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Agricultural Chemical Usage Field and Vegetable Crops

Chemical Distribution Rate

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Overview

This publication provides details about the distribution of agricultural chemical active ingredients commonly applied to selected field and vegetable crops. It presents data on acreage treated with herbicides, insecticides, fungicides, and other pesticides. These data expand upon that presented in the Agricultural Chemical Usage 2004 Field Crops Summary published in May 2005 and in the Agricultural Chemical Usage 2004 Vegetable Summary published in July 2005. Further details on the sources of these data may be found on the USDA National Agricultural Statistics Service website at http:/www.nass.usda.gov/Statistics_by_Subject/Environmental/index.asp.

Chemical distribution rates are listed by active ingredient for the Percent of Acres Treated, Number of Applications, Rate per Application, and Rate per Crop year. In order for an active ingredient to be published in these tables, at least 30 farm operators would have had to report applying it on the specified crop. The data in each table are summarized for a specific group of States, called Program States. The Program States designation is specific for each crop and provided in tables within the publication.

These distribution tables show the 10^{th} percentile, 90^{th} percentile, median, mean, and coefficient of variation (cv) of the reported rates. The 10^{th} percentile is the value below which 10 percent of all application rates fall. Thus, only 10 percent of operators reported an application rate for the active ingredient on the specified crop that was lower than the 10^{th} percentile value. Likewise, the 90^{th} percentile is a value for which 90 percent of all applications were at rates lower than this value. The median is the midpoint of the distribution with half of the reported application rates higher and half lower than the median value. The mean is the weighted average that is calculated by summing the application rate multiplied by the acres applied and then dividing by the acres applied. In addition, following the data tables in this publication, explanatory information is provided on the survey procedures, estimation procedures, and reliability.

Chemical application data for field crops were collected only for a selected field (one field out of the entire operation was selected that contained the crop of interest), while vegetable data were collected for the operation's entire vegetable acreage (for the specific targeted crops). The variability of pesticide estimates on the acres treated tables tend to be wider for the vegetable survey than it is for the field crops survey due, in part, to the different sampling methods.

The Number of Applications, Rate per Application, and Rate per Crop Year distribution tables are calculated using data only from reports where the farm operator applied the active ingredient. Data presented in the Percent of Acres Treated table account for all operations in the sample producing the target commodity, whether or not the listed active ingredient was applied. For example, there were 48 farms which reported producing fresh market carrots (Carrots, Fresh table) on the surveys. All of these reports were used in calculating the percent of acres treated. At the 10^{th} percentile, survey respondents reported they did not apply Linuron to their acres of fresh market carrots. At the median point, 42 percent of the sampled operations' acres had Linuron applied. At the 90^{th} percentile, farmers reported applying Linuron to all of their fresh market carrot acres. The mean, average number of acres, treated with Linuron was 38 percent.

Field Crops Chemical Use Survey Coverage

Crop	2004		
	States Surveyed	Reports Summarized	U.S. Acreage Included in Survey
	-- Number --		Percent
Peanuts	5	545	91
Soybeans	11	3,163	81
Durum Wheat	2	211	90
Other Spring Wheat	7	953	99
Winter Wheat	14	2,087	85

Program States Surveyed for 2004 Field Crops Chemical Usage Survey [1]					
State	Peanuts	Soybeans	Durum Wheat	Other Spring Wheat	Winter Wheat
Alabama	+				
Arkansas		+			
Colorado					+
Florida	+				
Georgia	+				
Idaho				+	+
Illinois		+			+
Indiana		+			
Iowa		+			
Kansas		+			+
Michigan					+
Minnesota		+		+	
Missouri		+			+
Montana			+	+	+
Nebraska		+			+
North Carolina	+				
North Dakota		+	+	+	
Ohio		+			+
Oklahoma					+
Oregon				+	+
South Dakota		+		+	+
Texas	+				+
Washington				+	+

[1] Columns for each crop show States designated as Program States and have data summarized in the tables.

Peanuts: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-DB, Dimeth. salt	0	0	100	45	5
Acifluorfen	0	0	100	14	17
Bentazon	0	0	100	30	10
Chlorimuron-ethyl	0	0	0	7	28
Clethodim	0	0	0	9	25
Diclosulam	0	0	100	13	15
Ethalfluralin	0	0	100	36	6
Glyphosate iso. salt	0	0	100	18	15
Imazapic	0	0	100	12	16
Imazapic amm.	0	100	100	52	4
Paraquat	0	0	100	36	6
Pendimethalin	0	0	100	40	6
S-Metolachlor	0	0	100	13	15
Sethoxydim	0	0	0	5	22
Trifluralin	0	0	0	3	24
Insecticides					
Acephate	0	0	0	7	33
Aldicarb	0	0	100	27	8
Chlorpyrifos	0	0	0	9	24
Esfenvalerate	0	0	100	15	13
Lambda-cyhalothrin	0	0	0	9	18
Methomyl	0	0	0	9	22
Phorate	0	0	100	24	9
Fungicides					
Azoxystrobin	0	0	100	17	14
Chlorothalonil	0	100	100	77	2
Propiconazole	0	0	100	29	8
Pyraclostrobin	0	0	100	22	9
Tebuconazole	0	0	100	47	6
Trifloxystrobin	0	0	0	4	23

[1] Planted acreage in 2004 for the 5 Program States was 1.3 million acres.

Peanuts: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-DB, Dimeth. salt	1.00	1.00	2.00	1.5	6
Acifluorfen	1.00	1.00	1.00	1.0	2
Bentazon	1.00	1.00	1.00	1.1	5
Chlorimuron-ethyl	1.00	1.00	1.00	1.0	3
Clethodim	1.00	1.00	2.00	1.3	13
Diclosulam	1.00	1.00	1.00	1.0	0
Ethalfluralin	1.00	1.00	1.00	1.0	0
Glyphosate iso. salt	1.00	1.00	2.00	1.2	7
Imazapic	1.00	1.00	1.00	1.0	4
Imazapic amm.	1.00	1.00	1.00	1.0	2
Paraquat	1.00	1.00	1.00	1.0	1
Pendimethalin	1.00	1.00	1.00	1.0	1
S-Metolachlor	1.00	1.00	2.00	1.1	3
Sethoxydim	1.00	1.00	2.00	1.3	15
Trifluralin	1.00	1.00	1.00	1.1	8
Insecticides					
Acephate	1.00	1.00	3.00	1.5	24
Aldicarb	1.00	1.00	1.00	1.1	5
Chlorpyrifos	1.00	1.00	1.00	1.1	14
Esfenvalerate	1.00	1.00	2.00	1.2	13
Lambda-cyhalothrin	1.00	1.00	2.00	1.3	12
Methomyl	1.00	1.00	4.00	1.6	21
Phorate	1.00	1.00	1.00	1.0	0
Fungicides					
Azoxystrobin	1.00	1.00	2.00	1.5	6
Chlorothalonil	1.00	4.00	7.00	3.8	4
Propiconazole	1.00	2.00	4.00	2.3	9
Pyraclostrobin	1.00	1.00	3.00	1.7	9
Tebuconazole	1.00	2.00	4.00	2.3	6
Trifloxystrobin	1.00	2.00	6.00	2.4	14

Peanuts: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-DB, Dimeth. salt	0.130	0.250	0.380	0.230	2
Acifluorfen	0.250	0.250	0.500	0.310	9
Bentazon	0.250	0.500	0.750	0.490	4
Chlorimuron-ethyl	0.004	0.010	0.020	0.010	16
Clethodim	0.130	0.130	0.190	0.140	6
Diclosulam	0.010	0.020	0.020	0.020	3
Ethalfluralin	0.560	0.750	0.750	0.700	2
Glyphosate iso. salt	0.520	0.610	0.750	0.670	5
Imazapic	0.020	0.050	0.090	0.050	13
Imazapic amm.	0.010	0.010	0.010	0.010	3
Paraquat	0.100	0.160	0.230	0.160	6
Pendimethalin	0.500	0.830	1.000	0.800	3
S-Metolachlor	0.710	1.270	1.910	1.280	6
Sethoxydim	0.070	0.190	0.380	0.180	13
Trifluralin	0.500	0.550	0.750	0.620	7
Insecticides					
Acephate	0.090	0.750	0.750	0.580	17
Aldicarb	0.600	1.050	1.500	1.080	6
Chlorpyrifos	0.900	1.800	2.030	1.610	9
Esfenvalerate	0.020	0.030	0.060	0.040	15
Lambda-cyhalothrin	0.010	0.020	0.030	0.020	12
Methomyl	0.300	0.300	0.600	0.400	12
Phorate	0.600	1.000	1.400	1.000	3
Fungicides					
Azoxystrobin	0.130	0.290	0.360	0.260	7
Chlorothalonil	0.520	0.940	1.130	0.920	3
Propiconazole	0.020	0.070	0.110	0.070	6
Pyraclostrobin	0.130	0.160	0.240	0.170	3
Tebuconazole	0.170	0.200	0.220	0.190	2
Trifloxystrobin	0.060	0.060	0.110	0.060	7

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-DB, Dimeth. salt	0.130	0.250	0.750	0.340	7
Acifluorfen	0.250	0.250	0.500	0.320	9
Bentazon	0.250	0.500	0.750	0.540	7
Chlorimuron-ethyl	0.004	0.010	0.020	0.010	15
Clethodim	0.110	0.140	0.250	0.190	11
Diclosulam	0.010	0.020	0.020	0.020	3
Ethalfluralin	0.560	0.750	0.750	0.700	2
Glyphosate iso. salt	0.560	0.750	1.220	0.800	7
Imazapic	0.020	0.050	0.090	0.050	16
Imazapic amm.	0.010	0.010	0.010	0.010	3
Paraquat	0.100	0.160	0.230	0.170	6
Pendimethalin	0.500	0.830	1.000	0.810	3
S-Metolachlor	0.950	1.430	1.910	1.410	6
Sethoxydim	0.070	0.190	0.380	0.230	20
Trifluralin	0.500	0.550	1.000	0.680	14
Insecticides					
Acephate	0.090	0.750	2.250	0.880	39
Aldicarb	0.600	1.050	1.500	1.160	9
Chlorpyrifos	0.900	1.950	2.100	1.850	11
Esfenvalerate	0.020	0.030	0.080	0.050	27
Lambda-cyhalothrin	0.010	0.030	0.030	0.030	7
Methomyl	0.300	0.450	1.200	0.630	18
Phorate	0.600	1.000	1.400	1.000	3
Fungicides					
Azoxystrobin	0.200	0.360	0.620	0.400	9
Chlorothalonil	1.040	3.000	6.750	3.500	6
Propiconazole	0.050	0.130	0.350	0.170	12
Pyraclostrobin	0.150	0.240	0.490	0.290	9
Tebuconazole	0.200	0.410	0.810	0.440	7
Trifloxystrobin	0.060	0.130	0.340	0.160	11

Soybeans: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	0	0	0	2	16
Acetic acid (2,4-D)	0	0	0	1	15
Chlorimuron-ethyl	0	0	0	7	9
Clethodim	0	0	0	2	13
Cloransulam-methyl	0	0	0	2	17
Fenoxaprop	0	0	0	1	19
Fluazifop-P-butyl	0	0	0	1	20
Flumioxazin	0	0	0	1	16
Fomesafen	0	0	0	2	12
Glyphosate	0	0	0	2	17
Glyphosate iso. salt	0	100	100	87	1
Imazamox	0	0	0	2	17
Imazethapyr	0	0	0	3	9
Metribuzin	0	0	0	2	15
Pendimethalin	0	0	0	4	10
S-Metolachlor	0	0	0	1	24
Sulfentrazone	0	0	0	6	8
Sulfosate	0	0	0	2	17
Trifluralin	0	0	0	5	8
Insecticides					
Chlorpyrifos	0	0	0	1	14
Lambda-cyhalothrin	0	0	0	1	16

[1] Planted acreage in 2004 for the 11 Program States was 61.2 million acres.

Soybeans: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	1.00	1.00	2.00	1.1	8
Acetic acid (2,4-D)	1.00	1.00	1.00	1.0	0
Chlorimuron-ethyl	1.00	1.00	1.00	1.0	2
Clethodim	1.00	1.00	1.00	1.0	2
Cloransulam-methyl	1.00	1.00	1.00	1.0	2
Fenoxaprop	1.00	1.00	2.00	1.1	7
Fluazifop-P-butyl	1.00	1.00	2.00	1.1	7
Flumioxazin	1.00	1.00	1.00	1.0	0
Fomesafen	1.00	1.00	2.00	1.2	4
Glyphosate	1.00	1.00	2.00	1.3	6
Glyphosate iso. salt	1.00	1.00	2.00	1.5	1
Imazamox	1.00	1.00	1.00	1.0	0
Imazethapyr	1.00	1.00	1.00	1.0	3
Metribuzin	1.00	1.00	1.00	1.0	0
Pendimethalin	1.00	1.00	1.00	1.0	1
S-Metolachlor	1.00	1.00	1.00	1.0	4
Sulfentrazone	1.00	1.00	1.00	1.1	2
Sulfosate	1.00	1.00	2.00	1.2	5
Trifluralin	1.00	1.00	1.00	1.0	1
Insecticides					
Chlorpyrifos	1.00	1.00	1.00	1.0	0
Lambda-cyhalothrin	1.00	1.00	1.00	1.0	1

Soybeans: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.240	0.480	0.710	0.460	11
Acetic acid (2,4-D)	0.240	0.480	0.960	0.470	9
Chlorimuron-ethyl	0.010	0.020	0.030	0.020	5
Clethodim	0.060	0.090	0.160	0.100	9
Cloransulam-methyl	0.010	0.020	0.040	0.030	15
Fenoxaprop	0.060	0.130	0.160	0.110	8
Fluazifop-P-butyl	0.020	0.040	0.040	0.030	8
Flumioxazin	0.050	0.060	0.100	0.070	4
Fomesafen	0.040	0.240	0.290	0.200	7
Glyphosate	0.400	0.750	0.750	0.700	5
Glyphosate iso. salt	0.470	0.750	0.950	0.730	1
Imazamox	0.020	0.030	0.030	0.030	6
Imazethapyr	0.020	0.060	0.060	0.050	4
Metribuzin	0.080	0.230	0.380	0.240	6
Pendimethalin	0.150	0.840	1.500	0.860	5
S-Metolachlor	0.470	1.180	1.770	1.220	8
Sulfentrazone	0.060	0.100	0.210	0.110	4
Sulfosate	0.750	1.200	1.560	1.200	5
Trifluralin	0.500	0.800	1.000	0.830	2
Insecticides					
Chlorpyrifos	0.090	0.500	0.500	0.450	9
Lambda-cyhalothrin	0.010	0.020	0.030	0.020	4

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.240	0.480	1.410	0.510	19
Acetic acid (2,4-D)	0.240	0.480	0.960	0.470	9
Chlorimuron-ethyl	0.010	0.020	0.030	0.020	5
Clethodim	0.060	0.090	0.160	0.100	10
Cloransulam-methyl	0.010	0.020	0.040	0.030	15
Fenoxaprop	0.010	0.130	0.190	0.120	8
Fluazifop-P-butyl	0.020	0.040	0.050	0.040	8
Flumioxazin	0.050	0.060	0.100	0.070	4
Fomesafen	0.090	0.240	0.350	0.230	6
Glyphosate	0.660	0.750	1.500	0.910	6
Glyphosate iso. salt	0.560	0.940	1.620	1.080	1
Imazamox	0.020	0.030	0.030	0.030	6
Imazethapyr	0.020	0.060	0.060	0.050	6
Metribuzin	0.080	0.230	0.380	0.240	6
Pendimethalin	0.150	0.840	1.500	0.870	5
S-Metolachlor	0.790	1.260	1.770	1.280	6
Sulfentrazone	0.060	0.100	0.210	0.120	4
Sulfosate	0.750	1.250	2.440	1.490	7
Trifluralin	0.500	0.800	1.000	0.840	3
Insecticides					
Chlorpyrifos	0.090	0.500	0.500	0.450	9
Lambda-cyhalothrin	0.010	0.020	0.030	0.020	4

Durum Wheat: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	0	0	100	36	9
Clodinafop-propargil	0	0	100	16	21
Dicamba	0	0	100	23	14
Fenoxaprop	0	0	100	48	6
Glyphosate iso. salt	0	0	100	46	7
MCPA	0	0	100	45	9

[1] Planted acreage in 2004 for the 2 Program States was 2.3 million acres.

Durum Wheat: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	1.00	1.00	1.00	1.0	2
Clodinafop-propargil	1.00	1.00	1.00	1.0	0
Dicamba	1.00	1.00	2.00	1.3	13
Fenoxaprop	1.00	1.00	1.00	1.1	10
Glyphosate iso. salt	1.00	1.00	1.00	1.1	4
MCPA	1.00	1.00	1.00	1.1	10

Durum Wheat: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.060	0.380	0.520	0.370	8
Clodinafop-propargil	0.020	0.040	0.090	0.050	15
Dicamba	0.040	0.060	0.130	0.070	10
Fenoxaprop	0.040	0.050	0.080	0.050	5
Glyphosate iso. salt	0.280	0.380	0.660	0.410	5
MCPA	0.180	0.250	0.380	0.280	6

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.060	0.380	0.530	0.380	8
Clodinafop-propargil	0.020	0.040	0.090	0.050	15
Dicamba	0.030	0.060	0.250	0.090	14
Fenoxaprop	0.040	0.050	0.080	0.060	14
Glyphosate iso. salt	0.280	0.380	0.750	0.450	7
MCPA	0.170	0.250	0.500	0.300	9

Other Spring Wheat: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	0	0	100	20	13
2,4-DP, Dimeth. salt	0	0	0	4	20
Acetic acid (2,4-D)	0	0	0	8	30
Bromoxynil	0	0	100	16	14
Bromoxynil octanoate	0	0	100	19	9
Clodinafop-propargil	0	0	100	14	9
Clopyralid	0	0	0	6	18
Dicamba	0	0	100	11	18
Fenoxaprop	0	0	100	31	8
Flucarbazone-sodium	0	0	0	7	22
Fluroxypyr	0	0	0	8	14
Fluroxypyr 1-methylh	0	0	0	6	17
Glyphosate iso. salt	0	0	100	23	16
MCPA	0	0	100	46	4
MCPA, dimethyl. salt	0	0	0	2	24
Metsulfuron-methyl	0	0	0	5	21
Thifensulfuron	0	0	100	16	12
Tribenuron-methyl	0	0	100	14	13
Fungicides					
Propiconazole	0	0	0	9	13
Tebuconazole	0	0	100	12	12

[1] Planted acreage in 2004 for the 7 Program States was 13.7 million acres.

Other Spring Wheat: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	1.00	1.00	1.36	1.1	3
2,4-DP, Dimeth. salt	1.00	1.00	1.00	1.0	0
Acetic acid (2,4-D)	1.00	1.00	1.00	1.0	0
Bromoxynil	1.00	1.00	1.00	1.0	0
Bromoxynil octanoate	1.00	1.00	1.00	1.0	0
Clodinafop-propargil	1.00	1.00	1.00	1.0	0
Clopyralid	1.00	1.00	1.00	1.0	0
Dicamba	1.00	1.00	1.00	1.1	4
Fenoxaprop	1.00	1.00	1.00	1.0	0
Flucarbazone-sodium	1.00	1.00	1.00	1.0	0
Fluroxypyr	1.00	1.00	1.00	1.0	0
Fluroxypyr 1-methylh	1.00	1.00	1.00	1.0	0
Glyphosate iso. salt	1.00	1.00	1.47	1.1	4
MCPA	1.00	1.00	1.00	1.0	0
MCPA, dimethyl. salt	1.00	1.00	1.00	1.0	0
Metsulfuron-methyl	1.00	1.00	1.00	1.0	0
Thifensulfuron	1.00	1.00	1.00	1.0	0
Tribenuron-methyl	1.00	1.00	1.00	1.0	1
Fungicides					
Propiconazole	1.00	1.00	1.00	1.0	0
Tebuconazole	1.00	1.00	1.00	1.0	0

Other Spring Wheat: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.080	0.310	0.690	0.350	8
2,4-DP, Dimeth. salt	0.180	0.350	0.710	0.410	11
Acetic acid (2,4-D)	0.120	0.180	0.480	0.270	24
Bromoxynil	0.180	0.250	0.310	0.240	4
Bromoxynil octanoate	0.160	0.250	0.310	0.250	5
Clodinafop-propargil	0.030	0.050	0.080	0.060	12
Clopyralid	0.040	0.090	0.110	0.070	8
Dicamba	0.030	0.060	0.130	0.080	8
Fenoxaprop	0.040	0.060	0.090	0.060	4
Flucarbazone-sodium	0.010	0.020	0.020	0.020	7
Fluroxypyr	0.050	0.060	0.120	0.080	9
Fluroxypyr 1-methylh	0.080	0.090	0.130	0.090	6
Glyphosate iso. salt	0.260	0.380	0.750	0.440	5
MCPA	0.190	0.250	0.440	0.290	3
MCPA, dimethyl. salt	0.250	0.380	0.750	0.420	11
Metsulfuron-methyl	0.001	0.004	0.004	0.003	9
Thifensulfuron	0.002	0.010	0.010	0.009	5
Tribenuron-methyl	0.001	0.005	0.010	0.006	22
Fungicides					
Propiconazole	0.030	0.060	0.110	0.070	18
Tebuconazole	0.060	0.110	0.110	0.100	3

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.150	0.340	0.750	0.390	7
2,4-DP, Dimeth. salt	0.180	0.350	0.710	0.410	11
Acetic acid (2,4-D)	0.120	0.180	0.480	0.270	24
Bromoxynil	0.190	0.250	0.310	0.240	4
Bromoxynil octanoate	0.160	0.250	0.310	0.250	5
Clodinafop-propargil	0.030	0.050	0.080	0.060	12
Clopyralid	0.040	0.090	0.110	0.070	8
Dicamba	0.030	0.060	0.130	0.090	9
Fenoxaprop	0.040	0.060	0.090	0.060	4
Flucarbazone-sodium	0.010	0.020	0.020	0.020	7
Fluroxypyr	0.050	0.060	0.120	0.080	9
Fluroxypyr 1-methylh	0.080	0.090	0.130	0.090	6
Glyphosate iso. salt	0.260	0.380	0.930	0.490	8
MCPA	0.190	0.250	0.430	0.290	3
MCPA, dimethyl. salt	0.250	0.380	0.750	0.420	11
Metsulfuron-methyl	0.001	0.004	0.004	0.003	9
Thifensulfuron	0.002	0.010	0.014	0.009	5
Tribenuron-methyl	0.001	0.005	0.009	0.006	22
Fungicides					
Propiconazole	0.030	0.060	0.110	0.070	18
Tebuconazole	0.060	0.110	0.110	0.100	3

Winter Wheat: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	0	0	100	13	8
2,4-DP, Dimeth. salt	0	0	0	5	15
Acetic acid (2,4-D)	0	0	0	1	20
Bromoxynil	0	0	0	2	19
Bromoxynil octanoate	0	0	0	1	25
Butoxy. ester 2,4-D	0	0	0	2	27
Chlorsulfuron	0	0	0	8	14
Dicamba	0	0	0	6	12
Glyphosate iso. salt	0	0	100	13	7
MCPA	0	0	0	4	13
Metribuzin	0	0	0	1	26
Metsulfuron-methyl	0	0	100	15	9
Sulfosulfuron	0	0	0	4	18
Thifensulfuron	0	0	0	9	8
Triasulfuron	0	0	0	4	18
Tribenuron-methyl	0	0	0	10	8
Insecticides					
Lambda-cyhalothrin	0	0	0	1	36
Fungicides					
Propiconazole	0	0	0	1	17

[1] Planted acreage in 2004 for the 14 Program States was 37.1 million acres.

Winter Wheat: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	1.00	1.00	3.00	1.4	8
2,4-DP, Dimeth. salt	1.00	1.00	2.00	1.3	13
Acetic acid (2,4-D)	1.00	1.00	1.00	1.1	8
Bromoxynil	1.00	1.00	1.00	1.0	1
Bromoxynil octanoate	1.00	1.00	1.00	1.0	0
Butoxy. ester 2,4-D	1.00	1.00	1.00	1.1	4
Chlorsulfuron	1.00	1.00	1.00	1.0	0
Dicamba	1.00	1.00	2.00	1.2	8
Glyphosate iso. salt	1.00	1.00	4.00	1.9	6
MCPA	1.00	1.00	1.00	1.1	12
Metribuzin	1.00	1.00	4.00	1.7	31
Metsulfuron-methyl	1.00	1.00	1.00	1.1	3
Sulfosulfuron	1.00	1.00	1.00	1.0	1
Thifensulfuron	1.00	1.00	1.00	1.1	5
Triasulfuron	1.00	1.00	1.00	1.1	6
Tribenuron-methyl	1.00	1.00	1.00	1.1	5
Insecticides					
Lambda-cyhalothrin	1.00	1.00	1.00	1.0	3
Fungicides					
Propiconazole	1.00	1.00	1.00	1.0	2

Winter Wheat: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.090	0.280	0.690	0.330	7
2,4-DP, Dimeth. salt	0.150	0.240	0.470	0.340	9
Acetic acid (2,4-D)	0.090	0.240	0.490	0.290	13
Bromoxynil	0.130	0.250	0.400	0.270	9
Bromoxynil octanoate	0.160	0.230	0.390	0.240	10
Butoxy. ester 2,4-D	0.170	0.510	0.840	0.530	15
Chlorsulfuron	0.005	0.010	0.020	0.010	7
Dicamba	0.010	0.070	0.130	0.100	18
Glyphosate iso. salt	0.250	0.380	0.750	0.420	5
MCPA	0.190	0.300	0.500	0.320	8
Metribuzin	0.090	0.280	0.380	0.270	13
Metsulfuron-methyl	0.001	0.002	0.004	0.002	6
Sulfosulfuron	0.010	0.030	0.040	0.030	12
Thifensulfuron	0.002	0.010	0.020	0.010	9
Triasulfuron	0.010	0.010	0.030	0.020	8
Tribenuron-methyl	0.001	0.004	0.010	0.004	9
Insecticides					
Lambda-cyhalothrin	0.020	0.020	0.020	0.020	5
Fungicides					
Propiconazole	0.030	0.110	0.110	0.100	8

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2,4-D	0.120	0.360	1.010	0.450	8
2,4-DP, Dimeth. salt	0.120	0.470	0.710	0.450	9
Acetic acid (2,4-D)	0.090	0.330	0.490	0.320	11
Bromoxynil	0.130	0.250	0.400	0.280	9
Bromoxynil octanoate	0.160	0.230	0.390	0.240	10
Butoxy. ester 2,4-D	0.170	0.680	0.840	0.570	13
Chlorsulfuron	0.005	0.010	0.020	0.010	7
Dicamba	0.010	0.090	0.240	0.120	15
Glyphosate iso. salt	0.230	0.660	1.500	0.780	6
MCPA	0.170	0.250	0.530	0.370	13
Metribuzin	0.090	0.280	1.130	0.460	36
Metsulfuron-methyl	0.001	0.002	0.004	0.002	6
Sulfosulfuron	0.010	0.030	0.050	0.030	12
Thifensulfuron	0.002	0.007	0.016	0.009	8
Triasulfuron	0.010	0.010	0.030	0.020	9
Tribenuron-methyl	0.001	0.004	0.008	0.004	8
Insecticides					
Lambda-cyhalothrin	0.020	0.020	0.030	0.020	7
Fungicides					
Propiconazole	0.030	0.110	0.110	0.100	8

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VEGETABLE CHEMICAL USE SURVEY COVERAGE

Crop	2004		
	States Surveyed	Reports Summarized	U.S. Acreage Included
	Number		Percent
Asparagus	3	274	100
Beans, Lima, Proc.	2	29	40
Beans, Snap, Fresh	6	544	84
Beans, Snap, Proc.	6	298	77
Broccoli	1	133	93
Cabbage, Fresh	7	488	81
Cantaloupes	3	213	83
Carrots, Fresh	2	137	84
Carrots, Proc.	4	48	87
Cauliflower	1	85	86
Celery	1	60	92
Corn, Sweet, Fresh	13	1,433	81
Corn, Sweet, Proc.	5	516	88
Cucumbers, Fresh	7	628	87
Cucumbers, Pickles	7	291	69
Garlic	1	96	83
Honeydews	2	68	94
Lettuce, Head	2	110	98
Lettuce, Other	2	165	100
Onions, Bulb	6	556	75
Peas, Green, Proc.	5	417	86
Peppers, Bell	3	245	78
Pumpkins	5	687	85
Spinach	3	126	88
Squash	6	766	78
Strawberries	3	285	82
Tomatoes, Fresh	7	798	81
Tomatoes, Proc.	1	107	94
Watermelons	7	711	76

Program States Surveyed for 2004 Vegetable Chemical Usage Survey [1]										
Crop	**AZ**	**CA**	**DE**	**FL**	**GA**	**IL**	**MD**	**MI**	**MN**	**NJ**
Asparagus		+						+		
Beans, Lima, Proc.			+				+			
Beans, Snap, Fresh		+		+	+					
Beans, Snap, Proc.						+		+		
Broccoli		+								
Cabbage, Fresh		+		+	+					
Cantaloupes	+	+								
Carrots, Fresh		+						+		
Carrots, Proc.		+								
Cauliflower		+								
Celery		+								
Corn, Sweet, Fresh		+		+	+	+		+		+
Corn, Sweet, Proc.									+	
Cucumbers, Fresh		+		+	+			+		+
Cucumbers, Pickles				+				+		
Garlic		+								
Honeydews	+	+								
Lettuce, Head	+	+								
Lettuce, Other		+								
Onions, Bulb		+			+					
Peas, Green, Proc.									+	
Peppers, Bell		+		+						
Pumpkins		+				+		+		
Spinach	+	+								
Squash		+		+	+			+		+
Strawberries		+		+						
Tomatoes, Fresh		+		+	+					+
Tomatoes, Proc.		+								
Watermelons	+	+		+	+					

[1] Rows for each crop show States designated as Program States and have data summarized in the tables.

Program States Surveyed for 2004 Vegetable Chemical Usage Survey [1]										
Crop	**NY**	**NC**	**OH**	**OR**	**PA**	**SC**	**TN**	**TX**	**WA**	**WI**
Asparagus									+	
Beans, Lima, Proc.										
Beans, Snap, Fresh	+	+					+			
Beans, Snap, Proc.	+			+	+					+
Broccoli										
Cabbage, Fresh	+	+						+		+
Cantaloupes								+		
Carrots, Fresh								+		
Carrots, Proc.								+	+	+
Cauliflower										
Celery										
Corn, Sweet, Fresh	+	+	+	+	+			+		+
Corn, Sweet, Proc.	+			+					+	+
Cucumbers, Fresh	+	+								
Cucumbers, Pickles		+	+			+		+		+
Garlic										
Honeydews										
Lettuce, Head										
Lettuce, Other										
Onions, Bulb	+			+				+	+	
Peas, Green, Proc.	+			+					+	+
Peppers, Bell		+								
Pumpkins	+				+					
Spinach								+		
Squash		+								
Strawberries				+						+
Tomatoes, Fresh		+	+				+			
Tomatoes, Proc.										
Watermelons		+				+		+		

[1] Rows for each crop show States designated as Program States and have data summarized in the tables.

Asparagus: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Diuron	0	69	100	51	10
Glyphosate iso. salt	0	0	100	38	16
Linuron	0	0	87	15	25
Metribuzin	0	0	100	34	18
Trifluralin	0	0	100	19	23
Insecticides					
Carbaryl	0	0	100	38	10
Chlorpyrifos	0	0	100	21	30
Disulfoton	0	0	100	31	16
Permethrin	0	0	100	15	36
Fungicides					
Chlorothalonil	0	0	100	17	31
Mancozeb	0	0	100	21	22

[1] Planted acreage in 2004 for the 3 Program States was 56,500 acres.

Asparagus: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Diuron	1.00	1.36	2.00	1.5	5
Glyphosate iso. salt	1.00	1.43	2.00	1.5	8
Linuron	1.00	1.48	2.00	1.5	9
Metribuzin	1.00	1.35	2.00	1.5	8
Trifluralin	1.00	1.00	1.00	1.0	2
Insecticides					
Carbaryl	1.00	2.00	4.00	2.4	14
Chlorpyrifos	1.00	1.00	1.00	1.1	3
Disulfoton	1.00	1.00	2.00	1.3	8
Permethrin	1.00	2.00	4.00	2.2	14
Fungicides					
Chlorothalonil	1.00	2.00	4.00	2.5	11
Mancozeb	1.00	1.19	3.00	1.7	15

Asparagus: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Diuron	0.800	1.200	1.800	1.300	6
Glyphosate iso. salt	0.630	0.750	1.250	0.850	7
Linuron	0.500	0.680	1.070	0.780	11
Metribuzin	0.380	0.560	1.000	0.630	11
Trifluralin	0.500	1.000	2.000	1.210	13
Insecticides					
Carbaryl	0.470	0.630	1.000	0.830	7
Chlorpyrifos	0.990	1.000	1.000	0.940	4
Disulfoton	1.000	1.000	1.000	1.020	2
Permethrin	0.060	0.100	0.100	0.090	5
Fungicides					
Chlorothalonil	0.080	1.500	1.500	1.280	13
Mancozeb	1.080	1.500	1.600	1.430	5

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Diuron	0.990	1.800	3.000	1.910	7
Glyphosate iso. salt	0.750	1.160	2.060	1.250	11
Linuron	0.670	1.150	1.780	1.140	11
Metribuzin	0.560	0.830	1.500	0.940	6
Trifluralin	0.500	1.000	2.000	1.230	13
Insecticides					
Carbaryl	0.750	2.000	3.130	2.020	14
Chlorpyrifos	0.500	1.000	1.010	1.000	6
Disulfoton	1.000	1.020	2.000	1.320	7
Permethrin	0.080	0.190	0.400	0.190	16
Fungicides					
Chlorothalonil	0.830	3.000	6.010	3.140	14
Mancozeb	1.130	1.780	4.800	2.480	20

Snap Beans, Fresh: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
S-Metolachlor	0	0	100	37	31
Trifluralin	0	0	100	16	39
Insecticides					
Acephate	0	0	100	26	29
Carbaryl	0	0	0	1	79
Endosulfan	0	0	0	9	46
Esfenvalerate	0	0	100	22	28
Methomyl	0	0	100	19	45
Fungicides					
Chlorothalonil	0	62	100	54	16

[1] Planted acreage in 2004 for the 6 Program States was 86,200 acres.

Snap Beans, Fresh: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
S-Metolachlor	1.00	1.00	1.50	1.3	18
Trifluralin	1.00	1.00	2.00	1.2	15
Insecticides					
Acephate	1.00	2.00	3.01	2.1	23
Carbaryl	2.00	2.00	2.00	2.1	9
Endosulfan	2.00	3.00	8.00	3.7	29
Esfenvalerate	1.56	2.00	4.00	2.7	31
Methomyl	1.00	2.00	4.00	2.4	40
Fungicides					
Chlorothalonil	1.00	1.98	6.00	2.6	24

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
S-Metolachlor	0.480	0.720	1.240	0.760	15
Trifluralin	0.250	0.500	0.750	0.490	15
Insecticides					
Acephate	0.250	0.970	0.970	0.760	16
Carbaryl	0.500	0.750	1.000	0.770	9
Endosulfan	0.500	0.560	0.750	0.640	9
Esfenvalerate	0.030	0.050	0.050	0.040	24
Methomyl	0.300	0.300	0.600	0.400	18
Fungicides					
Chlorothalonil	0.750	1.130	1.500	1.260	8

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
S-Metolachlor	0.180	0.720	1.430	0.980	21
Trifluralin	0.250	0.380	1.250	0.580	28
Insecticides					
Acephate	0.380	0.750	2.920	1.590	35
Carbaryl	0.800	1.500	2.000	1.590	14
Endosulfan	1.000	1.690	4.500	2.320	28
Esfenvalerate	0.030	0.080	0.190	0.110	42
Methomyl	0.440	0.600	2.400	0.970	34
Fungicides					
Chlorothalonil	0.750	2.250	6.750	3.260	27

Snap Beans, Proc.: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	0	0	100	30	25
EPTC	0	50	100	49	17
Fomesafen	0	0	100	18	36
Glyphosate iso. salt	0	0	31	8	50
Halosulfuron	0	0	50	11	62
Imazamox	0	0	0	4	27
Imazethapyr	0	0	0	8	103
S-Metolachlor	0	48	100	43	21
Sethoxydim	0	0	44	11	47
Trifluralin	0	0	100	33	30
Insecticides					
Acephate	0	0	100	27	23
Bifenthrin	0	0	100	31	23
Dimethoate	0	0	0	4	54
Esfenvalerate	0	0	96	10	17
Ethoprop	0	0	0	7	13
Lambda-cyhalothrin	0	0	81	14	43
Zeta-cypermethrin	0	0	97	24	40
Fungicides					
Copper hydroxide	0	0	96	15	57
Thiophanate-methyl	0	0	76	23	20
Vinclozolin	0	0	100	35	10

[1] Planted acreage in 2004 for the 6 Program States was 159,700 acres.

Snap Beans, Proc.: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	1.00	1.00	1.27	1.1	3
EPTC	1.00	1.00	1.00	1.0	1
Fomesafen	1.00	1.00	1.27	1.0	3
Glyphosate iso. salt	1.00	1.00	1.49	1.1	5
Halosulfuron	1.00	1.00	1.13	1.0	2
Imazamox	1.00	1.00	1.00	1.1	7
Imazethapyr	1.00	1.00	1.38	1.1	7
S-Metolachlor	1.00	1.00	1.29	1.1	5
Sethoxydim	1.00	1.00	1.14	1.0	2
Trifluralin	1.00	1.00	1.00	1.0	1
Insecticides					
Acephate	1.00	1.00	1.00	1.0	3
Bifenthrin	1.00	1.81	2.50	1.7	8
Dimethoate	1.00	1.00	1.00	1.0	3
Esfenvalerate	1.00	1.00	1.73	1.2	6
Ethoprop	1.00	1.00	1.00	1.0	1
Lambda-cyhalothrin	1.00	1.00	1.57	1.1	9
Zeta-cypermethrin	1.00	1.43	3.02	2.0	25
Fungicides					
Copper hydroxide	1.00	2.38	2.78	2.0	30
Thiophanate-methyl	1.00	1.00	1.26	1.1	6
Vinclozolin	1.00	1.00	1.30	1.1	6

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bentazon	0.250	0.500	0.930	0.550	10
EPTC	2.190	3.060	3.500	2.910	5
Fomesafen	0.080	0.130	0.250	0.160	19
Glyphosate iso. salt	0.480	0.750	1.500	0.800	13
Halosulfuron	0.020	0.020	0.020	0.020	6
Imazamox	0.030	0.030	0.030	0.030	1
Imazethapyr	0.020	0.020	0.030	0.020	3
S-Metolachlor	0.710	0.960	1.590	1.030	12
Sethoxydim	0.090	0.140	0.230	0.160	15
Trifluralin	0.380	0.500	0.670	0.510	6
Insecticides					
Acephate	0.680	0.750	0.750	0.740	5
Bifenthrin	0.030	0.040	0.050	0.040	4
Dimethoate	0.170	0.250	0.500	0.310	79
Esfenvalerate	0.030	0.040	0.040	0.040	7
Ethoprop	1.500	3.000	3.000	2.900	4
Lambda-cyhalothrin	0.020	0.020	0.030	0.020	12
Zeta-cypermethrin	0.020	0.030	0.040	0.030	12
Fungicides					
Copper hydroxide	0.860	1.150	1.150	1.090	6
Thiophanate-methyl	0.700	1.290	1.400	1.200	7
Vinclozolin	0.500	0.500	0.500	0.530	5

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bentazon	0.250	0.500	1.000	0.590	10
EPTC	2.190	3.060	3.500	2.940	5
Fomesafen	0.080	0.130	0.250	0.160	18
Glyphosate iso. salt	0.380	0.750	1.500	0.870	16
Halosulfuron	0.020	0.020	0.030	0.030	6
Imazamox	0.030	0.030	0.030	0.030	7
Imazethapyr	0.020	0.020	0.030	0.030	8
S-Metolachlor	0.710	0.960	1.670	1.130	12
Sethoxydim	0.090	0.190	0.230	0.170	15
Trifluralin	0.380	0.500	0.670	0.520	6
Insecticides					
Acephate	0.680	0.750	0.860	0.770	6
Bifenthrin	0.030	0.070	0.100	0.070	11
Dimethoate	0.170	0.250	0.500	0.310	77
Esfenvalerate	0.030	0.040	0.070	0.040	10
Ethoprop	1.600	3.000	3.000	2.930	4
Lambda-cyhalothrin	0.020	0.020	0.030	0.020	6
Zeta-cypermethrin	0.030	0.050	0.090	0.050	28
Fungicides					
Copper hydroxide	0.860	2.740	3.200	2.150	37
Thiophanate-methyl	1.050	1.400	1.420	1.310	4
Vinclozolin	0.500	0.500	1.000	0.590	7

Broccoli: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Chlorpyrifos	0	10	100	39	36
Dimethoate	0	36	98	43	36
Imidacloprid	0	7	64	19	56
Indoxacarb	0	22	80	35	26
Oxydemeton-methyl	0	73	100	55	27
Spinosad	0	20	52	26	21

[1] Planted acreage in 2004 for the California was 128,000 acres.

Broccoli: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Chlorpyrifos	1.00	1.06	1.08	1.1	3
Dimethoate	1.00	1.00	1.07	1.0	1
Imidacloprid	1.00	1.00	1.04	1.0	1
Indoxacarb	1.00	1.00	1.00	1.1	3
Oxydemeton-methyl	1.00	1.00	1.10	1.0	1
Spinosad	1.00	1.00	3.15	1.4	18

Broccoli: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Chlorpyrifos	0.780	1.490	2.210	1.570	27
Dimethoate	0.480	0.500	0.500	0.500	1
Imidacloprid	0.050	0.050	0.050	0.050	0
Indoxacarb	0.060	0.060	0.070	0.060	0
Oxydemeton-methyl	0.490	0.500	0.500	0.500	1
Spinosad	0.070	0.080	0.120	0.240	70

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Chlorpyrifos	0.780	1.490	2.380	1.690	28
Dimethoate	0.480	0.500	0.530	0.510	1
Imidacloprid	0.050	0.050	0.050	0.050	1
Indoxacarb	0.060	0.070	0.070	0.070	3
Oxydemeton-methyl	0.490	0.500	0.550	0.510	1
Spinosad	0.070	0.100	1.790	0.340	67

Cabbage: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Oxyfluorfen	0	0	99	14	71
Trifluralin	0	0	100	22	57
Insecticides					
Diazinon	0	0	99	16	42
Dimethoate	0	0	83	16	16
Esfenvalerate	0	0	100	15	64
Indoxacarb	0	0	100	25	28
Lambda-cyhalothrin	0	0	100	15	42
Methomyl	0	0	65	11	54
Permethrin	0	0	100	17	35
Spinosad	0	9	100	42	18
Fungicides					
Chlorothalonil	0	49	100	47	13
Maneb	0	0	100	23	30

[1] Planted acreage in 2004 for the 7 Program States was 65,100 acres.

Cabbage: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Oxyfluorfen	1.00	1.00	1.00	1.0	0
Trifluralin	1.00	1.00	1.00	1.0	1
Insecticides					
Diazinon	1.00	1.00	2.00	1.8	85
Dimethoate	1.00	1.00	3.00	1.6	54
Esfenvalerate	1.00	2.00	3.00	1.9	27
Indoxacarb	1.00	2.00	5.00	2.6	18
Lambda-cyhalothrin	1.00	1.64	3.00	1.7	21
Methomyl	1.00	1.00	2.00	1.5	20
Permethrin	1.00	1.61	3.00	2.1	12
Spinosad	1.00	2.00	5.00	2.5	16
Fungicides					
Chlorothalonil	1.00	4.00	8.00	4.0	15
Maneb	1.00	2.00	5.00	2.7	18

Cabbage: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Oxyfluorfen	0.200	0.200	0.300	0.240	12
Trifluralin	0.500	0.750	1.000	0.730	11
Insecticides					
Diazinon	0.500	0.570	1.080	0.770	34
Dimethoate	0.330	0.500	0.500	0.470	5
Esfenvalerate	0.020	0.040	0.040	0.030	17
Indoxacarb	0.060	0.070	0.070	0.060	3
Lambda-cyhalothrin	0.020	0.030	0.030	0.030	5
Methomyl	0.300	0.450	0.690	0.470	17
Permethrin	0.090	0.200	0.200	0.160	9
Spinosad	0.050	0.070	0.090	0.070	7
Fungicides					
Chlorothalonil	0.750	1.130	1.200	1.040	4
Maneb	0.750	1.000	1.600	1.070	5

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Oxyfluorfen	0.200	0.200	0.300	0.240	12
Trifluralin	0.500	0.750	1.000	0.740	11
Insecticides					
Diazinon	0.500	1.000	2.000	1.390	54
Dimethoate	0.250	0.500	1.500	0.740	58
Esfenvalerate	0.040	0.060	0.080	0.060	21
Indoxacarb	0.070	0.130	0.330	0.160	18
Lambda-cyhalothrin	0.020	0.050	0.070	0.040	21
Methomyl	0.450	0.690	0.900	0.690	14
Permethrin	0.150	0.320	0.450	0.330	12
Spinosad	0.050	0.140	0.320	0.170	19
Fungicides					
Chlorothalonil	0.750	3.750	9.630	4.190	16
Maneb	1.000	3.010	5.000	2.910	15

Carrots, Fresh: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	0	42	100	38	15

[1] Planted acreage in 2004 for the 2 Program States was 70,900 acres.

Carrots, Fresh: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	1.00	1.17	2.04	1.4	12

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Linuron	0.500	0.610	1.220	0.780	16

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Linuron	0.620	1.220	1.540	1.120	10

Carrots, Proc.: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	0	100	100	81	6

[1] Planted acreage in 2004 for the 4 Program States was 15,100 acres.

Carrots, Proc.: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Linuron	1.00	2.00	3.00	2.1	22

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Linuron	0.260	0.560	0.970	0.560	15

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Linuron	0.630	1.140	1.750	1.170	12

Sweet Corn, Fresh: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2, 4-D	0	0	0	1	97
Alachlor	0	0	76	10	31
Atrazine	0	100	100	67	15
Bentazon	0	0	0	6	33
Glyphosate iso. salt	0	0	0	4	41
Pendimethalin	0	0	0	7	50
S-Metolachlor	0	0	100	43	25
Insecticides					
Bifenthrin	0	0	0	7	48
Carbaryl	0	0	0	3	38
Chlorpyrifos	0	0	100	24	17
Cyfluthrin	0	0	100	20	36
Esfenvalerate	0	0	23	9	33
Lambda-cyhalothrin	0	100	100	59	10
Methomyl	0	0	100	46	6
Permethrin	0	0	0	7	35
Terbufos	0	0	0	6	55
Thiodicarb	0	0	100	21	13
Zeta-cypermethrin	0	0	100	25	22
Fungicides					
Chlorothalonil	0	0	0	1	56
Propiconazole	0	0	100	20	56

[1] Planted acreage in 2004 for the 13 Program States was 210,500 acres.

Sweet Corn, Fresh: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
2,4-D	1.00	1.00	2.01	1.2	21
Alachlor	1.00	1.00	1.00	1.1	8
Atrazine	1.00	1.00	1.00	1.0	2
Bentazon	1.00	1.00	1.00	1.0	5
Glyphosate iso. salt	1.00	1.00	1.06	1.0	2
Pendimethalin	1.00	1.00	1.30	1.1	5
S-Metolachlor	1.00	1.00	1.00	1.0	1
Insecticides					
Bifenthrin	1.00	1.00	2.03	1.3	14
Carbaryl	1.00	1.06	3.00	1.7	19
Chlorpyrifos	1.00	4.00	4.00	3.0	39
Cyfluthrin	1.00	4.00	4.00	3.2	15
Esfenvalerate	1.00	3.83	6.03	3.6	11
Lambda-cyhalothrin	1.00	4.00	5.00	3.9	15
Methomyl	2.00	5.48	13.00	6.9	34
Permethrin	1.00	2.00	4.00	2.2	19
Terbufos	1.00	1.00	1.00	1.0	1
Thiodicarb	2.00	3.00	4.44	3.2	15
Zeta-cypermethrin	1.00	3.00	4.00	3.1	26
Fungicides					
Chlorothalonil	1.00	3.00	4.00	2.5	25
Propiconazole	1.00	1.00	3.00	1.5	26

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2, 4-D	0.290	0.470	0.940	0.500	70
Alachlor	1.000	2.000	3.000	1.930	13
Atrazine	0.750	1.000	1.740	1.190	5
Bentazon	0.470	0.630	1.000	0.710	11
Glyphosate iso. salt	0.380	0.750	1.020	0.720	14
Pendimethalin	0.500	0.830	1.500	0.950	15
S-Metolachlor	0.720	1.190	1.910	1.210	17
Insecticides					
Bifenthrin	0.060	0.100	0.100	0.080	9
Carbaryl	0.790	1.000	1.750	1.200	15
Chlorpyrifos	0.500	0.750	1.000	0.750	10
Cyfluthrin	0.030	0.030	0.040	0.030	14
Esfenvalerate	0.030	0.040	0.050	0.040	8
Lambda-cyhalothrin	0.020	0.020	0.030	0.030	2
Methomyl	0.300	0.450	0.450	0.400	7
Permethrin	0.080	0.150	0.260	0.170	16
Terbufos	0.900	1.000	1.400	1.090	8
Thiodicarb	0.360	0.600	0.630	0.520	19
Zeta-cypermethrin	0.020	0.030	0.050	0.030	10
Fungicides					
Chlorothalonil	1.000	1.500	1.500	1.370	8
Propiconazole	0.080	0.110	0.140	0.110	5

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
2, 4-D	0.240	0.470	0.940	0.600	56
Alachlor	1.090	2.000	3.000	2.040	11
Atrazine	0.750	1.000	1.800	1.240	6
Bentazon	0.470	0.630	1.000	0.720	11
Glyphosate iso. salt	0.380	0.750	1.020	0.740	15
Pendimethalin	0.500	0.830	1.500	1.020	17
S-Metolachlor	0.720	1.190	1.910	1.230	17
Insecticides					
Bifenthrin	0.100	0.100	0.130	0.110	7
Carbaryl	1.030	1.750	4.500	2.080	20
Chlorpyrifos	1.000	3.000	3.000	2.240	34
Cyfluthrin	0.030	0.100	0.120	0.090	8
Esfenvalerate	0.030	0.120	0.300	0.140	17
Lambda-cyhalothrin	0.030	0.100	0.140	0.100	15
Methomyl	0.810	2.400	5.850	2.780	38
Permethrin	0.080	0.230	0.750	0.380	28
Terbufos	0.900	1.000	1.400	1.090	8
Thiodicarb	0.500	1.800	2.000	1.640	15
Zeta-cypermethrin	0.050	0.080	0.150	0.100	24
Fungicides					
Chlorothalonil	0.750	4.500	6.000	3.470	32
Propiconazole	0.110	0.110	0.250	0.160	23

Sweet Corn, Proc.: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Alachlor	0	0	100	23	33
Atrazine	0	100	100	69	26
Bentazon	0	0	100	31	83
Carfentrazone-ethyl	0	0	64	13	61
Dimethenamid-P	0	0	100	15	52
EPTC	0	0	0	7	55
Glyphosate iso. salt	0	0	22	8	30
Nicosulfuron	0	0	24	10	49
Pendimethalin	0	0	60	10	35
S-Metolachlor	0	0	100	30	33
Insecticides					
Bifenthrin	0	0	14	8	172
Chlorpyrifos	0	0	0	4	48
Lambda-cyhalothrin	0	22	100	37	43
Zeta-cypermethrin	0	0	100	17	83
Fungicides					
Azoxystrobin	0	0	49	15	38
Propiconazole	0	0	49	10	67

[1] Planted acreage in 2004 for the 5 Program States was 362,800 acres.

Sweet Corn, Proc.: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Alachlor	1.00	1.00	1.36	1.1	11
Atrazine	1.00	1.00	1.58	1.1	7
Bentazon	1.00	1.00	1.00	1.0	1
Carfentrazone-ethyl	1.00	1.00	1.23	1.1	5
Dimethenamid-P	1.00	1.00	1.50	1.2	7
EPTC	1.00	1.00	1.00	1.0	1
Glyphosate iso. salt	1.00	1.00	1.44	1.1	6
Nicosulfuron	1.00	1.00	1.00	1.0	1
Pendimethalin	1.00	1.00	2.00	1.2	7
S-Metolachlor	1.00	1.00	1.31	1.1	5
Insecticides					
Bifenthrin	1.00	2.00	3.00	2.0	17
Chlorpyrifos	1.00	1.00	1.07	1.1	8
Lambda-cyhalothrin	2.00	2.82	3.19	2.7	8
Zeta-cypermethrin	2.00	3.00	3.00	2.7	8
Fungicides					
Azoxystrobin	1.00	1.28	2.00	1.5	20
Propiconazole	1.00	1.00	2.00	1.3	31

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Alachlor	0.900	2.000	2.600	1.970	18
Atrazine	0.350	0.630	1.000	0.640	6
Bentazon	0.310	0.450	0.830	0.550	26
Carfentrazone-ethyl	0.002	0.010	0.030	0.010	31
Dimethenamid-P	0.560	0.800	0.980	0.770	14
EPTC	1.980	3.350	4.190	3.350	4
Glyphosate iso. salt	0.380	0.750	1.060	0.750	19
Nicosulfuron	0.020	0.030	0.030	0.030	8
Pendimethalin	0.230	0.620	1.000	0.610	18
S-Metolachlor	0.960	1.580	1.910	1.500	12
Insecticides					
Bifenthrin	0.040	0.040	0.060	0.050	25
Chlorpyrifos	0.910	1.000	2.000	1.200	11
Lambda-cyhalothrin	0.020	0.030	0.030	0.020	4
Zeta-cypermethrin	0.030	0.040	0.050	0.040	16
Fungicides					
Azoxystrobin	0.070	0.080	0.100	0.090	9
Propiconazole	0.010	0.110	0.110	0.090	55

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Alachlor	1.130	2.250	3.000	2.160	11
Atrazine	0.310	0.630	1.400	0.720	9
Bentazon	0.310	0.480	0.830	0.560	25
Carfentrazone-ethyl	0.004	0.010	0.030	0.010	31
Dimethenamid-P	0.560	0.850	1.080	0.890	9
EPTC	1.990	3.350	4.190	3.380	4
Glyphosate iso. salt	0.530	0.750	1.310	0.850	16
Nicosulfuron	0.020	0.030	0.030	0.030	8
Pendimethalin	0.130	0.650	1.750	0.740	24
S-Metolachlor	0.960	1.910	1.910	1.660	9
Insecticides					
Bifenthrin	0.050	0.090	0.140	0.090	33
Chlorpyrifos	0.750	1.000	2.000	1.340	14
Lambda-cyhalothrin	0.040	0.070	0.080	0.070	7
Zeta-cypermethrin	0.050	0.110	0.140	0.110	21
Fungicides					
Azoxystrobin	0.070	0.130	0.170	0.130	27
Propiconazole	0.030	0.110	0.130	0.110	31

Cucumbers, Fresh: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0	0	100	14	38
Ethalfluralin	0	0	100	25	35
Insecticides					
Carbaryl	0	0	1	8	33
Endosulfan	0	0	100	25	19
Esfenvalerate	0	0	100	13	22
Permethrin	0	0	0	9	78
Fungicides					
Azoxystrobin	0	0	100	40	34
Chlorothalonil	0	100	100	60	12
Copper hydroxide	0	0	100	28	26
Mancozeb	0	0	100	15	22
Maneb	0	0	100	16	31

[1] Planted acreage in 2004 for the 7 Program States was 51,700 acres.

Cucumbers, Fresh: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	1.00	1.00	1.00	1.0	2
Ethalfluralin	1.00	1.00	1.00	1.0	1
Insecticides					
Carbaryl	1.00	1.00	2.00	1.3	16
Endosulfan	1.00	2.00	4.00	2.6	23
Esfenvalerate	1.00	3.00	4.00	3.1	34
Permethrin	1.09	3.00	3.00	2.8	12
Fungicides					
Azoxystrobin	1.00	2.00	2.00	1.8	14
Chlorothalonil	1.00	2.00	4.00	2.8	12
Copper hydroxide	1.00	3.00	6.00	3.7	26
Mancozeb	1.00	3.00	5.00	3.3	31
Maneb	1.00	3.00	16.76	6.5	37

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.120	0.250	0.380	0.230	18
Ethalfluralin	0.380	0.560	0.750	0.600	12
Insecticides					
Carbaryl	0.500	1.000	1.000	0.840	11
Endosulfan	0.500	0.660	0.750	0.620	7
Esfenvalerate	0.030	0.030	0.040	0.030	7
Permethrin	0.090	0.090	0.100	0.100	4
Fungicides					
Azoxystrobin	0.130	0.160	0.200	0.170	7
Chlorothalonil	0.750	1.500	2.630	1.570	25
Copper hydroxide	0.190	0.580	1.150	0.570	19
Mancozeb	0.750	1.000	1.500	1.090	23
Maneb	0.500	0.560	1.500	0.790	24

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.120	0.250	0.380	0.230	19
Ethalfluralin	0.380	0.560	0.750	0.610	12
Insecticides					
Carbaryl	0.500	1.000	2.000	1.120	16
Endosulfan	0.750	1.130	2.500	1.620	20
Esfenvalerate	0.040	0.090	0.170	0.090	28
Permethrin	0.150	0.280	0.300	0.260	11
Fungicides					
Azoxystrobin	0.160	0.330	0.450	0.310	15
Chlorothalonil	0.870	3.000	7.380	4.310	33
Copper hydroxide	0.370	1.730	3.750	2.100	38
Mancozeb	1.200	3.000	6.000	3.590	40
Maneb	1.130	3.380	12.000	5.150	27

Cucumbers, Pickles: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0	0	100	28	26
Ethalfluralin	0	100	100	59	13
Insecticides					
Carbaryl	0	0	11	7	83
Fungicides					
Chlorothalonil	0	0	100	23	27

[1] Planted acreage in 2004 for the 7 Program States was 80,300 acres.

Cucumbers, Pickles: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	1.00	1.00	1.00	1.0	0
Ethalfluralin	1.00	1.00	1.00	1.0	1
Insecticides					
Carbaryl	1.00	1.00	1.00	1.1	14
Fungicides					
Chlorothalonil	1.00	1.00	4.00	1.9	27

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.070	0.190	0.380	0.190	24
Ethalfluralin	0.380	0.750	1.130	0.680	9
Insecticides					
Carbaryl	0.500	0.500	1.000	0.570	10
Fungicides					
Chlorothalonil	0.620	1.000	2.250	1.150	32

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.070	0.190	0.380	0.190	24
Ethalfluralin	0.380	0.750	1.130	0.680	9
Insecticides					
Carbaryl	0.500	0.500	1.000	0.630	20
Fungicides					
Chlorothalonil	0.960	1.440	5.250	2.170	47

Head Lettuce: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Pronamide	0	15	75	25	19
Insecticides					
Abamectin	0	0	46	14	39
Acephate	0	43	100	42	20
Benzoic acid	0	15	84	23	24
Diazinon	0	26	100	42	17
Dimethoate	0	13	56	20	25
Esfenvalerate	0	0	56	16	36
Imidacloprid	0	17	86	35	26
Indoxacarb	0	1	33	10	29
Lambda-cyhalothrin	0	7	100	34	29
Methomyl	0	26	98	32	18
Oxydemeton-methyl	0	0	100	35	27
Permethrin	0	25	68	29	13
Pymetrozine	0	0	12	4	32
Spinosad	0	72	100	57	19
Zeta-cypermethrin	0	63	100	54	9
Fungicides					
Dimethomorph	0	3	53	19	21
Iprodione	0	0	63	22	37
Maneb	0	72	100	59	17

[1] Planted acreage in 2004 for the 2 Program States was 186,900 acres.

Head Lettuce: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Pronamide	1.00	1.00	1.05	1.1	6
Insecticides					
Abamectin	1.00	1.00	1.00	1.0	1
Acephate	1.00	1.00	1.34	1.1	3
Benzoic acid	1.00	1.00	1.12	1.0	1
Diazinon	1.00	1.00	2.44	1.4	14
Dimethoate	1.00	1.00	1.56	1.1	7
Esfenvalerate	1.00	1.03	1.22	1.1	4
Imidacloprid	1.00	1.00	1.08	1.1	4
Indoxacarb	1.00	1.00	1.69	1.1	5
Lambda-cyhalothrin	1.00	1.07	1.78	1.2	10
Methomyl	1.00	1.00	1.20	1.1	2
Oxydemeton-methyl	1.00	1.00	1.43	1.1	3
Permethrin	1.00	1.00	1.42	1.2	5
Pymetrozine	1.00	1.00	1.09	1.0	1
Spinosad	1.00	1.41	2.34	1.6	7
Zeta-cypermethrin	1.00	1.13	2.04	1.4	8
Fungicides					
Dimethomorph	1.00	1.00	1.84	1.2	7
Iprodione	1.00	1.00	1.12	1.0	2
Maneb	1.00	1.35	2.19	1.5	6

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Pronamide	0.490	0.700	0.890	0.680	9
Insecticides					
Abamectin	0.010	0.010	0.010	0.007	7
Acephate	0.700	0.920	0.990	0.880	4
Benzoic acid	0.120	0.130	0.170	0.140	5
Diazinon	0.490	0.590	1.300	0.780	18
Dimethoate	0.220	0.250	0.260	0.250	1
Esfenvalerate	0.030	0.040	0.040	0.040	3
Imidacloprid	0.050	0.050	0.270	0.140	19
Indoxacarb	0.060	0.070	0.080	0.070	6
Lambda-cyhalothrin	0.030	0.030	0.030	0.030	2
Methomyl	0.580	0.680	0.890	0.720	4
Oxydemeton-methyl	0.500	0.500	0.500	0.500	0
Permethrin	0.130	0.170	0.200	0.160	6
Pymetrozine	0.090	0.090	0.090	0.090	0
Spinosad	0.070	0.080	0.080	0.080	2
Zeta-cypermethrin	0.040	0.050	0.050	0.050	2
Fungicides					
Dimethomorph	0.200	0.200	0.200	0.200	0
Iprodione	0.980	0.990	1.000	0.990	0
Maneb	1.150	1.500	1.600	1.440	3

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Pronamide	0.490	0.680	0.950	0.720	13
Insecticides					
Abamectin	0.010	0.010	0.010	0.008	6
Acephate	0.630	0.960	1.280	0.970	6
Benzoic acid	0.120	0.130	0.180	0.140	5
Diazinon	0.490	0.570	3.030	1.110	30
Dimethoate	0.220	0.250	0.390	0.280	7
Esfenvalerate	0.030	0.040	0.050	0.040	4
Imidacloprid	0.050	0.050	0.310	0.140	21
Indoxacarb	0.060	0.080	0.130	0.080	10
Lambda-cyhalothrin	0.030	0.030	0.050	0.030	9
Methomyl	0.600	0.810	0.900	0.770	5
Oxydemeton-methyl	0.500	0.500	0.720	0.560	3
Permethrin	0.140	0.180	0.220	0.190	9
Pymetrozine	0.090	0.090	0.090	0.090	1
Spinosad	0.060	0.120	0.180	0.120	8
Zeta-cypermethrin	0.050	0.050	0.090	0.070	8
Fungicides					
Dimethomorph	0.200	0.200	0.360	0.230	7
Iprodione	0.990	0.990	1.100	1.020	2
Maneb	1.300	2.160	3.290	2.220	7

Other Lettuce: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bensulide	0	3	82	22	43
Pronamide	0	19	94	35	38
Insecticides					
Benzoic acid	0	4	31	12	22
Diazinon	0	47	100	44	25
Dimethoate	0	0	41	10	30
Imidacloprid	0	44	100	48	19
Lambda-cyhalothrin	0	9	100	32	34
Methomyl	0	17	100	30	21
Permethrin	0	17	100	33	24
Pymetrozine	0	1	25	10	28
Spinosad	0	41	100	51	16
Zeta-cypermethrin	0	44	100	53	24
Fungicides					
Dimethomorph	0	10	100	31	30
Fosetyl-al	0	0	100	24	21
Iprodione	0	1	54	13	29
Maneb	0	73	100	59	14

[1] Planted acreage in 2004 for the 2 Program States was 135,400 acres.

Other Lettuce: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bensulide	1.00	1.00	1.10	1.0	2
Pronamide	1.00	1.00	1.00	1.0	1
Insecticides					
Benzoic acid	1.00	1.00	1.08	1.0	2
Diazinon	1.00	1.04	1.91	1.4	12
Dimethoate	1.00	1.00	1.34	1.1	4
Imidacloprid	1.00	1.25	2.42	1.5	15
Lambda-cyhalothrin	1.06	1.56	2.14	1.5	11
Methomyl	1.00	1.17	2.13	1.3	6
Permethrin	1.00	1.00	3.28	1.6	24
Pymetrozine	1.00	1.00	1.06	1.0	2
Spinosad	1.00	1.50	2.39	1.6	9
Zeta-cypermethrin	1.00	1.92	2.78	1.8	13
Fungicides					
Dimethomorph	1.00	1.00	1.33	1.1	4
Fosetyl-al	1.00	1.04	1.33	1.1	4
Iprodione	1.00	1.00	1.18	1.0	3
Maneb	1.00	1.39	2.36	1.4	14

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bensulide	2.100	4.080	5.670	4.090	9
Pronamide	0.540	0.950	1.950	1.010	18
Insecticides					
Benzoic acid	0.120	0.120	0.140	0.130	3
Diazinon	0.470	0.500	1.200	0.690	16
Dimethoate	0.230	0.250	0.250	0.250	1
Imidacloprid	0.050	0.050	0.190	0.070	23
Lambda-cyhalothrin	0.020	0.030	0.030	0.030	4
Methomyl	0.590	0.670	0.740	0.670	3
Permethrin	0.140	0.150	0.190	0.160	5
Pymetrozine	0.080	0.090	0.090	0.090	0
Spinosad	0.070	0.080	0.090	0.080	3
Zeta-cypermethrin	0.040	0.050	0.050	0.040	5
Fungicides					
Dimethomorph	0.200	0.200	0.200	0.200	1
Fosetyl-al	2.230	2.570	2.970	2.590	4
Iprodione	0.950	1.000	1.000	0.980	1
Maneb	1.090	1.500	1.600	1.450	3

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bensulide	2.150	4.450	5.760	4.200	8
Pronamide	0.540	0.950	1.950	1.030	18
Insecticides					
Benzoic acid	0.120	0.130	0.160	0.130	4
Diazinon	0.490	0.710	1.640	0.950	23
Dimethoate	0.230	0.250	0.340	0.260	4
Imidacloprid	0.050	0.080	0.250	0.110	20
Lambda-cyhalothrin	0.030	0.040	0.060	0.040	8
Methomyl	0.650	0.710	1.360	0.870	6
Permethrin	0.140	0.180	0.470	0.250	21
Pymetrozine	0.080	0.090	0.090	0.090	2
Spinosad	0.080	0.120	0.210	0.130	9
Zeta-cypermethrin	0.050	0.090	0.110	0.080	10
Fungicides					
Dimethomorph	0.200	0.200	0.270	0.220	5
Fosetyl-al	2.230	2.610	3.960	2.780	8
Iprodione	0.990	1.000	1.050	1.020	2
Maneb	1.090	1.870	3.620	2.090	15

Bulb Onions: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bromoxynil	0	30	100	48	12
Clethodim	0	0	32	8	29
Fluazifop-P-butyl	0	0	100	22	26
Glyphosate iso. salt	0	0	100	21	26
Oxyfluorfen	0	94	100	54	11
Pendimethalin	0	8	100	45	17
Insecticides					
Chlorpyrifos	0	0	100	26	20
Diazinon	0	0	100	23	36
Lambda-cyhalothrin	0	14	100	46	17
Methomyl	0	0	100	33	20
Oxamyl	0	0	100	19	19
Zeta-cypermethrin	0	0	100	26	28
Fungicides					
Azoxystrobin	0	0	100	11	21
Chlorothalonil	0	43	100	45	16
Copper hydroxide	0	0	100	28	24
Iprodione	0	0	100	20	22
Mancozeb	0	17	100	43	15
Maneb	0	0	68	10	39
Mefenoxam	0	0	100	18	29
Other					
Maleic hydrazide	0	0	60	11	22

[1] Planted acreage in 2004 for the 6 Program States was 133,900 acres.

Bulb Onions: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bromoxynil	1.00	1.20	3.00	1.6	8
Clethodim	1.00	1.00	1.18	1.1	6
Fluazifop-P-butyl	1.00	1.00	1.49	1.2	9
Glyphosate iso. salt	1.00	1.00	1.45	1.1	5
Oxyfluorfen	1.00	1.00	4.00	2.1	10
Pendimethalin	1.00	1.00	3.00	1.6	7
Insecticides					
Chlorpyrifos	1.00	1.00	1.27	1.1	3
Diazinon	1.00	2.00	2.17	1.9	6
Lambda-cyhalothrin	1.00	2.00	4.00	2.3	7
Methomyl	1.00	1.14	3.00	1.8	21
Oxamyl	1.00	2.00	4.00	2.6	19
Zeta-cypermethrin	1.00	2.19	3.00	2.3	11
Fungicides					
Azoxystrobin	1.00	2.00	2.00	1.9	13
Chlorothalonil	1.00	3.00	9.00	3.8	11
Copper hydroxide	1.00	2.72	5.00	3.1	16
Iprodione	1.00	2.00	4.34	2.3	13
Mancozeb	1.00	3.00	9.00	4.0	11
Maneb	1.01	2.00	4.00	2.2	17
Mefenoxam	1.00	1.00	1.54	1.2	6
Other					
Maleic hydrazide	1.00	1.00	1.28	1.1	7

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bromoxynil	0.060	0.170	0.500	0.220	13
Clethodim	0.110	0.130	0.190	0.140	7
Fluazifop-P-butyl	0.090	0.190	0.270	0.170	13
Glyphosate iso. salt	0.380	0.630	1.040	0.690	11
Oxyfluorfen	0.010	0.070	0.250	0.090	13
Pendimethalin	0.500	0.830	1.240	0.850	6
Insecticides					
Chlorpyrifos	0.450	1.000	3.000	1.340	14
Diazinon	0.500	1.000	1.000	0.860	15
Lambda-cyhalothrin	0.020	0.030	0.030	0.030	4
Methomyl	0.300	0.600	0.900	0.580	13
Oxamyl	0.250	0.500	1.000	0.520	21
Zeta-cypermethrin	0.050	0.050	0.050	0.050	2
Fungicides					
Azoxystrobin	0.080	0.160	0.200	0.150	9
Chlorothalonil	0.750	1.080	1.500	1.090	7
Copper hydroxide	0.380	0.830	0.930	0.760	9
Iprodione	0.310	0.500	0.750	0.570	11
Mancozeb	0.300	1.590	2.250	1.450	11
Maneb	1.440	1.500	2.250	1.690	8
Mefenoxam	0.070	0.090	0.160	0.110	11
Other					
Maleic hydrazide	1.310	1.970	3.500	2.020	10

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bromoxynil	0.130	0.340	0.500	0.350	11
Clethodim	0.110	0.140	0.250	0.160	9
Fluazifop-P-butyl	0.090	0.190	0.380	0.210	17
Glyphosate iso. salt	0.380	0.750	1.260	0.790	14
Oxyfluorfen	0.050	0.140	0.350	0.180	10
Pendimethalin	0.620	1.030	2.250	1.360	9
Insecticides					
Chlorpyrifos	0.570	1.010	3.000	1.460	14
Diazinon	1.000	2.000	2.000	1.620	11
Lambda-cyhalothrin	0.030	0.060	0.090	0.060	7
Methomyl	0.450	0.900	2.100	1.070	13
Oxamyl	1.000	1.000	2.090	1.360	16
Zeta-cypermethrin	0.040	0.110	0.150	0.110	12
Fungicides					
Azoxystrobin	0.180	0.230	0.390	0.280	14
Chlorothalonil	1.350	3.000	7.500	4.130	12
Copper hydroxide	0.530	1.970	4.610	2.330	22
Iprodione	0.640	1.000	2.250	1.330	16
Mancozeb	0.380	2.770	20.250	5.760	16
Maneb	1.610	3.480	6.000	3.780	14
Mefenoxam	0.060	0.090	0.180	0.140	13
Other					
Maleic hydrazide	1.310	1.970	3.600	2.220	10

Green Peas, Proc.: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	0	0	100	27	23
Imazethapyr	0	0	100	34	63
MCPA	0	0	21	9	30
MCPB	0	0	100	11	9
Pendimethalin	0	10	100	48	15
Trifluralin	0	0	100	13	53
Insecticides					
Dimethoate	0	0	60	14	23
Zeta-cypermethrin	0	0	0	6	28

[1] Planted acreage in 2004 for the 5 Program States was 182,400 acres.

Green Peas, Proc.: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Bentazon	1.00	1.00	1.00	1.0	3
Imazethapyr	1.00	1.00	1.00	1.0	1
MCPA	1.00	1.00	1.00	1.0	3
MCPB	1.00	1.00	1.00	1.0	0
Pendimethalin	1.00	1.00	1.16	1.0	1
Trifluralin	1.00	1.00	1.00	1.0	0
Insecticides					
Dimethoate	1.00	1.00	1.00	1.0	1
Zeta-cypermethrin	1.00	1.00	1.00	1.1	6

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bentazon	0.500	0.670	1.000	0.740	7
Imazethapyr	0.003	0.050	0.050	0.040	13
MCPA	0.130	0.380	0.380	0.280	19
MCPB	0.250	0.500	0.750	0.450	13
Pendimethalin	0.040	0.630	0.840	0.580	13
Trifluralin	0.380	0.380	0.630	0.470	24
Insecticides					
Dimethoate	0.170	0.170	0.500	0.220	9
Zeta-cypermethrin	0.020	0.040	0.050	0.030	8

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Bentazon	0.500	0.750	1.000	0.770	8
Imazethapyr	0.003	0.050	0.050	0.040	14
MCPA	0.130	0.380	0.380	0.290	17
MCPB	0.250	0.500	0.750	0.450	13
Pendimethalin	0.040	0.630	0.880	0.600	12
Trifluralin	0.380	0.380	0.630	0.470	24
Insecticides					
Dimethoate	0.170	0.170	0.500	0.230	9
Zeta-cypermethrin	0.020	0.040	0.050	0.040	10

Bell Peppers: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Spinosad	0	17	100	42	40
Fungicides					
Copper hydroxide	0	0	100	39	10
Maneb	0	0	100	39	15

[1] Planted acreage in 2004 for the 3 Program States was 44,800 acres.

Bell Peppers: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Spinosad	1.35	2.80	4.00	2.7	17
Fungicides					
Copper hydroxide	1.00	10.00	12.00	8.2	10
Maneb	6.00	10.00	12.00	9.1	7

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Spinosad	0.080	0.080	0.110	0.080	8
Fungicides					
Copper hydroxide	0.300	0.530	0.700	0.480	22
Maneb	0.500	0.500	1.000	0.690	22

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Spinosad	0.060	0.230	0.310	0.220	18
Fungicides					
Copper hydroxide	0.860	5.250	5.250	3.980	22
Maneb	4.150	5.000	12.000	6.310	25

Pumpkins: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0	100	100	57	30
Ethalfluralin	0	0	100	20	42
Glyphosate iso. salt	0	0	100	17	85
Halosulfuron	0	0	100	21	38
Insecticides					
Bifenthrin	0	0	100	27	17
Carbaryl	0	0	83	11	85
Endosulfan	0	0	100	16	69
Esfenvalerate	0	0	0	8	42
Permethrin	0	0	0	9	22
Fungicides					
Azoxystrobin	0	0	100	21	54
Chlorothalonil	0	100	100	57	21
Copper hydroxide	0	0	100	18	28
Mancozeb	0	0	0	8	47
Myclobutanil	0	0	100	23	60
Pyraclostrobin	0	0	0	9	59

[1] Planted acreage in 2004 for the 5 Program States was 43,200 acres.

Pumpkins: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	1.00	1.00	1.00	1.0	1
Ethalfluralin	1.00	1.00	1.12	1.0	3
Glyphosate iso. salt	1.00	1.00	1.00	1.1	9
Halosulfuron	1.00	1.00	1.00	1.0	3
Insecticides					
Bifenthrin	1.00	2.00	3.00	1.9	16
Carbaryl	1.00	2.00	6.00	2.8	39
Endosulfan	1.00	1.00	3.00	1.7	51
Esfenvalerate	1.00	2.00	5.15	2.8	30
Permethrin	1.00	1.47	4.00	2.2	18
Fungicides					
Azoxystrobin	1.00	1.00	3.00	1.6	30
Chlorothalonil	1.00	2.00	4.00	2.5	14
Copper hydroxide	1.00	2.00	5.00	2.5	21
Mancozeb	1.00	1.00	3.00	2.0	59
Myclobutanil	1.00	2.35	3.00	2.3	21
Pyraclostrobin	1.00	1.00	3.00	1.5	23

Pumpkins: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.190	0.560	0.750	0.550	6
Ethalfluralin	0.300	0.800	1.500	0.810	31
Glyphosate iso. salt	0.560	1.250	1.250	1.020	8
Halosulfuron	0.020	0.050	0.050	0.040	10
Insecticides					
Bifenthrin	0.050	0.080	0.100	0.080	7
Carbaryl	0.500	1.000	1.600	0.980	15
Endosulfan	0.500	0.750	0.880	0.730	4
Esfenvalerate	0.030	0.040	0.050	0.040	23
Permethrin	0.100	0.150	0.200	0.150	10
Fungicides					
Azoxystrobin	0.100	0.180	0.210	0.170	13
Chlorothalonil	1.040	1.500	1.650	1.450	10
Copper hydroxide	0.250	0.530	0.840	0.540	27
Mancozeb	0.240	1.130	1.630	1.130	13
Myclobutanil	0.060	0.130	0.200	0.140	42
Pyraclostrobin	0.110	0.150	0.170	0.150	8

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.190	0.560	0.750	0.560	5
Ethalfluralin	0.300	0.800	1.500	0.850	28
Glyphosate iso. salt	0.560	1.250	1.500	1.110	10
Halosulfuron	0.020	0.050	0.050	0.040	9
Insecticides					
Bifenthrin	0.040	0.150	0.220	0.140	17
Carbaryl	0.500	2.000	6.000	2.750	42
Endosulfan	0.750	0.750	2.250	1.250	49
Esfenvalerate	0.040	0.080	0.170	0.100	28
Permethrin	0.100	0.200	0.700	0.320	24
Fungicides					
Azoxystrobin	0.100	0.180	0.590	0.270	26
Chlorothalonil	1.320	2.750	6.450	3.680	22
Copper hydroxide	0.250	1.130	2.380	1.360	33
Mancozeb	0.230	1.630	4.800	2.240	55
Myclobutanil	0.080	0.240	0.600	0.320	63
Pyraclostrobin	0.130	0.150	0.520	0.220	25

Spinach: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Permethrin	0	30	100	33	30
Spinosad	0	33	100	49	30

[1] Planted acreage in 2004 for the 3 Program States was 36,200 acres.

Spinach: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Insecticides					
Permethrin	1.00	1.06	2.72	1.6	13
Spinosad	1.00	1.80	2.01	1.6	11

Spinach: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Permethrin	0.120	0.160	0.200	0.160	7
Spinosad	0.070	0.080	0.110	0.090	3

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Insecticides					
Permethrin	0.080	0.210	0.510	0.250	13
Spinosad	0.080	0.140	0.200	0.140	13

Squash: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	0	0	20	10	45
Ethalfluralin	0	0	100	19	21
Glyphosate iso. salt	0	0	0	7	64
Insecticides					
Carbaryl	0	0	0	6	50
Endosulfan	0	0	100	28	25
Esfenvalerate	0	0	100	26	26
Methomyl	0	0	0	9	45
Permethrin	0	0	80	12	61
Fungicides					
Azoxystrobin	0	0	100	14	36
Chlorothalonil	0	80	100	54	13
Copper hydroxide	0	0	100	19	31
Mancozeb	0	0	100	19	32
Maneb	0	0	100	27	43
Myclobutanil	0	0	0	6	48

[1] Planted acreage in 2004 for the 6 Program States was 44,300 acres.

Squash: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Clomazone	1.00	1.00	1.00	1.0	2
Ethalfluralin	1.00	1.00	1.00	1.1	5
Glyphosate iso. salt	1.00	1.00	1.00	1.0	2
Insecticides					
Carbaryl	1.00	2.00	3.00	2.0	18
Endosulfan	1.50	3.83	8.00	3.9	17
Esfenvalerate	1.00	2.00	3.35	2.3	17
Methomyl	1.00	2.00	9.00	4.4	55
Permethrin	1.37	2.00	3.00	2.1	11
Fungicides					
Azoxystrobin	1.00	2.00	3.00	1.7	27
Chlorothalonil	1.00	2.00	5.00	2.9	15
Copper hydroxide	1.00	3.00	6.00	3.7	18
Mancozeb	1.00	2.00	5.45	2.9	19
Maneb	2.00	2.00	6.32	3.1	32
Myclobutanil	1.00	2.00	3.00	2.0	22

Squash: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.070	0.140	0.380	0.200	26
Ethalfluralin	0.380	0.560	0.800	0.600	8
Glyphosate iso. salt	0.750	1.500	1.500	1.310	10
Insecticides					
Carbaryl	0.320	0.500	1.000	0.680	16
Endosulfan	0.130	0.560	0.750	0.530	20
Esfenvalerate	0.020	0.030	0.040	0.030	6
Methomyl	0.150	0.150	0.300	0.260	38
Permethrin	0.090	0.100	0.160	0.120	15
Fungicides					
Azoxystrobin	0.130	0.170	0.200	0.160	9
Chlorothalonil	0.830	1.250	1.500	1.240	5
Copper hydroxide	0.280	0.490	0.710	0.530	19
Mancozeb	0.410	0.750	1.500	0.890	16
Maneb	0.250	1.000	1.600	1.000	29
Myclobutanil	0.050	0.070	0.110	0.080	18

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Clomazone	0.070	0.190	0.380	0.210	26
Ethalfluralin	0.380	0.560	1.130	0.640	9
Glyphosate iso. salt	0.940	1.500	1.500	1.340	9
Insecticides					
Carbaryl	0.400	1.000	3.000	1.380	29
Endosulfan	0.750	1.880	3.000	2.040	13
Esfenvalerate	0.020	0.080	0.130	0.080	15
Methomyl	0.600	0.680	2.400	1.130	30
Permethrin	0.150	0.200	0.320	0.250	15
Fungicides					
Azoxystrobin	0.130	0.250	0.540	0.280	32
Chlorothalonil	1.040	3.000	6.260	3.640	15
Copper hydroxide	0.490	1.100	4.050	1.980	27
Mancozeb	0.240	2.250	6.000	2.610	26
Maneb	1.710	2.400	4.500	3.090	15
Myclobutanil	0.100	0.100	0.300	0.160	39

Strawberries: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	0	0	0	6	53
Insecticides					
Abamectin	0	0	100	23	27
Bifenazate	0	0	75	19	25
Bifenthrin	0	0	47	12	55
Fenpropathrin	0	0	79	18	25
Hexythiazox	0	0	77	20	28
Malathion	0	0	100	23	40
Methomyl	0	0	100	27	17
Spinosad	0	0	96	23	11
Fungicides					
Azoxystrobin	0	0	100	29	21
Boscalid	0	0	90	19	22
Captan	0	90	100	62	9
Cyprodinil	0	0	99	18	18
Fenhexamid	0	0	100	29	19
Fludioxonil	0	0	99	18	18
Myclobutanil	0	0	96	20	23
Pyraclostrobin	0	0	97	24	21
Sulfur	0	47	100	52	11
Thiophanate-methyl	0	0	95	11	20
Thiram	0	0	97	19	19
Other					
Chloropicrin	0	7	100	32	14
Methyl bromide	0	25	100	33	9

[1] Planted acreage in 2004 for the 3 Program States was 43,600 acres.

Strawberries: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	1.00	2.00	2.00	1.5	13
Insecticides					
Abamectin	1.00	1.46	2.89	1.9	26
Bifenazate	1.00	1.37	2.00	1.5	6
Bifenthrin	1.00	1.21	7.40	2.7	26
Fenpropathrin	1.00	1.35	4.00	1.9	19
Hexythiazox	1.00	1.03	1.38	1.1	4
Malathion	1.03	1.78	4.05	2.2	15
Methomyl	1.00	2.00	6.00	3.2	22
Spinosad	1.00	1.58	3.65	2.1	15
Fungicides					
Azoxystrobin	1.00	1.46	3.00	2.2	23
Boscalid	1.00	1.24	2.07	1.5	12
Captan	1.00	3.00	16.00	5.8	11
Cyprodinil	1.00	1.08	2.34	1.5	12
Fenhexamid	1.00	2.00	8.00	2.8	24
Fludioxonil	1.00	1.08	2.34	1.5	12
Myclobutanil	1.00	1.17	1.96	1.4	6
Pyraclostrobin	1.00	1.77	3.00	1.9	9
Sulfur	1.14	2.32	5.00	3.2	40
Thiophanate-methyl	1.01	4.00	7.00	4.0	11
Thiram	1.00	1.64	10.00	3.4	18
Other					
Chloropicrin	1.00	1.00	1.40	1.1	3
Methyl bromide	1.00	1.00	1.19	1.1	2

Strawberries: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.070	2.500	3.750	1.880	22
Insecticides					
Abamectin	0.010	0.020	0.020	0.020	10
Bifenazate	0.380	0.500	0.500	0.480	3
Bifenthrin	0.070	0.100	0.200	0.110	16
Fenpropathrin	0.230	0.280	0.350	0.290	5
Hexythiazox	0.180	0.190	0.190	0.180	2
Malathion	1.490	1.780	2.000	1.760	7
Methomyl	0.450	0.600	0.900	0.680	7
Spinosad	0.070	0.090	0.090	0.090	4
Fungicides					
Azoxystrobin	0.100	0.200	0.240	0.180	6
Boscalid	0.290	0.320	0.360	0.320	2
Captan	1.000	1.720	2.500	1.740	5
Cyprodinil	0.190	0.330	0.330	0.290	5
Fenhexamid	0.500	0.680	0.750	0.640	7
Fludioxonil	0.130	0.220	0.220	0.190	5
Myclobutanil	0.070	0.100	0.110	0.100	3
Pyraclostrobin	0.150	0.170	0.180	0.170	1
Sulfur	2.200	3.570	7.450	4.090	25
Thiophanate-methyl	0.350	0.700	0.850	0.700	5
Thiram	0.650	1.300	2.600	1.500	13
Other					
Chloropicrin	66.000	93.250	149.550	102.180	6
Methyl bromide	134.000	184.250	215.020	177.340	3

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.070	2.500	5.000	2.870	32
Insecticides					
Abamectin	0.010	0.030	0.050	0.030	21
Bifenazate	0.490	0.620	1.000	0.700	6
Bifenthrin	0.070	0.120	0.740	0.290	22
Fenpropathrin	0.210	0.440	1.200	0.540	20
Hexythiazox	0.190	0.190	0.260	0.210	4
Malathion	2.020	3.150	6.950	3.830	20
Methomyl	0.900	1.070	5.400	2.170	19
Spinosad	0.090	0.140	0.330	0.190	12
Fungicides					
Azoxystrobin	0.070	0.290	0.590	0.400	28
Boscalid	0.290	0.380	0.680	0.460	12
Captan	2.020	4.570	30.000	10.170	14
Cyprodinil	0.230	0.350	0.680	0.440	14
Fenhexamid	0.750	1.400	6.000	1.780	19
Fludioxonil	0.160	0.240	0.450	0.300	14
Myclobutanil	0.090	0.110	0.220	0.130	7
Pyraclostrobin	0.180	0.290	0.550	0.310	9
Sulfur	2.480	6.140	26.000	13.100	64
Thiophanate-methyl	0.710	2.100	5.600	2.780	12
Thiram	1.630	2.390	13.000	5.110	23
Other					
Chloropicrin	66.000	120.010	178.270	116.310	6
Methyl bromide	134.000	188.760	242.050	188.370	3

Tomatoes, Fresh: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	0	0	9	5	49
Metribuzin	0	0	100	44	13
Napropamide	0	0	0	3	57
Paraquat	0	0	100	31	38
S-Metolachlor	0	0	100	14	27
Trifluralin	0	0	65	11	29
Insecticides					
Carbaryl	0	0	0	1	47
Cyfluthrin	0	0	100	25	39
Dimethoate	0	0	97	20	43
Endosulfan	0	0	100	26	38
Esfenvalerate	0	16	100	44	28
Imidacloprid	0	0	100	35	39
Lambda-cyhalothrin	0	0	100	24	38
Methomyl	0	0	17	7	35
Permethrin	0	0	2	5	34
Spinosad	0	0	100	31	38
Fungicides					
Azoxystrobin	0	0	100	25	27
Chlorothalonil	0	100	100	65	21
Copper hydroxide	0	100	100	65	10
Mancozeb	0	100	100	62	24
Maneb	0	0	25	10	136
Mefenoxam	0	0	100	32	30
Pyraclostrobin	0	0	100	22	41
Sulfur	0	0	41	10	26
Other					
Chloropicrin	0	0	100	48	15
Methyl bromide	0	0	100	42	18

[1] Planted acreage in 2004 for the 7 Program States was 105,300 acres.

Tomatoes, Fresh: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	1.00	1.00	1.31	1.1	8
Metribuzin	1.00	1.00	2.00	1.3	9
Napropamide	1.00	2.00	6.00	3.0	47
Paraquat	1.00	1.00	2.00	1.6	10
S-Metolachlor	1.00	1.18	2.00	1.7	24
Trifluralin	1.00	1.00	1.50	1.1	9
Insecticides					
Carbaryl	1.00	1.41	4.00	1.8	31
Cyfluthrin	1.10	5.00	6.00	4.5	20
Dimethoate	1.00	1.36	2.00	1.5	14
Endosulfan	1.00	2.00	12.00	4.1	29
Esfenvalerate	1.00	3.00	9.67	4.6	16
Imidacloprid	1.00	1.00	2.00	1.7	21
Lambda-cyhalothrin	2.00	4.00	8.00	5.6	18
Methomyl	1.00	2.43	5.00	2.6	18
Permethrin	1.00	3.00	8.54	3.7	27
Spinosad	1.00	2.42	9.00	4.3	27
Fungicides					
Azoxystrobin	1.02	2.77	8.00	4.1	30
Chlorothalonil	2.00	5.00	12.00	6.4	11
Copper hydroxide	1.24	12.00	38.00	16.0	27
Mancozeb	1.00	12.00	25.00	14.1	16
Maneb	1.06	7.00	8.00	6.2	29
Mefenoxam	1.00	1.00	3.00	1.5	20
Pyraclostrobin	1.00	1.05	4.00	1.7	23
Sulfur	1.00	1.11	6.00	2.3	24
Other					
Chloropicrin	1.00	1.00	1.00	1.0	0
Methyl bromide	1.00	1.00	1.00	1.0	0

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.050	0.560	0.940	0.530	27
Metribuzin	0.220	0.380	1.000	0.450	20
Napropamide	1.000	1.000	2.000	1.200	21
Paraquat	0.310	0.630	0.630	0.520	8
S-Metolachlor	0.630	0.950	1.430	1.030	11
Trifluralin	0.250	0.750	0.750	0.540	24
Insecticides					
Carbaryl	0.200	1.000	2.000	0.920	20
Cyfluthrin	0.020	0.030	0.040	0.030	18
Dimethoate	0.210	0.490	0.500	0.410	12
Endosulfan	0.380	0.750	1.000	0.760	9
Esfenvalerate	0.030	0.040	0.050	0.040	4
Imidacloprid	0.050	0.250	0.280	0.190	22
Lambda-cyhalothrin	0.020	0.020	0.030	0.020	4
Methomyl	0.450	0.600	0.900	0.650	15
Permethrin	0.100	0.110	0.180	0.120	8
Spinosad	0.050	0.060	0.110	0.070	20
Fungicides					
Azoxystrobin	0.080	0.100	0.160	0.100	8
Chlorothalonil	0.750	1.500	1.720	1.350	5
Copper hydroxide	0.250	0.640	1.110	0.710	14
Mancozeb	0.380	0.750	1.770	0.970	11
Maneb	0.820	1.000	1.130	1.010	5
Mefenoxam	0.090	0.250	0.780	0.370	29
Pyraclostrobin	0.100	0.150	0.170	0.130	8
Sulfur	1.500	7.050	39.200	11.720	33
Other					
Chloropicrin	49.500	66.000	125.450	77.600	20
Methyl bromide	117.250	134.000	201.000	144.380	7

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.050	0.740	0.960	0.580	31
Metribuzin	0.220	0.500	1.000	0.590	20
Napropamide	0.900	4.000	6.000	3.590	32
Paraquat	0.310	0.520	1.250	0.810	17
S-Metolachlor	0.740	1.430	2.220	1.800	20
Trifluralin	0.250	0.500	1.120	0.610	29
Insecticides					
Carbaryl	0.500	1.520	2.250	1.680	24
Cyfluthrin	0.050	0.100	0.170	0.130	30
Dimethoate	0.210	0.500	1.000	0.630	25
Endosulfan	0.750	1.500	12.000	3.120	36
Esfenvalerate	0.050	0.120	0.370	0.180	15
Imidacloprid	0.080	0.250	0.500	0.320	19
Lambda-cyhalothrin	0.050	0.120	0.190	0.130	16
Methomyl	0.450	1.600	2.250	1.690	15
Permethrin	0.150	0.290	0.950	0.450	26
Spinosad	0.090	0.210	0.590	0.320	33
Fungicides					
Azoxystrobin	0.100	0.250	0.980	0.420	27
Chlorothalonil	2.340	6.000	16.500	8.650	14
Copper hydroxide	1.290	7.000	31.200	11.370	37
Mancozeb	1.500	10.500	30.300	13.690	18
Maneb	1.590	6.380	9.000	6.230	30
Mefenoxam	0.130	0.250	0.780	0.550	38
Pyraclostrobin	0.110	0.180	0.500	0.220	21
Sulfur	8.850	28.500	41.410	26.450	13
Other					
Chloropicrin	49.500	66.000	125.450	77.620	20
Methyl bromide	117.250	134.000	201.000	144.410	7

Tomatoes, Proc.: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	0	19	69	25	22
Rimsulfuron	0	29	100	39	23
S-Metolachlor	0	37	75	36	14
Trifluralin	0	56	100	52	16
Insecticides					
Dimethoate	0	0	81	27	39
Indoxacarb	0	0	49	15	38
Fungicides					
Chlorothalonil	0	12	53	17	14
Pyraclostrobin	0	0	57	14	42
Sulfur	0	70	100	55	13

[1] Planted acreage in 2004 for the California was 301,000 acres.

Tomatoes, Proc.: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Glyphosate iso. salt	1.00	1.00	1.28	1.1	4
Rimsulfuron	1.00	1.00	1.84	1.2	5
S-Metolachlor	1.00	1.00	1.31	1.1	3
Trifluralin	1.00	1.00	1.42	1.1	2
Insecticides					
Dimethoate	1.00	1.00	1.29	1.1	5
Indoxacarb	1.00	1.00	1.19	1.1	4
Fungicides					
Chlorothalonil	1.00	1.07	1.27	1.1	3
Pyraclostrobin	1.00	1.00	1.45	1.1	6
Sulfur	1.00	1.00	2.00	1.3	6

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.400	0.750	1.430	0.880	13
Rimsulfuron	0.010	0.010	0.030	0.010	10
S-Metolachlor	1.010	1.270	1.650	1.300	8
Trifluralin	0.400	0.530	0.840	0.600	10
Insecticides					
Dimethoate	0.180	0.420	0.500	0.360	16
Indoxacarb	0.030	0.070	0.070	0.060	12
Fungicides					
Chlorothalonil	1.300	1.860	2.230	1.720	4
Pyraclostrobin	0.120	0.130	0.180	0.140	4
Sulfur	8.000	30.390	39.230	28.210	7

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Glyphosate iso. salt	0.400	0.750	1.740	0.940	14
Rimsulfuron	0.010	0.010	0.030	0.020	13
S-Metolachlor	0.980	1.330	1.910	1.380	8
Trifluralin	0.440	0.600	1.000	0.660	9
Insecticides					
Dimethoate	0.180	0.490	0.530	0.400	20
Indoxacarb	0.030	0.070	0.080	0.060	11
Fungicides					
Chlorothalonil	1.440	1.860	2.850	1.950	4
Pyraclostrobin	0.120	0.130	0.220	0.160	9
Sulfur	9.420	34.300	59.520	35.620	6

Watermelons: Agricultural Chemicals Percent of Acres Treated Distribution, Program States, 2004 [1]

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Ethalfluralin	0	0	100	19	43
Glyphosate iso. salt	0	0	100	11	38
Naptalam	0	0	100	10	59
Sethoxydim	0	0	34	10	56
Trifluralin	0	0	100	10	39
Insecticides					
Carbaryl	0	0	0	2	36
Endosulfan	0	0	100	14	47
Esfenvalerate	0	0	0	6	31
Fungicides					
Azoxystrobin	0	0	100	15	28
Boscalid	0	0	100	24	24
Chlorothalonil	0	100	100	58	12
Copper hydroxide	0	0	43	10	26
Mancozeb	0	0	100	44	14
Pyraclostrobin	0	0	100	27	23
Thiophanate-methyl	0	0	27	9	30

[1] Planted acreage in 2004 for the 7 Program States was 124,100 acres.

Watermelons: Agricultural Chemicals Number of Applications Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
Herbicides					
Ethalfluralin	1.00	1.00	1.00	1.0	2
Glyphosate iso. salt	1.00	1.00	2.00	1.3	15
Naptalam	1.00	3.00	3.00	2.0	27
Sethoxydim	1.00	1.00	1.21	1.1	5
Trifluralin	1.00	1.00	1.00	1.0	0
Insecticides					
Carbaryl	1.00	1.00	2.00	1.5	11
Endosulfan	1.00	3.00	4.00	2.6	10
Esfenvalerate	1.00	2.00	6.00	2.7	21
Fungicides					
Azoxystrobin	1.00	1.00	3.00	1.7	21
Boscalid	1.00	2.00	2.00	1.8	9
Chlorothalonil	1.00	3.00	6.00	3.4	8
Copper hydroxide	1.00	2.00	10.00	3.5	24
Mancozeb	1.00	3.00	8.00	4.3	16
Pyraclostrobin	1.00	2.00	2.00	1.8	9
Thiophanote-methyl	1.00	3.00	6.50	3.1	16

Watermelons: Agricultural Chemicals Rate Per Application Distribution, Program States, 2004

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Ethalfluralin	0.190	0.380	0.750	0.460	29
Glyphosate iso. salt	0.560	0.750	1.250	0.870	12
Naptalam	2.000	2.000	2.000	1.950	5
Sethoxydim	0.060	0.060	0.280	0.130	29
Trifluralin	0.500	1.000	1.000	0.860	10
Insecticides					
Carbaryl	0.250	0.750	1.000	0.690	24
Endosulfan	0.380	0.500	0.750	0.550	8
Esfenvalerate	0.030	0.030	0.040	0.030	7
Fungicides					
Azoxystrobin	0.060	0.110	0.240	0.130	13
Boscalid	0.130	0.220	0.250	0.200	10
Chlorothalonil	0.520	1.130	1.500	1.160	6
Copper hydroxide	0.380	0.560	0.800	0.610	7
Mancozeb	0.600	1.000	1.600	1.150	9
Pyraclostrobin	0.060	0.110	0.150	0.110	10
Thiophanate-methyl	0.210	0.350	0.530	0.490	23

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

Active Ingredient	10th Percentile	Median	90th Percentile	Mean	cv (%)
	Pounds per acre	*Pounds per acre*	*Pounds per acre*	*Pounds per acre*	
Herbicides					
Ethalfluralin	0.190	0.380	0.750	0.470	30
Glyphosate iso. salt	0.560	0.750	1.830	1.100	18
Naptalam	2.000	6.000	6.000	3.990	29
Sethoxydim	0.060	0.060	0.280	0.140	33
Trifluralin	0.500	1.000	1.000	0.860	10
Insecticides					
Carbaryl	0.250	0.500	2.000	1.050	32
Endosulfan	0.250	1.500	1.880	1.450	11
Esfenvalerate	0.030	0.050	0.190	0.090	23
Fungicides					
Azoxystrobin	0.100	0.200	0.410	0.220	11
Boscalid	0.190	0.270	0.500	0.350	12
Chlorothalonil	1.500	3.000	7.500	3.950	10
Copper hydroxide	0.400	1.150	5.100	2.170	25
Mancozeb	1.190	3.000	11.250	4.970	15
Pyraclostrobin	0.100	0.150	0.320	0.190	11
Thiophanate-methyl	0.350	1.050	2.280	1.510	33

Field Crops Survey and Estimation Procedures

Survey Procedures: Data for durum wheat, peanuts, soybeans, other spring wheat and winter wheat were collected on two 2004 surveys, the Agricultural Resource Management Survey (ARMS), which collected 4,727 usable records, and the Conservation Effects Assessment Project (CEAP), which collected 2,232 usable records with commodities matching the ARMS survey.

Data collecting for the ARMS survey occurred during the months of September through December 2004. Screening samples were drawn from the NASS List Sampling Frame. This extensive sampling frame covers all types of farms and accounts for approximately 82 percent of all land in farms in the United States. All farms on the list had a possibility of being selected for the screening sample. Farms thought to have the crops of interest were more likely to be in the screening sample. Sampled farms were screened to determine if they grew the target crops in 2003. From this subpopulation of operations identified as producing a 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. Once a farm producing durum wheat, peanuts, soybeans, spring wheat, or winter wheat was selected, one field was randomly selected from all the fields on the farm. The operator of the sampled field was personally interviewed to obtain information on chemical applications made to the selected field.

Data collection and sampling procedures were similar for both the ARMS and CEAP surveys. Although CEAP was a nationwide, area-based sample survey, only a subset of CEAP data was used in this publication. Data collection occurred from September to December 2004 and only those CEAP samples that matched the ARMS crops and states were included.

Estimation Procedures: The chemical application data, reported by product name or trade name, are reviewed within each State and across States for reasonableness and consistency. This review compares reported data with manufacturers' recommendations and with data from other farm operators using the same product. Following this review, product information is converted to an active ingredient level. The chemical usage estimates in this publication consist of survey estimates of those active ingredients. For this publication, detailed data within a table may not multiply across or add down due to independent rounding of the published values.

Estimates of the total amount of active ingredient applied are based on the acreage estimates published in the annual NASS report "**Crop Production - 2004 Summary**" [Cr Pr 2-1(04)] for durum wheat, peanuts, soybeans, other spring wheat, and winter wheat. Please note that the estimates for total amount of an active ingredient applied will not be revised even if there are subsequent revisions to acreage for a given crop.

Reliability: The surveys were designed so that the estimates are statistically representative of chemical use on the targeted crops in the surveyed States. The reliability of these survey results is affected by sampling variability and non-sampling errors.

Since all operations producing the crops of interest are not included in the sample, survey estimates are subject to sampling variability. The sampling variability expressed as a percent of the estimate is called the coefficient of variation (cv). Sampling variability of the estimates differed considerably by chemical and crop. 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. In general, the more often the chemical was applied, the smaller the sampling variability. For example, estimates of a commonly used active ingredient such as Glyphosate isopropylamine salt, will exhibit less variability than a rarely used chemical. A commonly used active ingredient is defined as an active ingredient used on at least 40 percent of the acres planted for a crop at the US level. For these active ingredients, cv's range from 1 percent to 15 percent at the U.S. level and 2 percent to 55 percent at the state level. Active ingredients that are less frequently used have cv's that range from 2 percent to 70 percent.

Vegetable Crops Survey and Estimation Procedures

Survey Procedures: There were 5,908 samples drawn from the NASS List Sampling Frame for the Vegetable Chemcial Usage Survey. This extensive sampling frame covers all types of farms and accounts for about 90 percent of all land in farms in the United States. The sample design for the Vegetable Chemical Use Survey (VCUS) uses a Multivariate Probability Proportional to Size (MPPS) design. The probability of being selected for the sample was based on the percentage of acreage for a given crop that a grower had on a state's list frame. The maximum of these probabilities were selected to draw the sample. The general idea is to assure that the total acreage of all targeted vegetable crops that a grower has on the list frame was included when determining a grower's probability of selection.

Estimation Procedures: The chemical applications data, reported by product name or trade name, are reviewed within each State and across States for reasonableness and consistency. This review compares reported data with manufacturer's recommendations and with data from other farm operators using the same product. Following this review, product information are converted to an active ingredient level. The chemical usage estimates in this publication consist of survey estimates of those active ingredients.

Estimates of the total amount of active ingredient applied are based on the acreage estimates published in the annual NASS report "**Vegetables - 2004 Summary**"[Vg 1-2(04)] released on January 29, 2004. The estimates for total amount applied will not be revised even if there are subsequent revisions to acreage for a given crop. Detailed data within a table may not multiply across or add down due to independent rounding of the published values.

Reliability: The probability nature of the survey provides expansion of data so that the estimates are statistically representative of chemical use on the targeted crops in the surveyed States. The reliability of these survey results is affected by non-sampling errors and sampling variability. The sampling variability, expressed as a percentage of the estimate, is referred to as the coefficient of variation (cv).

Non-sampling errors are errors that occur during a survey process and, unlike sampling variability, are difficult to measure. They may be caused by interviewers failing to follow instructions, poorly worded questions, non-response, problematic survey procedures, or data handling between collection and publication. In these surveys, all survey procedures and analysis were carried out in a consistent and orderly manner to minimize the occurrence of these types of errors.

Variability for estimates of acres treated will be higher than the variability for estimates of application rates. This is because application rates have a narrower range of responses, are recommended by the manufacturer of the product, and are generally followed. Sampling variability of the estimates differed considerably by chemical and crop. In general, the more often the chemical was applied, the smaller the sampling variability. For example, estimates of a commonly used active ingredient such as Glyphosate isopropylamine salt, will exhibit less variability than a rarely used chemical.

The variability of estimates also depends on such factors such as how similar agricultural practices are across States or within a State. Some active ingredients have widely varying recommended rates with different application approaches. This can increase the variability of the rates and acres treated. The differing intensity of the pest problem can influence the variability of acres treated and rate. The more consistent the intensity of the pest problem, the more likely the acres treated and rates are to be similar. These are just a few examples of how the estimates' variability can be influenced. A commonly used active ingredient is defined as an active ingredient used on at least 40 percent of the acres planted for a crop at the U.S. level. For these active ingredients, cv's will generally be less than 35 percent at the U.S. level and less than 55 percent at the State level. Active ingredients that are less frequently used have cv rates that are generally less than 70 percent.

Terms and Definitions

Active ingredient: The specific chemical which kills or controls the target pests. Usage data are reported by pesticide product and are converted to an amount of active ingredient. A single method of conversion has been chosen for active ingredients having more than one way of being converted. For example in this report, copper compounds are expressed in their metallic copper equivalent, and others, such as 2,4-D and glyphosate, are expressed in their acid equivalent.

Agricultural chemicals: Refers to the active ingredients in fertilizers and pesticides.

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 active ingredient.

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.

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.

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.

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.

Pesticide Class, Common Name, and Trade Name

The following is a list showing pesticide class, common name, 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 crops surveyed and NASS does not mean to imply use of any specific trade name.

Class	Common Name	Trade Name
H	2,4-D	Agsco, Amine, Barrage, Class, Clean Crop Low Vol, Curtail, Ded-Weed Sulv, Envy, Formula 40, Grazon P+D, Hi-Dep, Landmaster, LV 6, Riverside, RT Master, Salvo, Tiller, Turret, Unison, Weed Rhap, Weedar, Weedmaster, Weedone
H	2,4-DB, Dimeth. salt	Butoxone, Butyrac
H	2,4-DP, Dimeth. salt	Amine
I	Acephate	Orthene
H	Acetic acid	Agsco, Esteron, Double Up B+D, LV 4 2,4-D Ester, LV 400 2,4-D Weed Killer, Maestro D, Outlaw, Salvan, Starane + Salvo, Weedone
H	Acifluorfen	Blazer, Conclude Ultra B&G, Galaxy, Storm, Ultra Blazer
I	Aldicarb	Temik
F	Azoxystrobin	Quadris (Abound), Quilt
H	Bentazon	Basagran, Conclude Ultra, Galaxy, Laddok, Pledge, Rezult, Storm
H	Bromoxynil	Agsco, Bromox/MCPA, Bronate, Buctril, Buctril + Atrazine, Rhino
H	Bromoxynil octanoate	Bronate Advanced, Connect, Double Up B+D, Maestro D, WildCard Xtra
H	Butoxy. ester 2,4-D	2,4-D/Weedone LV6
I	Carbaryl	Sevin
H	Chlorimuron-ethyl	Authority, Canopy, Classic, Synchrony
F	Chlorothalonil	Bravo, Chlorothalonil Plus Zinc, Concorde, Daconil, Echo, Ensign, Equus, Flouronil, PathGuard, Ridomil, Tilt/Bravo
I	Chlorpyrifos	Aqua-sect, Chlorpyrifos, Fortress, Govern, Lorsban, Nufos
H	Chlorsulfuron	Finesse, Glean
H	Clethodim	Arrow, Conclude, Prism, Select, Volunteer
H	Clodinafop-propargil	Discover
H	Clopyralid	Curtail, Hornet, Stinger, WideMatch
H	Cloransulam-methyl	Amplify, FirstRate, Gangster, Gauntlet
H	Dicamba	Banvel, Banvel + 2,4-D, Clarity, Fallow Master, Oracle Dicamba, Outlaw, Rave, Weedmaster
H	Diclosulam	Strongarm
I	Disulfoton	Di-Syston
H	Diuron	Diuron, Diurin, Karmex
I	Esfenvalerate	Asana, Curbit, Ortho Bug-B-Gon, Sonalan, Strategy

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Pesticide Class, Common Name, and Trade Name (continued)

Class	Common Name	Trade Name
H	Ethalfluralin	Sonalan
H	Fenoxaprop	Cheyenne, Fusion, Puma, Silverado, Tiller
H	Fluazifop-P-butyl	Fusilade, Fusion, Typhoon
H	Flucarbazone-sodium	Everest
H	Flumioxazin	Broadstar, Chateau, Gangster
H	Fluroxypyr	Starane
H	Fluroxypyr 1-methyl	WideMatch
H	Fomesafen	Flexstar, Reflex, Typhoon
O	Garlic oil	Guardian Spray
H	Glufosinate-ammonium	Liberty
H	Glyphosate iso. salt	Accord, Backdraft, Bronco, Buccaneer, Clear-Out, Cornerstone, Credit, Engame, Eraser, Extreme, Fallow Master, Field Master, Fire Power, Gly Star, Gly-Flo, Glyfos, Glyphomax, Glyphosate, Helosate Plus, Honcho, Landmaster, Mad Dog Glyphosate, Mirage, Protocol, Ranger, Rattler, Roundup, RT Master
H	Glyphosate diam. salt	Sequence, Touchdown
H	Imazamox	Beyond, Raptor
H	Imazapic	Cadre
H	Imazapic-ammonium	Cadre
H	Imazethapyr	Extreme, Pursuit, Steel
I	Lambda-cyhalothrin	Karate, Warrior
H	Linuron	Linex, Lorox
F	Mancozeb	Acrobat, Curzate, Dithane, Gavel, Mancozeb, Manex II, Mankocide, Manzate, Penncozeb, Ridomil
H	MCPA	Bromox, Bronate, Cheyenne, Chiptox MCP, Class MCPA, Curtail, Dagger, MCP Ester, MCP Amine, Rhino, Rhomene, Rhonox, Starane + Sword, Sword, Weedar, Weed Rhap, Weedone MCPA Ester, WildCard
H	MCPA, dimethyl. salt	MCPA Amine
I	Methomyl	Lannate
H	Metribuzin	Axiom, Boundary, Canopy, Domain, Lexone, Sencor, Turbo
H	Metsulfuron-methyl	Ally, Canvas, Finesse, Valuron
H	Paraquat	Gramoxone, Gramoxone/Cyclone, Starfire, Surefire
H	Pendimethalin	Pendimax, Prowl, Prozine, Pursuit, Squadron, Steel
I	Permethrin	Ambush, Arctic, Perm-Up, Permethrin, Pounce
I	Phorate	Phorate, Thimet
F	Propiconazole	Artisan Peanut, Bravo, Bumper, PropiMax, Quilt Stratego, Tilt
F	Pyraclostrobin	Cabrio, Headline, Pristine
H	S-Metolachlor	Bicep II Magnum, Boundary, Cinch ATZ, Dual II Magnum, Sequence
H	Sethoxydim	Conclude Ultra B&G, Poast, Rezult

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Pesticide Class, Common Name, and Trade Name (continued)

Class	Common Name	Trade Name
I	Spinosad	Tracer
H	Sulfentrazone	Authority, Blanket, Canopy, Command Xtra, Gauntlet, Spartan
F	Tebuconazole	Folicur
H	Thifensulfuron	Ally Extra, Canvas, Harmony, Pinnacle, Synchrony, X-TRA (Cheyenne)
H	Triasulfuron	Amber, Rave
H	Tribenuron-methyl	Ally Extra, Canvas, Express, Harmony, X-TRA (Cheyenne)
F	Trifloxystrobin	Stratego
H	Trifluralin	Buckle, Freedom, Preen, Treflan, Tri-4, Trifluralin, Trilin, Trust

Report Features

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The next "Agricultural Chemical Usage" report will be released March 29, 2006. This report will cover Postharvest applications made to peanuts at off-farm storage facilities for the 2004 crop year.

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