.24	0.2
Spinosad	61	2.8	0.03	0.09	0.5
Fungicides					
Chlorothalonil	9	3.7	1.14	4.30	3.5
Other Chemicals					
Chloropicrin	*	1.0	27.87	27.87	0.7
Methyl bromide	*	1.0	59.72	59.72	1.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for North Carolina were 9,500 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.

Cabbage, Head, Fresh : Agricultural Chemical Applications, Ohio, 2002 [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	*	1.8	0.79	1.42	([2])
Oxyfluorfen	4	1.0	0.39	0.39	([2])
Trifluralin	37	1.0	0.64	0.64	0.4
Insecticides					
Bt (Bacillus thur.) [3]	40	4.8			
Carbaryl	8	2.1	0.80	1.71	0.2
Endosulfan	2	1.4	0.73	1.08	([2])
Esfenvalerate	10	5.3	0.04	0.20	([2])
Lambda-cyhalothrin	72	4.5	0.02	0.09	0.1
Permethrin	9	2.0	0.10	0.21	([2])
Fungicides					
Chlorothalonil	39	3.9	1.11	4.34	2.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for Ohio were 1,700 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.

Cabbage, Head, Fresh : Agricultural Chemical Applications, Pennsylvania, 2002 [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	3	1.0	1.54	1.54	0.1
Oxyfluorfen	5	1.0	0.38	0.38	([2])
S-Metolachlor	39	1.0	1.29	1.29	1.1
Insecticides					
Bifenthrin	*	1.4	0.07	0.10	([2])
Bt (Bacillus thur.) [3]	40	1.7			
Carbaryl	*	2.4	0.51	1.23	([2])
Endosulfan	71	1.9	0.75	1.45	2.3
Esfenvalerate	3	2.4	0.04	0.09	([2])
Imidacloprid	*	1.1	0.14	0.16	([2])
Lambda-cyhalothrin	36	2.8	0.02	0.07	0.1
Methomyl	41	2.1	0.61	1.28	1.2
Permethrin	3	3.4	0.18	0.62	([2])
Spinosad	42	2.0	0.08	0.16	0.1
Fungicides					
Chlorothalonil	44	2.1	1.30	2.73	2.7
Copper hydroxide	*	4.0	0.50	2.01	([2])
Mancozeb	5	1.8	1.32	2.40	0.3

* Area applied is less than one percent.

[1] Planted acres in 2002 for Pennsylvania were 2,200 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, Head, Fresh : Agricultural Chemical Applications, Texas, 2002 [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	55	2.5	0.36	0.93	4.8
Insecticides					
Bt (Bacillus thur.) [2]	24	3.7			
Diazinon	42	1.3	0.89	1.20	4.8
Endosulfan	5	1.2	0.24	0.30	0.1
Esfenvalerate	13	1.9	0.03	0.06	0.1
Imidacloprid	50	1.1	0.13	0.15	0.7
Indoxacarb	44	1.4	0.06	0.09	0.4
Lambda-cyhalothrin	23	1.8	0.02	0.04	0.1
Permethrin	31	2.5	0.16	0.40	1.2
Spinosad	46	1.3	0.07	0.10	0.4
Tebufenozide	14	1.8	0.12	0.21	0.3
Fungicides					
Azoxystrobin	41	1.2	0.18	0.22	0.9
Chlorothalonil	27	2.0	0.85	1.75	4.5
Maneb	37	1.2	1.14	1.40	4.9

[1] Planted acres in 2002 for Texas were 9,500 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cabbage, Head, Fresh : Agricultural Chemical Applications, Wisconsin, 2002 [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	10	1.0	0.56	0.56	0.2
Insecticides					
Bt (Bacillus thur.) [2]	82	1.0			
Lambda-cyhalothrin	98	2.0	0.03	0.06	0.3
Permethrin	*	2.4	0.11	0.28	([3])
Spinosad	88	2.3	0.05	0.12	0.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for Wisconsin were 4,600 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.

Carrots, Fresh Mkt. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	77,000	100	13,417	80	12,448	62	3,138
MI	4,700	98	279	89	343	99	662
TX	3,000	98	434	49	134	44	9
Total	84,700	100	14,130	80	12,925	63	3,809

Carrots, Fresh Mkt.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	77,000					
Nitrogen		100	4.7	37	175	13,417
Phosphate		80	1.7	113	201	12,448
Potash		62	1.0	64	66	3,138
Michigan	4,700					
Nitrogen		98	1.2	48	60	279
Phosphate		89	1.0	82	82	343
Potash		99	1.0	133	142	662
Texas	3,000					
Nitrogen		98	2.0	73	147	434
Phosphate		49	1.1	79	92	134
Potash		44	1.1	6	7	9
Total	84,700					
Nitrogen		100	4.4	38	167	14,130
Phosphate		80	1.7	112	192	12,925
Potash		63	1.0	68	71	3,809

Carrots, Fresh Mkt.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	MI	TX
Herbicides				
Clethodim	*	*		
DCPA	*			*
Ethalfluralin	*		*	
Fluazifop-P-butyl	P	*	P	*
Linuron	P	P	P	P
Oxyfluorfen	*			*
Pendimethalin	*			*
Sethoxydim	*	*	*	
Trifluralin	P	P	*	*
Insecticides				
Bt (Bacillus thur.)	*	*		
Carbaryl	P	*	*	*
Chlorpyrifos	*			*
Cyfluthrin	*	*		
Diazinon	P	*	*	P
Esfenvalerate	P	P	P	*
Malathion	*		*	
Methomyl	*	*		
Oxamyl	*		*	*
Permethrin	*		*	
Petroleum distillate	*		*	
Rotenone	*		*	
Spinosad	*	*		
Fungicides				
Azoxystrobin	*	*		
Chlorothalonil	P	*	P	*
Copper hydroxide	P	*	*	
Copper sulfate	*		*	
Iprodione	*	*		
Maneb	*			*
Mefenoxam	*	*		
Metalaxyl	*	*		
Sulfur	P	P		*
Other Chemicals				
Chloropicrin	*	*	*	
Dichloropropene	P	P	*	*
Metam-sodium	*	*		

P Usage data are published for this active ingredient.

* Usage data are not published for this active ingredient.

Carrots, Fresh Mkt. : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	77,000	78	77.1	21	15.3	62	114.0	27	4,257.3
MI [2]	4,700	99	5.6	61	7.5	84	20.6		
TX [2]	3,000	96	8.2	44	5.9				
Total	84,700	79	90.7	24	28.7	62	135.9	26	4,328.1

[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.

Carrots, Fresh Mkt. : Agricultural Chemical Applications, Program States, 2002 [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	12	1.2	0.18	0.22	2.2
Linuron	65	1.2	0.74	0.96	52.6
Trifluralin	41	1.1	0.88	1.01	35.2
Insecticides					
Carbaryl	*	1.8	0.86	1.57	0.7
Diazinon	17	1.7	0.89	1.57	22.8
Esfenvalerate	7	1.8	0.04	0.07	0.4
Fungicides					
Chlorothalonil	14	2.4	0.87	2.14	25.2
Copper hydroxide	8	2.3	0.63	1.51	10.4
Sulfur	6	1.0	13.34	14.05	74.5
Other Chemicals					
Dichloropropene	3	1.0	79.42	84.21	230.6

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 3 program states were 84,700 acres. States included are CA, MI and TX.

Carrots, Fresh Mkt. : Agricultural Chemical Applications, California, 2002 [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	63	1.1	0.74	0.86	42.1
Trifluralin	44	1.1	0.90	1.00	33.7
Insecticides					
Esfenvalerate	6	1.1	0.04	0.05	0.2
Fungicides					
Sulfur	5	1.0	16.98	18.17	73.8
Other Chemicals					
Dichloropropene	2	1.1	95.75	106.84	159.8

[1] Planted acres in 2002 for California were 77,000 acres.

Carrots, Fresh Mkt. : Agricultural Chemical Applications, Michigan, 2002 [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	94	1.3	0.16	0.22	1.0
Linuron	74	2.5	0.52	1.32	4.6
Insecticides					
Esfenvalerate	28	4.0	0.03	0.12	0.2
Fungicides					
Chlorothalonil	84	4.7	0.84	3.94	15.5

[1] Planted acres in 2002 for Michigan were 4,700 acres.

Carrots, Fresh Mkt. : Agricultural Chemical Applications, Texas, 2002 [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	96	1.7	1.21	2.09	6.0
Insecticides					
Diazinon	45	2.3	1.69	3.99	5.3

[1] Planted acres in 2002 for Texas were 3,000 acres.

Carrots, Processing : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	2,100	86	304	81	576	25	20
TX	2,100	98	369	94	169	91	17
WA	4,700	52	264	30	97	30	310
WI	4,800	71	372	71	215	84	825
Total	13,700	71	1,309	62	1,057	57	1,172

Carrots, Processing: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	2,100					
Nitrogen		86	2.9	56	168	304
Phosphate		81	1.9	174	339	576
Potash		25	1.1	35	38	20
Texas	2,100					
Nitrogen		98	3.1	57	179	369
Phosphate		94	1.2	70	85	169
Potash		91	1.2	7	9	17
Washington	4,700					
Nitrogen		52	2.5	42	107	264
Phosphate		30	1.0	64	69	97
Potash		30	1.0	206	222	310
Wisconsin	4,800					
Nitrogen		71	5.3	21	110	372
Phosphate		71	1.2	50	64	215
Potash		84	1.9	106	205	825
Total	13,700					
Nitrogen		71	3.7	36	135	1,309
Phosphate		62	1.3	92	125	1,057
Potash		57	1.5	96	149	1,172

Carrots, Processing: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	TX	WA	WI
Herbicides					
Clethodim	*			*	*
Dimethenamid	*				*
Fluazifop-P-butyl	P	*	*	*	P
Glyphosate	*			*	*
Linuron	P	P	P	P	P
Metribuzin	*				*
Paraquat	*			*	
Sethoxydim	P			*	*
Trifluralin	P	*	P	*	
Insecticides					
Diazinon	P	*	*	*	
Esfenvalerate	P	*		*	P
Mevinphos	*				*
Oxamyl	*		*	*	
Fungicides					
Azoxystrobin	P				P
Benomyl	*				*
Chlorothalonil	P	*	*	*	*
Copper hydroxide	*	*			*
Iprodione	*	*			
Mefenoxam	P	*	*	*	
Metalaxyl	*			*	
Sulfur	P	P	*	*	
Other Chemicals					
Chloropicrin	*	*			
Dichloropropene	P	*	*	*	
Metam-sodium	P	*		*	

P Usage data are published for this active ingredient.

* Usage data are not published for this active ingredient.

Carrots, Processing : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	2,100	56	1.7	15	0.2	42	11.3	30	157.0
TX [1]	2,100	87	3.5						
WA [1]	4,700	97	8.1			71	6.8		
WI	4,800	99	8.2	97	0.8	97	23.7		
Total	13,700	90	21.6	64	6.3	77	44.0	35	802.7

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

Carrots, Processing : Agricultural Chemical Applications, Program States, 2002 [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	55	1.0	0.17	0.18	1.3
Linuron	86	2.2	0.60	1.33	15.8
Sethoxydim	12	1.0	0.16	0.16	0.3
Trifluralin	39	1.0	0.53	0.56	3.0
Insecticides					
Diazinon	22	1.4	1.04	1.46	4.5
Esfenvalerate	40	4.9	0.03	0.16	0.9
Fungicides					
Azoxystrobin	1	1.7	0.17	0.29	0.1
Chlorothalonil	64	2.9	1.15	3.39	29.5
Mefenoxam	19	1.2	0.20	0.25	0.7
Sulfur	16	1.0	5.81	5.98	13.1
Other Chemicals					
Dichloropropene	29	1.0	85.92	88.94	355.7
Metam-sodium	22	1.1	134.36	147.58	445.4

[1] Planted acres in 2002 for the 4 program states were 13,700 acres.
States included are CA, TX, WA and WI.

Carrots, Processing : Agricultural Chemical Applications, California, 2002 [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	41	1.7	0.74	1.30	1.1
Fungicides					
Sulfur	15	1.1	29.08	33.73	10.7

[1] Planted acres in 2002 for California were 2,100 acres.

Carrots, Processing : Agricultural Chemical Applications, Texas, 2002 [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	1.08	1.08	2.0
Trifluralin	87	1.0	0.67	0.67	1.2

[1] Planted acres in 2002 for Texas were 2,100 acres.

Carrots, Processing : Agricultural Chemical Applications, Washington, 2002 [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	96	2.0	0.64	1.31	5.9

[1] Planted acres in 2002 for Washington were 4,700 acres.

Carrots, Processing : Agricultural Chemical Applications, Wisconsin, 2002 [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	93	1.0	0.14	0.14	0.6
Linuron	97	2.9	0.50	1.45	6.7
Insecticides					
Esfenvalerate	97	5.4	0.03	0.17	0.8
Fungicides					
Azoxystrobin	4	1.7	0.17	0.29	0.1

[1] Planted acres in 2002 for Wisconsin were 4,800 acres.

Cauliflower : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	37,000	98	6,355	77	3,812	66	1,755

Cauliflower: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	37,000					
Nitrogen		98	2.8	61	176	6,355
Phosphate		77	2.0	66	134	3,812
Potash		66	1.8	39	72	1,755

Cauliflower: Active Ingredients
Publication Status

Active Ingredient	CA
Herbicides	
Bensulide	*
DCPA	P
Glyphosate	*
Napropamide	*
Oxyfluorfen	P
Pronamide	*
Trifluralin	*
Insecticides	
Acephate	P
Acetamiprid	*
Azadirachtin	*
Azinphos-methyl	*
Bifenthrin	*
Bt (Bacillus thur.)	P
Chlorpyrifos	P
Cypermethrin	*
Diazinon	P
Dimethoate	P
Disulfoton	*
Emamectin benzoate	P
Endosulfan	*
Esfenvalerate	P
Fenpropathrin	*
Fonofos	*
Imidacloprid	P
Indoxacarb	P
Lambda-cyhalothrin	P
Malathion	*
Methomyl	*
Naled	P
Oxydemeton-methyl	P
Permethrin	P
Potassium salts	*
Pyrethrins	*
Spinosad	P
Tebufenozide	P
Thiodicarb	*

See footnote(s) at end of table.
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Cauliflower: Active Ingredients
Publication Status
By Program States, 2002

Active Ingredient	CA
Fungicides	
Benomyl	*
Chlorothalonil	*
Copper hydroxide	P
Fosetyl-al	*
Iprodione	*
Maneb	*
Mefenoxam	P
Sulfur	*

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	37,000	34	16.8	96	45.1	7	4.7		

[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.

Cauliflower : Agricultural Chemical Applications, California, 2002 [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	11	1.0	2.94	3.17	13.4
Oxyfluorfen	18	1.2	0.14	0.17	1.1
Insecticides					
Acephate	9	1.0	0.93	0.93	3.2
Bt (Bacillus thur.) [2]	7	1.6			
Chlorpyrifos	25	1.1	1.14	1.30	11.9
Diazinon	4	1.1	2.32	2.56	3.5
Dimethoate	25	1.4	0.47	0.67	6.1
Emamectin benzoate	27	1.0	0.01	0.01	0.1
Esfenvalerate	11	1.2	0.04	0.04	0.2
Imidacloprid	22	1.1	0.14	0.16	1.4
Indoxacarb	41	1.2	0.06	0.07	1.1
Lambda-cyhalothrin	29	1.7	0.03	0.04	0.5
Naled	4	1.0	1.14	1.20	1.6
Oxydemeton-methyl	38	1.4	0.49	0.72	10.0
Permethrin	14	1.1	0.10	0.12	0.6
Spinosad	28	1.2	0.07	0.08	0.9
Tebufenozide	13	1.3	0.12	0.16	0.8
Fungicides					
Copper hydroxide	2	1.3	0.34	0.45	0.3
Mefenoxam	*	1.0	0.24	0.25	0.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for California were 37,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Celery : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	25,500	72	4,096	56	1,881	58	2,191

Celery: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	25,500					
Nitrogen		72	4.8	46	222	4,096
Phosphate		56	2.1	60	131	1,881
Potash		58	3.5	42	148	2,191

Celery: Active Ingredients
Publication Status

Active Ingredient	CA
Herbicides	
Glyphosate	*
Linuron	P
Oxyfluorfen	*
Prometryn	P
Sethoxydim	*
Insecticides	
Abamectin	P
Acephate	P
Acetamiprid	P
Azadirachtin	P
Bt (Bacillus thur.)	P
Carbaryl	*
Cyromazine	P
Dimethoate	P
Emamectin benzoate	P
Imidacloprid	*
Malathion	P
Methomyl	P
Naled	*
Neem oil	*
Neem oil, clar. hyd.	*
Oxamyl	P
Oxydemeton-methyl	*
Permethrin	P
Petroleum distillate	*
Pyrethrins	P
Rotenone	*
Spinosad	P
Tebufenozide	P
Thiodicarb	P

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

Celery: Active Ingredients
Publication Status
By Program States, 2002

Active Ingredient	CA
Fungicides	
Azoxystrobin	*
Bacillus subtilus	P
Basic copper sulfate	*
Benomyl	P
Chlorothalonil	P
Copper hydroxide	P
Copper oxychloride	*
Copper resinate	*
Dicloran	P
Maneb	*
Mefenoxam	*
Propiconazole	*
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	25,500	38	13.5	67	55.5	49	54.0		

[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, 2002 [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	10	1.0	0.51	0.56	1.4
Prometryn	29	1.1	1.41	1.60	12.0
Insecticides					
Abamectin	20	1.6	0.02	0.02	0.1
Acephate	22	1.5	0.90	1.42	8.1
Acetamiprid	8	1.2	6.28	7.70	14.9
Azadirachtin	4	1.6	0.009	0.01	([2])
Bt (Bacillus thur.) [3]	19	2.2			
Cyromazine	15	1.3	0.12	0.16	0.6
Dimethoate	11	1.2	0.50	0.65	1.8
Emamectin benzoate	5	1.0	0.01	0.01	([2])
Malathion	20	1.5	1.38	2.11	10.9
Methomyl	18	1.1	0.83	0.98	4.4
Oxamyl	24	1.2	0.65	0.81	5.0
Permethrin	40	2.0	0.17	0.35	3.6
Pyrethrins	5	1.1	0.01	0.01	([2])
Spinosad	37	1.9	0.09	0.17	1.6
Tebufenozide	19	1.3	0.12	0.16	0.8
Thiodicarb	6	1.7	0.60	1.05	1.5
Fungicides					
Bacillus subtilus [3]	2	1.4			
Benomyl	2	1.0	0.25	0.27	0.1
Chlorothalonil	31	2.8	1.20	3.36	26.9
Copper hydroxide	24	1.4	0.51	0.76	4.6
Dicloran	23	1.3	2.61	3.48	20.4

[1] Planted acres in 2002 for California were 25,500 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.

Sweet Corn, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	24,000	99	5,032	93	3,054	47	710
FL	40,500	100	5,745	98	5,040	100	10,026
GA	26,000	100	4,433	100	2,501	100	6,381
MI	11,000	99	1,301	94	577	93	1,027
NJ	9,000	97	1,062	97	596	94	581
NY	33,100	99	1,786	99	2,134	99	2,131
NC	8,700	100	991	98	495	98	839
OH	16,900	92	1,678	87	856	88	998
WI	8,500	99	868	93	359	96	646
Total	177,700	99	22,896	96	15,612	90	23,339

Sweet Corn, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	24,000					
Nitrogen		99	3.4	61	212	5,032
Phosphate		93	1.4	93	136	3,054
Potash		47	1.7	36	63	710
Florida	40,500					
Nitrogen		100	2.5	55	142	5,745
Phosphate		98	1.8	68	126	5,040
Potash		100	1.8	133	249	10,026
Georgia	26,000					
Nitrogen		100	4.1	41	171	4,433
Phosphate		100	2.2	44	97	2,501
Potash		100	2.8	87	246	6,381
Michigan	11,000					
Nitrogen		99	2.3	52	120	1,301
Phosphate		94	1.0	55	56	577
Potash		93	1.2	82	100	1,027
New Jersey	9,000					
Nitrogen		97	2.3	52	122	1,062
Phosphate		97	1.6	40	68	596
Potash		94	1.6	41	69	581
New York	33,100					
Nitrogen		99	1.2	43	54	1,786
Phosphate		99	1.0	63	65	2,134
Potash		99	1.0	62	65	2,131
North Carolina	8,700					
Nitrogen		100	1.7	67	114	991
Phosphate		98	1.1	52	58	495
Potash		98	1.0	95	98	839
Ohio	16,900					
Nitrogen		92	1.9	56	108	1,678
Phosphate		87	1.1	53	59	856
Potash		88	1.0	62	67	998
Wisconsin	8,500					
Nitrogen		99	1.9	53	103	868
Phosphate		93	1.0	43	45	359
Potash		96	1.2	63	79	646
Total	177,700					
Nitrogen		99	2.5	52	131	22,896
Phosphate		96	1.5	61	91	15,612
Potash		90	1.6	88	145	23,339

Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NJ
Herbicides						
2,4-D	P			*	P	*
2,4-D, Dimeth. salt	*			*	*	*
Acetochlor	P				*	*
Alachlor	P	*		*	P	P
Atrazine	P	*	*	P	P	P
Bentazon	P				P	*
Bromoxynil	*				*	
Butylate	P			*		*
Carfentrazone-ethyl	*				*	
Clethodim	*					
Clomazone	*					
Clopyralid	*					*
Cyanazine	P	*			*	P
Dicamba	*				*	
Dichlorprop	*					
Dimethenamid	P				P	
Dimethenamid-P	P					
Diuron	*					
EPTC	*					
Ethalfluralin	*				*	
Fluazifop-P-butyl	*					
Flumetsulam	*					
Glufosinate-ammonium	*					
Glyphosate	P	*	*	*	P	*
Halosulfuron	*				*	*
Imazethapyr	*					
Linuron	*					*
Metolachlor	*	*				
Nicosulfuron	*				*	
Paraquat	*					
Pendimethalin	P	P		*	P	*
Phenmedipham	*					
Rimsulfuron	*					
S-Metolachlor	P	*	P	*	P	P
Sethoxydim	*	*				
Simazine	P	*		*		
Trifluralin	*					

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	NY	NC	OH	WI
Herbicides				
2,4-D	*	P	*	P
2,4-D, Dimeth. salt				
Acetochlor			*	
Alachlor	P	P	P	P
Atrazine	P	P	P	P
Bentazon	P	*	P	P
Bromoxynil			*	
Butylate	*			
Carfentrazone-ethyl				*
Clethodim	*			
Clomazone			*	
Clopyralid				*
Cyanazine	P		P	P
Dicamba			*	
Dichlorprop		*		
Dimethenamid	*	*	P	P
Dimethenamid-P			*	*
Diuron	*			
EPTC	*			*
Ethalfluralin				
Fluazifop-P-butyl		*		
Flumetsulam				*
Glufosinate-ammonium				*
Glyphosate	P	*	P	P
Halosulfuron				
Imazethapyr		*		
Linuron	*	*		
Metolachlor	*			*
Nicosulfuron			*	
Paraquat		*	*	
Pendimethalin	P		*	P
Phenmedipham	*			
Rimsulfuron			*	
S-Metolachlor	P	P	P	P
Sethoxydim				*
Simazine	*	*	*	*
Trifluralin	*		*	*

See footnote(s) at end of table.
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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NJ
Insecticides						
Acephate	P			*		
Azadirachtin	*				*	
Azinphos-methyl	*		*			
Bifenthrin	P	*	*		*	*
Bt (Bacillus thur.)	P	*	*	*	*	*
Carbaryl	P	*	P	P	P	*
Carbofuran	*					*
Chlorpyrifos	P	*	P	P	*	
Cyfluthrin	P	*	P	*	P	*
Diazinon	P	P		*	*	*
Dimethoate	*	*				
Endosulfan	P		*	*	*	
Esfenvalerate	P	P	*	P	P	P
Imidacloprid	*					
Kaolin	*					
Lambda-cyhalothrin	P	*	P	P	P	P
Malathion	P			*	*	
Methamidophos	*					
Methomyl	P	P	P	P	P	P
Methyl parathion	P	P		*	*	
Naled	*		*			
Oxydemeton-methyl	P	P				
Permethrin	P	*	*	P	P	*
Petroleum distillate	P			*	*	*
Phorate	P		*			
Phosmet	*				*	
Piperonyl butoxide	*					
Propargite	P	P				
Pyrethrins	*	*				
Rotenone	*	*				
Spinosad	P	*		*		
Tefluthrin	P		*			*
Terbufos	P		*	P	P	P
Thiodicarb	P		*		P	*
Tralomethrin	*			*		
Zeta-cypermethrin	P		*		*	

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	NY	NC	OH	WI
Insecticides				
Acephate	*	*	*	
Azadirachtin				
Azinphos-methyl				
Bifenthrin	*	*	*	P
Bt (Bacillus thur.)	*	P	*	*
Carbaryl	P	P	P	P
Carbofuran		*	*	
Chlorpyrifos	*	*	P	P
Cyfluthrin	*	*	P	*
Diazinon	*	*		*
Dimethoate				
Endosulfan	*	*	P	*
Esfenvalerate	P	P	*	P
Imidacloprid	*		*	
Kaolin		*		
Lambda-cyhalothrin	P	P	P	P
Malathion		*	*	
Methamidophos			*	
Methomyl	P	*	P	*
Methyl parathion	*		*	*
Naled				
Oxydemeton-methyl	*			
Permethrin	P	P	P	P
Petroleum distillate	P			
Phorate				*
Phosmet				*
Piperonyl butoxide			*	
Propargite				
Pyrethrins			*	
Rotenone				
Spinosad	*	*	*	*
Tefluthrin	*			*
Terbufos	*	P	*	*
Thiodicarb	P	P	P	
Tralomethrin				
Zeta-cypermethrin	*		*	*

See footnote(s) at end of table.
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Sweet Corn, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NJ
Fungicides						
Azoxystrobin	P	*	*			
Captan	P				*	
Chlorothalonil	P		*	*	*	*
Copper hydroxide	*					
Dicloran	*					
Mancozeb	P		*		*	
Maneb	P	*	*			
Propiconazole	P		P	*	P	*
Sulfur	*	*				
Thiophanate-methyl	*					
Other Chemicals						
Aminopyridine	*					
Chloropicrin	*					
Methyl bromide	*					

See footnote(s) at end of table.

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Sweet Corn, Fresh: Active Ingredients
Publication Status
By Program States, 2002 (continued)

Active Ingredient	Program States			
	NY	NC	OH	WI
Fungicides				
Azoxystrobin	*		*	
Captan			*	*
Chlorothalonil	*		*	
Copper hydroxide		*		
Dicloran			*	
Mancozeb				
Maneb			*	
Propiconazole	*		*	*
Sulfur	*			
Thiophanate-methyl		*		
Other Chemicals				
Aminopyridine		*		
Chloropicrin		*		
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	24,000	39	15.4	93	70.3				
FL	40,500	80	41.0	100	205.7	87	172.9		
GA [2]	26,000	97	126.0	98	122.0				
MI	11,000	90	23.0	91	11.9	7	1.1		
NJ	9,000	80	16.9	90	5.0	8	1.1		
NY [2]	33,100	96	95.1	91	35.9				
NC [2]	8,700	79	14.6	94	15.1				
OH	16,900	75	30.7	64	10.7	5	0.5		
WI [2]	8,500	78	20.9	63	1.8				
Total [2]	177,700	80	384.0	90	479.4	28	194.8		

[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.

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

Sweet Corn, Fresh : Agricultural Chemical Applications, Program States, 2002 [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	*	1.0	0.54	0.58	0.2
Acetochlor	*	1.0	1.82	1.82	1.2
Alachlor	9	1.0	1.77	1.85	30.0
Atrazine	56	1.1	1.01	1.11	111.8
Bentazon	6	1.0	0.47	0.47	5.2
Butylate	9	1.0	6.64	6.64	108.6
Cyanazine	4	1.0	1.08	1.09	8.5
Dimethenamid	2	1.0	1.09	1.09	3.8
Dimethenamid-P	*	1.0	0.99	0.99	1.3
Glyphosate	*	1.4	0.73	1.03	1.6
Pendimethalin	13	1.0	1.30	1.33	31.8
S-Metolachlor	36	1.0	1.17	1.22	77.6
Simazine	*	1.0	1.22	1.25	1.0
Insecticides					
Acephate	*	3.8	0.39	1.51	0.1
Bifenthrin	4	1.2	0.09	0.11	0.7
Bt (Bacillus thur.) [2]	3	3.3			
Carbaryl	2	2.0	1.05	2.19	5.9
Chlorpyrifos	20	2.8	0.75	2.14	76.2
Cyfluthrin	12	5.1	0.03	0.14	3.1
Diazinon	3	1.2	0.68	0.88	4.3
Endosulfan	2	1.8	0.32	0.58	2.5
Esfenvalerate	19	4.4	0.04	0.18	6.0
Lambda-cyhalothrin	60	4.0	0.03	0.11	11.3
Malathion	*	1.3	1.24	1.66	0.2
Methomyl	63	5.0	0.33	1.68	186.4
Methyl parathion	6	2.0	0.55	1.10	11.3
Oxydemeton-methyl	11	1.0	0.45	0.46	9.3
Permethrin	11	3.2	0.12	0.38	7.4
Petroleum distillate	*	1.0	2.12	2.27	3.5
Phorate	11	1.0	1.01	1.01	19.4
Propargite	2	1.0	1.75	1.89	7.6
Spinosad	2	2.9	0.08	0.23	0.9
Tefluthrin	2	1.0	0.15	0.15	0.6
Terbufos	10	1.0	0.87	0.87	15.9
Thiodicarb	26	4.0	0.57	2.28	103.3
Zeta-cypermethrin	4	3.1	0.04	0.11	0.8
Fungicides					
Azoxystrobin	8	6.0	0.07	0.45	6.4
Captan	*	1.7	2.65	4.51	1.0
Chlorothalonil	*	4.1	1.44	5.99	3.9
Mancozeb	15	6.3	0.83	5.27	139.0
Maneb	1	2.2	0.94	2.11	5.0
Propiconazole	13	8.3	0.11	0.95	22.4

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 9 program states were 177,700 acres.
States included are CA, FL, GA, MI, NJ, NY, NC, OH and WI.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Sweet Corn, Fresh : Agricultural Chemical Applications, California, 2002 [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	20	1.1	0.97	1.07	5.1
Insecticides					
Diazinon	20	1.2	0.66	0.84	4.0
Esfenvalerate	63	5.6	0.04	0.24	3.7
Methomyl	74	4.3	0.44	1.90	33.8
Methyl parathion	34	1.9	0.64	1.26	10.1
Oxydemeton-methyl	18	1.0	0.50	0.52	2.3
Propargite	17	1.0	1.75	1.89	7.6

[1] Planted acres in 2002 for California were 24,000 acres.

Sweet Corn, Fresh : Agricultural Chemical Applications, Florida, 2002 [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	25	1.0	1.17	1.17	11.8
Insecticides					
Carbaryl	*	3.5	1.11	3.92	1.2
Chlorpyrifos	22	2.8	0.86	2.48	21.8
Cyfluthrin	28	7.6	0.02	0.19	2.1
Lambda-cyhalothrin	46	6.9	0.03	0.19	3.6
Methomyl	99	5.9	0.32	1.92	76.8
Fungicides					
Propiconazole	49	9.4	0.11	1.06	21.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Florida were 40,500 acres.

Sweet Corn, Fresh : Agricultural Chemical Applications, Georgia, 2002 [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	35	1.0	1.26	1.26	11.6
Insecticides					
Carbaryl	*	1.2	1.06	1.32	0.1
Chlorpyrifos	90	2.9	0.69	2.05	47.9
Esfenvalerate	29	4.2	0.04	0.17	1.2
Lambda-cyhalothrin	96	4.2	0.02	0.10	2.6
Methomyl	96	8.0	0.30	2.46	61.6
Permethrin	1	2.2	0.11	0.24	0.1
Terbufos	34	1.0	0.90	0.90	8.0

* Area applied is less than one percent.

[1] Planted acres in 2002 for Georgia were 26,000 acres.

Sweet Corn, Fresh : Agricultural Chemical Applications, Michigan, 2002 [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	*	1.0	0.53	0.53	0.1
Alachlor	12	1.0	2.13	2.13	2.9
Atrazine	78	1.2	0.86	1.11	9.5
Bentazon	34	1.0	0.53	0.54	2.0
Dimethenamid	2	1.0	0.89	0.89	0.2
Glyphosate	3	1.0	0.80	0.83	0.3
Pendimethalin	5	1.0	1.13	1.13	0.6
S-Metolachlor	58	1.0	1.11	1.11	7.1
Insecticides					
Carbaryl	6	3.0	0.91	2.75	1.7
Cyfluthrin	3	3.0	0.05	0.14	([2])
Esfenvalerate	12	2.6	0.04	0.10	0.1
Lambda-cyhalothrin	63	2.7	0.02	0.07	0.5
Methomyl	25	1.2	0.33	0.42	1.2
Permethrin	10	2.8	0.13	0.36	0.4
Terbufos	10	1.0	0.95	0.95	1.0
Thiodicarb	31	2.5	0.61	1.57	5.4
Fungicides					
Propiconazole	5	1.5	0.08	0.13	0.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Michigan were 11,000 acres.

[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh : Agricultural Chemical Applications, New Jersey, 2002 [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	31	1.0	1.55	1.55	4.3
Atrazine	48	1.0	0.98	0.98	4.3
Cyanazine	11	1.0	0.84	0.84	0.8
S-Metolachlor	45	1.3	1.20	1.61	6.5
Insecticides					
Esfenvalerate	7	5.4	0.03	0.19	0.1
Lambda-cyhalothrin	83	5.3	0.03	0.14	1.0
Methomyl	13	3.4	0.37	1.29	1.5
Terbufos	18	1.1	1.10	1.22	1.9

[1] Planted acres in 2002 for New Jersey were 9,000 acres.

Sweet Corn, Fresh : Agricultural Chemical Applications, New York, 2002 [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	21	1.0	1.48	1.48	10.2
Atrazine	92	1.0	0.97	1.02	30.9
Bentazon	6	1.0	0.39	0.39	0.7
Cyanazine	2	1.0	1.52	1.52	0.8
Glyphosate	1	1.0	0.72	0.72	0.3
Pendimethalin	54	1.0	1.43	1.44	25.6
S-Metolachlor	62	1.0	1.18	1.24	25.4
Insecticides					
Carbaryl	*	1.4	0.98	1.42	0.4
Esfenvalerate	1	1.8	0.04	0.07	([2])
Lambda-cyhalothrin	80	2.6	0.03	0.07	1.9
Methomyl	71	1.3	0.35	0.46	10.7
Permethrin	16	4.5	0.12	0.56	2.9
Petroleum distillate	4	1.0	1.87	1.87	2.7
Thiodicarb	40	1.0	0.70	0.72	9.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for New York were 33,100 acres.

[2] Total applied is less than 50 lbs.

Sweet Corn, Fresh : Agricultural Chemical Applications, North Carolina, 2002 [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	1.3	0.74	0.98	0.1
Alachlor	8	1.0	2.90	2.90	2.0
Atrazine	75	1.0	0.81	0.81	5.3
S-Metolachlor	42	1.0	1.53	1.53	5.6
Insecticides					
Bt (Bacillus thur.) [2]	27	2.0			
Carbaryl	2	1.7	0.70	1.21	0.2
Esfenvalerate	70	2.7	0.03	0.08	0.5
Lambda-cyhalothrin	30	3.5	0.02	0.07	0.2
Permethrin	13	5.9	0.13	0.77	0.8
Terbufos	48	1.0	0.59	0.59	2.5
Thiodicarb	49	5.1	0.46	2.38	10.2

[1] Planted acres in 2002 for North Carolina were 8,700 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Sweet Corn, Fresh : Agricultural Chemical Applications, Ohio, 2002 [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	7	1.0	1.81	1.81	2.1
Atrazine	58	1.0	0.93	0.98	9.6
Bentazon	14	1.0	0.54	0.55	1.3
Cyanazine	24	1.0	1.12	1.12	4.6
Dimethenamid	7	1.0	1.27	1.27	1.4
Glyphosate	*	1.4	0.71	1.00	0.1
S-Metolachlor	47	1.0	1.06	1.09	8.6
Insecticides					
Carbaryl	5	1.5	1.21	1.92	1.6
Chlorpyrifos	3	1.0	0.99	0.99	0.6
Cyfluthrin	13	2.2	0.04	0.08	0.2
Endosulfan	5	1.3	0.72	0.94	0.8
Lambda-cyhalothrin	38	3.0	0.02	0.07	0.4
Methomyl	5	2.1	0.43	0.90	0.7
Permethrin	5	2.3	0.12	0.28	0.2
Thiodicarb	14	2.1	0.70	1.47	3.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for Ohio were 16,900 acres.

Sweet Corn, Fresh : Agricultural Chemical Applications, Wisconsin, 2002 [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	*	1.0	0.37	0.37	([2])
Alachlor	11	1.0	2.12	2.12	1.9
Atrazine	60	1.0	1.69	1.75	9.0
Bentazon	10	1.0	0.29	0.29	0.2
Cyanazine	23	1.0	1.01	1.03	2.0
Dimethenamid	22	1.0	1.05	1.05	1.9
Glyphosate	*	1.0	0.64	0.64	([2])
Pendimethalin	5	1.0	0.26	0.26	0.1
S-Metolachlor	43	1.0	1.47	1.47	5.4
Insecticides					
Bifenthrin	5	1.4	0.06	0.09	([2])
Carbaryl	*	1.7	0.87	1.49	0.1
Chlorpyrifos	2	1.4	1.08	1.54	0.2
Esfenvalerate	3	2.9	0.03	0.10	([2])
Lambda-cyhalothrin	40	2.3	0.03	0.06	0.2
Permethrin	32	2.6	0.18	0.48	1.3

* Area applied is less than one percent.

[1] Planted acres in 2002 for Wisconsin were 8,500 acres.

[2] Total applied is less than 50 lbs.

Sweet Corn, Proc. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
MN	148,000	88	13,446	72	4,718	57	5,015
NY	17,600	100	1,340	100	1,107	99	1,194
OR	33,000	98	5,071	91	3,775	89	2,444
WA	97,700	92	18,867	84	8,357	71	6,383
WI	92,100	100	17,552	87	3,139	97	7,732
Total	388,400	93	56,276	81	21,096	75	22,768

Sweet Corn, Proc.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Minnesota	148,000					
Nitrogen		88	1.4	71	103	13,446
Phosphate		72	1.0	42	44	4,718
Potash		57	1.0	57	59	5,015
New York	17,600					
Nitrogen		100	1.5	50	76	1,340
Phosphate		100	1.0	62	63	1,107
Potash		99	1.1	59	69	1,194
Oregon	33,000					
Nitrogen		98	1.7	87	157	5,071
Phosphate		91	1.1	114	125	3,775
Potash		89	1.2	68	83	2,444
Washington	97,700					
Nitrogen		92	5.7	36	209	18,867
Phosphate		84	3.9	26	102	8,357
Potash		71	3.7	25	92	6,383
Wisconsin	92,100					
Nitrogen		100	3.1	60	191	17,552
Phosphate		87	1.0	36	39	3,139
Potash		97	1.5	54	87	7,732
Total	388,400					
Nitrogen		93	3.0	52	155	56,276
Phosphate		81	1.8	37	67	21,096
Potash		75	1.8	42	79	22,768

Sweet Corn, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Herbicides						
2,4-D	P	*	*	*	*	P
2,4-D, Dimeth. salt	*		*		*	
Acetic acid	*					*
Alachlor	P	*	*	P	P	P
Atrazine	P	P	P	P	P	P
Bentazon	P	P	P	P	P	P
Carfentrazone-ethyl	P	P		P	P	P
Cyanazine	P	*	*	*		P
Dimethenamid	P	P	*	P	P	P
Dimethenamid-P	P	P		P	P	P
EPTC	P	*		P	P	*
Fluazifop-P-butyl	*			*		
Fluroxypyr	P				P	
Glyphosate	P	*	*	P	P	P
Glyphosate diam salt	*		*			*
Halosulfuron	*	*				*
Mesotrione	*					*
Metolachlor	*		*	*		
Nicosulfuron	P	P	*	P	*	P
Paraquat	P			*	*	*
Pendimethalin	P	*	P	*	P	P
Prometryn	*			*		
Propachlor	*				*	
S-Metolachlor	P	P	P	P	P	P
Simazine	P					P
Sulfosate	*		*			
Vernolate	*			*		

See footnote(s) at end of table.

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Sweet Corn, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Insecticides						
Bifenthrin	P	P	*	P	P	P
Carbofuran	*	*	*			*
Chlorpyrifos	P	*	P	P	P	*
Cyfluthrin	*		*		*	
Esfenvalerate	P			*	*	
Ethoprop	P			*	*	
Lambda-cyhalothrin	P	P	P	P	P	P
Malathion	*			*		
Methidathion	*				*	
Methomyl	*		*			
Methyl parathion	*					*
Oxydemeton-methyl	*			*		
Permethrin	P	P			P	P
Petroleum distillate	P		*	*	*	
Tebupirimphos	*		*			
Tefluthrin	P	*	P	*	*	*
Zeta-cypermethrin	P	*	*		P	P
Fungicides						
Azoxystrobin	P	P			*	*
Propiconazole	P	P				*
Sulfur	*				*	
Other Chemicals						
Aminopyridine	P	*				*
Harpin protein	*	*				
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
MN [1]	148,000	70	204.6	95	12.7	13	3.5		
NY [1]	17,600	93	37.6	62	10.4				
OR	33,000	98	115.6	38	16.7				
WA [1]	97,700	89	225.5	80	19.3				
WI [1]	92,100	95	168.5	85	11.1			6	*
Total	388,400	84	751.9	82	70.4	6	45.4	2	10.7

* Total applied is less than 50 pounds.

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

Sweet Corn, Proc. : Agricultural Chemical Applications, Program States, 2002 [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	3	1.2	0.34	0.41	4.4
Alachlor	12	1.0	1.96	2.01	93.1
Atrazine	65	1.0	0.74	0.78	196.4
Bentazon	17	1.0	0.35	0.35	23.3
Carfentrazone-ethyl	11	1.0	0.01	0.01	0.4
Cyanazine	2	1.1	0.94	1.08	6.7
Dimethenamid	6	1.0	1.19	1.20	27.0
Dimethenamid-P	24	1.0	0.71	0.73	66.7
EPTC	5	1.0	3.95	4.01	80.0
Fluroxypyr	6	1.2	0.12	0.15	3.8
Glyphosate	17	1.0	0.53	0.55	37.7
Nicosulfuron	10	1.0	0.03	0.03	1.1
Paraquat	4	1.0	0.35	0.37	5.1
Pendimethalin	15	1.4	0.52	0.74	44.3
S-Metolachlor	27	1.0	1.42	1.44	152.8
Simazine	*	1.0	0.95	0.95	2.9
Insecticides					
Bifenthrin	12	2.2	0.04	0.09	4.2
Chlorpyrifos	4	1.0	1.19	1.20	20.6
Esfenvalerate	*	1.5	0.03	0.05	0.2
Ethoprop	1	1.0	1.10	1.14	5.4
Lambda-cyhalothrin	51	3.0	0.02	0.07	14.2
Permethrin	5	1.3	0.14	0.18	3.7
Petroleum distillate	*	1.0	3.17	3.17	10.9
Tefluthrin	1	1.0	0.10	0.10	0.5
Zeta-cypermethrin	16	1.9	0.05	0.10	5.8
Fungicides					
Azoxystrobin	4	1.0	0.10	0.11	1.5
Propiconazole	4	1.1	0.11	0.12	2.1
Other Chemicals					
Aminopyridine	2	1.9	0.000	0.001	([2])

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 5 program states were 388,400 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, 2002 [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	52	1.0	0.64	0.65	49.9
Bentazon	31	1.0	0.34	0.35	15.9
Carfentrazone-ethyl	8	1.0	0.006	0.006	0.1
Dimethenamid	9	1.0	1.28	1.28	16.8
Dimethenamid-P	13	1.0	0.88	0.96	17.8
Nicosulfuron	12	1.0	0.03	0.03	0.6
S-Metolachlor	30	1.0	1.75	1.75	76.8
Insecticides					
Bifenthrin	18	2.2	0.04	0.08	2.1
Lambda-cyhalothrin	85	3.3	0.02	0.08	9.8
Permethrin	2	1.0	0.12	0.12	0.3
Fungicides					
Azoxystrobin	9	1.0	0.10	0.11	1.4
Propiconazole	11	1.1	0.11	0.12	2.1

[1] Planted acres in 2002 for Minnesota were 148,000 acres.

Sweet Corn, Proc. : Agricultural Chemical Applications, New York, 2002 [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	0.67	0.72	10.0
Bentazon	44	1.0	0.45	0.45	3.5
Pendimethalin	21	1.0	1.19	1.19	4.4
S-Metolachlor	40	1.0	1.25	1.25	8.8
Insecticides					
Chlorpyrifos	4	1.0	1.12	1.12	0.8
Lambda-cyhalothrin	30	1.4	0.02	0.03	0.2
Tefluthrin	16	1.0	0.10	0.10	0.3

[1] Planted acres in 2002 for New York were 17,600 acres.

Sweet Corn, Proc. : Agricultural Chemical Applications, Oregon, 2002 [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	14	1.0	2.49	2.49	11.8
Atrazine	91	1.0	1.03	1.10	33.0
Bentazon	17	1.0	0.45	0.45	2.6
Carfentrazone-ethyl	7	1.0	0.009	0.009	([2])
Dimethenamid	19	1.0	1.08	1.08	6.6
Dimethenamid-P	7	1.0	0.76	0.79	1.9
EPTC	31	1.0	3.52	3.59	36.6
Glyphosate	20	1.0	0.80	0.82	5.4
Nicosulfuron	2	1.0	0.03	0.03	([2])
S-Metolachlor	30	1.0	1.48	1.55	15.1
Insecticides					
Bifenthrin	1	1.0	0.09	0.10	([2])
Chlorpyrifos	22	1.0	1.27	1.27	9.0
Lambda-cyhalothrin	2	1.0	0.03	0.03	([2])

[1] Planted acres in 2002 for Oregon were 33,000 acres.

[2] Total applied is less than 50 lbs.

Sweet Corn, Proc. : Agricultural Chemical Applications, Washington, 2002 [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	12	1.0	2.37	2.46	28.5
Atrazine	68	1.1	0.75	0.84	55.7
Bentazon	5	1.0	0.12	0.12	0.5
Carfentrazone-ethyl	11	1.0	0.02	0.02	0.2
Dimethenamid	2	1.0	0.99	1.05	1.7
Dimethenamid-P	37	1.0	0.65	0.66	23.9
EPTC	6	1.0	3.24	3.28	20.1
Fluroxypyr	25	1.2	0.12	0.15	3.8
Glyphosate	49	1.0	0.52	0.54	25.9
Pendimethalin	52	1.4	0.47	0.69	35.0
S-Metolachlor	20	1.0	1.12	1.12	22.4
Insecticides					
Bifenthrin	5	2.3	0.04	0.11	0.5
Chlorpyrifos	9	1.0	1.15	1.17	10.7
Lambda-cyhalothrin	23	1.7	0.02	0.04	0.9
Permethrin	5	1.2	0.16	0.20	0.9
Zeta-cypermethrin	35	2.1	0.05	0.11	3.6

[1] Planted acres in 2002 for Washington were 97,700 acres.

Sweet Corn, Proc. : Agricultural Chemical Applications, Wisconsin, 2002 [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	1.0	0.44	0.47	2.5
Alachlor	26	1.0	1.67	1.71	40.4
Atrazine	68	1.0	0.71	0.76	47.8
Bentazon	2	1.0	0.44	0.44	0.8
Carfentrazone-ethyl	17	1.0	0.009	0.009	0.2
Cyanazine	6	1.1	0.90	1.06	5.8
Dimethenamid	1	1.0	1.21	1.23	1.6
Dimethenamid-P	38	1.0	0.66	0.67	23.0
Glyphosate	14	1.1	0.41	0.47	5.9
Nicosulfuron	19	1.0	0.02	0.03	0.5
Pendimethalin	3	1.0	0.85	0.85	2.5
S-Metolachlor	27	1.0	1.13	1.18	29.6
Simazine	3	1.0	0.95	0.95	2.9
Insecticides					
Bifenthrin	17	2.2	0.04	0.09	1.4
Lambda-cyhalothrin	46	3.1	0.02	0.08	3.3
Permethrin	15	1.3	0.13	0.19	2.5
Zeta-cypermethrin	28	1.7	0.05	0.08	2.1

[1] Planted acres in 2002 for Wisconsin were 92,100 acres.

Cucumbers, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	4,300	56	276	50	114	49	109
FL	7,700	86	421	75	237	84	405
GA	16,000	100	2,036	99	1,065	100	2,306
MI	6,800	99	689	94	331	99	925
NC	7,500	97	757	93	890	99	1,226
Total	42,300	92	4,179	88	2,637	91	4,971

Cucumbers, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	4,300					
Nitrogen		56	3.2	36	114	276
Phosphate		50	2.4	22	53	114
Potash		49	2.4	21	52	109
Florida	7,700					
Nitrogen		86	6.2	10	64	421
Phosphate		75	2.8	14	41	237
Potash		84	6.0	10	63	405
Georgia	16,000					
Nitrogen		100	9.9	13	127	2,036
Phosphate		99	2.0	33	67	1,065
Potash		100	8.3	17	144	2,306
Michigan	6,800					
Nitrogen		99	2.1	47	103	689
Phosphate		94	1.1	45	52	331
Potash		99	1.2	114	138	925
North Carolina	7,500					
Nitrogen		97	2.3	45	104	757
Phosphate		93	1.6	78	128	890
Potash		99	1.7	92	165	1,226
Total	42,300					
Nitrogen		92	6.1	17	107	4,179
Phosphate		88	1.9	36	71	2,637
Potash		91	5.1	25	129	4,971

Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NC
Herbicides						
Atrazine	*				*	
Bensulide	P	*			*	*
Bentazon	*				*	*
Clomazone	P		*		P	*
Ethalfluralin	P		*	P	P	P
Glyphosate	P	*	P	*	P	
Halosulfuron	*					*
Napropamide	*				*	*
Naptalam	P			*	*	*
Oxyfluorfen	*	*				
Paraquat	P	*	P	*	P	*
Pendimethalin	P			*	*	
S-Metolachlor	P				P	
Sethoxydim	P			*		*
Simazine	*					*
Trifluralin	P				*	*

See footnote(s) at end of table.

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Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NC
Insecticides						
Abamectin	*	*	*			
Acephate	*		*	*		*
Azadirachtin	P	*	*		*	
Bifenthrin	P		*	*		*
Bt (Bacillus thur.)	P	*	P		*	P
Carbaryl	P	*	*	*	P	P
Carbofuran	*				*	
Cyfluthrin	*					*
Diazinon	P		*	*	*	*
Dicofol	*		*			
Endosulfan	P	*	*	P	P	P
Esfenvalerate	P	*	*	P	P	P
Ethoprop	*			*		
Ethyl parathion	*					*
Fenamiphos	*			*		
Fenpropathrin	*		*		*	
Imidacloprid	P	*	*	*	*	
Lambda-cyhalothrin	*				*	
Malathion	P	*	*	*	*	*
Methomyl	P	*	*	*	*	*
Naled	*				*	
Oxamyl	P	*	*			
Oxydemeton-methyl	*	*	*			
Oxythioquinox	*			*		
Permethrin	P	*			P	P
Petroleum distillate	*			*	*	
Potassium salts	*				*	
Pseudomonas cepacia	*				*	
Pyrethrins	*	*				
Rotenone	*				*	
Spinosad	P	*	*	*		*
Tebufenozide	*		*			
Thiamethoxam	*	*		*	*	

See footnote(s) at end of table.

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Cucumbers, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	MI	NC
Fungicides						
Azoxystrobin	P	*	*	P	*	P
Benomyl	*	*		*	*	
Chlorothalonil	P	*	*	P	P	P
Copper amm. complex	*		*		*	
Copper hydroxide	P	*		*	P	*
Copper oxychlo. sul.	*				*	
Copper resinate	*				*	*
Copper sulfate	P		*	*	*	
Fosetyl-al	*				*	
Mancozeb	P		P	*	*	*
Maneb	P		P	*	*	*
Mefenoxam	P		*		*	*
Myclobutanil	P	*			*	*
Sulfur	P	*			*	*
Thiophanate-methyl	*		*	*		
Triadimefon	*				*	
Trifloxystrobin	*	*				
Other Chemicals						
Busan 881	*		*			
Chloropicrin	P		*	*	P	P
Dichloropropene	P			P	*	*
Garlic oil	*	*			*	
Harpin protein	*	*				
Hydrogen peroxide	*		*			*
Metam-sodium	*	*				
Methyl bromide	P		*	*	*	P
Strychnine	*	*				

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	4,300	23	2.0	30	1.5	30	1.4		
FL	7,700	77	13.1	100	4.7	99	97.1	65	924.7
GA	16,000	18	2.9	97	39.1	94	104.0	27	282.3
MI	6,800	86	10.7	93	6.5	92	22.4	5	95.2
NC	7,500	74	2.8	78	1.6	77	23.2	2	6.4
Total	42,300	50	31.5	87	54.0	85	248.2	23	1,309.3

[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.

Cucumbers, Fresh : Agricultural Chemical Applications, Program States, 2002 [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	4	1.0	1.65	1.68	3.0
Clomazone	7	1.0	0.17	0.17	0.5
Ethalfluralin	16	1.0	0.81	0.81	5.4
Glyphosate	13	1.8	0.84	1.59	8.7
Naptalam	1	1.0	1.64	1.64	0.8
Paraquat	29	1.4	0.55	0.80	9.8
Pendimethalin	5	1.0	0.75	0.75	1.7
S-Metolachlor	*	1.0	2.22	2.22	0.9
Sethoxydim	3	1.0	0.21	0.21	0.2
Trifluralin	*	1.0	0.57	0.57	([2])
Insecticides					
Azadirachtin	*	1.5	0.02	0.03	([2])
Bifenthrin	11	1.3	0.07	0.09	0.4
Bt (Bacillus thur.) [3]	18	3.8			
Carbaryl	4	1.6	0.83	1.33	2.5
Diazinon	*	1.6	0.90	1.46	0.5
Endosulfan	35	3.0	0.60	1.80	27.0
Esfenvalerate	23	2.0	0.02	0.05	0.5
Imidacloprid	5	1.2	0.14	0.17	0.4
Malathion	*	1.7	1.59	2.82	1.0
Methomyl	4	2.7	0.43	1.17	1.9
Oxamyl	2	1.8	0.45	0.81	0.8
Permethrin	4	1.0	0.08	0.08	0.1
Spinosad	19	1.3	0.08	0.11	0.9
Fungicides					
Azoxystrobin	28	1.8	0.15	0.28	3.3
Chlorothalonil	71	3.0	1.53	4.66	139.7
Copper hydroxide	17	1.8	0.38	0.71	5.0
Copper sulfate	3	3.2	0.39	1.25	1.4
Mancozeb	16	2.7	1.17	3.22	22.1
Maneb	27	4.2	1.43	6.09	69.6
Mefenoxam	6	2.5	0.19	0.48	1.2
Myclobutanil	2	1.7	0.10	0.18	0.1
Sulfur	6	1.5	0.92	1.46	3.5
Other Chemicals					
Chloropicrin	13	1.0	62.58	62.58	336.8
Dichloropropene	10	1.0	54.72	57.60	236.5
Methyl bromide	12	1.0	137.53	137.53	689.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 4 program states were 42,300 acres.
States included are FL, GA, MI 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, 2002 [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	64	1.8	0.78	1.48	7.3
Paraquat	60	1.9	0.62	1.19	5.5
Insecticides					
Bt (Bacillus thur.) [2]	93	3.9			
Fungicides					
Mancozeb	18	4.6	1.43	6.62	9.4
Maneb	79	5.7	1.38	7.99	48.5

[1] Planted acres in 2002 for Florida were 7,700 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, 2002 [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	11	1.0	0.62	0.62	1.1
Insecticides					
Endosulfan	72	3.3	0.61	2.05	23.7
Esfenvalerate	12	2.6	0.04	0.10	0.2
Fungicides					
Azoxystrobin	53	2.0	0.15	0.30	2.5
Chlorothalonil	85	3.2	1.65	5.35	72.9
Other Chemicals					
Dichloropropene	26	1.0	54.69	57.58	236.4

[1] Planted acres in 2002 for Georgia were 16,000 acres.

Cucumbers, Fresh : Agricultural Chemical Applications, Michigan, 2002 [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	28	1.0	0.14	0.14	0.3
Ethalfluralin	54	1.0	0.95	0.95	3.5
Glyphosate	3	1.9	1.10	2.11	0.5
Paraquat	33	1.0	0.63	0.63	1.4
S-Metolachlor	6	1.0	2.22	2.22	0.9
Insecticides					
Carbaryl	12	1.5	0.92	1.39	1.1
Endosulfan	47	1.9	0.51	0.99	3.1
Esfenvalerate	45	1.7	0.04	0.06	0.2
Permethrin	21	1.0	0.05	0.05	0.1
Fungicides					
Chlorothalonil	76	1.9	1.33	2.59	13.4
Copper hydroxide	74	1.9	0.37	0.71	3.6
Other Chemicals					
Chloropicrin	5	1.0	97.12	97.12	31.4

[1] Planted acres in 2002 for Michigan were 6,800 acres.

Cucumbers, Fresh : Agricultural Chemical Applications, North Carolina, 2002 [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	8	1.0	0.93	0.93	0.6
Insecticides					
Bt (Bacillus thur.) [2]	*	6.3			
Carbaryl	13	1.5	0.79	1.22	1.2
Endosulfan	*	2.7	0.76	2.08	([3])
Esfenvalerate	56	1.9	0.006	0.01	([3])
Permethrin	3	1.1	0.15	0.17	([3])
Fungicides					
Azoxystrobin	9	1.1	0.12	0.14	0.1
Chlorothalonil	69	1.8	1.56	2.90	15.0
Other Chemicals					
Chloropicrin	*	1.0	42.50	42.50	2.1
Methyl bromide	*	1.0	86.28	86.28	4.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for North Carolina were 7,500 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.

Cucumbers, Proc. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
FL	6,500	99	648	96	415	99	1,694
MI	35,500	100	2,706	97	1,300	96	4,268
NC	18,500	98	1,118	35	275	97	1,422
OH	2,500	99	272	99	269	92	352
SC	3,900	100	347	100	181	100	350
TX	11,500	97	1,044	93	774	85	449
WI	5,800	100	434	59	195	100	586
Total	84,200	99	6,569	80	3,409	95	9,121

Cucumbers, Proc.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Florida	6,500					
Nitrogen		99	6.8	15	100	648
Phosphate		96	1.0	66	66	415
Potash		99	6.8	38	263	1,694
Michigan	35,500					
Nitrogen		100	1.8	40	76	2,706
Phosphate		97	1.1	32	38	1,300
Potash		96	1.4	87	125	4,268
North Carolina	18,500					
Nitrogen		98	1.9	31	62	1,118
Phosphate		35	1.0	42	43	275
Potash		97	1.0	75	79	1,422
Ohio	2,500					
Nitrogen		99	1.5	72	110	272
Phosphate		99	1.2	85	109	269
Potash		92	1.2	123	153	352
South Carolina	3,900					
Nitrogen		100	1.0	84	89	347
Phosphate		100	1.0	46	46	181
Potash		100	1.0	90	90	350
Texas	11,500					
Nitrogen		97	1.3	68	94	1,044
Phosphate		93	1.0	72	73	774
Potash		85	1.0	46	46	449
Wisconsin	5,800					
Nitrogen		100	2.8	27	75	434
Phosphate		59	1.0	54	57	195
Potash		100	1.6	63	101	586
Total	84,200					
Nitrogen		99	2.2	35	79	6,569
Phosphate		80	1.1	46	51	3,409
Potash		95	1.7	66	114	9,121

Cucumbers, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Herbicides								
Bensulide	P				*		*	*
Bentazon	*		*					
Clethodim	*	*		*				
Clomazone	P	*	P	P	P			
Diuron	*			*				
Ethalfluralin	P	*	P	P	*	*	P	P
Glyphosate	P	*	*	*	P	*	*	
Halosulfuron	P	*	P	*				*
Napropamide	*		*					
Naptalam	P		P	*	P	*	*	*
Paraquat	*		*	*				
Pendimethalin	*		*	*				
S-Metolachlor	*		*		*			
Sethoxydim	P	*	*	*			*	*
Trifluralin	*				*		*	

See footnote(s) at end of table.

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Cucumbers, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Insecticides								
Abamectin	*	*						
Azadirachtin	*	*	*					
Bifenthrin	P	*	*		*			
Bt (Bacillus thur.)	P	P		*	*	*	*	
Carbaryl	P		P	*	P	*	P	*
Carbofuran	P		P		*		*	
Cypermethrin	*						*	
Diazinon	P		*				*	*
Dicofol	*	*						
Dimethoate	*			*				
Endosulfan	P		P	*	P		*	
Esfenvalerate	P		P	P	*	*	*	*
Ethoprop	*			*		*		
Fenpropathrin	*		*					
Imidacloprid	*				*		*	
Lambda-cyhalothrin	*				*			
Malathion	*				*		*	
Methomyl	P	*	*				P	
Mevinphos	*			*				
Oxamyl	*						*	
Permethrin	P		*	P	P	*	*	*
Potassium salts	*		*					
Pyrethrins	*							*
Rotenone	*							*
Spinosad	*	*						
Thiamethoxam	*	*	*					

See footnote(s) at end of table.

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Cucumbers, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	FL	MI	NC	OH	SC	TX	WI
Fungicides								
Azoxystrobin	P	*	*	P	*		*	*
Benomyl	*		*		*			
Chlorothalonil	P	P	P	*	P		*	
Copper amm. complex	*							*
Copper hydroxide	P	*	P		*		*	*
Copper oxide	*				*			
Copper oxychlo. sul.	*		*					
Copper resinate	*			*				
Copper sulfate	*	*						
Dimethomorph	*		*					*
Mancozeb	P	*	*	*		*		*
Mefenoxam	P	*	P		*		*	*
Metalaxyl	*		*	*	*	*		
Myclobutanil	*				*			
Sulfur	P		*		*		*	
Thiophanate-methyl	*				*			
Other Chemicals								
Busan 881	*	*						
Chloropicrin	*	*		*				
Cytokinins	*						*	
Dichloropropene	P			P				
Gibberellic acid	*						*	
Indolebutyric acid	*						*	
Methyl bromide	*	*						

P Usage data are published for this active ingredient.

* Usage data are not published for this active ingredient.

Cucumbers, Proc. : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
FL [2]	6,500	96	8.4	100	3.1	100	13.6		
MI	35,500	94	22.5	23	6.4	19	14.2		
NC	18,500	93	10.2	36	1.5	35	8.4	3	32.6
OH	2,500	89	2.1	96	2.7	85	12.2		
SC [2]	3,900			93	1.5				
TX [2]	11,500	94	4.5	18	2.1				
WI	5,800	72	4.5	24	0.5	23	0.8		
Total	84,200	89	53.0	36	17.9	30	56.4	2	77.8

[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.

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

Cucumbers, Proc. : Agricultural Chemical Applications, Program States, 2002 [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	*	1.0	3.14	3.14	0.7
Clomazone	29	1.0	0.16	0.16	3.8
Ethalfluralin	46	1.0	0.61	0.62	23.7
Glyphosate	20	1.0	0.87	0.88	14.9
Halosulfuron	16	1.0	0.02	0.02	0.3
Naptalam	10	1.0	0.79	0.81	6.9
Sethoxydim	10	1.3	0.19	0.26	2.1
Insecticides					
Bifenthrin	1	1.5	0.07	0.10	0.1
Bt (Bacillus thur.) [2]	6	4.5			
Carbaryl	3	1.3	0.78	1.04	2.8
Carbofuran	6	1.0	0.94	0.94	4.7
Diazinon	1	1.0	1.02	1.02	1.2
Endosulfan	3	1.4	0.61	0.89	2.2
Esfenvalerate	10	1.4	0.03	0.04	0.3
Methomyl	2	3.0	0.37	1.14	2.3
Permethrin	6	3.0	0.08	0.24	1.3
Fungicides					
Azoxystrobin	8	1.2	0.17	0.21	1.3
Chlorothalonil	16	1.7	1.56	2.70	37.1
Copper hydroxide	3	1.5	0.53	0.82	2.2
Mancozeb	9	1.3	1.21	1.61	12.8
Mefenoxam	6	1.2	0.11	0.14	0.7
Sulfur	*	2.0	0.89	1.83	1.1
Other Chemicals					
Dichloropropene	*	1.0	50.90	50.90	32.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 6 program states were 84,200 acres.
States included are FL, MI, NC, OH, TX and WI.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cucumbers, Proc. : Agricultural Chemical Applications, Florida, 2002 [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]	84	4.5			
Fungicides					
Chlorothalonil	23	4.8	1.16	5.62	8.5

[1] Planted acres in 2002 for Florida were 6,500 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Cucumbers, Proc. : Agricultural Chemical Applications, Michigan, 2002 [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	59	1.0	0.13	0.13	2.7
Ethalfluralin	70	1.0	0.57	0.57	14.1
Halosulfuron	31	1.0	0.02	0.02	0.2
Naptalam	17	1.0	0.75	0.76	4.6
Insecticides					
Carbaryl	4	1.1	0.60	0.68	0.9
Carbofuran	13	1.0	0.99	0.99	4.4
Endosulfan	1	3.0	0.49	1.52	0.8
Esfenvalerate	4	1.4	0.03	0.05	0.1
Fungicides					
Chlorothalonil	12	1.3	1.41	1.91	8.2
Copper hydroxide	6	1.5	0.55	0.87	1.8
Mefenoxam	10	1.0	0.11	0.11	0.4

[1] Planted acres in 2002 for Michigan were 35,500 acres.

Cucumbers, Proc. : Agricultural Chemical Applications, North Carolina, 2002 [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	4	1.0	0.28	0.28	0.2
Ethalfluralin	24	1.0	0.63	0.63	2.8
Insecticides					
Esfenvalerate	28	1.1	0.03	0.03	0.2
Permethrin	4	2.8	0.12	0.34	0.3
Fungicides					
Azoxystrobin	30	1.1	0.18	0.20	1.1
Other Chemicals					
Dichloropropene	3	1.0	50.90	50.90	32.5

[1] Planted acres in 2002 for North Carolina were 18,500 acres.

Cucumbers, Proc. : Agricultural Chemical Applications, Ohio, 2002 [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	87	1.0	0.38	0.38	0.8
Glyphosate	6	1.4	0.71	1.03	0.2
Naptalam	17	1.0	2.32	2.32	1.0
Insecticides					
Carbaryl	25	2.1	0.86	1.82	1.2
Endosulfan	72	1.0	0.74	0.74	1.3
Permethrin	16	2.4	0.09	0.23	0.1
Fungicides					
Chlorothalonil	85	1.3	4.26	5.58	11.8

[1] Planted acres in 2002 for Ohio were 2,500 acres.

Cucumbers, Proc. : Agricultural Chemical Applications, Texas, 2002 [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	34	1.0	0.58	0.58	2.3
Insecticides					
Carbaryl	*	1.9	0.94	1.86	([2])
Methomyl	7	2.0	0.53	1.09	0.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for Texas were 11,500 acres.

[2] Total applied is less than 50 lbs.

Cucumbers, Proc. : Agricultural Chemical Applications, Wisconsin, 2002 [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	64	1.0	0.93	0.93	3.4

[1] Planted acres in 2002 for Wisconsin were 5,800 acres.

Garlic : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	29,000	99	6,354	76	2,372	4	60

Garlic: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	29,000					
Nitrogen		99	3.2	69	221	6,354
Phosphate		76	1.0	104	108	2,372
Potash		4	1.2	40	52	60

Garlic: Active Ingredients
Publication Status

Active Ingredient	CA
Herbicides	
Bromoxynil	P
Clethodim	*
Fluazifop-P-butyl	*
Glyphosate	*
Oxyfluorfen	P
Pendimethalin	P
Sethoxydim	*
Insecticides	
Cypermethrin	*
Zeta-cypermethrin	*
Fungicides	
Azoxystrobin	P
Chlorothalonil	*
Tebuconazole	*

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [1]	29,000	79	23.4			42	3.5		

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

Garlic : Agricultural Chemical Applications, California, 2002 [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	19	1.1	0.33	0.38	2.1
Oxyfluorfen	52	1.5	0.19	0.29	4.4
Pendimethalin	48	1.3	0.85	1.15	16.0
Fungicides					
Azoxystrobin	41	1.3	0.18	0.24	2.9

[1] Planted acres in 2002 for California were 29,000 acres.

Head Lettuce : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	52,300	2	92	1	72	*	
CA	129,000	90	18,018	59	9,549	52	4,716
Total	181,300	64	18,110	42	9,621	37	4,716

Head Lettuce: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	52,300					
Nitrogen		2	2.8	39	113	92
Phosphate		1	1.4	80	118	72
Potash		0	0.0			
California	129,000					
Nitrogen		90	2.4	65	155	18,018
Phosphate		59	1.6	76	126	9,549
Potash		52	1.7	41	71	4,716
Total	181,300					
Nitrogen		64	2.4	65	155	18,110
Phosphate		42	1.6	76	126	9,621
Potash		37	1.7	41	71	4,716

Head Lettuce: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Benefin	P	P	P
Bensulide	P	P	P
EPTC	*		*
Glyphosate	P		P
Glyphosate diam salt	*		*
Oxyfluorfen	*		*
Paraquat	P		P
Pronamide	P	P	P
Sethoxydim	P	*	*
Insecticides			
Abamectin	P	*	*
Acephate	P	P	P
Acetamiprid	P		P
Azadirachtin	P	*	*
Bt (Bacillus thur.)	P	P	P
Carbaryl	P	*	*
Chlorpyrifos	*		*
Cypermethrin	P	P	P
Cyromazine	P		P
Diazinon	P	P	P
Dimethoate	P	P	P
Disulfoton	*		*
Emamectin benzoate	P	*	*
Endosulfan	P	P	P
Esfenvalerate	P	P	P
Imidacloprid	P	P	P
Indoxacarb	P	P	P
Lambda-cyhalothrin	P	P	P
Lindane	*		*
Malathion	P	*	*
Methomyl	P	P	P
Oxydemeton-methyl	P		P
Permethrin	P	P	P
Piperonyl butoxide	*	*	*
Pyrethrins	P	*	*
Rotenone	P	*	*
Spinosad	P	P	P
Tebufenozide	P	P	P
Thiodicarb	P		P
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, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Fungicides			
Azoxystrobin	P		P
Bacillus subtilus	P		P
Coniothyrium minitan	*		*
Copper hydroxide	*		*
Dicloran	P		P
Fosetyl-al	P	*	P
Iprodione	P	*	P
Mancozeb	*		*
Maneb	P	P	P
Mefenoxam	*	*	*
Sulfur	P	*	*
Vinclozolin	P	*	*
Other Chemicals			
Chloropicrin	*		*
Dichloropropene	*		*
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	52,300	82	105.4	99	79.8	67	44.8		
CA	129,000	63	139.9	94	423.8	77	439.8	8	117.7
Total	181,300	68	245.4	95	503.6	74	484.6	6	117.7

[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.

Head Lettuce : Agricultural Chemical Applications, Program States, 2002 [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	20	1.3	1.03	1.34	49.1
Bensulide	19	1.0	3.84	3.90	136.7
Glyphosate	*	1.0	0.95	0.95	0.9
Paraquat	*	1.0	0.70	0.70	0.4
Pronamide	43	1.1	0.65	0.73	57.1
Sethoxydim	1	1.0	0.26	0.28	0.6
Insecticides					
Abamectin	17	1.6	0.007	0.01	0.3
Acephate	55	1.4	0.85	1.18	118.6
Acetamiprid	5	1.0	5.83	6.07	55.9
Azadirachtin	*	1.0	0.03	0.03	([2])
Bt (Bacillus thur.) [3]	8	1.1			
Carbaryl	*	1.0	1.07	1.14	1.1
Cypermethrin	14	1.0	0.08	0.08	2.1
Cyromazine	3	1.0	0.10	0.10	0.6
Diazinon	52	1.3	0.60	0.82	76.5
Dimethoate	22	1.3	0.24	0.32	12.5
Emamectin benzoate	16	1.6	0.02	0.02	0.5
Endosulfan	11	1.0	0.92	0.93	19.1
Esfenvalerate	19	1.1	0.04	0.05	1.7
Imidacloprid	51	1.2	0.11	0.14	12.7
Indoxacarb	25	1.3	0.06	0.09	3.9
Lambda-cyhalothrin	32	1.8	0.03	0.05	2.9
Malathion	8	1.2	1.46	1.78	26.7
Methomyl	38	1.3	0.70	0.92	63.8
Oxydemeton-methyl	31	1.2	0.49	0.63	35.4
Permethrin	68	1.7	0.16	0.28	34.8
Pyrethrins	1	1.0	0.007	0.007	([2])
Rotenone	*	1.0	0.005	0.005	([2])
Spinosad	71	1.9	0.07	0.14	18.1
Tebufenozide	14	1.0	0.12	0.13	3.2
Thiodicarb	2	1.5	0.49	0.75	2.6
Zeta-cypermethrin	30	1.3	0.04	0.06	3.2
Fungicides					
Azoxystrobin	*	1.0	0.22	0.23	0.3
Bacillus subtilus [3]	4	1.0			
Dicloran	5	1.2	2.27	2.92	28.6
Fosetyl-al	12	1.2	2.89	3.64	80.0
Iprodione	22	1.2	0.94	1.14	45.2
Maneb	66	1.9	1.27	2.49	298.0
Sulfur	1	1.0	3.10	3.35	7.4
Vinclozolin	11	1.4	0.66	0.97	19.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 2 program states were 181,300 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.

Head Lettuce : Agricultural Chemical Applications, Arizona, 2002 [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	40	1.2	1.21	1.49	31.0
Bensulide	27	1.0	3.93	3.94	56.5
Pronamide	41	1.1	0.74	0.82	17.6
Insecticides					
Acephate	14	1.0	0.79	0.80	6.0
Bt (Bacillus thur.) [2]	8	1.0			
Cypermethrin	35	1.0	0.08	0.08	1.5
Diazinon	34	1.0	0.48	0.48	8.5
Dimethoate	10	1.1	0.24	0.28	1.4
Endosulfan	18	1.0	0.92	0.94	8.7
Esfenvalerate	11	1.0	0.04	0.05	0.3
Imidacloprid	18	1.0	0.18	0.19	1.7
Indoxacarb	27	1.0	0.06	0.07	0.9
Lambda-cyhalothrin	18	1.0	0.03	0.03	0.3
Methomyl	65	1.1	0.71	0.79	26.6
Permethrin	82	1.5	0.17	0.26	11.3
Spinosad	93	2.3	0.07	0.17	8.0
Tebufenozide	22	1.1	0.12	0.13	1.5
Zeta-cypermethrin	57	1.4	0.04	0.07	2.0
Fungicides					
Maneb	44	1.0	1.22	1.24	28.5

[1] Planted acres in 2002 for Arizona were 52,300 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Head Lettuce : Agricultural Chemical Applications, California, 2002 [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	12	1.4	0.81	1.14	18.1
Bensulide	16	1.0	3.78	3.88	80.1
Glyphosate	*	1.0	0.95	0.95	0.9
Paraquat	*	1.0	0.70	0.70	0.4
Pronamide	44	1.1	0.61	0.70	39.5
Insecticides					
Acephate	72	1.4	0.85	1.21	112.6
Acetamiprid	7	1.0	5.83	6.07	55.9
Bt (Bacillus thur.) [2]	8	1.2			
Cypermethrin	5	1.1	0.08	0.09	0.6
Cyromazine	5	1.0	0.10	0.10	0.6
Diazinon	59	1.4	0.62	0.90	67.9
Dimethoate	27	1.3	0.24	0.32	11.0
Endosulfan	9	1.0	0.91	0.92	10.4
Esfenvalerate	23	1.1	0.04	0.05	1.4
Imidacloprid	65	1.3	0.10	0.13	11.0
Indoxacarb	24	1.5	0.06	0.10	3.0
Lambda-cyhalothrin	38	1.9	0.03	0.05	2.7
Methomyl	28	1.5	0.69	1.04	37.2
Oxydemeton-methyl	44	1.2	0.49	0.63	35.4
Permethrin	62	1.8	0.16	0.29	23.5
Spinosad	62	1.6	0.07	0.12	10.1
Tebufenozide	11	1.0	0.11	0.12	1.7
Thiodicarb	3	1.5	0.49	0.75	2.6
Zeta-cypermethrin	20	1.2	0.04	0.05	1.3
Fungicides					
Azoxystrobin	1	1.0	0.22	0.23	0.3
Bacillus subtilus [2]	6	1.0			
Dicloran	8	1.2	2.27	2.92	28.6
Fosetyl-al	17	1.2	2.89	3.66	78.4
Iprodione	24	1.2	0.93	1.17	36.6
Maneb	75	2.1	1.28	2.79	269.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for California were 129,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Lettuce, Other : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	18,600	1	50	1	10	*	
CA	91,000	84	14,407	66	8,586	60	4,510
Total	109,600	70	14,457	55	8,596	50	4,510

Lettuce, Other: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	18,600					
Nitrogen		1	4.1	67	275	50
Phosphate		1	1.0	55	55	10
Potash		0	0.0			
California	91,000					
Nitrogen		84	2.6	71	188	14,407
Phosphate		66	2.0	71	142	8,586
Potash		60	1.9	42	83	4,510
Total	109,600					
Nitrogen		70	2.6	71	189	14,457
Phosphate		55	1.9	71	142	8,596
Potash		50	1.9	42	83	4,510

Lettuce, Other: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Benefin	P	*	*
Bensulide	P	P	P
Glyphosate	*	*	*
MCPA	*	*	
Napropamide	*		*
Paraquat	*		*
Pronamide	P	P	P
Sethoxydim	P	*	*
Trifluralin	*	*	

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

Lettuce, Other: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Insecticides			
Abamectin	*		*
Acephate	P	*	*
Acetamiprid	P		P
Azadirachtin	P	*	*
Bt (Bacillus thur.)	P	*	*
Buprofezin	*		*
Carbaryl	*		*
Chlorpyrifos	*		*
Cryolite	*		*
Cypermethrin	*	*	
Cyromazine	P		P
Diazinon	P	P	P
Dimethoate	P	*	*
Disulfoton	*		*
Endosulfan	P	P	P
Esfenvalerate	*	*	*
Imidacloprid	P	P	P
Indoxacarb	P	P	P
Lambda-cyhalothrin	P	P	P
Lindane	*		*
Malathion	P	*	*
Methomyl	P	P	P
Naled	*		*
Neem oil, clar. hyd.	*		*
Oxydemeton-methyl	*		*
Permethrin	P	P	P
Piperonyl butoxide	*		*
Potassium salts	*		*
Pyrethrins	P		P
Rotenone	P		P
Silicon dioxide	*		*
Spinosad	P	P	P
Tebufenozide	P	P	P
Thiodicarb	P		P
Tralomethrin	P		P
Zeta-cypermethrin	P	*	*

See footnote(s) at end of table.

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Lettuce, Other: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Fungicides			
Azoxystrobin	P	*	*
Bacillus subtilus	P	*	*
Copper hydroxide	*		*
Dicloran	P		P
Fosetyl-al	P	*	*
Iprodione	P	*	*
Maneb	P	P	P
Mefenoxam	P		P
Sulfur	P	*	*
Vinclozolin	P		P
Other Chemicals			
Busan 881	*		*
Dichloropropene	*		*
Garlic oil	*		*
Metam-sodium	*		*

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

Lettuce, Other : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	18,600	80	64.3	99	34.8	53	39.3		
CA	91,000	55	69.6	87	199.6	73	242.2	10	336.2
Total	109,600	59	134.2	89	234.3	70	281.6	8	336.2

[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.

Lettuce, Other : Agricultural Chemical Applications, Program States, 2002 [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	10	2.4	1.16	2.82	29.8
Bensulide	9	1.1	3.76	4.48	45.8
Pronamide	51	1.2	0.80	1.00	55.7
Sethoxydim	1	1.0	0.29	0.30	0.4
Insecticides					
Acephate	2	1.7	0.82	1.47	2.8
Acetamiprid	10	1.0	5.78	5.88	66.9
Azadirachtin	4	1.3	0.02	0.02	0.1
Bt (Bacillus thur.) [2]	8	1.1			
Cyromazine	2	1.0	0.12	0.13	0.3
Diazinon	59	1.6	0.54	0.88	56.9
Dimethoate	8	1.0	0.23	0.24	2.0
Endosulfan	2	1.1	0.88	1.03	2.4
Imidacloprid	63	1.9	0.08	0.15	10.6
Indoxacarb	11	1.5	0.06	0.10	1.2
Lambda-cyhalothrin	50	1.6	0.03	0.04	2.4
Malathion	10	1.1	1.44	1.61	17.6
Methomyl	35	1.1	0.70	0.82	31.4
Permethrin	69	1.5	0.14	0.22	17.0
Pyrethrins	3	1.0	0.01	0.01	([3])
Rotenone	2	1.0	0.008	0.008	([3])
Spinosad	46	2.2	0.08	0.17	8.7
Tebufenozide	7	1.1	0.12	0.14	1.1
Thiodicarb	1	1.0	0.59	0.62	0.8
Tralomethrin	5	1.0	0.02	0.02	0.1
Zeta-cypermethrin	11	2.4	0.04	0.11	1.3
Fungicides					
Azoxystrobin	3	1.2	0.14	0.18	0.5
Bacillus subtilus [2]	6	1.0			
Dicloran	4	1.0	2.07	2.14	9.0
Fosetyl-al	18	1.2	2.81	3.57	71.6
Iprodione	18	1.1	0.97	1.12	21.6
Maneb	61	1.8	1.41	2.57	171.4
Mefenoxam	4	1.4	0.13	0.18	0.8
Sulfur	2	1.4	1.84	2.74	5.6
Vinclozolin	*	1.0	0.97	1.01	1.0

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 2 program states were 109,600 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.

Lettuce, Other : Agricultural Chemical Applications, Arizona, 2002 [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	17	1.5	3.98	6.10	19.7
Pronamide	65	1.6	0.79	1.27	15.3
Insecticides					
Diazinon	34	1.3	0.47	0.61	3.8
Endosulfan	4	1.1	0.87	1.00	0.7
Imidacloprid	22	1.9	0.22	0.43	1.8
Indoxacarb	33	1.6	0.06	0.11	0.7
Lambda-cyhalothrin	28	1.5	0.03	0.04	0.2
Methomyl	68	1.2	0.72	0.93	11.8
Permethrin	93	1.8	0.16	0.29	5.0
Spinosad	96	3.3	0.08	0.25	4.5
Tebufenozide	26	1.2	0.12	0.15	0.7
Fungicides					
Maneb	37	2.2	1.39	3.11	21.1

[1] Planted acres in 2002 for Arizona were 18,600 acres.

Lettuce, Other : Agricultural Chemical Applications, California, 2002 [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	8	1.0	3.62	3.73	26.0
Pronamide	48	1.1	0.80	0.92	40.3
Insecticides					
Acetamiprid	12	1.0	5.78	5.88	66.9
Cyromazine	3	1.0	0.12	0.13	0.3
Diazinon	64	1.6	0.54	0.91	53.1
Endosulfan	2	1.1	0.89	1.04	1.7
Imidacloprid	71	1.9	0.07	0.14	8.8
Indoxacarb	7	1.3	0.06	0.09	0.5
Lambda-cyhalothrin	54	1.6	0.03	0.04	2.2
Methomyl	28	1.1	0.69	0.77	19.7
Permethrin	65	1.5	0.13	0.20	12.0
Pyrethrins	3	1.0	0.01	0.01	([2])
Rotenone	2	1.0	0.008	0.008	([2])
Spinosad	36	1.6	0.08	0.13	4.2
Tebufenozide	3	1.0	0.12	0.12	0.4
Thiodicarb	1	1.0	0.59	0.62	0.8
Tralomethrin	6	1.0	0.02	0.02	0.1
Fungicides					
Dicloran	5	1.0	2.07	2.14	9.0
Maneb	66	1.7	1.42	2.51	150.3
Mefenoxam	5	1.4	0.13	0.18	0.8
Vinclozolin	1	1.0	0.97	1.01	1.0

[1] Planted acres in 2002 for California were 91,000 acres.

[2] Total applied is less than 50 lbs.

Cantaloupes : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	14,800	81	2,018	70	1,289	53	263
CA	55,900	90	6,664	59	4,322	25	716
PA	1,400	96	53	97	55	96	52
TX	10,000	96	1,051	94	932	64	301
Total	82,100	89	9,786	66	6,598	36	1,332

Cantaloupes: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	14,800					
Nitrogen		81	7.4	23	169	2,018
Phosphate		70	3.2	38	124	1,289
Potash		53	7.6	4	33	263
California	55,900					
Nitrogen		90	3.7	35	133	6,664
Phosphate		59	1.5	84	131	4,322
Potash		25	7.5	7	52	716
Pennsylvania	1,400					
Nitrogen		96	2.1	18	39	53
Phosphate		97	2.0	20	41	55
Potash		96	2.0	18	38	52
Texas	10,000					
Nitrogen		96	2.3	47	110	1,051
Phosphate		94	1.4	68	99	932
Potash		64	1.6	29	47	301
Total	82,100					
Nitrogen		89	4.1	32	134	9,786
Phosphate		66	1.8	65	122	6,598
Potash		36	6.0	7	45	1,332

Cantaloupes: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	AZ	CA	PA	TX
Herbicides					
2,4-D	*				*
Bensulide	P	P	*	P	*
Clomazone	*			*	*
Ethalfluralin	P	*		*	*
Glyphosate	P		*	P	*
Halosulfuron	*			*	
Napropamide	*			*	
Naptalam	P			P	
Oxyfluorfen	P		P		
Paraquat	P		*	*	
Pendimethalin	P			*	*
S-Metolachlor	P			P	
Sethoxydim	P	*	*	*	*
Trifluralin	P	*	*		P

See footnote(s) at end of table.

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Cantaloupes: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	AZ	CA	PA	TX
Insecticides					
Abamectin	P	*	P	*	
Azadirachtin	*			*	
Azinphos-methyl	P			P	
Bifenthrin	P	*	*	P	*
Bt (Bacillus thur.)	P	*	*		P
Buprofezin	P	P			
Carbaryl	P	*	P	P	P
Carbofuran	*				*
Chlorpyrifos	*				*
Cyfluthrin	*			*	
Cyromazine	*	*			
Diazinon	P	*	P	*	P
Dicofol	P	*	*	*	
Dimethoate	P		*	*	P
Endosulfan	P	P	*	P	*
Esfenvalerate	P	*	*	P	*
Fenpropathrin	P	*		*	
Imidacloprid	P	*	P	P	P
Kaolin	*			*	
Lambda-cyhalothrin	*			*	
Malathion	*		*	*	*
Methomyl	P		*	P	*
Neem oil, clar. hyd.	*	*			
Oxamyl	P	*	*		*
Permethrin	P	*	*	P	P
Petroleum distillate	*		*		
Phosmet	*			*	
Piperonyl butoxide	*	*			
Potassium salts	*			*	
Pymetrozine	*		*		
Rotenone	*			*	
Spinosad	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, 2002

Active Ingredient	Program States				
	ALL	AZ	CA	PA	TX
Fungicides					
Azoxystrobin	P	*		P	P
Basic copper sulfate	*			*	
Benomyl	P	*	*	P	
Captan	*			*	
Chlorothalonil	P			P	P
Copper hydroxide	P			*	*
Copper oxide	*				*
Copper resinate	*			*	
Copper sulfate	*			*	
Dicloran	*			*	
Mancozeb	P			P	P
Maneb	*			*	*
Mefenoxam	P		*	*	*
Metalaxyl	P	*		P	*
Myclobutanil	P		*	P	P
Potassium bicarbon.	*	*			
Sulfur	P	*	P	*	*
Thiophanate-methyl	P	*	*	*	*
Thiram	*			*	
Triadimefon	*				*
Trifloxystrobin	P	*	*	*	*
Other Chemicals					
Chloropicrin	*	*			
Cytokinins	*	*			
Dichloropropene	P	*	*		*
Gibberellic acid	*				*
Harpin protein	*	*			*
Hydrogen peroxide	*			*	
Indolebutyric acid	*				*
Metam-sodium	*	*	*		
Sodium chlorate	*	*			

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	14,800	59	11.1	82	9.9	67	15.9	57	992.7
CA [2]	55,900	14	12.5	44	12.4	14	158.0		
PA [2]	1,400	61	2.4	96	2.9	93	6.0		
TX	10,000	62	8.9	67	4.9	64	17.1	12	37.5
Total	82,100	29	35.3	54	30.9	31	196.9	20	2,353.7

[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.

Cantaloupes : Agricultural Chemical Applications, Program States, 2002 [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	1.0	2.15	2.33	21.9
Ethalfluralin	1	1.0	0.87	0.87	1.0
Glyphosate	4	2.2	0.34	0.76	2.6
Naptalam	*	1.0	2.49	2.49	1.5
Oxyfluorfen	2	1.1	0.32	0.35	0.4
Paraquat	*	1.0	0.30	0.33	0.2
Pendimethalin	*	1.0	0.71	0.72	0.2
S-Metolachlor	*	1.6	1.10	1.81	0.1
Sethoxydim	1	1.2	0.12	0.16	0.1
Trifluralin	13	1.1	0.60	0.67	7.3
Insecticides					
Abamectin	8	1.2	0.007	0.009	0.1
Azinphos-methyl	*	2.6	0.48	1.29	0.1
Bifenthrin	4	1.5	0.07	0.11	0.4
Bt (Bacillus thur.) [2]	8	1.8			
Buprofezin	2	1.0	0.36	0.39	0.6
Carbaryl	11	1.2	0.54	0.70	6.3
Diazinon	16	1.0	0.61	0.67	9.1
Dicofol	*	1.0	0.47	0.49	0.3
Dimethoate	*	1.0	0.32	0.32	0.1
Endosulfan	5	1.5	0.64	1.02	4.5
Esfenvalerate	5	1.1	0.03	0.04	0.2
Fenpropathrin	*	1.3	0.18	0.24	0.2
Imidacloprid	20	1.0	0.21	0.22	3.6
Methomyl	3	1.4	0.29	0.41	0.9
Oxamyl	4	1.8	0.29	0.51	1.5
Permethrin	6	1.3	0.10	0.13	0.6
Spinosad	11	1.0	0.06	0.06	0.6
Thiamethoxam	3	1.6	0.04	0.06	0.2
Fungicides					
Azoxystrobin	6	1.8	0.14	0.26	1.4
Benomyl	6	2.4	0.25	0.61	2.8
Chlorothalonil	6	2.3	1.05	2.48	12.6
Copper hydroxide	*	1.1	0.37	0.43	0.2
Mancozeb	2	3.1	0.67	2.14	3.3
Mefenoxam	7	1.6	0.18	0.30	1.7
Metalaxyl	8	2.1	0.09	0.20	1.3
Myclobutanil	3	1.1	0.10	0.11	0.2
Sulfur	9	1.7	13.24	22.51	159.2
Thiophanate-methyl	6	1.1	0.33	0.37	1.9
Trifloxystrobin	7	1.0	0.12	0.13	0.7
Other Chemicals					
Dichloropropene	11	1.0	81.17	81.17	708.7

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 4 program states were 82,100 acres.
States included are AZ, CA, PA 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, 2002 [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	25	1.1	1.92	2.15	8.0
Insecticides					
Buprofezin	10	1.0	0.36	0.39	0.6
Endosulfan	15	1.2	0.74	0.89	2.0

[1] Planted acres in 2002 for Arizona were 14,800 acres.

Cantaloupes : Agricultural Chemical Applications, California, 2002 [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	2	1.1	0.32	0.35	0.4
Insecticides					
Abamectin	10	1.2	0.007	0.009	0.1
Carbaryl	14	1.0	0.44	0.49	3.7
Diazinon	14	1.0	0.49	0.53	4.0
Imidacloprid	15	1.0	0.20	0.21	1.7
Fungicides					
Sulfur	10	1.5	18.13	27.29	153.1

[1] Planted acres in 2002 for California were 55,900 acres.

Cantaloupes : Agricultural Chemical Applications, Pennsylvania, 2002 [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	45	1.0	1.18	1.18	0.7
Glyphosate	10	1.0	0.90	0.94	0.1
Naptalam	44	1.0	2.49	2.49	1.5
S-Metolachlor	4	1.6	1.10	1.81	0.1
Insecticides					
Azinphos-methyl	6	2.6	0.48	1.29	0.1
Bifenthrin	16	2.1	0.07	0.14	([2])
Carbaryl	60	3.0	0.71	2.19	1.8
Endosulfan	59	2.2	0.37	0.85	0.7
Esfenvalerate	13	2.1	0.04	0.08	([2])
Imidacloprid	16	1.0	0.12	0.13	([2])
Methomyl	12	1.9	0.60	1.16	0.2
Permethrin	6	2.9	0.10	0.30	([2])
Fungicides					
Azoxystrobin	21	2.1	0.17	0.37	0.1
Benomyl	7	3.3	0.25	0.81	0.1
Chlorothalonil	84	3.2	1.31	4.22	5.0
Mancozeb	10	3.4	1.19	4.05	0.6
Metalaxyl	46	2.1	0.13	0.28	0.2
Myclobutanil	4	1.3	0.08	0.11	([2])

[1] Planted acres in 2002 for Pennsylvania were 1,400 acres.

[2] Total applied is less than 50 lbs.

Cantaloupes : Agricultural Chemical Applications, Texas, 2002 [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	53	1.0	0.79	0.79	4.2
Insecticides					
Bt (Bacillus thur.) [2]	37	2.4			
Carbaryl	3	1.3	1.23	1.64	0.5
Diazinon	10	1.7	0.45	0.78	0.8
Dimethoate	2	1.0	0.43	0.43	0.1
Imidacloprid	37	1.0	0.21	0.22	0.8
Permethrin	7	1.4	0.04	0.06	([3])
Fungicides					
Azoxystrobin	50	1.7	0.14	0.25	1.3
Chlorothalonil	39	2.1	0.93	1.96	7.7
Mancozeb	14	3.1	0.62	1.95	2.7
Myclobutanil	15	1.1	0.10	0.11	0.2

[1] Planted acres in 2002 for Texas were 10,000 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.

Honeydew Melons : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	2,500	75	276	56	173	45	37
CA	20,400	86	1,575	39	612	55	927
Total	22,900	85	1,851	41	785	54	964

Honeydew Melons: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	2,500					
Nitrogen		75	6.8	21	147	276
Phosphate		56	3.3	37	125	173
Potash		45	7.5	4	33	37
California	20,400					
Nitrogen		86	3.0	30	90	1,575
Phosphate		39	1.0	73	77	612
Potash		55	3.8	22	82	927
Total	22,900					
Nitrogen		85	3.3	28	95	1,851
Phosphate		41	1.4	60	84	785
Potash		54	4.1	19	78	964

Honeydew Melons: Active Ingredients and Publication Status
By Program States, 2002

Active Ingredient	Program States		
	ALL	AZ	CA
Herbicides			
Bensulide	*		*
Glyphosate	*		*
Oxyfluorfen	*		*
Trifluralin	*	*	
Insecticides			
Abamectin	*	*	*
Azadirachtin	*		*
Bifenthrin	*	*	*
Bt (Bacillus thur.)	*	*	*
Buprofezin	*	*	
Carbaryl	*	*	*
Cyromazine	*	*	
Diazinon	*	*	*
Dicofol	*		*
Dimethoate	*		*
Endosulfan	*	*	*
Esfenvalerate	*	*	*
Fenpropathrin	*	*	
Imidacloprid	*	*	*
Neem oil, clar. hyd.	*	*	
Permethrin	*	*	*
Petroleum distillate	*		*
Pymetrozine	*		*
Spinosad	*	*	*
Thiamethoxam	*	*	*
Fungicides			
Azoxystrobin	*	*	*
Copper hydroxide	*	*	
Mefenoxam	*		*
Metalaxyl	*	*	
Myclobutanil	*		*
Potassium bicarbon.	*	*	
Sulfur	*	*	*
Thiophanate-methyl	*	*	*
Trifloxystrobin	*	*	*
Other Chemicals			
Metam-sodium	*		*

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

Honeydew Melons : Pesticide, Planted Acreage,
Percent of Area Receiving Applications and Total Applied,
Program States and Total, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ [2]	2,500			54	1.3	40	1.3		
CA [2]	20,400			68	12.3	33	3.8		
Total [2]	22,900			66	13.8	34	5.2		

[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.

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

Watermelons : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ	6,200	69	894	63	619	8	8
CA	11,800	82	641	37	229	24	460
FL	25,000	100	3,673	78	1,634	99	3,421
GA	23,000	100	2,632	99	1,993	100	2,886
NC	10,100	99	1,177	76	374	98	1,366
SC	9,000	100	789	72	352	100	887
TX	40,000	93	3,708	89	3,996	86	1,874
Total	125,100	94	13,514	80	9,197	83	10,902

Watermelons: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	6,200					
Nitrogen		69	3.4	61	210	894
Phosphate		63	1.9	81	159	619
Potash		8	1.1	14	16	8
California	11,800					
Nitrogen		82	4.5	15	67	641
Phosphate		37	1.9	27	52	229
Potash		24	2.9	56	165	460
Florida	25,000					
Nitrogen		100	21.7	7	147	3,673
Phosphate		78	20.9	4	84	1,634
Potash		99	21.7	6	138	3,421
Georgia	23,000					
Nitrogen		100	3.0	37	115	2,632
Phosphate		99	1.2	69	88	1,993
Potash		100	2.6	48	126	2,886
North Carolina	10,100					
Nitrogen		99	2.4	48	117	1,177
Phosphate		76	1.2	39	49	374
Potash		98	1.5	87	138	1,366
South Carolina	9,000					
Nitrogen		100	1.4	59	88	789
Phosphate		72	1.0	51	55	352
Potash		100	1.3	73	99	887
Texas	40,000					
Nitrogen		93	3.4	29	100	3,708
Phosphate		89	2.2	50	112	3,996
Potash		86	2.8	19	54	1,874
Total	125,100					
Nitrogen		94	7.0	16	115	13,514
Phosphate		80	5.4	17	92	9,197
Potash		83	7.0	15	104	10,902

Watermelons: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Herbicides								
2,4-D	*							*
2,4-D, Dimeth. salt	*			*				
Alachlor	*						*	
Benefin	*						*	
Bensulide	P	*	*			*		*
Bentazon	*				*			
Butoxy. ester 2,4-D	*					*		
Clethodim	P				*		*	*
Clomazone	P				*	P	*	*
Dicamba, Dimet. salt	*			*				
Ethalfluralin	P			*	P	P	P	P
Fluazifop-P-butyl	*							*
Flumioxazin	*							*
Glyphosate	P		*	*	*	P	P	P
Halosulfuron	*			*			*	
MCPB	*							*
Napropamide	*					*		
Naptalam	P				P	P	P	*
Oxyfluorfen	*		*					
Paraquat	P			*	P	*	*	
Pendimethalin	P			*	P	*	*	P
S-Metolachlor	*							*
Sethoxydim	P			P	P	P	*	P
Trifluralin	P	*		*	P		*	P

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

Watermelons: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Insecticides								
Abamectin	P	*	*	*	*	*	*	
Acephate	*				*	*		
Azadirachtin	*				*			*
Azinphos-methyl	*			*				*
Bifenthrin	P	*	*	*	*	*	*	*
Bt (Bacillus thur.)	P		*	P	*	*	*	*
Buprofezin	*	*						
Carbaryl	P	*		P	P	P	P	P
Carbofuran	*							*
Chlorpyrifos	*				*	*		
Cryolite	*		*					
Cypermethrin	*							*
Cyromazine	*	*						
Diazinon	P	*	*	*	*	*	*	P
Dicofol	P	*	*		*	*		
Dimethoate	P			*	*	*	*	P
Endosulfan	P	*	*	P	P	*	*	P
Esfenvalerate	P	*	*	P	P	P	P	P
Fenamiphos	P				*	*		*
Fenpropathrin	*					*		
Imidacloprid	P	*	*	*				P
Malathion	P			*	*	*	*	P
Methomyl	P		*	*	*	*		P
Oxamyl	P			*			*	*
Permethrin	P	*		P	*	P	P	P
Petroleum distillate	*							*
Phosmet	*					*		
Spinosad	P	*	*	*	*	*		
Terbufos	*	*						
Thiamethoxam	*							*

See footnote(s) at end of table.

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Watermelons: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States							
	ALL	AZ	CA	FL	GA	NC	SC	TX
Fungicides								
Azoxystrobin	P	*	*	P	P	P	P	P
Basic copper sulfate	*			*				*
Benomyl	P	*	*	*	P		*	
Captan	*					*		
Chlorothalonil	P			P	P	P	P	P
Copper amm. complex	*					*		
Copper hydroxide	P			P	P	*	*	P
Copper oxide	*							*
Copper resinate	*				*	*	*	
Fosetyl-al	*			*				
Mancozeb	P			P	P	P	P	P
Maneb	P			P	P	*	*	*
Mefenoxam	P	*	*	*	*		*	P
Metalaxyl	P			*	*			P
Myclobutanil	P	*	*		*			*
Propiconazole	*			*				
Sulfur	P		*	*				*
Thiophanate-methyl	P	*		*	P	*		*
Triadimefon	*		*					
Trifloxystrobin	*	*	*	*				
Other Chemicals								
Busan 881	*			*				
Chloropicrin	P	*		*	*	P	P	
Cytokinins	*	*						
Dichloropropene	P	P	*	P	*	*		*
Gibberellic acid	*							*
Harpin protein	*		*					
Hydrogen peroxide	*					*		
Indolebutyric 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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ [2]	6,200			50	1.8	30	0.7	42	158.0
CA [2]	11,800			74	8.9	55	117.7		
FL	25,000	15	3.9	75	12.7	96	205.8	20	592.5
GA	23,000	58	11.5	18	4.7	97	155.1	9	139.6
NC	10,100	59	7.4	46	2.1	36	11.7	5	75.7
SC	9,000	61	4.2	58	0.8	84	58.1	23	404.0
TX	40,000	70	20.2	67	38.9	79	115.7	4	2.2
Total	125,100	47	50.7	57	70.5	78	664.5	13	1,585.3

[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.

Watermelons : Agricultural Chemical Applications, Program States, 2002 [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	2.11	2.15	3.3
Clethodim	*	1.0	0.13	0.13	0.1
Clomazone	2	1.0	0.17	0.17	0.5
Ethalfluralin	15	1.0	0.72	0.73	14.1
Glyphosate	7	1.2	0.68	0.87	7.1
Naptalam	4	1.0	1.27	1.34	6.2
Paraquat	2	1.1	0.51	0.56	1.5
Pendimethalin	4	1.1	0.74	0.86	4.5
Sethoxydim	7	1.0	0.18	0.18	1.5
Trifluralin	15	1.0	0.58	0.59	11.1
Insecticides					
Abamectin	2	1.1	0.009	0.01	([2])
Bifenthrin	4	1.4	0.07	0.09	0.4
Bt (Bacillus thur.) [3]	13	3.2			
Carbaryl	2	1.5	0.76	1.14	3.2
Diazinon	4	1.4	0.62	0.90	20.0
Dicofol	5	1.5	0.58	0.91	5.5
Dimethoate	2	1.4	0.27	0.38	1.1
Endosulfan	17	1.5	0.66	0.99	20.9
Esfenvalerate	15	1.6	0.03	0.05	1.0
Fenamiphos	*	1.0	2.51	2.51	2.2
Imidacloprid	10	1.0	0.18	0.19	2.3
Malathion	*	1.0	1.65	1.75	1.1
Methomyl	5	1.5	0.36	0.56	3.7
Oxamyl	2	1.0	0.58	0.58	1.1
Permethrin	9	3.5	0.12	0.42	4.5
Spinosad	4	1.8	0.10	0.18	0.8
Fungicides					
Azoxystrobin	25	1.4	0.17	0.23	7.3
Benomyl	7	2.0	0.36	0.72	6.3
Chlorothalonil	51	2.8	1.18	3.41	219.0
Copper hydroxide	17	2.0	0.51	1.03	21.5
Mancozeb	43	4.1	1.07	4.47	237.7
Maneb	8	2.7	1.31	3.52	33.7
Mefenoxam	8	1.5	0.16	0.24	2.3
Metalaxyl	6	1.6	0.19	0.30	2.4
Myclobutanil	3	1.4	0.09	0.12	0.5
Sulfur	7	2.1	6.59	13.94	129.9
Thiophanate-methyl	2	1.6	0.36	0.59	1.6
Other Chemicals					
Chloropicrin	3	1.0	54.01	55.13	178.0

Watermelons : Agricultural Chemical Applications, Program States, 2002 [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*
Dichloropropene	6	1.0	80.69	82.13	574.9
Metam-sodium	3	1.2	59.28	75.56	245.4
Methyl bromide	3	1.0	104.14	106.17	365.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 6 program states were 125,100 acres.
States included are AZ, FL, GA, NC, SC 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.

Watermelons : Agricultural Chemical Applications, Arizona, 2002 [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*
Other Chemicals					
Dichloropropene	35	1.0	55.81	59.05	127.9

[1] Planted acres in 2002 for Arizona were 6,200 acres.

Watermelons : Agricultural Chemical Applications, Florida, 2002 [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					
Sethoxydim	8	1.0	0.26	0.26	0.5
Insecticides					
Bt (Bacillus thur.) [2]	30	5.0			
Carbaryl	3	2.4	0.38	0.92	0.7
Endosulfan	20	1.5	0.68	1.02	5.2
Esfenvalerate	18	1.8	0.03	0.06	0.3
Permethrin	15	6.5	0.11	0.74	2.8
Fungicides					
Azoxystrobin	34	1.3	0.12	0.17	1.4
Chlorothalonil	62	2.6	1.29	3.35	51.6
Copper hydroxide	28	2.3	0.69	1.64	11.7
Mancozeb	78	6.5	0.91	5.92	115.8
Maneb	8	4.0	1.14	4.58	9.3
Other Chemicals					
Dichloropropene	14	1.0	90.21	90.21	318.0

[1] Planted acres in 2002 for Florida were 25,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Watermelons : Agricultural Chemical Applications, Georgia, 2002 [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	43	1.0	0.75	0.77	7.7
Naptalam	11	1.0	0.99	1.05	2.8
Paraquat	2	1.0	0.20	0.20	0.1
Pendimethalin	*	1.0	1.00	1.00	([2])
Sethoxydim	1	1.0	0.25	0.26	0.1
Trifluralin	*	1.0	0.61	0.61	0.1
Insecticides					
Carbaryl	*	1.3	0.58	0.76	0.1
Endosulfan	5	3.6	0.60	2.21	2.3
Esfenvalerate	6	1.5	0.03	0.05	0.1
Fungicides					
Azoxystrobin	16	1.5	0.20	0.31	1.1
Benomyl	26	2.2	0.39	0.87	5.2
Chlorothalonil	91	4.2	1.26	5.37	112.8
Copper hydroxide	7	2.9	0.57	1.66	2.6
Mancozeb	33	2.1	1.72	3.75	28.3
Maneb	4	3.3	1.23	4.10	4.0
Thiophanate-methyl	4	2.4	0.37	0.92	0.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for Georgia were 23,000 acres.

[2] Total applied is less than 50 lbs.

Watermelons : Agricultural Chemical Applications, North Carolina, 2002 [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	20	1.0	0.20	0.21	0.4
Ethalfluralin	48	1.0	0.74	0.75	3.6
Glyphosate	6	1.0	0.69	0.70	0.4
Naptalam	10	1.0	2.33	2.33	2.4
Sethoxydim	12	1.0	0.14	0.14	0.2
Insecticides					
Carbaryl	4	1.5	0.69	1.06	0.4
Esfenvalerate	29	1.8	0.03	0.05	0.1
Permethrin	13	1.5	0.12	0.19	0.2
Fungicides					
Azoxystrobin	9	1.4	0.15	0.23	0.2
Chlorothalonil	28	2.5	1.31	3.30	9.2
Mancozeb	8	1.0	1.33	1.40	1.2
Other Chemicals					
Chloropicrin	4	1.1	35.02	40.89	16.3
Methyl bromide	2	1.3	127.54	174.46	31.7

[1] Planted acres in 2002 for North Carolina were 10,100 acres.

Watermelons : Agricultural Chemical Applications, South Carolina, 2002 [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	31	1.0	0.75	0.75	2.1
Glyphosate	3	1.0	0.90	0.90	0.2
Naptalam	2	1.5	1.20	1.90	0.4
Insecticides					
Carbaryl	2	1.3	0.63	0.82	0.1
Esfenvalerate	45	1.8	0.04	0.07	0.3
Permethrin	7	1.4	0.08	0.12	0.1
Fungicides					
Azoxystrobin	49	2.3	0.22	0.51	2.3
Chlorothalonil	56	2.8	1.43	4.15	21.0
Mancozeb	49	3.5	1.49	5.24	22.9
Other Chemicals					
Chloropicrin	23	1.0	68.79	68.79	140.0
Methyl bromide	23	1.0	129.73	129.73	264.0

[1] Planted acres in 2002 for South Carolina were 9,000 acres.

Watermelons : Agricultural Chemical Applications, Texas, 2002 [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	4	1.0	0.39	0.39	0.7
Glyphosate	14	1.4	0.35	0.50	2.7
Pendimethalin	12	1.1	0.73	0.86	4.2
Sethoxydim	13	1.0	0.15	0.15	0.8
Trifluralin	44	1.0	0.58	0.59	10.5
Insecticides					
Carbaryl	4	1.0	1.27	1.35	1.9
Diazinon	6	1.7	0.44	0.77	17.0
Dimethoate	5	1.0	0.37	0.38	0.7
Endosulfan	33	1.3	0.65	0.89	11.6
Esfenvalerate	13	1.4	0.03	0.04	0.2
Imidacloprid	10	1.0	0.14	0.15	0.6
Malathion	*	1.0	2.65	2.74	0.6
Methomyl	15	1.6	0.36	0.58	3.4
Permethrin	11	2.1	0.13	0.28	1.3
Fungicides					
Azoxystrobin	34	1.1	0.15	0.16	2.3
Chlorothalonil	50	1.7	0.71	1.23	24.5
Copper hydroxide	28	1.6	0.33	0.56	6.3
Mancozeb	52	3.0	1.10	3.33	69.5
Mefenoxam	13	1.2	0.15	0.20	1.1
Metalaxyl	16	1.6	0.20	0.32	2.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Texas were 40,000 acres.

Bulb Onions : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	45,400	97	9,387	80	8,061	57	2,102
GA	14,700	100	1,783	100	2,105	100	2,375
NY	12,700	100	1,365	100	1,342	100	2,010
OR	17,400	100	4,788	99	2,422	83	1,207
TX	19,200	100	2,991	100	2,081	64	472
WA	17,100	80	2,798	75	1,898	71	2,342
Total	126,500	96	23,112	89	17,909	73	10,508

Bulb Onions: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	45,400					
Nitrogen		97	6.2	34	213	9,387
Phosphate		80	2.4	91	222	8,061
Potash		57	1.9	41	82	2,102
Georgia	14,700					
Nitrogen		100	3.3	36	121	1,783
Phosphate		100	2.4	59	143	2,105
Potash		100	2.1	75	162	2,375
New York	12,700					
Nitrogen		100	1.4	75	108	1,365
Phosphate		100	1.1	93	106	1,342
Potash		100	1.1	137	159	2,010
Oregon	17,400					
Nitrogen		100	1.8	146	276	4,788
Phosphate		99	1.3	107	141	2,422
Potash		83	1.2	65	84	1,207
Texas	19,200					
Nitrogen		100	2.4	64	156	2,991
Phosphate		100	1.3	81	109	2,081
Potash		64	1.4	26	38	472
Washington	17,100					
Nitrogen		80	1.9	103	203	2,798
Phosphate		75	1.4	100	148	1,898
Potash		71	1.0	188	192	2,342
Total	126,500					
Nitrogen		96	3.6	52	190	23,112
Phosphate		89	1.8	87	159	17,909
Potash		73	1.5	72	114	10,508

Bulb Onions: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Herbicides							
Alachlor	*			*			
Atrazine	*			*			
Bensulide	P	*		*	*	P	
Bentazon	*					*	
Bromoxynil	P	P		P	P	P	P
Clethodim	P	*		P	P	*	P
DCPA	P	P			*	*	P
Dimethenamid	P			P			
Dimethenamid-P	*			*			
Fluazifop-P-butyl	P	P		P	P	*	*
Glyphosate	P	P		P	P		P
Linuron	*			*			
MCPB	*				*		
Oxyfluorfen	P	P	P	P	P	P	P
Paraquat	P	*		*			*
Pendimethalin	P	P	P	P	P	P	P
S-Metolachlor	P			P	P	P	*
Sethoxydim	P	P		*	P	*	P
Trifluralin	P	*		*	*	P	*

See footnote(s) at end of table.

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Bulb Onions: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Insecticides							
Azadirachtin	P				P	*	*
Azinphos-methyl	P			*	*		*
Bt (Bacillus thur.)	P	*	*	*		*	
Carbaryl	*			*		*	
Chlorpyrifos	P	P	P	P	P	*	P
Cypermethrin	P	P		*		*	
Diazinon	P	P	*	P	P	P	*
Dimethoate	*					*	
Endosulfan	*		*	*		*	
Esfenvalerate	*			*		*	
Ethyl parathion	*				*		
Imidacloprid	*					*	
Indoxacarb	*					*	
Kaolin	*						*
Lambda-cyhalothrin	P	P	P	P	P	P	P
Malathion	P	*	*		P	*	*
Methamidophos	*					*	
Methomyl	P	P		P	P	P	*
Methyl parathion	P			P	P		*
Oxamyl	P	*		P	P	*	P
Permethrin	P	*		P		P	*
Petroleum distillate	*				*		*
Potassium salts	*			*			
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, 2002

Active Ingredient	Program States						
	ALL	CA	GA	NY	OR	TX	WA
Fungicides							
Azoxystrobin	P	*	*	P	*	P	
Basic copper sulfate	*					*	
Chlorothalonil	P	P	P	P	P	P	P
Copper amm. complex	P				*		*
Copper hydroxide	P	P	P	P	P		P
Copper oxychlo. sul.	*			*			
Copper resinate	P		*				*
Cyprodinil	*	*					*
Dicloran	P	*			P		*
Fludioxonil	*	*					*
Fosetyl-al	*	*					
Iprodione	P	P	P	P		*	*
Mancozeb	P	P	P	P	P	P	P
Maneb	P	P	*	P	*	P	*
Mefenoxam	P	P	*	*	P	*	*
Metalaxyl	P	P	*	P	P	P	*
Sulfur	P	*		*	*	*	*
Trichoderma harz.	*			*			
Other Chemicals							
Busan 881	P	*			*		
Chloropicrin	P	*	*		P		
Cytokinins	*						*
Dichloropropene	P	*			*		
GABA	P	*			*		
L-Glutamic acid	P	*			*		
Maleic hydrazide	P	*		P	P		P
Metam-sodium	P	*		*	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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	45,400	83	77.1	74	39.7	80	64.7	17	1,300.6
GA [2]	14,700	92	8.6	47	8.9	100	144.8		
NY	12,700	90	52.4	92	29.3	99	207.9	45	49.3
OR	17,400	99	38.4	99	51.0	90	72.3	76	1,677.5
TX	19,200	94	57.5	71	20.9	78	72.4		
WA	17,100	93	86.3	92	48.6	94	60.6	72	1,410.6
Total	126,500	90	320.1	78	198.6	87	622.4	31	4,440.4

[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.

Bulb Onions : Agricultural Chemical Applications, Program States, 2002 [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	6	1.1	2.58	3.03	24.1
Bromoxynil	49	1.9	0.14	0.27	16.9
Clethodim	13	1.2	0.13	0.15	2.5
DCPA	18	1.0	4.86	5.14	119.4
Dimethenamid	6	2.4	1.02	2.48	17.9
Fluazifop-P-butyl	12	1.2	0.22	0.28	4.3
Glyphosate	19	1.0	0.56	0.59	13.9
Oxyfluorfen	76	2.4	0.09	0.24	22.6
Paraquat	4	1.1	0.54	0.61	3.4
Pendimethalin	52	1.4	0.80	1.20	78.1
S-Metolachlor	5	1.0	1.39	1.46	8.7
Sethoxydim	6	1.3	0.21	0.29	2.3
Trifluralin	4	1.2	0.75	0.95	5.3
Insecticides					
Azadirachtin	4	1.5	0.04	0.07	0.4
Azinphos-methyl	8	1.5	0.68	1.02	10.3
Bt (Bacillus thur.) [2]	1	1.7			
Chlorpyrifos	31	1.0	1.13	1.17	46.5
Cypermethrin	5	1.9	0.09	0.17	1.0
Diazinon	20	1.5	1.13	1.79	44.3
Lambda-cyhalothrin	49	2.8	0.03	0.07	4.7
Malathion	2	1.4	1.20	1.76	4.6
Methomyl	25	2.1	0.52	1.14	35.7
Methyl parathion	12	2.2	0.45	0.98	15.2
Oxamyl	9	1.8	0.88	1.60	17.5
Permethrin	8	1.8	0.16	0.29	2.8
Zeta-cypermethrin	17	2.5	0.04	0.11	2.4
Fungicides					
Azoxystrobin	13	1.5	0.16	0.24	3.9
Chlorothalonil	40	3.4	1.07	3.67	185.1
Copper amm. complex	2	2.0	0.21	0.41	1.0
Copper hydroxide	25	2.5	0.66	1.68	52.8
Copper resinate	5	3.9	0.19	0.74	4.3
Dicloran	1	1.5	1.74	2.73	4.5
Iprodione	18	1.8	0.54	1.02	22.9
Mancozeb	49	3.7	1.35	5.03	310.6
Maneb	6	1.7	1.61	2.77	21.1
Mefenoxam	20	1.4	0.21	0.32	8.2
Metalaxyl	17	1.2	0.10	0.12	2.6
Sulfur	2	1.8	0.91	1.72	5.0

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Bulb Onions : Agricultural Chemical Applications, Program States, 2002 [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*
Other Chemicals					
Busan 881	*	1.1	194.84	222.21	226.5
Chloropicrin	3	1.0	36.74	36.87	162.9
Dichloropropene	6	1.0	174.47	174.83	1,239.9
GABA	1	1.8	0.09	0.16	0.3
L-Glutamic acid	1	1.8	0.09	0.16	0.3
Maleic hydrazide	19	1.0	1.48	1.50	36.7
Metam-sodium	14	1.0	148.47	157.42	2,757.4

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 6 program states were 126,500 acres.
States included are CA, GA, NY, OR, TX and WA.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Bulb Onions : Agricultural Chemical Applications, California, 2002 [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	69	1.8	0.13	0.24	7.4
DCPA	15	1.2	5.21	6.25	41.6
Fluazifop-P-butyl	20	1.1	0.25	0.30	2.8
Glyphosate	4	1.6	1.42	2.33	4.7
Oxyfluorfen	64	2.0	0.13	0.26	7.6
Pendimethalin	13	1.7	0.88	1.56	9.0
Sethoxydim	5	1.0	0.27	0.30	0.6
Insecticides					
Chlorpyrifos	4	1.3	1.03	1.35	2.1
Cypermethrin	7	2.1	0.09	0.19	0.6
Diazinon	37	1.6	1.03	1.73	29.2
Lambda-cyhalothrin	54	2.2	0.02	0.05	1.2
Methomyl	6	2.4	0.54	1.32	3.9
Fungicides					
Chlorothalonil	4	1.5	1.14	1.81	3.6
Copper hydroxide	16	1.9	0.71	1.40	10.3
Iprodione	18	1.1	0.45	0.51	4.1
Mancozeb	23	1.8	1.68	3.09	31.6
Maneb	5	1.2	1.71	2.09	4.7
Mefenoxam	45	1.5	0.23	0.35	7.2
Metalaxyl	17	1.3	0.10	0.13	1.0

[1] Planted acres in 2002 for California were 45,400 acres.

Bulb Onions : Agricultural Chemical Applications, Georgia, 2002 [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	92	1.0	0.29	0.29	4.0
Pendimethalin	44	1.0	0.71	0.71	4.6
Insecticides					
Chlorpyrifos	37	1.0	1.54	1.54	8.4
Lambda-cyhalothrin	16	4.4	0.02	0.07	0.2
Fungicides					
Chlorothalonil	96	5.6	1.19	6.66	93.9
Copper hydroxide	63	3.6	0.63	2.29	21.1
Iprodione	46	1.7	0.71	1.23	8.3
Mancozeb	65	3.6	0.57	2.10	20.1

[1] Planted acres in 2002 for Georgia were 14,700 acres.

Bulb Onions : Agricultural Chemical Applications, New York, 2002 [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	25	1.0	0.28	0.30	1.0
Clethodim	6	1.8	0.13	0.24	0.2
Dimethenamid	57	2.4	1.02	2.48	17.9
Fluazifop-P-butyl	32	1.4	0.16	0.24	1.0
Glyphosate	*	1.1	1.19	1.31	([2])
Oxyfluorfen	82	8.7	0.02	0.18	1.9
Pendimethalin	87	2.6	0.99	2.63	29.2
S-Metolachlor	2	1.0	1.75	1.76	0.5
Insecticides					
Chlorpyrifos	57	1.0	1.46	1.58	11.5
Diazinon	6	3.9	0.74	2.92	2.1
Lambda-cyhalothrin	52	4.3	0.02	0.11	0.7
Methomyl	54	3.5	0.37	1.31	9.0
Methyl parathion	20	2.3	0.40	0.95	2.4
Oxamyl	10	1.0	1.07	1.07	1.3
Permethrin	22	3.3	0.09	0.31	0.9
Zeta-cypermethrin	48	4.4	0.05	0.20	1.2
Fungicides					
Azoxystrobin	14	2.0	0.13	0.27	0.5
Chlorothalonil	52	5.5	0.79	4.38	29.1
Copper hydroxide	7	3.0	0.24	0.72	0.7
Iprodione	18	3.5	0.36	1.30	3.0
Mancozeb	95	8.1	1.70	13.81	167.1
Maneb	12	2.7	1.74	4.80	7.2
Metalaxyl	5	1.0	0.07	0.08	([2])
Other Chemicals					
Maleic hydrazide	45	1.0	1.22	1.22	7.0

* Area applied is less than one percent.

[1] Planted acres in 2002 for New York were 12,700 acres.

[2] Total applied is less than 50 lbs.

Bulb Onions : Agricultural Chemical Applications, Oregon, 2002 [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	90	2.5	0.10	0.25	3.9
Clethodim	3	1.0	0.17	0.17	0.1
Fluazifop-P-butyl	8	1.5	0.17	0.27	0.4
Glyphosate	75	1.0	0.46	0.46	6.0
Oxyfluorfen	89	2.2	0.06	0.14	2.2
Pendimethalin	94	1.4	0.77	1.14	18.6
S-Metolachlor	17	1.1	1.59	1.76	5.3
Sethoxydim	29	1.5	0.19	0.29	1.5
Insecticides					
Azadirachtin	29	1.3	0.05	0.07	0.3
Chlorpyrifos	71	1.0	1.01	1.01	12.6
Diazinon	12	1.0	0.95	0.95	2.0
Lambda-cyhalothrin	91	3.7	0.03	0.11	1.8
Malathion	11	1.5	1.25	1.97	3.8
Methomyl	68	1.7	0.71	1.25	14.7
Methyl parathion	59	2.4	0.45	1.09	11.1
Oxamyl	12	1.7	0.81	1.39	3.0
Zeta-cypermethrin	19	2.0	0.04	0.08	0.3
Fungicides					
Chlorothalonil	51	1.2	1.22	1.47	12.9
Copper hydroxide	52	1.5	0.69	1.10	9.9
Dicloran	7	1.7	1.86	3.17	3.7
Mancozeb	85	2.4	1.18	2.89	42.7
Mefenoxam	12	1.5	0.09	0.15	0.3
Metalaxyl	23	1.1	0.14	0.16	0.6
Other Chemicals					
Chloropicrin	25	1.0	36.72	36.84	161.7
Maleic hydrazide	42	1.0	1.34	1.34	9.7
Metam-sodium	9	1.0	134.88	134.88	200.0

[1] Planted acres in 2002 for Oregon were 17,400 acres.

Bulb Onions : Agricultural Chemical Applications, Texas, 2002 [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	39	1.1	2.59	3.06	23.2
Bromoxynil	21	1.6	0.06	0.09	0.4
Oxyfluorfen	62	1.6	0.13	0.21	2.5
Pendimethalin	57	1.0	0.54	0.56	6.1
S-Metolachlor	14	1.0	1.08	1.08	2.8
Trifluralin	19	1.4	0.72	1.02	3.7
Insecticides					
Diazinon	24	1.1	1.95	2.32	10.7
Lambda-cyhalothrin	17	1.9	0.03	0.05	0.2
Methomyl	36	1.8	0.50	0.94	6.6
Permethrin	21	1.0	0.27	0.28	1.1
Zeta-cypermethrin	17	1.6	0.03	0.05	0.2
Fungicides					
Azoxystrobin	43	1.5	0.16	0.25	2.0
Chlorothalonil	45	2.0	0.99	2.04	17.5
Mancozeb	45	2.7	1.59	4.43	38.0
Maneb	8	2.3	1.79	4.20	6.2
Metalaxyl	20	1.4	0.12	0.18	0.7

[1] Planted acres in 2002 for Texas were 19,200 acres.

Bulb Onions : Agricultural Chemical Applications, Washington, 2002 [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	50	1.6	0.30	0.50	4.3
Clethodim	77	1.1	0.13	0.14	1.9
DCPA	66	1.0	5.23	5.23	59.1
Glyphosate	50	1.0	0.38	0.38	3.2
Oxyfluorfen	91	1.4	0.20	0.29	4.5
Pendimethalin	85	1.0	0.67	0.73	10.6
Sethoxydim	4	1.0	0.25	0.27	0.2
Insecticides					
Chlorpyrifos	69	1.0	0.93	0.93	11.0
Lambda-cyhalothrin	57	2.0	0.03	0.06	0.6
Oxamyl	34	2.1	0.92	1.96	11.3
Fungicides					
Chlorothalonil	61	2.4	1.12	2.72	28.1
Copper hydroxide	29	2.9	0.73	2.17	10.8
Mancozeb	38	2.6	0.66	1.73	11.2
Other Chemicals					
Maleic hydrazide	51	1.0	1.93	1.97	17.2
Metam-sodium	64	1.0	126.40	126.56	1,393.4

[1] Planted acres in 2002 for Washington were 17,100 acres.

Green Peas, Proc. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
MN	80,500	65	1,581	43	1,516	49	2,457
NY	21,300	97	1,069	95	1,539	99	1,642
OR	20,300	91	354	71	578	68	398
WA	37,600	67	1,627	26	634	45	1,222
WI	42,100	92	1,727	62	1,068	84	2,709
Total	201,800	77	6,358	52	5,335	63	8,428

Green Peas, Proc.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Minnesota	80,500					
Nitrogen		65	1.0	30	30	1,581
Phosphate		43	1.0	43	44	1,516
Potash		49	1.0	62	62	2,457
New York	21,300					
Nitrogen		97	1.0	50	52	1,069
Phosphate		95	1.0	76	76	1,539
Potash		99	1.0	77	78	1,642
Oregon	20,300					
Nitrogen		91	1.0	19	19	354
Phosphate		71	1.0	40	40	578
Potash		68	1.0	28	29	398
Washington	37,600					
Nitrogen		67	2.4	26	65	1,627
Phosphate		26	1.1	58	66	634
Potash		45	1.0	67	73	1,222
Wisconsin	42,100					
Nitrogen		92	1.8	24	44	1,727
Phosphate		62	1.0	39	41	1,068
Potash		84	1.2	62	76	2,709
Total	201,800					
Nitrogen		77	1.4	28	41	6,358
Phosphate		52	1.0	49	51	5,335
Potash		63	1.0	61	67	8,428

Green Peas, Proc.: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	MN	NY	OR	WA	WI
Herbicides						
Atrazine	*				*	
Bentazon	P	P	P	P	P	P
Clomazone	P	P			P	
EPTC	*					*
Glyphosate	P		*	*	P	P
Glyphosate diam salt	*					*
Halosulfuron	*				*	
Imazamox	P					P
Imazethapyr	P	P		P	P	P
MCPA	P			P	P	
MCPA, dimethyl. salt	*			*		
MCPB	P	P	P		*	P
Metribuzin	P			P	P	
Paraquat	*			*	*	
Pendimethalin	P	P		*	*	P
Propachlor	*				*	
Quizalofop-P-ethyl	P	*	*		P	*
S-Metolachlor	P	*				*
Sethoxydim	P	*	P	P	*	P
Triallate	P			*	*	
Trifluralin	P	P	*	*	P	P
Insecticides						
Bifenthrin	P	P	*			*
Diazinon	P				P	
Dimethoate	P	P		P	P	P
Esfenvalerate	P	P	*	*	P	
Ethoprop	*				*	
Malathion	*			*		
Petroleum distillate	*		*	*		
Phosmet	*			*	*	
Zeta-cypermethrin	P	P		*	*	

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
MN	80,500	74	57.7	72	2.8				
NY [1]	21,300	97	11.4						
OR	20,300	99	14.0	98	6.1				
WA	37,600	88	23.2	70	11.6				
WI	42,100	91	27.1	11	0.7				
Total	201,800	85	133.1	54	21.5				

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

Green Peas, Proc. : Agricultural Chemical Applications, Program States, 2002 [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	0.11	0.11	6.0
Clomazone	6	1.0	0.44	0.44	5.0
Glyphosate	9	1.0	0.45	0.45	7.9
Imazamox	*	1.1	0.02	0.03	([2])
Imazethapyr	32	1.0	0.04	0.04	2.7
MCPA	6	1.0	0.33	0.33	3.9
MCPB	15	1.0	0.55	0.58	17.1
Metribuzin	3	1.0	0.15	0.16	0.8
Pendimethalin	40	1.0	0.66	0.69	55.9
Quizalofop-P-ethyl	2	1.0	0.06	0.06	0.3
S-Metolachlor	3	1.0	1.24	1.24	7.5
Sethoxydim	6	1.0	0.27	0.27	3.1
Triallate	3	1.0	1.06	1.09	6.7
Trifluralin	15	1.0	0.46	0.47	13.9
Insecticides					
Bifenthrin	1	1.0	0.03	0.03	0.1
Diazinon	*	1.0	0.33	0.33	0.4
Dimethoate	17	1.2	0.19	0.24	8.5
Esfenvalerate	8	1.0	0.03	0.03	0.5
Zeta-cypermethrin	27	1.0	0.05	0.05	2.6

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 5 program states were 201,800 acres. States included are MN, NY, OR, WA and WI.

[2] Total applied is less than 50 lbs.

Green Peas, Proc. : Agricultural Chemical Applications, Minnesota, 2002 [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	6	1.0	0.12	0.12	0.5
Clomazone	13	1.0	0.46	0.46	4.9
Imazethapyr	24	1.0	0.05	0.05	0.9
MCPB	7	1.3	0.78	1.03	5.7
Pendimethalin	56	1.0	0.75	0.80	36.0
Trifluralin	11	1.0	0.58	0.58	5.0
Insecticides					
Bifenthrin	3	1.0	0.03	0.03	0.1
Dimethoate	2	1.0	0.11	0.11	0.2
Esfenvalerate	4	1.0	0.03	0.03	0.1
Zeta-cypermethrin	63	1.0	0.05	0.05	2.4

[1] Planted acres in 2002 for Minnesota were 80,500 acres.

Green Peas, Proc. : Agricultural Chemical Applications, New York, 2002 [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	97	1.0	0.08	0.08	1.7
MCPB	92	1.0	0.44	0.44	8.7
Sethoxydim	16	1.0	0.17	0.17	0.6

[1] Planted acres in 2002 for New York were 21,300 acres.

Green Peas, Proc. : Agricultural Chemical Applications, Oregon, 2002 [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	14	1.0	0.11	0.11	0.3
Imazethapyr	77	1.0	0.03	0.03	0.5
MCPA	12	1.0	0.23	0.23	0.5
Metribuzin	15	1.0	0.20	0.20	0.6
Sethoxydim	9	1.0	0.33	0.33	0.6
Insecticides					
Dimethoate	89	1.4	0.20	0.29	5.2

[1] Planted acres in 2002 for Oregon were 20,300 acres.

Green Peas, Proc. : Agricultural Chemical Applications, Washington, 2002 [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	43	1.0	0.12	0.12	2.0
Clomazone	2	1.0	0.18	0.18	0.1
Glyphosate	38	1.0	0.45	0.45	6.4
Imazethapyr	16	1.0	0.04	0.04	0.3
MCPA	25	1.0	0.35	0.36	3.4
Metribuzin	7	1.0	0.10	0.11	0.3
Quizalofop-P-ethyl	5	1.0	0.07	0.07	0.1
Trifluralin	7	1.2	0.49	0.60	1.6
Insecticides					
Diazinon	3	1.0	0.33	0.33	0.4
Dimethoate	29	1.1	0.20	0.22	2.4
Esfenvalerate	31	1.0	0.04	0.04	0.4

[1] Planted acres in 2002 for Washington were 37,600 acres.

Green Peas, Proc. : Agricultural Chemical Applications, Wisconsin, 2002 [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	24	1.0	0.14	0.14	1.4
Glyphosate	7	1.0	0.45	0.45	1.3
Imazamox	4	1.1	0.02	0.03	([2])
Imazethapyr	55	1.0	0.05	0.05	1.1
MCPB	10	1.0	0.63	0.65	2.7
Pendimethalin	53	1.0	0.61	0.62	13.8
Sethoxydim	4	1.0	0.16	0.16	0.3
Trifluralin	9	1.0	0.46	0.46	1.8
Insecticides					
Dimethoate	11	1.0	0.17	0.17	0.7

[1] Planted acres in 2002 for Wisconsin were 42,100 acres.

[2] Total applied is less than 50 lbs.

Bell Peppers : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	21,300	57	2,427	42	1,121	31	586
FL	17,600	100	4,274	99	1,643	100	5,468
NC	7,400	100	945	100	418	100	2,466
OH	1,700	97	286	97	188	96	286
Total	48,000	81	7,932	74	3,370	69	8,806

Bell Peppers: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	21,300					
Nitrogen		57	4.7	42	201	2,427
Phosphate		42	2.1	59	126	1,121
Potash		31	2.7	31	88	586
Florida	17,600					
Nitrogen		100	13.4	18	243	4,274
Phosphate		99	1.0	91	95	1,643
Potash		100	13.4	23	311	5,468
North Carolina	7,400					
Nitrogen		100	3.9	33	128	945
Phosphate		100	1.2	47	57	418
Potash		100	3.3	98	334	2,466
Ohio	1,700					
Nitrogen		97	9.9	17	174	286
Phosphate		97	3.0	38	115	188
Potash		96	5.5	31	174	286
Total	48,000					
Nitrogen		81	8.7	23	205	7,932
Phosphate		74	1.4	66	95	3,370
Potash		69	8.6	30	264	8,806

Bell Peppers: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	FL	NC	OH
Herbicides					
Bensulide	*	*			*
Clethodim	*		*		
Clomazone	P		*	P	P
DCPA	*			*	
Diquat	*		*		
EPTC	*				*
Ethalfluralin	*				*
Glyphosate	P	P	*	*	P
MCPB	*				*
Metolachlor	*	*			
Napropamide	P	P	*	P	P
Oxyfluorfen	P	P			
Paraquat	P	P	P	P	
S-Metolachlor	P	*	*		P
Sethoxydim	*	*	*		
Trifluralin	P	P	*	*	P

See footnote(s) at end of table.

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Bell Peppers: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	FL	NC	OH
Insecticides					
Abamectin	P	*	*		
Acephate	P	*	*	P	P
Acetamiprid	P	P			
Azadirachtin	*	*			
Azinphos-methyl	*				*
Bifenthrin	P		*	*	*
Bt (Bacillus thur.)	P	P	P	P	*
Carbaryl	P	*	*	P	P
Carbofuran	*				*
Chlorpyrifos	*		*		*
Cryolite	*	*			
Cyfluthrin	P	*	*	*	*
Cyromazine	*		*		
Diazinon	P	*		*	*
Dicofol	*		*		
Dimethoate	P	P		*	*
Disulfoton	*	*			
Endosulfan	P	*	*	P	P
Esfenvalerate	P	P	*	P	*
Ethoprop	*			*	
Ethyl parathion	*				*
Imidacloprid	P	P	P	*	*
Indoxacarb	P	P	*	*	
Lambda-cyhalothrin	*			*	
Malathion	P	*		*	*
Methamidophos	*		*		
Methomyl	P	P	P	*	*
Neem oil	*	*			
Neem oil, clar. hyd.	*	*			
Oxamyl	P	*	P	*	
Oxydemeton-methyl	*	*			
Permethrin	P	*	*	P	P
Piperonyl butoxide	*				*
Pymetrozine	*	*	*		
Pyrethrins	*	*			*
Pyriproxyfen	*	*			
Rotenone	*	*			
Spinosad	P	P	P	*	*
Tebufenozide	P	*	*	*	*
Thiamethoxam	P	*	*		
Zeta-cypermethrin	*		*		

See footnote(s) at end of table.

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Bell Peppers: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	FL	NC	OH
Fungicides					
Azoxystrobin	P	*	*		*
Bacillus subtilus	*		*		
Basic copper sulfate	*		*	*	
Benomyl	*				*
Chlorothalonil	P		*	P	P
Copper amm. complex	P		*	*	*
Copper hydroxide	P	P	P	P	P
Copper oxide	*				*
Copper oxychlo. sul.	*		*		
Copper resinate	*			*	
Copper sulfate	*		*		*
Mancozeb	P		*	P	*
Maneb	P	*	P	P	*
Mefenoxam	P	P	P	*	*
Metalaxyl	*		*	*	
Myclobutanil	P	P			
Potassium bicarbon.	*	*			
Sulfur	P	*	*		
Thiophanate-methyl	*				*
Thiram	*		*		
Trifloxystrobin	P	P			
Other Chemicals					
Aminopyridine	*			*	
Busan 881	*		*		
Capsaicin	*	*			
Chloropicrin	P	P	P	P	
Dichloropropene	P	*	*		
Ethephon	*	*			
Gibberellic acid	*		*		
Harpin protein	P	P			
Hydrogen peroxide	*		*	*	
Metam-sodium	P	P			
Methyl bromide	P	*	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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	21,300	23	6.3	65	51.4	36	45.1	32	1,733.4
FL	17,600	27	6.2	100	48.6	100	392.3	99	3,649.7
NC	7,400	70	5.7	99	11.8	39	25.8	20	61.8
OH	1,700	87	1.3	87	8.1	75	23.0		
Total	48,000	34	19.4	84	120.6	61	486.2	54	5,444.9

[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.

Bell Peppers : Agricultural Chemical Applications, Program States, 2002 [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	5	1.0	0.61	0.62	1.5
Glyphosate	9	1.4	0.61	0.89	3.7
Napropamide	9	1.0	0.86	0.87	3.6
Oxyfluorfen	4	1.1	0.23	0.27	0.5
Paraquat	4	1.1	0.72	0.83	1.4
S-Metolachlor	4	1.6	1.00	1.68	3.5
Trifluralin	12	1.0	0.69	0.75	4.3
Insecticides					
Abamectin	7	1.4	0.01	0.01	([2])
Acephate	21	2.1	0.66	1.40	13.8
Acetamiprid	2	1.0	5.72	5.72	4.3
Bifenthrin	20	1.5	0.07	0.10	1.0
Bt (Bacillus thur.) [3]	34	13.4			
Carbaryl	2	2.0	1.05	2.14	2.5
Cyfluthrin	17	2.7	0.03	0.09	0.8
Diazinon	2	1.0	1.89	1.99	1.7
Dimethoate	3	2.9	0.26	0.77	1.2
Endosulfan	5	2.3	0.38	0.89	2.1
Esfenvalerate	7	1.9	0.04	0.07	0.2
Imidacloprid	20	1.6	0.13	0.21	2.0
Indoxacarb	15	2.4	0.06	0.14	1.0
Malathion	*	1.9	1.36	2.66	0.8
Methomyl	26	2.9	0.51	1.50	18.6
Oxamyl	30	2.8	0.52	1.50	21.3
Permethrin	7	3.3	0.18	0.59	1.9
Spinosad	49	2.7	0.09	0.24	5.6
Tebufenozide	18	1.8	0.11	0.20	1.8
Thiamethoxam	1	1.0	0.06	0.06	([2])
Fungicides					
Azoxystrobin	10	2.8	0.13	0.38	1.7
Chlorothalonil	*	4.5	1.49	6.79	0.7
Copper amm. complex	4	9.6	0.20	1.90	3.3
Copper hydroxide	48	11.8	0.46	5.50	127.8
Mancozeb	2	4.0	0.72	2.91	2.9
Maneb	39	11.2	1.04	11.74	222.3
Mefenoxam	17	1.3	0.31	0.41	3.3
Myclobutanil	7	1.4	0.10	0.14	0.5
Sulfur	25	7.6	1.31	9.96	117.8
Trifloxystrobin	2	1.2	0.08	0.09	0.1

See footnote(s) at end of table.

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Bell Peppers : Agricultural Chemical Applications, Program States, 2002 [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*
Other Chemicals					
Chloropicrin	42	1.0	98.99	100.94	2,051.5
Dichloropropene	4	1.2	105.61	130.88	255.0
Harpin protein	4	1.4	0.01	0.01	([2])
Metam-sodium	9	1.4	112.56	158.21	660.3
Methyl bromide	37	1.0	139.21	139.21	2,469.9

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 4 program states were 48,000 acres.
States included are CA, FL, NC and OH.

[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, 2002 [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	6	1.3	0.67	0.89	1.2
Napropamide	2	1.0	1.62	1.71	0.8
Oxyfluorfen	9	1.1	0.23	0.27	0.5
Paraquat	3	1.2	0.89	1.09	0.8
Trifluralin	10	1.2	0.53	0.66	1.4
Insecticides					
Acetamiprid	3	1.0	5.72	5.72	4.3
Bt (Bacillus thur.) [2]	5	3.0			
Dimethoate	3	1.2	0.33	0.42	0.2
Esfenvalerate	13	1.7	0.04	0.07	0.2
Imidacloprid	21	1.3	0.15	0.20	0.9
Indoxacarb	14	1.6	0.06	0.10	0.3
Methomyl	6	1.2	0.26	0.33	0.4
Spinosad	26	2.3	0.09	0.21	1.1
Fungicides					
Copper hydroxide	18	1.0	0.58	0.62	2.4
Mefenoxam	17	1.5	0.21	0.32	1.2
Myclobutanil	16	1.4	0.10	0.14	0.5
Trifloxystrobin	4	1.2	0.08	0.09	0.1
Other Chemicals					
Chloropicrin	12	1.1	279.03	322.67	835.5
Harpin protein	9	1.4	0.01	0.01	([3])
Metam-sodium	20	1.4	112.56	158.21	660.3

[1] Planted acres in 2002 for California were 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, 2002 [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	2	1.1	0.36	0.42	0.2
Insecticides					
Bt (Bacillus thur.) [2]	86	14.1			
Imidacloprid	21	1.6	0.15	0.26	0.9
Methomyl	56	3.2	0.53	1.70	16.9
Oxamyl	76	2.9	0.52	1.55	20.7
Spinosad	85	2.5	0.10	0.25	3.8
Fungicides					
Copper hydroxide	89	14.9	0.47	7.06	110.4
Maneb	90	12.0	1.01	12.21	192.5
Mefenoxam	17	1.3	0.41	0.54	1.6
Other Chemicals					
Chloropicrin	99	1.0	68.92	68.92	1,195.7
Methyl bromide	99	1.0	139.92	139.92	2,427.7

[1] Planted acres in 2002 for Florida were 17,600 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, 2002 [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	24	1.0	0.57	0.57	1.0
Napropamide	21	1.0	1.11	1.11	1.7
Paraquat	8	1.0	0.75	0.79	0.5
Insecticides					
Acephate	89	2.1	0.58	1.28	8.4
Bt (Bacillus thur.) [2]	*	5.5			
Carbaryl	6	2.0	1.00	2.01	0.9
Endosulfan	12	1.0	0.75	0.77	0.7
Esfenvalerate	6	2.1	0.03	0.07	([3])
Permethrin	13	2.0	0.09	0.20	0.2
Fungicides					
Chlorothalonil	*	4.0	1.67	6.68	0.1
Copper hydroxide	35	6.1	0.30	1.84	4.8
Mancozeb	12	3.9	0.76	3.02	2.7
Maneb	23	7.2	1.45	10.48	17.9
Other Chemicals					
Chloropicrin	5	1.0	52.83	52.83	20.3
Methyl bromide	5	1.0	107.25	107.25	41.3

* Area applied is less than one percent.

[1] Planted acres in 2002 for North Carolina were 7,400 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.

Bell Peppers : Agricultural Chemical Applications, Ohio, 2002 [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	0.34	0.35	0.1
Glyphosate	45	1.0	0.75	0.76	0.6
Napropamide	3	1.0	1.41	1.41	0.1
S-Metolachlor	12	1.0	0.85	0.85	0.2
Trifluralin	26	1.0	0.71	0.71	0.3
Insecticides					
Acephate	77	2.6	0.80	2.09	2.8
Carbaryl	5	1.8	1.01	1.86	0.2
Endosulfan	54	1.4	0.61	0.86	0.8
Permethrin	44	7.7	0.20	1.53	1.2
Fungicides					
Chlorothalonil	*	3.1	1.22	3.87	0.1
Copper hydroxide	69	17.9	0.48	8.64	10.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for Ohio were 1,700 acres.

Pumpkins : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	6,000	96	737	67	302	64	303
IL	9,900	95	1,034	72	546	90	1,391
MI	6,000	95	480	84	417	92	619
NY	6,500	88	342	88	341	86	412
Total	28,400	94	2,593	77	1,606	84	2,725

Pumpkins: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	6,000					
Nitrogen		96	2.4	51	127	737
Phosphate		67	1.5	47	75	302
Potash		64	1.6	47	79	303
Illinois	9,900					
Nitrogen		95	1.5	73	110	1,034
Phosphate		72	1.1	67	77	546
Potash		90	1.1	137	157	1,391
Michigan	6,000					
Nitrogen		95	1.7	49	84	480
Phosphate		84	1.4	57	83	417
Potash		92	1.4	77	112	619
New York	6,500					
Nitrogen		88	1.3	45	60	342
Phosphate		88	1.1	53	60	341
Potash		86	1.2	59	74	412
Total	28,400					
Nitrogen		94	1.7	56	97	2,593
Phosphate		77	1.2	57	73	1,606
Potash		84	1.3	86	114	2,725

Pumpkins: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	IL	MI	NY
Herbicides					
2,4-D	*			*	*
Atrazine	*			*	
Bensulide	P		*	P	*
Clethodim	P		P	*	*
Clomazone	P		P	P	P
DCPA	*	*	*		
Ethalfluralin	P	*	P	P	P
Fluazifop-P-butyl	*		*		
Glyphosate	P	*	*	P	P
Halosulfuron	P		P	*	*
Imazethapyr	*		*		
Napropamide	*			*	
Naptalam	P		*	*	*
Paraquat	*			*	*
Pendimethalin	*			*	*
S-Metolachlor	P		*	*	P
Sethoxydim	P	*	P	*	*
Trifluralin	P	*	*	P	*

See footnote(s) at end of table.

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Pumpkins: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	IL	MI	NY
Insecticides					
Abamectin	*	*			
Acephate	*				*
Azadirachtin	*	*		*	
Azinphos-methyl	P			*	*
Bifenthrin	P	*	P	*	*
Bt (Bacillus thur.)	*	*			
Carbaryl	P	*	*	P	P
Carbofuran	P		*	*	
Chlorpyrifos	*			*	*
Cryolite	*	*	*		
Cyfluthrin	*		*		
Diazinon	*			*	
Dicofol	*	*			
Dimethoate	P		*	*	*
Endosulfan	P		*	P	*
Esfenvalerate	P		*	P	*
Fenpropathrin	*	*			
Imidacloprid	P	*		*	*
Lambda-cyhalothrin	P		*	*	*
Malathion	P	*	*	P	*
Methomyl	P	*		*	*
Naled	*			*	
Oxydemeton-methyl	P	*			*
Permethrin	P	*	P	*	*
Petroleum distillate	*			*	
Phosmet	*			*	
Pymetrozine	*	*			
Rotenone	*			*	*
Spinosad	*	*			*
Tebupirimphos	*		*		
Terbufos	*			*	
Thiamethoxam	*			*	

See footnote(s) at end of table.

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Pumpkins: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States				
	ALL	CA	IL	MI	NY
Fungicides					
Azoxystrobin	P		P	P	P
Bacillus subtilus	*				*
Basic copper sulfate	*			*	
Benomyl	P		*	*	P
Captan	*		*	*	*
Chlorothalonil	P		P	P	P
Copper amm. complex	*			*	
Copper hydroxide	P		P	P	P
Copper oxychlo. sul.	*			*	*
Copper resinate	*		*	*	
Copper sulfate	P		*	*	*
Dimethomorph	*		*		
Fosetyl-al	*	*		*	
Mancozeb	P		P	P	P
Maneb	P	*			*
Mefenoxam	P	*		P	*
Metalaxyl	P		*	*	*
Myclobutanil	P	P	P	P	P
Potassium bicarbon.	*				*
Sulfur	P	P	*	*	*
Thiophanate-methyl	P	*	*	P	
Triadimefon	P	*	*	P	*
Trifloxystrobin	P	*		P	*
Other Chemicals					
Cacodylic acid	*		*		
Chloropicrin	*	*			
Cytokinins	*			*	
Dichloropropene	*	*			
Garlic oil	*		*		
Hydrogen peroxide	*				*

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	6,000	9	0.5	48	1.1	43	37.9		
IL [2]	9,900	95	8.0	58	3.2	30	8.6		
MI [2]	6,000	63	3.5	77	4.6	73	12.5		
NY [2]	6,500	62	3.5	64	4.7	66	11.2		
Total	28,400	63	15.6	61	13.8	50	70.6	1	14.9

[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.

Pumpkins : Agricultural Chemical Applications, Program States, 2002 [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	*	1.0	3.93	3.93	0.6
Clethodim	3	1.0	0.12	0.12	0.1
Clomazone	53	1.0	0.60	0.60	9.0
Ethalfluralin	14	1.0	0.72	0.74	2.9
Glyphosate	4	1.0	0.77	0.84	0.9
Halosulfuron	3	1.0	0.03	0.03	([2])
Naptalam	*	1.0	2.52	2.52	0.5
S-Metolachlor	2	1.0	1.59	1.59	1.0
Sethoxydim	4	1.0	0.22	0.22	0.3
Trifluralin	*	1.0	0.78	0.78	0.1
Insecticides					
Azinphos-methyl	*	1.9	0.40	0.79	0.1
Bifenthrin	17	1.3	0.06	0.08	0.4
Carbaryl	15	2.2	0.80	1.80	7.7
Carbofuran	3	1.0	0.57	0.57	0.4
Dimethoate	*	1.1	0.57	0.68	0.1
Endosulfan	4	2.2	0.55	1.26	1.5
Esfenvalerate	9	2.6	0.03	0.09	0.2
Imidacloprid	3	1.0	0.14	0.16	0.2
Lambda-cyhalothrin	4	1.9	0.33	0.66	0.7
Malathion	*	1.0	0.83	0.86	0.2
Methomyl	*	1.6	0.48	0.80	0.2
Oxydemeton-methyl	1	1.0	0.58	0.58	0.2
Permethrin	10	2.2	0.12	0.26	0.7
Fungicides					
Azoxystrobin	16	1.3	0.19	0.25	1.1
Benomyl	1	1.6	0.22	0.36	0.1
Chlorothalonil	31	1.8	1.42	2.66	23.3
Copper hydroxide	9	2.3	0.46	1.10	2.8
Copper sulfate	1	2.5	0.52	1.34	0.5
Mancozeb	2	2.4	1.22	3.03	1.8
Maneb	1	2.2	1.17	2.67	0.8
Mefenoxam	3	1.6	0.17	0.27	0.2
Metalaxyl	*	1.6	0.20	0.33	([2])
Myclobutanil	22	1.4	0.10	0.14	0.9
Sulfur	8	1.2	12.28	15.78	37.6
Thiophanate-methyl	1	1.6	0.56	0.90	0.3
Triadimefon	2	1.4	0.10	0.15	0.1
Trifloxystrobin	5	2.0	0.06	0.12	0.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 4 program states were 28,400 acres. States included are CA, IL, MI and NY.

[2] Total applied is less than 50 lbs.

Pumpkins : Agricultural Chemical Applications, California, 2002 [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					
Myclobutanil	32	1.0	0.12	0.13	0.2
Sulfur	36	1.2	14.17	17.42	37.3

[1] Planted acres in 2002 for California were 6,000 acres.

Pumpkins : Agricultural Chemical Applications, Illinois, 2002 [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	0.13	0.13	0.1
Clomazone	93	1.0	0.71	0.71	6.5
Ethalfluralin	6	1.1	0.59	0.67	0.4
Halosulfuron	9	1.0	0.03	0.03	([2])
Sethoxydim	10	1.0	0.20	0.20	0.2
Insecticides					
Bifenthrin	43	1.3	0.06	0.08	0.3
Permethrin	8	2.5	0.13	0.35	0.3
Fungicides					
Azoxystrobin	20	1.0	0.18	0.19	0.4
Chlorothalonil	26	1.5	1.63	2.51	6.4
Copper hydroxide	3	3.6	0.53	1.90	0.6
Mancozeb	2	2.6	1.52	3.95	0.7
Myclobutanil	3	2.4	0.07	0.18	([2])

[1] Planted acres in 2002 for Illinois were 9,900 acres.

[2] Total applied is less than 50 lbs.

Pumpkins : Agricultural Chemical Applications, Michigan, 2002 [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	*	1.0	4.76	4.76	0.2
Clomazone	44	1.0	0.38	0.39	1.0
Ethalfluralin	37	1.0	0.68	0.70	1.6
Glyphosate	4	1.0	0.68	0.69	0.2
Trifluralin	3	1.0	0.71	0.71	0.1
Insecticides					
Carbaryl	30	1.8	0.90	1.70	3.1
Endosulfan	9	2.0	0.70	1.42	0.7
Esfenvalerate	37	2.7	0.03	0.09	0.2
Malathion	2	1.0	0.74	0.79	0.1
Fungicides					
Azoxystrobin	3	1.0	0.20	0.20	([2])
Chlorothalonil	48	2.5	1.35	3.39	9.8
Copper hydroxide	23	1.8	0.51	0.93	1.3
Mancozeb	2	2.0	0.79	1.62	0.2
Mefenoxam	7	1.5	0.18	0.27	0.1
Myclobutanil	36	1.5	0.09	0.15	0.3
Thiophanate-methyl	3	2.0	0.65	1.33	0.2
Triadimefon	6	1.0	0.07	0.07	([2])
Trifloxystrobin	20	2.2	0.06	0.13	0.2

* Area applied is less than one percent.

[1] Planted acres in 2002 for Michigan were 6,000 acres.

[2] Total applied is less than 50 lbs.

Pumpkins : Agricultural Chemical Applications, New York, 2002 [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	48	1.0	0.45	0.45	1.4
Ethalfluralin	14	1.0	0.78	0.78	0.7
Glyphosate	7	1.0	0.79	0.79	0.4
S-Metolachlor	6	1.0	1.54	1.54	0.6
Insecticides					
Carbaryl	26	2.2	0.73	1.65	2.8
Fungicides					
Azoxystrobin	34	1.6	0.19	0.32	0.7
Benomyl	3	1.7	0.19	0.34	0.1
Chlorothalonil	51	1.6	1.34	2.13	7.1
Copper hydroxide	13	2.8	0.38	1.08	0.9
Mancozeb	4	2.6	1.18	3.08	0.8
Myclobutanil	28	1.5	0.10	0.16	0.3

[1] Planted acres in 2002 for New York were 6,500 acres.

Spinach, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ [1]	4,200	47	228	47	312		
CA	20,000	60	1,441	37	562	38	415
TX	2,600	99	291	97	206	71	31
Total	26,800	61	1,960	44	1,080	36	446

[1] Insufficient reports to publish data for one or more of the fertilizer primary nutrients.

Spinach, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
Arizona	4,200					
Nitrogen		47	5.6	20	116	228
Phosphate		47	1.2	123	159	312
Potash		0	0.0			
California	20,000					
Nitrogen		60	3.0	40	121	1,441
Phosphate		37	1.4	51	76	562
Potash		38	1.3	40	54	415
Texas	2,600					
Nitrogen		99	1.8	62	113	291
Phosphate		97	1.0	80	82	206
Potash		71	1.0	17	17	31
Total	26,800					
Nitrogen		61	3.1	38	119	1,960
Phosphate		44	1.3	67	91	1,080
Potash		36	1.2	36	47	446

Spinach, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Herbicides				
Acetamide	*			*
Bensulide	*		*	
Butylate	*		*	
Cycloate	P		*	*
Glyphosate	*		*	
Glyphosate diam salt	*		*	
Metribuzin	*			*
Paraquat	*		*	
Pendimethalin	*			*
S-Metolachlor	P	*		*
Trifluralin	*			*
Insecticides				
Abamectin	P		P	
Acetamiprid	*		*	
Azadirachtin	P		*	*
Bt (Bacillus thur.)	P	*	*	P
Chlorpyrifos	*			*
Cypermethrin	*			*
Cyromazine	P		P	
Diazinon	P	*	P	*
Dimethoate	P		P	
Endosulfan	*			*
Imidacloprid	P	*	P	*
Malathion	*	*	*	
Methomyl	P	*	*	*
Neem oil	*		*	
Neem oil, clar. hyd.	*		*	
Permethrin	P	*	*	P
Petroleum distillate	*			*
Pyrethrins	P		P	
Rotenone	P		P	
Spinosad	P	*	P	P
Tebufenozide	P	*	*	*
Zeta-cypermethrin	P	*		*

See footnote(s) at end of table.

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Spinach, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	AZ	CA	TX
Fungicides				
Azoxystrobin	P	*	*	P
Bacillus subtilus	*		*	
Chlorothalonil	*			*
Copper hydroxide	P		*	*
Fosetyl-al	P	*	*	
Mancozeb	*			*
Maneb	P		P	
Mefenoxam	P	*	P	*
Metalaxyl	P			P
Other Chemicals				
Gibberellic acid	*			*
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
AZ [2]	4,200			42	1.3				
CA [2]	20,000	28	15.9	50	16.0	35	11.8		
TX [2]	2,600	48	1.2	80	3.3	69	3.8		
Total [2]	26,800	28	17.5	52	20.7	37	17.7		

[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.

Spinach, Fresh : Agricultural Chemical Applications, Program States, 2002 [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	20	1.2	2.34	2.91	15.7
S-Metolachlor	7	1.1	0.67	0.74	1.3
Insecticides					
Abamectin	11	1.1	0.01	0.01	([2])
Azadirachtin	4	1.1	0.02	0.02	([2])
Bt (Bacillus thur.) [3]	12	1.6			
Cyromazine	5	1.1	0.12	0.14	0.2
Diazinon	19	1.4	1.87	2.72	13.6
Dimethoate	*	1.0	0.24	0.26	0.1
Imidacloprid	11	1.1	0.08	0.09	0.3
Methomyl	6	1.1	0.51	0.58	0.9
Permethrin	34	2.1	0.15	0.32	2.9
Pyrethrins	3	1.0	0.007	0.007	([2])
Rotenone	3	1.0	0.005	0.005	([2])
Spinosad	34	1.7	0.08	0.14	1.3
Tebufenozide	3	2.0	0.12	0.25	0.2
Zeta-cypermethrin	1	1.2	0.05	0.06	([2])
Fungicides					
Azoxystrobin	11	1.7	0.20	0.34	1.0
Copper hydroxide	5	1.8	0.93	1.71	2.1
Fosetyl-al	7	1.7	2.66	4.68	8.6
Maneb	2	1.0	1.50	1.59	0.8
Mefenoxam	25	1.1	0.53	0.60	4.0
Metalaxyl	5	2.1	0.29	0.62	0.8

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 2 program states were 26,800 acres.
States included are 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, California, 2002 [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	15	1.1	0.01	0.01	([2])
Cyromazine	7	1.1	0.12	0.14	0.2
Diazinon	18	1.4	2.41	3.36	12.1
Dimethoate	1	1.0	0.24	0.26	0.1
Imidacloprid	10	1.2	0.08	0.10	0.2
Pyrethrins	5	1.0	0.007	0.007	([2])
Rotenone	4	1.0	0.005	0.005	([2])
Spinosad	37	1.6	0.08	0.13	1.0
Fungicides					
Maneb	3	1.0	1.50	1.59	0.8
Mefenoxam	32	1.1	0.53	0.61	3.9

[1] Planted acres in 2002 for California were 20,000 acres.

[2] Total applied is less than 50 lbs.

Spinach, Fresh : Agricultural Chemical Applications, Texas, 2002 [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]	50	2.1			
Permethrin	61	4.0	0.15	0.60	1.0
Spinosad	43	3.0	0.07	0.21	0.2
Fungicides					
Azoxystrobin	58	1.6	0.19	0.30	0.5
Metalaxyl	49	2.1	0.29	0.62	0.8

[1] Planted acres in 2002 for Texas were 2,600 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Squash : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	8,300	81	917	57	424	54	374
FL	12,000	100	1,271	94	825	100	1,647
GA	9,100	100	1,022	93	603	100	1,186
MI	7,200	98	545	80	343	89	769
NJ	3,600	98	349	95	260	97	406
NC	4,200	97	326	91	302	90	368
Total	44,400	96	4,430	84	2,757	88	4,750

Squash: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	8,300					
Nitrogen		81	4.4	31	136	917
Phosphate		57	2.0	43	89	424
Potash		54	1.8	45	84	374
Florida	12,000					
Nitrogen		100	3.4	31	106	1,271
Phosphate		94	2.4	30	73	825
Potash		100	3.4	40	138	1,647
Georgia	9,100					
Nitrogen		100	11.3	10	112	1,022
Phosphate		93	2.0	35	72	603
Potash		100	9.9	13	131	1,186
Michigan	7,200					
Nitrogen		98	1.9	39	78	545
Phosphate		80	1.1	52	59	343
Potash		89	1.5	77	120	769
New Jersey	3,600					
Nitrogen		98	2.2	45	99	349
Phosphate		95	2.0	37	76	260
Potash		97	2.1	55	116	406
North Carolina	4,200					
Nitrogen		97	1.5	50	80	326
Phosphate		91	1.1	69	79	302
Potash		90	1.2	78	98	368
Total	44,400					
Nitrogen		96	4.7	22	104	4,430
Phosphate		84	1.9	38	74	2,757
Potash		88	4.1	29	121	4,750

Squash: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Herbicides							
2,4-D	*				*		*
Atrazine	*			*	*		
Bensulide	P		*		P	P	*
Clomazone	P				P	*	*
DCPA	*	*					
Ethalfluralin	P			P	P	P	P
Glyphosate	P	*	P	*	P	*	*
Napropamide	*					*	*
Naptalam	P				*	*	
Paraquat	P	*	P	*	*	*	*
Pendimethalin	*			*	*		
S-Metolachlor	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, 2002

Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Insecticides							
Abamectin	*	*					
Acephate	P	*	*	*			*
Azadirachtin	P	*	*		*		
Azinphos-methyl	*				*		
Bifenthrin	P	*	*		*	*	*
Bt (Bacillus thur.)	P	P	P	*	*	*	P
Carbaryl	P	*	*	P	P	P	P
Carbofuran	P				P	P	
Chlorpyrifos	*			*	*		
Cryolite	*	*					
Cyfluthrin	*					*	
Cypermethrin	*			*			
Diazinon	P			*	P	*	*
Dicofol	*	*					
Dimethoate	*	*					
Emamectin benzoate	*			*			
Endosulfan	P	*	P	P	P	P	P
Esfenvalerate	P	*	P	P	P	P	P
Ethoprop	*			*			
Fenamiphos	*			*			
Imidacloprid	P	*	*	P	*	P	*
Lambda-cyhalothrin	P		*	*	*	*	*
Malathion	P	*	P	*	P		*
Methamidophos	*		*				
Methomyl	P	*	P	P	*	P	*
Naled	*		*		*		
Neem oil	*	*					
Neem oil, clar. hyd.	*	*					
Oxamyl	P	*	*	*		*	*
Oxydemeton-methyl	*				*	*	
Permethrin	P	*	*	P	P	P	P
Petroleum distillate	P		*	P	*		
Phosmet	*				*		
Potassium salts	*	*		*			
Pseudomonas cepacia	*				*		
Pyriproxyfen	*			*			
Rotenone	*				*		
Spinosad	P		P				
Tebufenozide	*		*				
Terbufos	*				*		
Thiamethoxam	P	*		*	*		
Zeta-cypermethrin	*					*	

See footnote(s) at end of table.

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Squash: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States						
	ALL	CA	FL	GA	MI	NJ	NC
Fungicides							
Azoxystrobin	P		*	P	*	P	P
Bacillus subtilus	*		*				
Basic copper sulfate	*				*		
Benomyl	P		*	*	*	*	
Captan	*		*	*			
Chlorothalonil	P		P	P	P	P	P
Copper amm. complex	*				*		
Copper hydroxide	P		P	*	P	P	*
Copper oxychlo. sul.	*				*	*	
Copper resinate	P				*	*	*
Copper sulfate	*			*	*		
Dimethomorph	P				*	*	
Fosetyl-al	P		*	*	*		
Mancozeb	P		P	*	*	P	P
Maneb	P	*	P	P	*	*	*
Mefenoxam	P	*	*	*	P	P	
Metalaxyl	P		*	*	*	P	
Metiram	*				*		
Myclobutanil	P	*	*	*	P	*	*
Sulfur	P	*	P		*	*	*
Thiophanate-methyl	P		*	*	P		
Thiram	*		*				
Triadimefon	*				*	*	
Trifloxystrobin	P	*			*		
Other Chemicals							
Busan 881	*		*				
Chloropicrin	P	*	*	*	*	*	P
Dichloropropene	P	*		P	*		*
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA [2]	8,300	23	1.7	36	5.3	13	0.8		
FL	12,000	37	4.9	97	22.1	97	145.2	12	286.0
GA	9,100	28	1.6	91	120.2	69	36.8	17	128.7
MI	7,200	71	5.4	85	9.9	73	22.7	3	34.0
NJ [2]	3,600	54	2.8	71	4.2	76	13.0		
NC	4,200	35	1.1	48	1.6	25	2.4	6	5.4
Total	44,400	39	17.8	76	163.4	63	221.3	8	458.0

[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.

Squash : Agricultural Chemical Applications, Program States, 2002 [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	2.15	2.15	5.2
Clomazone	9	1.0	0.16	0.16	0.7
Ethalfluralin	16	1.0	0.72	0.74	5.3
Glyphosate	6	1.1	0.80	0.91	2.4
Naptalam	*	1.0	1.44	1.44	0.2
Paraquat	5	1.1	0.48	0.56	1.3
S-Metolachlor	5	1.0	0.91	0.91	2.0
Sethoxydim	*	1.0	0.24	0.24	0.1
Trifluralin	1	1.1	0.43	0.48	0.3
Insecticides					
Acephate	1	2.6	0.55	1.43	0.9
Azadirachtin	*	2.5	0.008	0.02	([2])
Bifenthrin	3	1.9	0.09	0.18	0.2
Bt (Bacillus thur.) [3]	10	5.1			
Carbaryl	10	2.2	0.85	1.93	8.3
Carbofuran	3	1.0	0.58	0.58	0.7
Diazinon	*	1.4	0.68	1.00	0.3
Endosulfan	34	3.5	0.60	2.12	32.3
Esfenvalerate	11	2.5	0.04	0.10	0.5
Imidacloprid	10	2.1	0.09	0.20	0.9
Lambda-cyhalothrin	*	1.6	0.03	0.04	([2])
Malathion	2	1.9	0.89	1.74	1.3
Methomyl	9	2.5	0.51	1.30	5.2
Oxamyl	*	1.7	0.66	1.18	0.4
Permethrin	8	1.8	0.13	0.24	0.8
Petroleum distillate	5	10.2	4.64	47.66	102.1
Spinosad	9	2.0	0.10	0.20	0.8
Thiamethoxam	2	1.0	0.08	0.08	0.1
Fungicides					
Azoxystrobin	9	1.8	0.20	0.36	1.5
Benomyl	*	1.4	0.25	0.37	0.1
Chlorothalonil	42	3.4	1.51	5.26	98.8
Copper hydroxide	17	3.5	0.66	2.33	17.7
Copper resinate	*	1.9	0.14	0.26	([2])
Dimethomorph	*	1.9	0.20	0.38	0.1
Fosetyl-al	5	1.1	1.04	1.14	2.6
Mancozeb	10	4.4	0.89	3.95	18.2
Maneb	7	3.1	1.19	3.70	11.3
Mefenoxam	9	2.1	0.35	0.75	3.1
Metalaxyl	3	2.1	0.16	0.33	0.4
Myclobutanil	5	1.4	0.09	0.13	0.3
Sulfur	16	3.5	2.63	9.25	65.5
Thiophanate-methyl	2	1.5	0.40	0.63	0.4
Trifloxystrobin	*	1.1	0.06	0.07	([2])

See footnote(s) at end of table.

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Squash : Agricultural Chemical Applications, Program States, 2002 [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*
Other Chemicals					
Chloropicrin	2	1.0	77.82	79.92	67.3
Dichloropropene	3	1.0	71.46	71.56	110.9
Methyl bromide	*	1.0	113.35	113.35	48.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 6 program states were 44,400 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, 2002 [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]	4	1.0			

[1] Planted acres in 2002 for California were 8,300 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Squash : Agricultural Chemical Applications, Florida, 2002 [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	1.0	0.72	0.74	0.3
Paraquat	2	1.5	0.32	0.48	0.1
Insecticides					
Bt (Bacillus thur.) [2]	33	5.6			
Endosulfan	57	3.2	0.52	1.69	11.5
Esfenvalerate	5	2.8	0.04	0.11	0.1
Malathion	1	2.6	0.60	1.61	0.2
Methomyl	26	2.5	0.54	1.38	4.4
Spinosad	35	2.0	0.10	0.20	0.8
Fungicides					
Chlorothalonil	42	5.6	1.53	8.67	43.9
Copper hydroxide	37	4.1	0.74	3.06	13.6
Mancozeb	30	5.2	0.85	4.45	15.9
Maneb	9	4.0	0.99	4.06	4.5
Sulfur	56	3.6	2.65	9.59	64.8

[1] Planted acres in 2002 for Florida were 12,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Squash : Agricultural Chemical Applications, Georgia, 2002 [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	25	1.0	0.58	0.58	1.3
Insecticides					
Carbaryl	*	1.1	0.76	0.90	([2])
Endosulfan	63	4.2	0.66	2.80	16.1
Esfenvalerate	16	3.6	0.04	0.16	0.2
Imidacloprid	28	2.3	0.09	0.22	0.6
Methomyl	1	5.3	0.23	1.20	0.2
Permethrin	7	2.9	0.11	0.34	0.2
Petroleum distillate	21	11.2	4.67	52.62	101.7
Fungicides					
Azoxystrobin	36	1.9	0.20	0.38	1.3
Chlorothalonil	68	2.7	1.45	4.04	25.1
Maneb	17	2.8	1.44	4.10	6.4
Other Chemicals					
Dichloropropene	15	1.0	73.11	73.11	100.0

* Area applied is less than one percent.

[1] Planted acres in 2002 for Georgia were 9,100 acres.

[2] Total applied is less than 50 lbs.

Squash : Agricultural Chemical Applications, Michigan, 2002 [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	*	1.0	4.42	4.42	0.2
Clomazone	35	1.0	0.17	0.17	0.4
Ethalfluralin	60	1.0	0.83	0.85	3.7
Glyphosate	5	1.4	0.79	1.15	0.4
Insecticides					
Carbaryl	40	2.4	0.84	2.09	6.0
Carbofuran	13	1.0	0.59	0.59	0.5
Diazinon	1	1.1	1.64	1.83	0.2
Endosulfan	13	2.7	0.57	1.60	1.5
Esfenvalerate	27	1.9	0.04	0.07	0.1
Malathion	4	2.3	0.81	1.90	0.6
Permethrin	20	1.5	0.14	0.21	0.3
Fungicides					
Chlorothalonil	63	2.7	1.44	3.87	17.4
Copper hydroxide	30	2.7	0.54	1.47	3.2
Mefenoxam	16	1.7	0.10	0.18	0.2
Myclobutanil	13	1.4	0.10	0.14	0.1
Thiophanate-methyl	4	1.6	0.31	0.51	0.1

* Area applied is less than one percent.

[1] Planted acres in 2002 for Michigan were 7,200 acres.

Squash : Agricultural Chemical Applications, New Jersey, 2002 [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	13	1.0	4.64	4.64	2.2
Ethalfluralin	10	1.0	0.43	0.43	0.2
Insecticides					
Carbaryl	15	2.0	0.74	1.49	0.8
Carbofuran	8	1.0	0.57	0.57	0.2
Endosulfan	36	3.1	0.71	2.21	2.8
Esfenvalerate	3	1.3	0.04	0.06	([2])
Imidacloprid	6	1.0	0.08	0.09	([2])
Methomyl	9	1.8	0.48	0.90	0.3
Permethrin	8	1.2	0.13	0.16	([2])
Fungicides					
Azoxystrobin	7	1.8	0.20	0.37	0.1
Chlorothalonil	63	2.7	1.67	4.62	10.5
Copper hydroxide	26	2.6	0.34	0.91	0.8
Mancozeb	9	1.4	1.56	2.27	0.7
Mefenoxam	11	1.8	0.09	0.18	0.1
Metalaxyl	10	1.1	0.21	0.25	0.1

[1] Planted acres in 2002 for New Jersey were 3,600 acres.

[2] Total applied is less than 50 lbs.

Squash : Agricultural Chemical Applications, North Carolina, 2002 [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	6	1.0	0.51	0.51	0.1
Insecticides					
Bt (Bacillus thur.) [2]	*	1.7			
Carbaryl	15	1.8	0.97	1.77	1.1
Endosulfan	8	1.1	0.64	0.73	0.2
Esfenvalerate	21	1.7	0.02	0.04	([3])
Permethrin	10	1.2	0.14	0.18	0.1
Fungicides					
Azoxystrobin	3	1.8	0.18	0.33	([3])
Chlorothalonil	18	1.6	1.50	2.51	1.9
Mancozeb	5	2.1	0.87	1.86	0.4
Other Chemicals					
Chloropicrin	*	1.0	53.87	53.87	1.7
Methyl bromide	*	1.0	109.37	109.37	3.5

* Area applied is less than one percent.

[1] Planted acres in 2002 for North Carolina were 4,200 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 : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	28,500	95	6,108	91	3,813	89	3,733
FL	6,900	100	584	68	174	99	800
OR	3,500	91	161	67	241	78	400
Total	38,900	95	6,853	85	4,228	90	4,933

Strawberries: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	28,500					
Nitrogen		95	10.2	22	226	6,108
Phosphate		91	6.4	23	147	3,813
Potash		89	6.7	22	148	3,733
Florida	6,900					
Nitrogen		100	74.9	1	85	584
Phosphate		68	66.0	1	37	174
Potash		99	74.9	2	117	800
Oregon	3,500					
Nitrogen		91	1.2	40	51	161
Phosphate		67	1.7	57	102	241
Potash		78	1.9	74	147	400
Total	38,900					
Nitrogen		95	21.4	9	185	6,853
Phosphate		85	14.6	9	128	4,228
Potash		90	19.7	7	142	4,933

Strawberries: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	FL	OR
Herbicides				
2,4-D	*			*
Atrazine	*			*
Butylate	*			*
Clethodim	P			P
Diquat	*		*	
Diuron	*		*	
Glyphosate	P	*	P	*
Napropamide	P	P	*	P
Oxyfluorfen	*			*
Paraquat	P	*	P	*
Pendimethalin	*			*
Sethoxydim	P	*		*
Simazine	P			P
Sulfentrazone	P			P
Terbacil	P			P

See footnote(s) at end of table.

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Strawberries: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	FL	OR
Insecticides				
Abamectin	P	*	P	*
Azadirachtin	P	*	*	
Azinphos-methyl	P	*		*
Bifenazate	P	P		
Bifenthrin	P	P	P	P
Bt (Bacillus thur.)	P	P	*	*
Carbaryl	P	P	*	*
Carbofuran	*			*
Chlorpyrifos	P	P		P
Diazinon	P	P	*	*
Dicofol	*	*		*
Endosulfan	P		*	*
Ethyl parathion	*	*		
Fenbutatin-oxide	P		*	*
Fenpropathrin	P	*	*	
Hexythiazox	P	P	*	*
Imidacloprid	P	P		
Jojoba oil	*	*		
Malathion	P	P	P	
Methomyl	P	P	P	
Naled	P	P	P	
Neem oil	*	*		
Neem oil, clar. hyd.	*	*		
Oxamyl	*		*	
Oxydemeton-methyl	P			P
Petroleum distillate	*	*		
Piperonyl butoxide	*	*		
Potassium salts	P	P		
Pyrethrins	P	*	*	
Pyriproxyfen	*	*		
Rotenone	P	*	*	
Silicon dioxide	*	*		
Spinosad	P	P	P	

See footnote(s) at end of table.

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Strawberries: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States			
	ALL	CA	FL	OR
Fungicides				
Azoxystrobin	P	P	*	*
Basic copper sulfate	*	*		
Benomyl	P	P	P	P
Captan	P	P	P	P
Chlorothalonil	*			*
Copper amm. complex	*		*	
Copper hydroxide	P	P	*	*
Copper oxide	*	*		
Copper resinate	P	P		
Cyprodinil	P	*	*	P
Dodine	*			*
Fenhexamid	P	P	P	P
Fludioxonil	P	*	*	P
Fosetyl-al	P	P		P
Iprodione	P	P	*	*
Mefenoxam	P	*		*
Metalaxyl	*		*	*
Myclobutanil	P	P	P	P
Potassium bicarbon.	P	*	P	*
Sulfur	P	P	*	*
Thiophanate-methyl	P	P	P	
Thiram	P	P	P	P
Vinclozolin	*			*
Other Chemicals				
Busan 881	*	*		
Chloropicrin	P	P	P	
Cytokinins	*		*	
Dichloropropene	P	*	*	
Gibberellic acid	*		*	*
Harpin protein	P	P	*	*
Hydrogen peroxide	*		*	
Indolebutyric acid	*		*	
Metaldehyde	P	*		*
Metam-sodium	*	*		
Methyl bromide	P	P	P	
Monocarbamide dihyd.	*		*	

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	28,500	16	8.7	82	144.7	82	574.8	68	7,276.9
FL	6,900	89	4.3	99	27.1	100	207.8	100	1,400.7
OR [2]	3,500	83	7.0	75	5.4	87	20.6		
Total	38,900	35	20.0	85	177.1	86	803.1	68	8,677.6

[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.

Strawberries : Agricultural Chemical Applications, Program States, 2002 [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	*	1.5	0.10	0.14	0.1
Glyphosate	7	1.5	0.58	0.90	2.5
Napropamide	10	1.1	2.55	2.98	11.3
Paraquat	15	1.3	0.38	0.53	3.0
Sethoxydim	*	1.0	0.27	0.27	([2])
Simazine	6	1.0	0.96	0.96	2.3
Sulfentrazone	2	1.1	0.24	0.28	0.2
Terbacil	*	1.0	0.30	0.30	0.1
Insecticides					
Abamectin	41	2.0	0.02	0.03	0.5
Azadirachtin	19	1.7	0.03	0.05	0.3
Azinphos-methyl	2	1.0	0.51	0.52	0.5
Bifenazate	23	1.2	0.49	0.61	5.6
Bifenthrin	27	1.5	0.12	0.18	1.9
Bt (Bacillus thur.) [3]	46	3.4			
Carbaryl	8	1.7	1.85	3.25	10.4
Chlorpyrifos	16	1.2	0.91	1.11	7.0
Diazinon	10	1.9	0.64	1.22	4.8
Endosulfan	4	1.4	1.44	2.10	3.4
Fenbutatin-oxide	10	1.4	0.89	1.24	4.9
Fenpropathrin	25	1.6	0.32	0.52	5.0
Hexythiazox	32	1.2	0.19	0.23	2.8
Imidacloprid	10	1.3	0.51	0.68	2.7
Malathion	37	2.7	1.79	4.99	71.9
Methomyl	42	2.5	0.70	1.80	29.1
Naled	23	1.7	0.95	1.65	14.5
Oxydemeton-methyl	2	1.5	0.32	0.49	0.4
Potassium salts	3	1.0	3.46	3.49	3.7
Pyrethrins	3	1.7	0.02	0.02	([2])
Rotenone	2	1.1	0.006	0.007	([2])
Spinosad	37	1.5	0.09	0.14	2.0

See footnote(s) at end of table.

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Strawberries : Agricultural Chemical Applications, Program States, 2002 [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					
Azoxystrobin	47	2.1	0.19	0.42	7.7
Benomyl	19	1.6	0.50	0.81	6.1
Captan	75	6.4	1.87	11.98	347.1
Copper hydroxide	4	1.7	0.46	0.81	1.4
Copper resinate	5	1.4	0.18	0.26	0.5
Cyprodinil	24	1.7	0.31	0.55	5.1
Fenhexamid	57	2.2	0.68	1.50	33.2
Fludioxonil	24	1.7	0.21	0.37	3.4
Fosetyl-al	12	1.2	2.44	3.13	14.2
Iprodione	7	1.1	0.70	0.80	2.3
Mefenoxam	7	1.1	0.41	0.48	1.2
Myclobutanil	48	2.4	0.10	0.26	4.7
Potassium bicarbon.	8	1.4	2.71	4.03	13.2
Sulfur	58	3.5	3.24	11.33	256.8
Thiophanate-methyl	17	2.3	0.68	1.59	10.7
Thiram	51	2.6	1.72	4.53	90.4
Other Chemicals					
Chloropicrin	64	1.2	124.14	156.55	3,896.5
Dichloropropene	6	1.1	164.70	184.02	428.3
Harpin protein	12	2.7	0.009	0.03	0.1
Metaldehyde	1	1.0	0.95	1.01	0.5
Methyl bromide	58	1.1	159.58	189.33	4,263.4

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 3 program states were 38,900 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, 2002 [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	10	1.2	2.22	2.74	7.5
Insecticides					
Bifenazate	32	1.2	0.49	0.61	5.6
Bifenthrin	27	1.2	0.12	0.14	1.1
Bt (Bacillus thur.) [2]	45	2.8			
Carbaryl	11	1.7	1.86	3.28	10.3
Chlorpyrifos	18	1.2	0.89	1.14	5.9
Diazinon	8	1.4	0.83	1.19	2.6
Hexythiazox	37	1.2	0.19	0.23	2.4
Imidacloprid	14	1.3	0.51	0.68	2.7
Malathion	50	2.7	1.81	5.05	71.6
Methomyl	38	1.8	0.87	1.60	17.5
Naled	23	1.6	0.87	1.46	9.5
Potassium salts	4	1.0	3.46	3.49	3.7
Spinosad	45	1.5	0.09	0.14	1.7
Fungicides					
Azoxystrobin	44	1.4	0.22	0.31	3.9
Benomyl	23	1.4	0.48	0.71	4.7
Captan	73	5.9	1.71	10.24	211.9
Copper hydroxide	6	1.8	0.45	0.82	1.3
Copper resinate	6	1.4	0.18	0.26	0.5
Fenhexamid	55	2.4	0.67	1.61	25.3
Fosetyl-al	13	1.2	2.24	2.75	10.1
Iprodione	10	1.1	0.70	0.79	2.2
Myclobutanil	58	2.6	0.11	0.28	4.6
Sulfur	70	3.5	3.28	11.53	228.8
Thiophanate-methyl	15	1.6	0.66	1.08	4.7
Thiram	48	2.1	1.99	4.23	57.7
Other Chemicals					
Chloropicrin	63	1.3	140.10	190.99	3,447.4
Harpin protein	15	2.8	0.008	0.02	0.1
Methyl bromide	55	1.2	168.22	213.79	3,345.3

[1] Planted acres in 2002 for California were 28,500 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Strawberries : Agricultural Chemical Applications, Florida, 2002 [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	38	1.5	0.56	0.89	2.4
Paraquat	52	1.4	0.34	0.49	1.8
Insecticides					
Abamectin	77	2.9	0.02	0.05	0.3
Bifenthrin	36	2.5	0.12	0.31	0.8
Malathion	3	2.4	0.64	1.57	0.4
Methomyl	75	4.0	0.55	2.23	11.6
Naled	33	1.9	1.14	2.20	5.0
Spinosad	23	1.8	0.11	0.20	0.3
Fungicides					
Benomyl	5	3.0	0.62	1.87	0.7
Captan	88	9.5	2.15	20.55	124.6
Fenhexamid	71	1.8	0.70	1.32	6.5
Myclobutanil	22	1.2	0.07	0.10	0.1
Potassium bicarbon.	15	1.1	2.38	2.79	2.8
Thiophanate-methyl	35	3.5	0.70	2.49	6.0
Thiram	78	4.1	1.33	5.59	30.0
Other Chemicals					
Chloropicrin	99	1.0	65.66	65.66	449.1
Methyl bromide	100	1.0	133.63	133.63	918.2

[1] Planted acres in 2002 for Florida were 6,900 acres.

Strawberries : Agricultural Chemical Applications, Oregon, 2002 [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	1.5	0.10	0.14	0.1
Napropamide	30	1.0	3.53	3.58	3.8
Simazine	67	1.0	0.96	0.96	2.3
Sulfentrazone	22	1.1	0.24	0.28	0.2
Terbacil	5	1.0	0.30	0.30	0.1
Insecticides					
Bifenthrin	6	1.4	0.12	0.17	([2])
Chlorpyrifos	30	1.0	1.00	1.00	1.1
Oxydemeton-methyl	22	1.5	0.32	0.49	0.4
Fungicides					
Benomyl	12	2.8	0.50	1.45	0.6
Captan	63	1.7	2.74	4.79	10.6
Cyprodinil	50	1.0	0.32	0.33	0.6
Fenhexamid	42	1.3	0.73	0.96	1.4
Fludioxonil	50	1.0	0.21	0.22	0.4
Fosetyl-al	25	1.5	3.15	4.77	4.1
Myclobutanil	14	1.0	0.09	0.09	([2])
Thiram	28	1.1	2.56	2.85	2.8

[1] Planted acres in 2002 for Oregon were 3,500 acres.

[2] Total applied is less than 50 lbs.

Tomatoes, Fresh : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	38,500	99	7,196	94	6,408	81	5,421
FL	45,000	93	8,284	87	6,135	92	16,618
GA	2,600	100	538	99	402	100	1,102
OH	7,000	98	910	98	602	98	1,071
TN	4,200	100	943	100	902	100	1,536
Total	97,300	96	17,871	91	14,449	88	25,748

Tomatoes, Fresh: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	38,500					
Nitrogen		99	4.9	38	188	7,196
Phosphate		94	2.6	67	178	6,408
Potash		81	3.8	45	174	5,421
Florida	45,000					
Nitrogen		93	19.0	10	198	8,284
Phosphate		87	12.2	13	156	6,135
Potash		92	19.4	21	404	16,618
Georgia	2,600					
Nitrogen		100	41.5	5	208	538
Phosphate		99	1.3	112	156	402
Potash		100	41.5	10	425	1,102
Ohio	7,000					
Nitrogen		98	2.7	48	133	910
Phosphate		98	2.2	39	88	602
Potash		98	1.7	88	156	1,071
Tennessee	4,200					
Nitrogen		100	10.0	22	225	943
Phosphate		100	3.3	65	216	902
Potash		100	8.9	41	366	1,536
Total	97,300					
Nitrogen		96	12.3	15	191	17,871
Phosphate		91	6.8	24	163	14,449
Potash		88	12.5	24	299	25,748

Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	OH	TN
Herbicides						
2,4-D	*					*
Bensulide	*					*
Clethodim	*			*		*
Clomazone	*				*	
Diquat	*		*			
Diuron	*				*	
Ethalfluralin	*				*	
Fluazifop-P-butyl	*					*
Glyphosate	P	P	*	*	P	*
Linuron	*					*
Metribuzin	P	*	P	*	P	P
Napropamide	P		*	*	P	
Naptalam	*					*
Oxyfluorfen	P	P				
Paraquat	P	*	P	P	*	P
Pebulate	*	*			*	
Pendimethalin	P		*	*		
Rimsulfuron	*	*				
S-Metolachlor	P		*		*	
Sethoxydim	P	*	*	*		P
Terbacil	*					*
Trifluralin	P	P	*	*	P	*

See footnote(s) at end of table.

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Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	OH	TN
Insecticides						
Abamectin	P	P	P	*		*
Acephate	P			*		*
Acetamiprid	*	*				
Azadirachtin	*	*				
Azinphos-methyl	P	*	*		*	*
Bifenthrin	*			*		*
Bt (Bacillus thur.)	P	P	P	*	*	P
Buprofezin	*		*			
Carbaryl	P	P		P	P	P
Cryolite	*	*		*		
Cyfluthrin	P	*	P	P		*
Cyromazine	P	*	*			
Diazinon	P	*		*		*
Dicofol	P	*		*		*
Dimethoate	P	*		*		
Emamectin benzoate	*			*		
Endosulfan	P	*	P	*	P	P
Esfenvalerate	P	P	P	P	P	P
Ethoprop	*			*		
Fenpropathrin	P	*				*
Imidacloprid	P	P	P	*	*	P
Indoxacarb	P	*	*			
Lambda-cyhalothrin	P	*	P	P	P	*
Malathion	P	*		P	*	P
Methamidophos	P	*	P	*		P
Methomyl	P	P	P	*	*	P
Methoxychlor	*				*	
Neem oil, clar. hyd.	*	*				
Oxamyl	P	P	*	*		
Permethrin	P	P	P	*	P	*
Petroleum distillate	*	*	*			
Potassium salts	*	*	*			*
Pyrethrins	*	*				
Pyriproxyfen	P	*	*	*		*
Rotenone	*	*				
Spinosad	P	*	P	P		*
Tebufenozide	P	*	*			
Thiamethoxam	*	*				
Thiodicarb	*				*	
Zeta-cypermethrin	*		*			

See footnote(s) at end of table.

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Tomatoes, Fresh: Active Ingredients and Publication Status By Program States, 2002

Active Ingredient	Program States					
	ALL	CA	FL	GA	OH	TN
Fungicides						
Azoxystrobin	P	*	P	*	P	P
Bacillus subtilus	*		*			
Basic copper sulfate	P					P
Benomyl	P	*	*		*	*
Captan	*				*	*
Chlorothalonil	P	P	P	P	P	P
Copper amm. complex	*				*	*
Copper hydroxide	P	P	P	P	P	P
Copper oxychlo. sul.	*		*			
Copper resinate	P			*		*
Copper sulfate	P		*	*	*	P
Dicloran	*					*
Fosetyl-al	P	*	*			
Iprodione	*		*			
Mancozeb	P	P	P	P	P	P
Maneb	P	*	*	P	P	P
Mefenoxam	P	P	*			*
Metalaxyl	*		*			*
Myclobutanil	P	P				
PCNB	*					*
Streptomycin	*	*				
Sulfur	P	P	P			
Thiophanate-methyl	*		*		*	
Triadimefon	*			*		*
Trifloxystrobin	*	*				
Zineb	*					*
Other Chemicals						
Busan 881	*		*			
Chloropicrin	P	*	P	P	*	*
Dichloropropene	*		*	*		
Diphacinone	*	*				
Ethephon	*	*				
Harpin protein	*		*			*
Hydrogen peroxide	*		*			*
Metam-sodium	*	*				
Methyl bromide	P	*	P	P	*	P
Tridecenyl acetate	*	*				

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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide [1]		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	38,500	42	10.9	66	96.9	69	270.5	16	1,596.9
FL	45,000	66	17.6	99	107.3	99	1,313.4	78	7,254.6
GA	2,600	48	1.9	99	13.1	98	59.1	89	516.8
OH [2]	7,000	92	9.3	94	10.8	94	285.1		
TN	4,200	73	4.8	95	23.9	90	66.4	22	92.8
Total	97,300	58	44.6	85	252.2	86	1,994.5	52	10,192.9

[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.

Tomatoes, Fresh : Agricultural Chemical Applications, Program States, 2002 [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	6	1.3	0.76	1.00	5.9
Metribuzin	38	1.1	0.48	0.55	20.0
Napropamide	*	1.0	0.58	0.58	0.3
Oxyfluorfen	4	1.3	0.07	0.10	0.4
Paraquat	16	1.1	0.41	0.49	7.8
Pendimethalin	*	1.0	0.81	0.81	([2])
S-Metolachlor	7	1.4	0.38	0.54	3.6
Sethoxydim	8	1.1	0.22	0.25	1.9
Trifluralin	9	1.0	0.44	0.47	4.2
Insecticides					
Abamectin	18	1.3	0.01	0.01	0.2
Acephate	*	3.2	0.95	3.08	0.2
Azinphos-methyl	*	1.7	0.54	0.94	0.5
Bt (Bacillus thur.) [3]	47	7.9			
Carbaryl	1	1.3	0.88	1.15	1.4
Cyfluthrin	19	4.4	0.03	0.13	2.4
Cyromazine	12	2.6	0.12	0.31	3.5
Diazinon	*	2.3	0.25	0.59	0.2
Dicofol	1	2.0	0.28	0.55	0.7
Dimethoate	9	1.3	0.36	0.50	4.5
Endosulfan	31	4.8	0.47	2.31	70.2
Esfenvalerate	33	4.6	0.04	0.16	5.2
Fenpropathrin	3	2.6	0.22	0.57	1.6
Imidacloprid	24	1.5	0.22	0.34	7.9
Indoxacarb	13	1.8	0.06	0.11	1.4
Lambda-cyhalothrin	25	4.1	0.03	0.14	3.3
Malathion	*	5.9	1.65	9.82	1.2
Methamidophos	10	2.3	0.85	2.02	19.3
Methomyl	13	1.7	0.65	1.15	15.0
Oxamyl	7	2.8	0.67	1.90	12.9
Permethrin	16	6.4	0.10	0.65	10.4
Pyriproxyfen	3	1.1	0.06	0.07	0.2
Spinosad	38	3.6	0.08	0.31	11.4
Tebufenozide	18	1.5	0.13	0.21	3.6

See footnote(s) at end of table.

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Tomatoes, Fresh : Agricultural Chemical Applications, Program States, 2002 [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					
Azoxystrobin	25	3.9	0.09	0.34	8.3
Basic copper sulfate	*	6.9	1.03	7.19	2.3
Benomyl	15	1.8	0.37	0.71	10.2
Chlorothalonil	57	6.9	1.07	7.45	410.4
Copper hydroxide	61	14.3	0.69	9.83	580.1
Copper resinate	*	3.8	0.16	0.59	0.3
Copper sulfate	2	5.7	0.60	3.45	6.5
Fosetyl-al	7	1.3	1.19	1.62	10.9
Mancozeb	59	11.0	0.95	10.48	600.4
Maneb	7	7.9	1.71	13.58	98.8
Mefenoxam	11	1.1	0.40	0.48	5.1
Myclobutanil	6	1.1	0.10	0.11	0.7
Sulfur	18	3.1	4.13	13.18	231.5
Other Chemicals					
Chloropicrin	48	1.0	90.34	90.34	4,196.7
Methyl bromide	44	1.0	132.31	132.31	5,620.6

* Area applied is less than one percent.

[1] Planted acres in 2002 for the 5 program states were 97,300 acres. States included are CA, FL, GA, OH 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.

Tomatoes, Fresh : Agricultural Chemical Applications, California, 2002 [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	14	1.3	0.76	1.00	5.5
Oxyfluorfen	11	1.3	0.07	0.10	0.4
Trifluralin	22	1.0	0.43	0.46	3.9
Insecticides					
Abamectin	5	1.1	0.02	0.02	([2])
Bt (Bacillus thur.) [3]	17	2.5			
Carbaryl	2	1.1	0.87	1.03	0.9
Esfenvalerate	39	1.5	0.04	0.07	1.1
Imidacloprid	10	1.3	0.16	0.21	0.8
Methomyl	11	1.5	0.80	1.22	5.3
Oxamyl	8	1.0	0.65	0.69	2.2
Permethrin	3	1.1	0.20	0.23	0.3
Fungicides					
Chlorothalonil	23	3.1	1.61	5.01	44.4
Copper hydroxide	16	1.1	0.94	1.08	6.5
Mancozeb	23	1.2	1.42	1.70	15.2
Mefenoxam	25	1.2	0.42	0.51	4.9
Myclobutanil	15	1.1	0.10	0.11	0.7
Sulfur	22	1.1	19.95	22.83	194.5

[1] Planted acres in 2002 for California were 38,500 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, 2002 [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	57	1.0	0.43	0.44	11.3
Paraquat	22	1.1	0.38	0.44	4.2
Insecticides					
Abamectin	34	1.3	0.009	0.01	0.2
Bt (Bacillus thur.) [2]	84	9.1			
Cyfluthrin	36	4.7	0.03	0.14	2.2
Endosulfan	43	5.9	0.43	2.54	48.9
Esfenvalerate	29	8.4	0.03	0.28	3.7
Imidacloprid	41	1.1	0.21	0.24	4.5
Lambda-cyhalothrin	46	4.0	0.03	0.13	2.8
Methamidophos	11	2.5	0.80	2.04	10.5
Methomyl	15	1.3	0.64	0.84	5.7
Permethrin	26	7.9	0.09	0.74	8.6
Spinosad	61	4.1	0.08	0.34	9.5
Fungicides					
Azoxystrobin	25	5.3	0.08	0.43	4.9
Chlorothalonil	78	8.5	0.94	7.98	279.3
Copper hydroxide	97	16.0	0.67	10.71	468.0
Mancozeb	96	12.8	0.89	11.49	498.3
Sulfur	20	5.1	0.80	4.09	37.0
Other Chemicals					
Chloropicrin	76	1.0	64.29	64.29	2,212.1
Methyl bromide	77	1.0	140.44	140.44	4,865.0

[1] Planted acres in 2002 for Florida were 45,000 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, 2002 [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	39	2.0	0.61	1.23	1.2
Insecticides					
Carbaryl	*	2.4	1.04	2.55	([2])
Cyfluthrin	12	3.7	0.03	0.12	([2])
Esfenvalerate	39	2.2	0.04	0.09	0.1
Lambda-cyhalothrin	54	8.9	0.03	0.26	0.4
Malathion	*	2.0	1.43	2.94	([2])
Spinosad	61	4.6	0.07	0.31	0.5
Fungicides					
Chlorothalonil	53	4.7	0.98	4.72	6.6
Copper hydroxide	80	12.4	0.59	7.43	15.4
Mancozeb	46	13.4	1.19	15.94	19.1
Maneb	44	10.0	1.51	15.06	17.3
Other Chemicals					
Chloropicrin	89	1.0	93.33	93.33	214.8
Methyl bromide	89	1.0	131.07	131.07	301.7

* Area applied is less than one percent.

[1] Planted acres in 2002 for Georgia were 2,600 acres.

[2] Total applied is less than 50 lbs.

Tomatoes, Fresh : Agricultural Chemical Applications, Ohio, 2002 [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	*	1.2	1.06	1.37	([2])
Metribuzin	90	1.4	0.48	0.70	4.4
Napropamide	*	1.0	1.89	1.89	0.1
Trifluralin	2	1.0	1.00	1.00	0.2
Insecticides					
Carbaryl	4	1.3	0.73	1.01	0.3
Endosulfan	80	2.5	0.62	1.61	9.0
Esfenvalerate	10	1.0	0.05	0.05	([2])
Lambda-cyhalothrin	9	3.0	0.03	0.09	0.1
Permethrin	42	2.9	0.16	0.48	1.4
Fungicides					
Azoxystrobin	81	2.9	0.11	0.33	1.9
Chlorothalonil	93	4.4	1.88	8.30	53.8
Copper hydroxide	88	15.8	0.81	12.87	79.0
Mancozeb	43	12.9	1.57	20.41	60.9
Maneb	45	9.9	2.00	19.92	62.8

* Area applied is less than one percent.

[1] Planted acres in 2002 for Ohio were 7,000 acres.

[2] Total applied is less than 50 lbs.

Tomatoes, Fresh : Agricultural Chemical Applications, Tennessee, 2002 [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	71	1.8	0.64	1.16	3.4
Paraquat	25	1.9	0.37	0.74	0.8
Sethoxydim	12	4.2	0.21	0.89	0.4
Insecticides					
Bt (Bacillus thur.) [2]	19	2.9			
Carbaryl	1	3.3	0.94	3.19	0.2
Endosulfan	83	4.6	0.59	2.73	9.5
Esfenvalerate	49	4.5	0.03	0.16	0.3
Imidacloprid	5	10.7	0.27	2.93	0.6
Malathion	2	10.0	1.37	13.75	1.1
Methamidophos	52	3.4	0.82	2.84	6.3
Methomyl	45	5.5	0.37	2.07	3.9
Fungicides					
Azoxystrobin	59	5.2	0.08	0.40	1.0
Basic copper sulfate	8	6.9	1.03	7.19	2.3
Chlorothalonil	81	5.9	1.31	7.78	26.4
Copper hydroxide	24	10.6	1.02	10.86	11.1
Copper sulfate	38	4.8	0.66	3.23	5.2
Mancozeb	20	5.9	1.41	8.36	6.9
Maneb	28	4.9	1.55	7.70	9.0
Other Chemicals					
Methyl bromide	22	1.0	67.29	67.29	63.3

[1] Planted acres in 2002 for Tennessee were 4,200 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Tomatoes, Proc. : Fertilizer Use by State, 2002
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	296,000	94	51,821	83	23,762	47	6,428

Tomatoes, Proc.: Fertilizer Primary Nutrient Applications, Program States and Total, 2002

Primary Nutrient	Planted Acreage	Area Applied	Applic-ations	Rate per Application	Rate per Crop Year	Total Applied
	Acres	*Percent*	*Number*	*Pounds per Acre*	*Pounds per Acre*	*1,000 Lbs*
California	296,000					
Nitrogen		94	2.5	74	186	51,821
Phosphate		83	1.4	65	96	23,762
Potash		47	1.2	36	47	6,428

Tomatoes, Proc.: Active Ingredients
Publication Status

Active Ingredient	CA
Herbicides	
2,4-D	*
Clethodim	*
EPTC	*
Glyphosate	P
Glyphosate diam salt	*
Metolachlor	*
Metribuzin	P
Napropamide	P
Oxyfluorfen	P
Paraquat	P
Pebulate	P
Pendimethalin	*
Rimsulfuron	P
S-Metolachlor	P
Sethoxydim	P
Sulfosate	*
Trifluralin	P
Insecticides	
Abamectin	P
Acetamiprid	*
Aldicarb	*
Bt (Bacillus thur.)	P
Carbaryl	P
Cyfluthrin	P
Diazinon	P
Dimethoate	P
Endosulfan	P
Esfenvalerate	P
Imidacloprid	P
Indoxacarb	P
Kaolin	*
Lambda-cyhalothrin	P
Malathion	*
Methamidophos	P
Methomyl	P
Oxamyl	P
Permethrin	P
Spinosad	*
Tebufenozide	P
Thiamethoxam	P

See footnote(s) at end of table.
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Tomatoes, Proc.: Active Ingredients
Publication Status
By Program States, 2002

Active Ingredient	CA
Fungicides	
Azoxystrobin	P
Chlorothalonil	P
Copper hydroxide	P
Fosetyl-al	*
Mancozeb	P
Maneb	P
Mefenoxam	P
Metalaxyl	*
Myclobutanil	P
Sulfur	P
Trifloxystrobin	*
Other Chemicals	
Dichloropropene	*
Ethephon	P
GABA	*
Harpin protein	P
L-Glutamic acid	*
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, 2002

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide [1]		Fungicide		Other	
	Acres	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*	*Pct*	*1,000 Lbs*
CA	296,000	67	348.3	60	164.7	68	4,932.2	29	3,340.0

[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.

Tomatoes, Proc. : Agricultural Chemical Applications, California, 2002 [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	14	1.1	0.77	0.89	36.1
Metribuzin	10	1.2	0.35	0.44	13.4
Napropamide	4	1.0	0.82	0.88	11.5
Oxyfluorfen	5	1.5	0.13	0.20	3.2
Paraquat	2	1.0	0.29	0.31	1.9
Pebulate	12	1.0	3.37	3.44	126.8
Rimsulfuron	27	1.2	0.02	0.02	1.2
S-Metolachlor	13	1.1	1.04	1.19	45.5
Sethoxydim	2	1.0	0.16	0.17	0.8
Trifluralin	46	1.1	0.59	0.69	94.6
Insecticides					
Abamectin	3	1.0	0.02	0.02	0.1
Bt (Bacillus thur.) [2]	15	1.2			
Carbaryl	3	1.1	0.75	0.85	8.3
Cyfluthrin	2	1.0	0.04	0.04	0.3
Diazinon	3	1.3	1.58	2.10	18.4
Dimethoate	14	1.1	0.43	0.49	20.2
Endosulfan	2	1.1	0.94	1.03	5.7
Esfenvalerate	5	1.2	0.04	0.06	0.8
Imidacloprid	4	1.0	0.05	0.05	0.6
Indoxacarb	10	1.1	0.06	0.07	2.0
Lambda-cyhalothrin	16	1.1	0.03	0.03	1.5
Methamidophos	4	1.1	0.99	1.11	13.7
Methomyl	5	1.2	0.51	0.62	9.0
Oxamyl	2	1.4	0.71	0.99	4.4
Permethrin	1	1.0	0.19	0.19	0.8
Tebufenozide	10	1.1	0.17	0.18	5.1
Thiamethoxam	9	1.1	0.06	0.07	1.8
Fungicides					
Azoxystrobin	7	1.3	0.10	0.13	2.7
Chlorothalonil	21	1.1	1.60	1.79	113.1
Copper hydroxide	5	1.2	0.89	1.12	15.2
Mancozeb	3	1.2	1.18	1.53	13.2
Maneb	*	1.0	0.74	0.80	0.9
Mefenoxam	10	1.0	0.18	0.19	5.6
Myclobutanil	1	1.0	0.10	0.10	0.3
Sulfur	51	1.3	23.91	31.88	4,775.9
Other Chemicals					
Ethephon	7	1.0	0.47	0.51	10.8
Harpin protein	4	1.1	0.006	0.007	0.1
Metam-sodium	16	1.0	69.45	71.46	3,312.7

* Area applied is less than one percent.

[1] Planted acres in 2002 for California were 296,000 acres.

[2] Rates and total applied are not available because amounts of active ingredient are not comparable between products.

2002 Vegetable Crops Pest Management Practices

Overview: 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 2002 Summary is based on data compiled from respondents participating in the Vegetable Chemical Use Survey (VCUS). Producers were first asked how many total acres of vegetable crops they grew in 2002, 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.

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 on pages 314-316**.**

The data are published in two tables: percent of acres receiving the specific pest management practice, and percent of farms 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.

Highlights: The most widespread pest management practice for prevention reported was removing or plowing down crop residue, used by 72 percent of the vegetable farms on 72 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.

In terms of avoidance practices, rotating crops was the main one with 73 percent of the vegetable farms reporting it on 82 percent of the acreage. Sixty percent of the farms reported scouting for pests on 83 percent of the acres.

The most used pest suppression practice was to alternate pesticides with over half of the vegetable farms (53 percent) reporting it on 82 percent of the planted vegetable acres.

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2002

Practice	States				
	AZ	CA	FL	GA	IL
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:					
Tillage/etc. to manage pests	81	92	89	76	90
Remove or plow down crop residue	83	78	79	75	36
Clean implements after fieldwork	69	67	55	57	51
Water management practices	61	65	62	47	49
Avoidance Practices:					
Adjust planting/harvesting dates	60	24	22	33	26
Rotate crops to control pests	73	81	54	81	97
Alternate planting locations	67	47	39	46	68
Grow trap crop to control insects	4	14	1	14	22
Monitoring Practices:					
Scouted for pests	77	85	95	63	93
Records kept to track pests	62	72	75	46	85
Field mapping of weed problems	65	38	25	21	61
Soil analysis to detect pests	41	64	27	47	33
Pheromones to monitor pests	16	34	11	36	41
Weather monitoring	75	47	55	43	70
Suppression Practices:					
Scouting used to make decisions	68	43	25	46	67
Biological pesticides	71	42	54	21	39
Beneficial organisms	3	13	9	19	*
Maintain ground cover or physical barriers	37	41	42	44	48
Adjust planting methods	17	31	24	27	24
Alternate pesticides	88	86	85	78	70
Pheromones to disrupt mating	*	22	9	37	*

* Less than 1 percent.

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2002

Practice	States				
	MI	MN	NJ	NY	NC
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:					
Tillage/etc. to manage pests	74	55	69	91	88
Remove or plow down crop residue	66	41	79	85	83
Clean implements after fieldwork	67	76	73	66	80
Water management practices	52	11	52	43	42
Avoidance Practices:					
Adjust planting/harvesting dates	26	8	24	17	25
Rotate crops to control pests	86	94	78	93	96
Alternate planting locations	56	29	69	52	73
Grow trap crop to control insects	5	1	9	2	4
Monitoring Practices:					
Scouted for pests	79	95	50	89	58
Records kept to track pests	54	70	48	76	35
Field mapping of weed problems	26	22	35	62	33
Soil analysis to detect pests	46	15	52	42	54
Pheromones to monitor pests	13	2	10	25	15
Weather monitoring	71	30	47	60	66
Suppression Practices:					
Scouting used to make decisions	54	31	44	73	38
Biological pesticides	9	*	17	32	26
Beneficial organisms	1	*	3	14	9
Maintain ground cover or physical barriers	43	17	56	51	51
Adjust planting methods	39	6	28	20	30
Alternate pesticides	73	62	65	92	79
Pheromones to disrupt mating	2	*	4	1	4

* Less than 1 percent.

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2002

Practice	States				
	OH	OR	PA	SC	TN
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:					
Tillage/etc. to manage pests	90	80	95	89	36
Remove or plow down crop residue	79	67	85	80	39
Clean implements after fieldwork	68	73	59	77	37
Water management practices	37	52	51	64	21
Avoidance Practices:					
Adjust planting/harvesting dates	32	12	43	5	5
Rotate crops to control pests	92	89	98	73	21
Alternate planting locations	75	48	86	67	16
Grow trap crop to control insects	2	4	35	*	1
Monitoring Practices:					
Scouted for pests	84	88	56	69	10
Records kept to track pests	27	59	25	25	*
Field mapping of weed problems	15	38	14	16	2
Soil analysis to detect pests	37	41	12	79	9
Pheromones to monitor pests	62	16	7	47	1
Weather monitoring	42	49	63	65	15
Suppression Practices:					
Scouting used to make decisions	64	58	30	64	1
Biological pesticides	23	8	22	5	4
Beneficial organisms	3	6	1	2	3
Maintain ground cover or physical barriers	60	42	44	73	25
Adjust planting methods	24	23	51	3	8
Alternate pesticides	68	82	89	68	27
Pheromones to disrupt mating	*	3	2	38	*

* Less than 1 percent.

Pest Management Practices,
Percent of Acres Receiving Practice,
All Vegetables, 2002

Practice	States			Program States 2002
	TX	WA	WI	
	Percent of Acres	*Percent of Acres*	*Percent of Acres*	*Percent of Acres*
Prevention Practices:				
Tillage/etc. to manage pests	84	85	66	83
Remove or plow down crop residue	88	79	41	72
Clean implements after fieldwork	71	80	33	65
Water management practices	39	60	43	53
Avoidance Practices:				
Adjust planting/harvesting dates	60	39	12	26
Rotate crops to control pests	89	76	88	82
Alternate planting locations	67	56	33	49
Grow trap crop to control insects	6	7	3	8
Monitoring Practices:				
Scouted for pests	74	86	94	83
Records kept to track pests	47	73	70	65
Field mapping of weed problems	17	51	48	38
Soil analysis to detect pests	22	75	51	50
Pheromones to monitor pests	23	43	11	26
Weather monitoring	62	58	53	52
Suppression Practices:				
Scouting used to make decisions	42	64	63	49
Biological pesticides	40	35	3	32
Beneficial organisms	7	4	1	9
Maintain ground cover or physical barriers	26	63	48	43
Adjust planting methods	44	17	21	26
Alternate pesticides	76	80	84	82
Pheromones to disrupt mating	1	31	*	13

* Less than 1 percent.

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2002

Practice	States				
	AZ	CA	FL	GA	IL
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:					
Tillage/etc. to manage pests	69	79	82	64	76
Remove or plow down crop residue	74	78	76	67	52
Clean implements after fieldwork	55	60	62	60	54
Water management practices	45	59	42	26	25
Avoidance Practices:					
Adjust planting/harvesting dates	40	28	22	28	23
Rotate crops to control pests	60	66	42	64	88
Alternate planting locations	50	46	24	30	42
Grow trap crop to control insects	6	5	3	3	14
Monitoring Practices:					
Scouted for pests	66	75	73	29	71
Records kept to track pests	49	52	37	12	46
Field mapping of weed problems	41	29	17	8	22
Soil analysis to detect pests	31	49	40	20	27
Pheromones to monitor pests	15	21	5	4	12
Weather monitoring	54	39	48	20	41
Suppression Practices:					
Scouting used to make decisions	48	33	22	24	34
Biological pesticides	44	31	31	8	8
Beneficial organisms	5	22	7	4	1
Maintain ground cover or physical barriers	23	43	54	27	23
Adjust planting methods	20	30	23	15	22
Alternate pesticides	72	64	62	47	46
Pheromones to disrupt mating	4	9	4	4	1

* Less than 1 percent.

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2002

Practice	States				
	MI	MN	NJ	NY	NC
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:					
Tillage/etc. to manage pests	74	51	61	80	72
Remove or plow down crop residue	71	38	70	84	82
Clean implements after fieldwork	53	67	65	50	69
Water management practices	32	11	39	41	31
Avoidance Practices:					
Adjust planting/harvesting dates	20	7	23	24	29
Rotate crops to control pests	74	88	69	89	88
Alternate planting locations	46	23	56	50	53
Grow trap crop to control insects	6	2	3	8	6
Monitoring Practices:					
Scouted for pests	63	95	45	73	58
Records kept to track pests	30	76	34	45	17
Field mapping of weed problems	19	18	25	32	16
Soil analysis to detect pests	17	12	32	24	29
Pheromones to monitor pests	8	1	9	11	5
Weather monitoring	49	24	45	48	36
Suppression Practices:					
Scouting used to make decisions	35	30	37	55	24
Biological pesticides	9	1	14	21	13
Beneficial organisms	2	*	2	6	5
Maintain ground cover or physical barriers	43	14	50	53	39
Adjust planting methods	25	4	29	27	22
Alternate pesticides	55	55	52	69	46
Pheromones to disrupt mating	4	*	3	2	3

* Less than 1 percent.

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2002

Practice	States				
	OH	OR	PA	SC	TN
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:					
Tillage/etc. to manage pests	57	83	89	82	59
Remove or plow down crop residue	54	77	81	75	61
Clean implements after fieldwork	37	71	43	50	46
Water management practices	29	56	38	30	34
Avoidance Practices:					
Adjust planting/harvesting dates	16	18	26	14	14
Rotate crops to control pests	65	83	98	60	46
Alternate planting locations	40	49	75	49	30
Grow trap crop to control insects	3	6	16	1	2
Monitoring Practices:					
Scouted for pests	49	76	59	32	35
Records kept to track pests	17	42	13	12	3
Field mapping of weed problems	11	34	15	15	4
Soil analysis to detect pests	15	42	15	47	18
Pheromones to monitor pests	12	16	5	6	1
Weather monitoring	28	44	59	37	36
Suppression Practices:					
Scouting used to make decisions	19	42	38	19	7
Biological pesticides	14	12	24	3	6
Beneficial organisms	1	8	2	2	2
Maintain ground cover or physical barriers	45	45	69	39	47
Adjust planting methods	22	25	37	11	26
Alternate pesticides	42	75	81	29	51
Pheromones to disrupt mating	1	3	1	2	*

* Less than 1 percent.

Pest Management Practices,
Percent of Farms Utilizing Practice,
All Vegetables, 2002

Practice	States			Program States 2002
	TX	WA	WI	
	Percent of Farms	*Percent of Farms*	*Percent of Farms*	*Percent of Farms*
Prevention Practices:				
Tillage/etc. to manage pests	44	76	49	67
Remove or plow down crop residue	93	64	55	72
Clean implements after fieldwork	41	66	30	54
Water management practices	8	42	19	32
Avoidance Practices:				
Adjust planting/harvesting dates	81	15	13	29
Rotate crops to control pests	69	45	90	73
Alternate planting locations	13	30	28	38
Grow trap crop to control insects	2	5	4	6
Monitoring Practices:				
Scouted for pests	15	76	83	60
Records kept to track pests	9	48	55	35
Field mapping of weed problems	4	22	26	19
Soil analysis to detect pests	5	48	19	26
Pheromones to monitor pests	2	10	4	8
Weather monitoring	10	36	28	34
Suppression Practices:				
Scouting used to make decisions	7	38	47	30
Biological pesticides	4	8	5	14
Beneficial organisms	2	4	1	6
Maintain ground cover or physical barriers	7	40	26	36
Adjust planting methods	79	15	12	30
Alternate pesticides	14	58	70	53
Pheromones to disrupt mating	*	5	1	3

* Less than 1 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 82% of all land in farms in the U.S. The screening samples were selected in such a way as to insure that all farms on the list had a possibility of being selected. Farms that were more likely to be producers of crops of interest were more likely to be in the sample. The sampled farms were screened to determine the presence of all the crops of interest. From this subpopulation of operations identified as producing the crop of interest, a subsample of farms was selected in such a way as to insure that each identified producer had an opportunity to be selected. In general, larger farms were more likely to be selected than smaller farms.

Estimation Procedures: The chemical applications data, reported by product name or trade name are reviewed within 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 - 2002 Summary**"[Vg 1-2(03)] released on January 29, 2003. 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 are 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 use of a commonly used product, such as Carbaryl, exhibit less variability than a more rarely used product. For more commonly used chemicals, cv's will range from 1-30 percent at the U.S. level and 5-65 percent at the State level. Some rarer items will have cv's above 100 percent. These items have insufficient data for publication and these instances are noted.

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: The phrase "agricultural chemicals" refers to the active ingredients in fertilizers and pesticides.

Application Rates: The 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: The area that 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.

Common name: The common name is an officially recognized name for an active ingredient. This report shows active ingredient by common name.

Crop year: A crop year refers to the period immediately following harvest for the previous crop through harvest of the current crop.

Fertilizer: The term fertilizer refers to applications of the primary nutrients, nitrogen, phosphate, and potash.

Pesticides: As defined by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), pesticides include any substance or mixture of sub-stances 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. This report excludes pesticides used for seed treatments, for spot treatments, and for postharvest applications to the commodity.

Trade name: A trademark name given to a specific formulation of a pesticide product. A formulation contains a specific concentration of the active ingredient, carrier materials, and other ingredients such as emulsifiers and wetting agents. Some formulations as in the case of pre-mixes, can contain more than one active ingredient.

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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:

Did you adjust planting or harvesting dates to control pests?

Did you rotate crops for the purpose of controlling pests?

Did you choose planting locations to avoid cross infestation of insects or disease?

Did you grow a trap crop to help control insects?

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.

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.

Monitoring: Includes proper identification of pests through surveys or scouting programs, including trapping, weather monitoring, and soil testing where appropriate.

The following questions were categorized as monitoring practices:

Were any of your vegetable acres scouted for pests (weeds, insects or disease) using a systematic method?

Did you use field mapping of previous weed problems to assist you in making weed management decisions?

Did you use soil analysis to detect the presence of soilborne pests or pathogens?

Did you use pheromones to monitor pests by trapping?

Did you use weather monitoring to predict the need for pesticide applications?

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:

Did you use practices such as tilling, mowing, burning, or chopping of field edges, lanes, ditches, roadways or fence lines to manage pests?

Did you remove or plow down crop residues to control pests?

Did you clean tillage or harvesting implements after completing fieldwork for the purpose of reducing the spread of weeds, diseases or other pests?

Did you use water management practices, such as controlled drainage or irrigation scheduling, excluding chemigation, to control 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:

Did you use scouting data and compare it to university or extension guidelines for infestation thresholds to determine when to take measures to control pests?

Did you use topically applied biological pesticides such as Bt (Bacillus thuringiensis), insect growth regulators, neem or other natural products to control pests?

Did you use beneficial organisms (insects, nematodes or fungi) to control pests?

Did you maintain ground covers, mulch or physical barriers to reduce pest problems?

Did you alternate pesticides to keep pests from becoming resistant to pesticides (use pesticides with different mechanisms of action)?

Did you use pheromones to control pests by disrupting mating?

Trade name: A trademark name given to a specific formulation of a pesticide product. A formulation contains a specific concentration of the active ingredient, carrier materials, and other ingredients such as emulsifiers and wetting agents. Some formulation as in the case of pre-mixes, can contain more than one active ingredient.

Active Ingredients Applied and Publication Status by Program States: These tables are provided to show all active ingredients reported in the Program States. The Publication Status is determined by confidentiality rules. In order to publish data for an active ingredient, there must be a minimum of five reports for the specific active ingredient at the summary level (by crop, by State or all Program States). If there are five or more reports, then the active ingredient data are published and designated as a "P" in the table. In cases where there are not enough reports to publish usage data for a given active ingredient, an "*" appears in the table. This means the active ingredient was reported, but there were not a sufficient number of reports. However, there are certain instances where the "Program States" data were suppressed so that a major active ingredient could then be published at an individual State level.

Trade Names, Common Names, and 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	2,4-D/Weedar 64A; 2,4-D/Salvo; 2,4-D/Formula 40; Weedone 170; 2,4-D/Amine 4; 2,4-D/Savage; 2,4-D/See 2,4-D (Ester); Barrage; Salvo
H	2,4-D, Dimethylamine salt	Weedar 64, Range Star
I	Abamectin	Agri Mek 0.15EC, Avid 0.15 EC
I	Acephate	Orthene 75 S, Orthene 90 S, Orthene 75 WSP Acephate 75 WSP, Address 75 WSP, Orthene 97
H	Acetamide	Axiom DF
I	Acetamiprid	Assail 70 WP
H	Acetic acid	2,4-D LV 4 Ester
H	Acetochlor	Harness Xtra, Fultime Herbicide, Degree Xtra
MB	Acibenzolar-S-Methyl	Actigard, Blockade 50WG
H	Alachlor	Bullet (4EC), Lasso (4EC), Lasso II (15G), Lariat (4F), Micro-Tech, Saddle 4EC/Alachlor 4EC, Partner WDG
I	Aldicarb	Temik 15G
H	Atrazine	AAtrex 4L, AAtrex Nine-O (WP), Bullet (4EC), Atrazine 4L, Atrazine 5L, Atrazine 80 (WP), Atrazine 90DF, Laddok, Ramrod/Atrazine (4L), Extrazine II 4L, Extrazine II DF, Lariat (4F), Bicep II, Guardsman Herbicide, Laddok S-12, Harness Xtra, Fultime Herbicide, Basis Gold WDG, Bicep II Magnum, Bicep Lite II Magnum, Degree Xtra, Guardsman Max
I	Azadirachtin	Margosan-O Botanical Insecticide, SuperNeem 4.5-B Azatin-EC Biological Insecticide, Neemix, Neemix 4.5, Ecozin 3% EC, AZA-Direct, Agroneem
I	Azinphos-methyl	Guthion 2L, Guthion 50% WP, Azinphos-M 50 WP, Azinphos-Methyl 50W
F	Azoxystrobin	Quadris (aka Abound)
F	Bacillus subtilus	Serenade Biofungicide
I	Bacillus thuringiensis	Bactospeine WP, Dipel 2X (WP), Dipel 4L, Dipel ES Javelin (FC), Larvo-Bt, Javelin WG, Biobit FC, Biobit WP, MVP II Bioinsecticide, Thuricide HPC, Cutlass WP, Agree, Bt 320 Dust, Xentari WDG, Mattch Bioinsecticide Crymax WDG, Co Bacil, Dipel DF, Lepinox WDG, Xentari Biological Insecticide (DF) Ketch DF, Javelin WG, Deliver, Prolong

Class	Common Name	Trade Name
F	Basic copper sulfate	Top Cop Tri-Basic, Tri-Basic Copper,
		Top Cop with Sulfur, Basic Copper Sulfate, C-O-C-S WDG
H	Benefin	Balan EC, Balan DF
F	Benomyl	Benlate (50WP), Benlate 50 DF, Benlate SP
		Decco Salt No. 20
H	Bensulide	Prefar 4E, Prefar 6-E
H	Bentazon	Basagran(5L), Laddok, Pledge (4SL)
		Laddok S-12, Basagran T/O
I	Bifenazate	Acramite 50W
I	Bifenthrin	Capture 2EC, Brigade WSB 10WP,
		Talstar Flowable, Attain Total Release
H	Bromoxynil	Buctril (2EC), Buctril 4EC, Moxy 2E
		Bromoxynil Weed Killer
I	Buprofezin	Applaud 70WP, Courier
H	Butoxyethanol ester of 2,4-D	2,4-D/Weedone LV6
H	Butylate	Sutan+ 6.7E
O	Cacodylic acid	Bolls-Eye
O	Capsaicin	Hot Sauce Animal Repellent, Hot Pepper Wax
F	Captan	Captan 50W, Captan 80-WP, Captec 4L
		Captan 4L
I	Carbaryl	Carbaryl 4L, Carbaryl 50W, Carbaryl 80S (WP)
		Sevin Bait (5%), Sevin 80S, Sevin SL,Sevin 4F,
		Sevin 50W, Sevin 25%, Sevin 5 Pellets,
		Sevin 10%, Sevin Brand RP2, Adios aka Slam
		Carbaryl 5% Bait, Sevin 80WSP,
		Sevin 2lb Liquid Flowable, Black Leaf,
		Carbaryl 4L
I	Carbofuran	Furadan 15G, Furadan 4F
H	Carfentrazone-ethyl	AIM, Aim EC, Aim EW / Avalanche
O	Chloropicrin	Tri-con 67/33, Telone C-17
		Tri-Clor Chloropicrin, Chlor-o-pic
		Terr-O-Gas 75, Chloropicrin 100
		Methyl Bromide 98% & Chloropicrin 2%
		Telone C-35, InLine, Tri-Clor EC
		Methyl Bromide 75% & Chloropicrin 25%
		Methyl Bromide 80% & Chloropicrin 20%
		Methyl Bromide 67% & Chloropicrin 33%
		Methyl Bromide 57% & Chloropicrin 43%
		Methyl Bromide 50% & Chloropicrin 50%
		Methyl Bromide 45% & Chloropicrin 55%

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Class	Common Name	Trade Name
F	Chlorothalonil	Bravo 500 (4.17EC), Bravo Weather Stik (6EC), Ridomil + Bravo 81W, Bravo S (EC), Terranil 6L, Daconil 2787 Flowable Fungicide, Bravo ZN, Terranil 90DF, Echo 720, Bravo Ultrex (82.5 WDG), Ensign 720,
F	Chlorothalonil	Ensign 500,Chlorothalonil 4L Plus Zinc Ridomil Gold Bravo, Ridomil Gold Bravo Liquid, Flouronil, Equus 720,
I	Chlorpyrifos	Lorsban 15G, Lorsban 4E, Lorsban 50W, Lorsban 4E-HF, Chlorpyrifos 4E AG, Dursban 4E, Nufos 15G, Nufos 4E, Dursban [1]2G Granular Insecticide
I	Clarified hydrophobic neem oil	Trilogy 90EC (Neem Oil 90 %) Trilogy
H	Clethodim	Select 2 EC, Prism
H	Clomazone	Command 4EC, Command 3ME Strategy
H	Clopyralid	Stinger (3EC), Hornet WDG
F	Coniothyrium minitans	Intercept or Contans WG
F	Copper ammonium complex	Copper-Count-N
F	Copper hydroxide	Champion WP, Champion Flowable, Kocide 101 (WP), Kocide 606 (Liq), Champ Flowable, Blue Shield (WP), Kocide DF, Kocide 20/20 (WP), Ridomil Copper 70W, Kocide LF Champ Formula II DF, Champ Formula 2, Kocide 2000 Kop-Hydroxide 50, Nu-Cop 3L Nu-Cop 50DF, Mankocide, Kocide 4.5 LF, Ridomil Gold Copper
F	Copper oxide	Nordox (WP)
F	Copper oxychloride	C O C 50WP, C-O-C-S WDG
F	Copper oxychloride sulfate	C-O-C-S 50WP
F	Copper resinate	Tenn-Cop 5E, Camelot
F	Copper sulfate	Copper Sulfate, Basicop
I	Cryolite	Kryocide (96% dry), Cryolite 96 Dust Cryolite 50 Dust, Prokil Cryolite 50 Dust
H	Cyanazine	Bladex 4L, Bladex 90DF Extrazine II 4L, Extrazine II DF, Cy-Pro 90DF
H	Cycloate	Ro-Neet 6E

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Class	Common Name	Trade Name
I	Cyfluthrin	Baythroid 2 (EC), Aztec 2.1 Granular
		Countdown WP Premise Insecticide
I	Cypermethrin	Ammo 2.5EC, Ammo WSB (39%)
F	Cyprodinil	Switch 62.5WG
I	Cyromazine	Trigard (75W)
O	Dichloropropene	Telone C-17, Telone II, Telone C-35,
		InLine,Telone EC
H	Dichlorprop	Weedone 170
F	Dicloran	Botran 75W, Decco Salt No. 20, Botran 5F
I	Dicofol	Kelthane 35 (WP), Kelthane MF, Dicofol 4 EC,
		Kelthane 50 (WP), Kelthane 50 (WP), Dicofol 3 Dust
H	Dimethenamid	Frontier 6.0, Guardsman Herbicide
H	Dimethenamid-P	Outlook (6L), Guardsman Max
I	Dimethoate	Cygon 400 (4EC), Dimethoate 2.67EC
		Dimethoate 4EC, Dimethoate E-267, Dimate 4E,
		Dimethoate 400, De-Fend E-267, Dimethoate 5 lb.
		Cymate 267, Digon 400, Dimate 4EC
F	Dimethomorph	Acrobat MZ, Acrobat 50WP
O	Diphacinone	Diphacinone (.005%)
H	Diquat	Diquat
I	Disulfoton	Di-Syston 15% G, Di-Syston 8 (EC)
H	Diuron	Direx 4L, Direx 80DF, Diuron 4L
		Diuron 80W, Karmex DF, Karmex DF
F	Dodine	Syllit 65W
H	EPTC	Eptam 7-E, Eradicane Extra (6EC)
		Eradicane 6.7E, Eradicane 25G, Eptam 20-G
I	Emamectin benzoate	Proclaim
I	Endosulfan	Thiodan 3EC, Thiodan 50WP, Endosulfan 3EC,
		Endosulfan 50W, Thiodan 2 C.O. EC,
		Phaser (3EC), Phaser 50WP, Thirethrin 2.9L
		Thiodan Hi-Yield Insect Spray
O	Endothall	Herbicide 273
I	Esfenvalerate	Asana XL (.66EC)
H	Ethalfluralin	Sonalan (3EC), Curbit EC, Strategy
O	Ethephon	Ethrel Plant Regulator (2EC), Ethephon #2 (EC)
I	Ethoprop	Mocap 10G, Mocap EC
I	Ethyl parathion	Parathion 8E, Parathion 25W
I	Fenamiphos	Nemacur 3E
I	Fenbutatin-oxide	Vendex 4L, Vendex 50WP
F	Fenhexamid	Elevate 50 WDG, Decree 50 WDG

--continued

Class	Common Name	Trade Name
I	Fenpropathrin	Danitol 2.4 EC Spray
H	Fluazifop-P-butyl	Fusilade 2000 (1EC), Fusilade DX
F	Fludioxonil	Switch 62.5WG
H	Flumetsulam	Hornet WDG
H	Flumioxazin	Valor or Valor WP
H	Fluroxypyr	Starane EC
H	Fomesafen	Reflex 2LC
I	Fonofos	Dyfonate II 15-G
F	Fosetyl-al	Aliette (80WP), Aliette 80 WDG
O	Gamma aminobutyric acid	Auxigro
O	Garlic oil	Guardian Spray Insect Repellent
		Envirepel, Garlic Barrier AG Insect Repellent
O	Gibberellic acid	Goemar BM 86, PGR-IV, Cytoplex HMS,
		Pro-Gibb 4%
H	Glufosinate-ammonium	Liberty
H	Glyphosate	Ranger (2EC), Roundup Original, Honcho,
		Roundup Original RT, Rattler, Accord,
		Protocol, Mirage (4EC), Roundup Ultra,
		Roundup Export, Glyfos X-TRA, Roundup Custom,
		Roundup Ultra Max, Glyphomax/Glyphomax Plus,
		Engame, Clear-Out 41 Plus / Gly Star Plus,
		Gly Star Plus, Buccaneer Herbicide
H	Glyphosate, N-(phosphonomet)	Touchdown IQ
H	Halosulfuron	Permit 75DF, Sandea
O	Harpin protein	Messenger
MB	Hexadecenal	Checkmate DBM-F
MB	Hexadecenyl acetate	Checkmate DBM-F
I	Hexythiazox	Savey 50 WP
O	Hydrogen peroxide	Oxidate
H	Imazamox	Raptor
H	Imazethapyr	Pursuit /Pursuit W, Pursuit Plus (EC), Pursuit DG
I	Imidacloprid	Admire 2F, Provado 1.6 Flowable, Marathon II
I	Hexythiazox	Savey 50 WP
O	Hydrogen peroxide	Oxidate
H	Imazamox	Raptor
H	Imazethapyr	Pursuit /Pursuit W, Pursuit Plus (EC), Pursuit DG
I	Imidacloprid	Admire 2F, Provado 1.6 Flowable, Marathon II
O	Indole-3-butyric acid	PGR-IV, Cytoplex HMS
I	Indoxacarb	Avaunt Insecticide
F	Iprodione	Rovral (50WP), Rovral 4 Flowable

--continued

Class	Common Name	Trade Name
I	Jojoba oil	Detur
I	Kaolin	Surround WP Crop Protectant
O	L-Glutamic acid	Auxigro
H	Lactofen	Cobra (2E)
I	Lambda-cyhalothrin	Karate (1EC), Warrior (1EC), Warrior T
I	Lindane	Lindane 400
H	Linuron	Linex 4L, Linex 50DF, Lorox L, Lorox DF (50%)
H	MCPA	Weedar Sodium MCPA (2EC), Chiptox MCPA Sodium (2L), Rhomene (4L), MCP Amine 4
H	MCPA, dimethylamine salt	MCPA Amine
H	MCPB	Thistrol (2L)
I	Malathion	Malathion 8, Malathion 5 (57% EC), Malathion 25 WP, Malathion Aquamul (8E) Fyfanon 8lb. Emulsion, Atrapa 8E, Malathion 8 Flowable, Malathion 50%
O	Maleic hydrazide	Royal MH-30 (1.5EC), Royal MH-30 SG Super Sprout Stop (EC), Sprout Stop, Maleic Hydrazide, Royal MH-30 Xtra, Sprout Stop 80WS
F	Mancozeb	Dithane F-45 Flowable, Dithane M-45 Manzate 200 (80WP), Manzate 200 DF (75%) Penncozeb (80WP), Ridomil MZ58, Manzate 200 Flowable (4EC), Penncozeb DF (75%), Manex II (4EC), Dithane DF (75%) Ridomil MZ72 (WP), Acrobat MZ, Mancozeb 80WP Ridomil MZ, Mankocide, Ridomil Gold MZ, Manzate 75DF, Dithane T/O
F	Maneb	Maneb 80W, Maneb Plus Zinc, Maneb 4 Flowable Maneb Plus (80WP), Manex 4EC Manex Maneb Flowable (4L), Amazin (80WP), Maneb 75DF
F	Mefenoxam	Ridomil Gold EC, Ridomil Gold Bravo Ridomil Gold Copper, Ridomil Gold Bravo Liquid Flouronil, Flourish Ultra
H	Mesotrione	Callisto (4L)
F	Metalaxyl	Ridomil 2E, Ridomil MZ58, Ridomil + Bravo 81W, Ridomil 5G, Ridomil PC 11G, Ridomil Copper 70W, Ridomil MZ72 (WP), Ridomil MZ, Ridomil Gold MZ

--continued

Class	Common Name	Trade Name
O	Metaldehyde	Metaldehyde 3.5G (aka Trail's End)
		Deadline Bullets, Slug and Snail Bait Pellets,
		Deadline M-Ps
O	Metam-sodium	Sectagon 42, Vapam (3.18 lb.)
		Metam Sodium 32.7%, Sectagon 42,
		Vapam HL (4.26 lb.), Metam Sodium 42%,
		Metam 426, Sectagon 42
I	Methamidophos	Monitor 4 Spray, Monitor 4 EC
I	Methidathion	Supracide 2E
I	Methomyl	Lannate LV (2.4 lbs.), Lannate (90WSP),
		Methomyl 5G
I	Methoxychlor	Methoxychlor 50WP, Methoxychlor 25% Spray
O	Methyl bromide	Tri-con 67/33, Methyl Bromide 98%
		Methyl Bromide 75% & Chloropicrin 25%
		Methyl Bromide 80% & Chloropicrin 20%
		Methyl Bromide 67% & Chloropicrin 33%
		Methyl Bromide 57% & Chloropicrin 43%
		Methyl Bromide 50% & Chloropicrin 50%
		Methyl Bromide 45% & Chloropicrin 55%
		Terr-O-Gas 75
		Methyl Bromide 89.5
		Methyl Bromide 98% & Chloropicrin 2%
I	Methyl parathion	Methyl Parathion 4EC, Penncap-M, Declare
F	Metiram	Polyram 80WP
H	Metolachlor	Dual 25G, Dual (8E), Dual II, Bicep II
H	Metribuzin	Lexone DF, Sencor 4,
		Sencor DF (75%), Axiom DF
I	Mevinphos	Phosdrin 4EC
O	Monocarbamide dihydrogensul	Enquik, Engame
F	Myclobutanil	Nova 40W, Rally 40W
I	Myrothecium verrucaria	Ditera Biological Nematicide
I	Naled	Dibrom 8 Emulsive, Dibrom 8 Miscible
H	Napropamide	Devrinol 10-G, Devrinol 2-E,
		Devrinol 50-WP, Devrinol 50-DF
H	Naptalam	Alanap-L
H	Neem oil	NeemGard
H	Nicosulfuron	Accent (75DG), Basis Gold WDG
H	Norflurazon	Solicam DF (80%)
I	Oxamyl	Vydate L (2 Lbs),Vydate C-LV (3.77lbs)
I	Oxydemeton-methyl	Metasystox-R (2EC)

--continued

Class	Common Name	Trade Name
H	Oxyfluorfen	Goal 1.6E, Goal 2XL
I	Oxythioquinox	Morestan 25WP
H	Paraquat	Gramoxone Super (1.5L), Gramoxone Extra (2.5L), Gramoxone Max/Cyclone Concentrate,
H	Pebulate	Tillam 6-E
O	Pelargonic acid	Thinnex Blossom Thinner
H	Pendimethalin	Prowl (4EC), Pursuit Plus (EC), Prowl 3.3 EC, Pendimax 3.3
F	Pentachloronitrobenzene	Terraclor 2 lb EC, Terraclor 75WP, Ridomil PC 11G
I	Permethrin	Ambush 25W, Ambush Insecticide, Pounce 1.5G,
I	Permethrin	Pounce 25WP, Pounce 3.2EC, Pounce WSB, Ambush 0.5% Bait, Perm-Up or Waylay 3.2 EC, Arctic 3.2 EC, Eight Insect Control, Blue Dragon Garden (Permethrin) Dust
I	Petroleum distillate	Saf-T-Side, Sunspray Ultra-Fine Spray Oil, JMS Stylet-Oil, Oil
H	Phenmedipham	Spin-Aid (1.33EC)
I	Phorate	Thimet 20-G, Phorate 20-G
I	Phosmet	Imidan 50WP, Imidan 70 WSB (WP)
I	Piperonyl butoxide	PBO-8 (EC), Pyrenone Crop Spray Incite, Diatect Multipurpose Insecticide, Thirethrin 2.9L
O	Potassium N-methyldithiocarb	K-Pam HL
F	Potassium bicarbonate	Kaligreen, Armicarb 100
I	Potassium salts	Safer Insecticidal Soap, M-Pede, Soap Insecticidal Soap 49.52CF
H	Prometryn	Caparol 4L, Prometryne 4L
H	Pronamide	Kerb 50-W, Kerb T&O
H	Propachlor	Ramrod Flowable (4L), Ramrod/Atrazine (4L)
I	Propargite	Comite (6.55EC)
F	Propiconazole	Tilt. Stratego
I	Pseudomonas cepacia	Deny (Blue Circle)
I	Pymetrozine	Fulfill (50WDG)
I	Pyrethrins	Rotenone/Pyrethrins EC, Pyrellin E.C. Pyrenone Crop Spray, Evergreen Growers Spray, Diatect Multipurpose Insecticide, Evergreen Growers Spray 7405 Diatect Multipurpose Insecticide,Thirethrin 2.9L
I	Pyriproxyfen	Knack (aka Esteem 0.86EC), Esteem 35 WP Insect Growth Regulator

--continued

Class	Common Name	Trade Name
H	Quizalofop-P-ethyl	Assure II, Assure
H	Rimsulfuron	Matrix (aka Shadeout), Basis Gold WDG
I	Rotenone	Rotenox 5 EC (5%), Rotenone/Pyrethrins EC Pyrellin E.C., Rotenone 5% (WP), Rotenone Dust 1%
H	S-Metolachlor	Bicep II Magnum, Bicep Lite II Magnum Dual Magnum, Dual II Magnum, Dual II Magnum SI, Dual IIG Magnum
H	Sethoxydim	Poast (1.5 EC), Poast Plus (1EC), Ultima 160
I	Silicon dioxide	Diatect Multipurpose Insecticide
H	Simazine	Simazine 4L, Simazine 80W, Princep 4L, Princep Caliber 90, Simazine 90DF, Sim-Trol 90DF, Simazine 90WDG
O	Sodium chlorate	Knock'um Off
I	Spinosad	Tracer, Success, SpinTor 2SC
F	Streptomycin	Agri-Mycin 17
O	Strychnine	Strychnine Bait (.35%)
H	Sulfentrazone	Spartan 4F
H	Sulfosate	Touchdown 5
F	Sulfur	Special Electric Dusting Sulfur Thiolux (80DF), Sulfur 90W, Super Six, Sulfur DF (80%), Sulfur Dusting (98%), Microthiol Special,Golden-Dew, Sulfur 6L (52%), Sulfur Dusting (90%), Sulfur Wettable Powder (95%), Thiolux (80DF), Super Six, Sulfur Flowable (6F), Top Cop with Sulfur, Special Electric Dusting Sulfur, Sulfur DF (80%), Ben-Sul 60 Dust, Sulfur Dusting (98%) Bravo S (EC), Sulfur Dusting (93%), Kumulus S Microthiol Special, Sulfur (92%), Sulfur 90W, Sul-Preme 52, Ben-Sul 85, Golden-Dew, Microsperse Wettable Sulfur, Sulfur 6L (52%)
F	Tebuconazole	Folicur
I	Tebufenozide	Confirm 2F
H	Terbacil	Sinbar (80WP)
I	Terbufos	Counter (15G), Counter 20CR
I	Thiamethoxam	Actara, Platinum
I	Thiodicarb	Larvin 3.2, Larvin 80DF
F	Thiophanate-methyl	Topsin M 4.5F, Topsin M 70W Topsin M 85WDG

--continued

Class	Common Name	Trade Name
F	Thiram	Thiram 65WP, Thiram 75WP
I	Tebupirimphos	Aztec 2.1 Granular
I	Tefluthrin	Force 1.5G, Force 3G
I	Tralomethrin	Scout X-TRA, Stryker
F	Triadimefon	Bayleton 50% DF
H	Triallate	Far-Go (4EC)
F	Trichoderma harzianum	RootShield Drench
O	Tridecen-1-YL-Acetate	Consep TPW Spr1m Pheromone Sprayable, NoMate TPW Fiber, NoMate TPW MEC, Consep TPW Spr1m Pheromone Sprayable, NoMate TPW Fiber
F	Trifloxystrobin	Flint, Stratego
H	Trifluralin	Treflan EC, Treflan 5 (EC), Treflan M.T.F. (4EC), Treflan TR-10, Trilin (4EC), Trilin AT (4EC), Trilin 10G Tri-4 (EC), Trilin 5, Treflan 80 D.C., Trifluralin 4 (EC), Trifluralin 5 (EC), Treflan HFP, Preen, Trust 4EC
H	Vernolate	Surpass 6.7-E
F	Vinclozolin	Ronilan WP (50%), Ronilan DF (50%), Scotts Vorlan DF, Curalan EG, Ronilan EG
I	Zeta-cypermethrin	Mustang, Fury 1.5 EC,
F	Zineb	Zineb (75WP)

C FERTILIZER APPLICATIONS C

Enumerator Note –
If column 5 of the table in Section **B** *is* YES *for any crops, continue with item 1.*
If column 5 of the table in Section **B** *is* NO *for all crops, go to Section* **D**, *page 8.*

1. I need to record complete information on all commercial fertilizers applied to the target vegetables you grew during the 2002 crop year. Include all applications regardless of how they were applied. (*Irrigation water, foliar applications, etc.*) [*Record amount and analysis of fertilizers applied or pounds of* ***actual plant nutrients*** *applied. Complete the table below* (*and any necessary supplemental fertilizer tables*).]

T-TYPE	TABLE
2	001
OFFICE USE LINES IN TABLE	
LINE 99	299

LINE	1 CROP	2 CROP CODE	3 NITROGEN N	4 PHOSPHATE P_2O_5	5 POTASH K_2O	6 How much was applied per acre per application? [*Leave this column blank if actual nutrients were reported.*]	7 UNIT CODES 1 POUNDS 12 GALLONS 13 QUARTS 15 OUNCES, LIQUID 28 OUNCES, DRY 19 ACTUAL NUTRIENTS	8 How many acres was this applied to? [*Include bearing acres only.*] ACRES	9 How many times was it applied? NUMBER
01		201	202	203	204	205 .___	206	207 .___	208
02		201	202	203	204	205 .___	206	207 .___	208
03		201	202	203	204	205 .___	206	207 .___	208
04		201	202	203	204	205 .___	206	207 .___	208
05		201	202	203	204	205 .___	206	207 .___	208
06		201	202	203	204	205 .___	206	207 .___	208
07		201	202	203	204	205 .___	206	207 .___	208
08		201	202	203	204	205 .___	206	207 .___	208
09		201	202	203	204	205 .___	206	207 .___	208
10		201	202	203	204	205 .___	206	207 .___	208
11		201	202	203	204	205 .___	206	207 .___	208
12		201	202	203	204	205 .___	206	207 .___	208
13		201	202	203	204	205 .___	206	207 .___	208
14		201	202	203	204	205 .___	206	207 .___	208
15		201	202	203	204	205 .___	206	207 .___	208
16		201	202	203	204	205 .___	206	207 .___	208
17		201	202	203	204	205 .___	206	207 .___	208

C FERTILIZER APPLICATIONS C

LINE	1 CROP	2 CROP CODE	3 NITROGEN N	4 PHOSPHATE P_2O_5	5 POTASH K_2O	6 How much was applied per acre per application? [*Leave this column blank if actual nutrients were reported.*]	7 UNIT CODES 1 POUNDS 12 GALLONS 13 QUARTS 15 OUNCES, LIQUID 28 OUNCES, DRY 19 ACTUAL NUTRIENTS	8 How many acres was this applied to? [*Include bearing acres only.*] ACRES	9 How many times was it applied? NUMBER
18		201	202	203	204	205 .___	206	207 .___	208
19		201	202	203	204	205 .___	206	207 .___	208
20		201	202	203	204	205 .___	206	207 .___	208
21		201	202	203	204	205 .___	206	207 .___	208
22		201	202	203	204	205 .___	206	207 .___	208
23		201	202	203	204	205 .___	206	207 .___	208
24		201	202	203	204	205 .___	206	207 .___	208
25		201	202	203	204	205 .___	206	207 .___	208
26		201	202	203	204	205 .___	206	207 .___	208
27		201	202	203	204	205 .___	206	207 .___	208
28		201	202	203	204	205 .___	206	207 .___	208
29		201	202	203	204	205 .___	206	207 .___	208
30		201	202	203	204	205 .___	206	207 .___	208
31		201	202	203	204	205 .___	206	207 .___	208
32		201	202	203	204	205 .___	206	207 .___	208
33		201	202	203	204	205 .___	206	207 .___	208
34		201	202	203	204	205 .___	206	207 .___	208
35		201	202	203	204	205 .___	206	207 .___	208
36		201	202	203	204	205 .___	206	207 .___	208
37		201	202	203	204	205 .___	206	207 .___	208
38		201	202	203	204	205 .___	206	207 .___	208
39		201	202	203	204	205 .___	206	207 .___	208
40		201	202	203	204	205 .___	206	207 .___	208

D CHEMICAL 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 (2001) harvest, did you use **herbicides** on any of your vegetable acreage? ☐ YES ☐ NO
2. Since last year's (2001) harvest, did you use **insecticides, nematicides or miticides** on any of your vegetable acreage? ☐ YES ☐ NO
3. Since last year's (2001) harvest, did you use **fungicides** on any of your vegetable acreage? ☐ YES ☐ NO
4. Since last year's (2001) 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		301	302		304
	02		301	302		304
	03		301	302		304
	04		301	302		304
	05		301	302		304
	06		301	302		304
	07		301	302		304
	08		301	302		304
	09		301	302		304
	10		301	302		304

For pesticides not listed on card, specify

Line #	Pesticide Type (*Herb., Insect., Fung., etc.*)	Tradename & Formulation	Form Purchased (*Liquid or Dry*)	EPA Number

CHEMICAL APPLICATIONS

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 2002 crop year to each of the target vegetables you grew. Let's start with the first application to your [*crop*] since the 2001 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	47 PACKETS
	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	305 .	306 .	307	308 .	310
02	305 .	306 .	307	308 .	310
03	305 .	306 .	307	308 .	310
04	305 .	306 .	307	308 .	310
05	305 .	306 .	307	308 .	310
06	305 .	306 .	307	308 .	310
07	305 .	306 .	307	308 .	310
08	305 .	306 .	307	308 .	310
09	305 .	306 .	307	308 .	310
10	305 .	306 .	307	308 .	310

For pesticides not listed on card, 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 pest management practices you may have used on any of the total vegetables acres on this operation (*including both target and non-target vegetable acres*). **By pests, we mean weeds, insects and diseases.**

		CODE
1.	Were any of your vegetable acres scouted for pests using a systematic method? . . YES = 1	446
2.	Were electronic or written records kept to track the activity or numbers of different pests? . . . . . YES = 1	447
3.	Did you use scouting data and compare it to university or extension guidelines for infestation thresholds to determine when to take measures to control pests? . . . . . YES = 1	448
4.	Did you use field mapping of previous weed problems to assist you in making weed management decisions? . . . . . YES = 1	449
5.	Did you use soil analysis to detect the presence of soilborne pests or pathogens? . . . . . YES = 1	450
6.	Did you use topically applied biological pesticides such as Bt (*Bacillus Thuringiensis*), insect growth regulators, neem or other natural products to control pests? . . . . . YES = 1	452
7.	Did you release beneficial organisms (*insects, nematodes or fungi*) to control pests? . . . . . YES = 1	453
8.	Did you maintain ground covers, mulches or physical barriers to reduce pest problems? . . . . . YES = 1	454
9.	Did you use practices such as tilling, mowing, burning, or chopping of field edges, lanes, ditches, roadways or fence lines to manage pests? . . . . . YES = 1	455
10.	Did you remove or plow down crop residues to control pests? . . . . . YES = 1	456
11.	Did you clean tillage or harvesting implements after completing field work for the purpose of reducing the spread of weeds, diseases or other pests? . . . . . YES = 1	457
12.	Did you use water management practices, such as controlled drainage or irrigation scheduling, excluding chemigation, to control pests? . . . . . YES = 1	458
13.	Did you adjust row spacing, plant density or row direction to control pests? . . . . . YES = 1	459

COMPLETION CODE for FERTILIZER EDIT TABLE

1	Incomplete/Refusal	200
3	Valid Zero	

COMPLETION CODE for CHEMICAL EDIT TABLE

1	Incomplete/Refusal	300
3	Valid Zero	

E PEST MANAGEMENT PRACTICES E

		CODE
14. Did you adjust planting or harvesting dates to control pests?	YES = 1	460
15. Did you alternate pesticides to keep pests from becoming resistant to pesticides (*use pesticides with different mechanisms of action*)?	YES = 1	461
16. Did you rotate crops for the purpose of controlling pests?	YES = 1	462
17. Did you choose planting locations to avoid cross infestation of insects or disease?	YES = 1	464
18. Did you grow a trap crop to help control insects?	YES = 1	465
19. Did you use weather monitoring to predict the need for pesticide application?	YES = 1	480
20. Did you use pheromones to monitor pests by trapping?	YES = 1	481
21. Did you use pheromones to control pests by disrupting mating?	YES = 1	482

[Enumerator Note: *Code when all item cells in this section are blank.*

COMPLETION CODE for PEST MANAGEMENT EDIT

1	Incomplete/Refusal	400
3	Valid Zero	

Index of Active Ingredients

Report Features

Released July 16, 2003 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, 2003. This report will cover agricultural chemical use of restricted use pesticides for the 2002 crop year for field crops, vegetables and postharvest applications for apples and pears in major states.

The next “Agricultural Chemical Usage” report for vegetable crops will be released in July 2005. This report will cover agricultural chemical use for the 2004 crop year for major states.

Listed below are persons within the National Agricultural Statistics Service to contact for additional information.

Jorge Garcia-Pratts, Environmental Statistician	(202) 720-7492
Kevin Hintzman, Head, Environmental and Demographics Section	(202) 720-0684
Linda Hutton, Chief, Environmental, Economics and Demographics Branch	(202) 720-6146

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