United States Department of Agriculture

National Agricultural Statistics Service

Agricultural Chemical Usage
2000 Field Crops Summary

May 2001

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Update Alert

Summary errors for the chemicals Metolachlor and S-Metolachlorwere discovered for corn, upland cotton, and soybeans. Some ofthe previously published values were a blend of products with these two active ingredients. As a result, the percent of area applied, rate per application, rate per crop year, and total applied for Metolachlor changed for most of the States surveyed. The affected tables have been revised. (pages 5, 9-11,15-29, 33,34, 40, 44, 45, 47, 52, 74, 76, and 82).

2000 Agricultural Chemical Use Estimates for Field Crops

Overview: The agricultural chemical use estimates in this report refer to on-farm use of commercial fertilizers and pesticides on targeted crops for the 2000 crop year. Farm and ranch operators were enumerated late in the growing season or after the farm operator had indicated that planned applications were completed. The chemical use data were not summarized for geographical areas other than published in this report.

The data were compiled from the Agricultural Resources Management Study (ARMS), conducted primarily during the months of October-December of 2000. Relevant portions of the survey instruments used in data collection are included in the back of this publication.

Targeted crops in the 2000 ARMS include corn, upland cotton, rice, soybeans, sugarbeets, winter wheat, durum wheat, and other spring wheat. Durum wheat was a target commodity for North Dakota only.

Agricultural Chemical Use Survey Coverage, 1999 and 2000

Crop	1999			2000		
	States Surveyed	Reports Summarized	US Acreage Included	States Surveyed	Reports Summarized	US Acreage Included
	-- Number --		Percent	-- Number --		Percent
Corn	15	2,325	88	18	2,608	93
Cotton, Upland	10	1,607	91	11	1,835	94
Rice	-	-	-	5	628	95
Soybeans	17	2,525	92	18	2,524	97
Sugarbeets	-	-	-	11	915	98
Wheat, Durum	-	-	-	1	117	83
Wheat, Spring	-	-	-	4	327	91
Wheat, Winter	1	177	1	16	1,550	88

This report excludes pesticides used for seed treatments and postharvest applications to the commodity. Spot treatments, which account for a small percentage (approximately 1%) of total applications, are also excluded.

Highlights

Corn: Nitrogen was applied to 98 percent of the 2000 corn acreage in the 18 States surveyed: Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Texas, and Wisconsin. Growers in Kansas, Missouri, and Ohio reported 100 percent of the acreage treated with nitrogen. Corn growers used an average of 1.7 applications per acre while applying 77 pounds of nitrogen per treatment. In the States surveyed, 84 percent of the planted corn acreage received phosphates and potash was applied to 66 percent of the acreage.

Herbicides were applied to 97 percent of the corn acreage in 2000. Atrazine continued to be the most commonly used herbicide with 68 percent of the reported acreage being treated. It was applied at a rate of 1.00 pound per acre. Acetochlor and Dicamba were the next two most widely used herbicides and were applied to 25 and 21 percent of the reported acreage, respectively.

In 2000, 29 percent of the corn acreage was treated with insecticides. Chlorpyrifos was the most commonly used insecticide, representing 4.5 million out of the total 9.8 million pounds of insecticide applied in the 18 States surveyed. It was applied at the rate of 1.05 pounds per acre.

Upland Cotton: Nitrogen fertilizer was applied on 83 percent of the upland cotton acreage during 2000 in the 11 States surveyed: Alabama, Arizona, Arkansas, California, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Tennessee, and Texas. The area treated with phosphates totaled 63 percent of the planted acreage in the States surveyed. Alabama, Georgia, and Tennessee producers reported the greatest use of phosphates, treating 95, 94 and 93 percent of their planted acreage, respectively. The largest increase in phosphate use was in Louisiana, which showed a 21 point increase from the previous year. Potash was applied to 53 percent of the area planted to upland cotton in 2000 for the 11 States surveyed. Tennessee, Missouri, and Georgia producers reported the highest percentage of acres treated with potash. Arizona and California continued to be the smallest users, treating 8 and 12 percent of the acres, respectively.

Herbicides were applied to 95 percent of the upland cotton planted acreage in the States surveyed. Most States showed decreases from the previous year, although Arizona, North Carolina, and Tennessee showed increases of 4, 3, and 3 percentage points, respectively. Texas use decreased 5 points from 1999 levels. Glyphosate replaced Trifluralin as the most commonly used herbicide, and it was applied to 56 percent of the acreage. Trifluralin was applied to 39 percent of the planted acres, down 13 percentage points from 1999.

Insecticide applications were made to 80 percent of the upland cotton planted acres in 2000 for the 11 States Surveyed. Most States showed decreases in use from the previous year, although Tennessee, Arizona, North Carolina, and Mississippi use increased. Louisiana’s percent of acres treated was unchanged from 1999. Malathion, at approximately 31.9 million pounds, continued to be the active ingredient with the highest total pounds applied for upland cotton.

Area treated with other chemicals totaled 61 percent of the 2000 planted acreage. North Carolina use of other chemicals showed an increase of 34 percentage points from 1999. Tennessee use of other chemicals was up 4 percentage points from the previous year. Texas continued to treat the smallest percent of acreage with other chemicals, at 29 percent, 3 percentage points below last year’s use.

Rice: Nitrogen was applied to 100 percent of the total 2000 rice acreage in the five States surveyed: Arkansas, California, Louisiana, Mississippi, and Texas. Growers used an average of 2.4 applications of nitrogen per acre while applying an average of 59 pounds per treatment. In the States surveyed, 59 percent of the planted rice acreage received phosphates and potash was applied to 47 percent of the acreage.

Herbicides were applied to 98 percent of the rice acreage in 2000 for the five States surveyed. Propanil was the most commonly used herbicide with 62 percent of the reported acreage being treated. It was applied at the rate of 2.90 pounds per acre. Clomazone, Molinate, and Quinclorac were the next three most commonly used herbicides and they were applied to 32, 29 and 25 percent of the reported acreage, respectively.

In 2000, 22 percent of the rice acreage was treated with insecticides in the States surveyed. Lambda-cyhalotrin and methyl parathion were the most widely used insecticides, with 13 and 9 percent of the reported acreage treated, respectively. Lambda-cyhalotrin was applied at the rate of 0.03 pounds per acre and methyl parathion was applied at 0.51 pounds per acre.

Soybeans: Soybean producers in the 18 States surveyed (Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Ohio, South Dakota, Tennessee, and Wisconsin) applied nitrogen fertilizer to 18 percent of the area planted to soybeans. The percent of acres treated ranged from 6 percent in Louisiana to 46 percent in North Dakota. The average number of nitrogen applications per acre was 1.0 with an average application rate of 23 pounds per acre. Phosphate was applied on 24 percent of the soybean planted acreage in the States surveyed. Producers in North Carolina applied phosphates to 62 percent of the soybean acreage, while applications by Minnesota producers covered only 9 percent of the planted acreage. Potash was applied to 27 percent of the planted soybean acreage in the 18 States surveyed.

In the 18 States surveyed, 97 percent of the soybean acreage was treated with herbicides. The most widely used herbicides were Glyphosate, applied to 62 percent of the soybean acreage, followed by Trifluralin applied to 14 percent of the acreage, and Imazethapyr applied to 12 percent of the planted acreage. Pendimethalin and Chlorimuron-ethyl were applied to 11 and 10 percent of the soybean acreage, respectively.

Soybean growers in the States surveyed applied insecticide to only 2 percent of the soybean acres planted. Although there were too few reports to publish some individual State data for the insecticides, data are published for Arkansas, Illinois, Kentucky, Louisiana, Mississippi, North Carolina, Ohio, and Tennessee. Of the published States, Louisiana was the largest user of insecticides with 56 percent of the acreage treated. Soybean growers also reported few fungicide applications.

Sugarbeets: Eleven sugarbeets producing States were included in the 2000 survey: California, Colorado, Idaho, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, and Wyoming.

Nitrogen fertilizer was applied to 98 percent of the sugarbeet acreage. The number of nitrogen applications averaged 1.5 per acre with a total of 166.2 million pounds applied. Phosphate was applied to 92 percent of the acres in the States surveyed with a total of 101.4 million pounds being applied. Potash was applied to 50 percent of the sugarbeets acreage. About 58.8 million pounds of potash were applied in total.

Herbicides were applied to 98 percent of the sugarbeets in 2000 in the 11 States surveyed. Percentages of acres treated ranged from 87 percent in California and Wyoming to 100 percent of the crop receiving herbicides in Idaho, Minnessota, Montana, North Dakota, and Oregon. Desmedipham, Triflusulfuron, and Phenmediphan were the most commonly used herbicides in sugarbeets; they were used on 94, 83, and 80 percent of the planted acreage, respectively.

Insecticides were applied to 63 percent of the 2000 sugarbeet acreage. Usage ranged from treatment on 12 percent of the sugarbeet acres in Michigan to 95 percent of the acres in Idaho. The two most common active ingredients were Terbufos and Chlorpyrifos which were applied to 41 and 12 percent of the sugarbeet acreage, respectively.

Fungicide treatments were applied to 72 percent of the sugarbeet acreage. North Dakota treated 96 percent of the acreage, followed closely by Minnesota and Michigan with 95 and 86 percent, respectively. Tetraconazole was used the most, as it was applied on 55 percent of the acreage, followed by Triphenyltin hydroxide (Triphenyltin hydr.) on 44 percent of the sugarbeet acreage.

Durum Wheat: Nitrogen fertilizer was applied to 86 percent of the area planted for 2000 in North Dakota. Phosphate fertilizers were applied to 66 percent of the collective acreage. North Dakota growers treated 97 percent of the durum wheat acreage with herbicides; 2,4-D was the most prevalent in terms of total amount applied. Seventy-five percent of the acres planted were treated with 2,4-D.

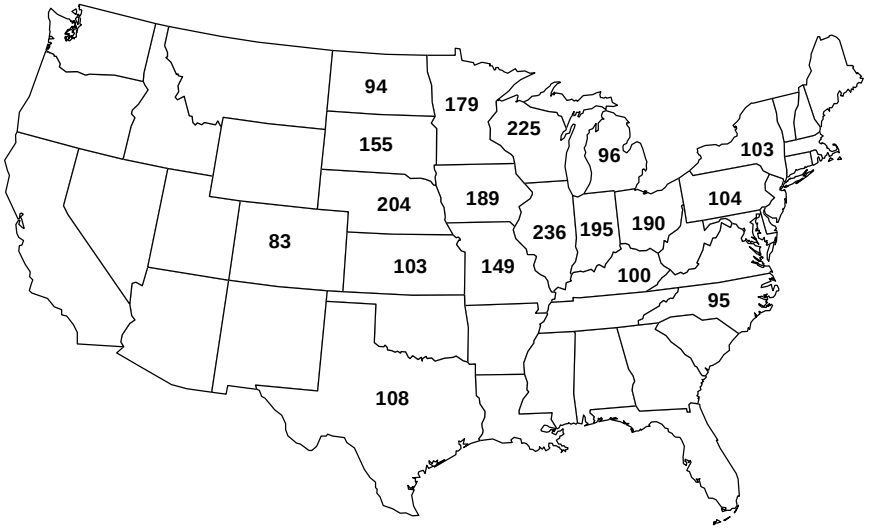
Other Spring Wheat: Nitrogen was applied to 95 percent of the total 2000 Other Spring Wheat acreage in the four States surveyed: Minnesota, Montana, North Dakota, and South Dakota. Phosphate fertilizers were applied to 84 percent of the acreage in the States surveyed. Potash was applied to 27 percent of the planted acreage. Spring wheat growers treated 95 percent of the other spring wheat acreage with herbicides; 2,4-D was the most prevalent with 45 percent of the planted acreage treated, closely followed by MCPA with 44 percent.

Winter Wheat: Nitrogen was applied to 87 percent of the 2000 winter wheat acreage in the 16 States surveyed: Arkansas, Colorado, Idaho, Illinois, Kansas, Kentucky, Missouri, Montana, Nebraska, North Carolina, Ohio, Oklahoma, Oregon, South Dakota, Texas, and Washington. Growers in Washington reported 100 percent of the acreage treated with nitrogen. Winter wheat growers used an average of 1.5 applications per acre while applying 44 pounds of nitrogen per treatment. In the States surveyed, 54 percent of the planted winter wheat acreage received phosphates and potash was applied to 17 percent of the acreage.

Herbicides were applied to 37 percent of the winter wheat acreage in 2000. 2,4-D and Metsulfuron-methyl were the two most commonly used herbicides with 13 and 12 percent of the reported acreage being treated, respectively.

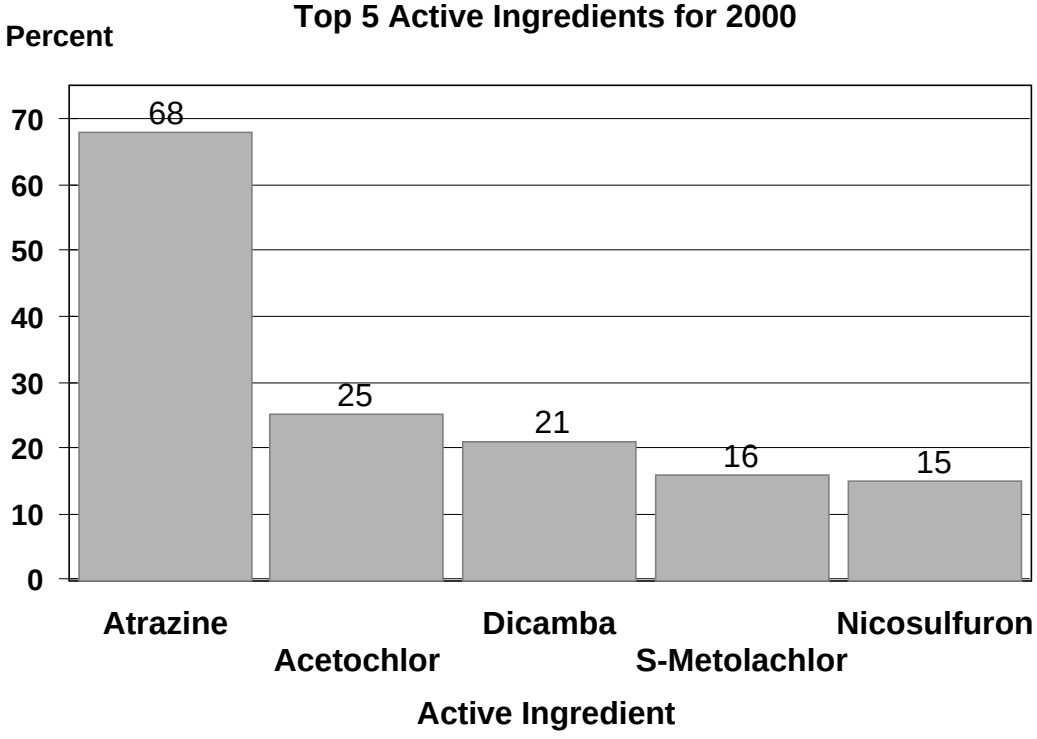
In 2000, only 4 percent of the winter wheat acreage was treated with insecticides. Chlorpyrifos was the most commonly used insecticide, representing approximately 92 percent out of the total 548 thousand pounds of insecticide applied in the 16 States surveyed.

Corn: Number of Usable Reports, 2000



Corn - Percent of Acres Treated

Top 5 Active Ingredients for 2000



Surveyed States are CO, IL, IN, IA, KS, KY, MI, MN, MO, NE, NY, NC, ND, OH, PA, SD, TX and WI

Corn: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
CO	1,350	95	182.0	78	42.2	17	7.4
IL	11,200	99	1,797.7	83	739.3	82	1,028.5
IN	5,700	99	864.8	90	366.1	85	625.9
IA	12,300	95	1,533.0	74	503.2	74	630.9
KS	3,450	100	506.0	78	97.3	39	37.1
KY	1,330	99	198.7	81	88.3	80	92.0
MI	2,200	99	240.1	96	96.9	83	154.3
MN	7,100	97	786.4	91	404.2	76	377.9
MO	2,850	100	422.7	82	136.3	82	169.1
NE	8,500	99	1,260.7	82	243.2	22	21.5
NY	980	99	71.2	89	45.6	78	41.8
NC	730	96	86.0	88	37.5	86	52.7
ND	1,080	98	103.0	80	38.8	29	8.7
OH	3,550	100	572.8	92	224.2	83	287.0
PA	1,550	95	103.8	87	59.9	67	35.9
SD	4,300	99	418.9	92	153.6	39	36.1
TX	2,100	98	304.0	85	80.3	27	15.9
WI	3,500	97	300.7	89	120.6	90	161.0
Total	73,770	98	9,752.5	84	3,477.5	66	3,783.7

Corn: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Colorado:	1,350					
Nitrogen		95	2.2	63	143	182.0
Phosphate		78	1.0	37	40	42.2
Potash		17	1.0	32	32	7.4
Illinois:	11,200					
Nitrogen		99	1.8	90	161	1,797.7
Phosphate		83	1.0	75	80	739.3
Potash		82	1.0	108	111	1,028.5
Indiana:	5,700					
Nitrogen		99	2.1	73	153	864.8
Phosphate		90	1.3	55	72	366.1
Potash		85	1.0	118	129	625.9
Iowa:	12,300					
Nitrogen		95	1.5	87	131	1,533.0
Phosphate		74	1.0	53	55	503.2
Potash		74	1.0	69	69	630.9

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Corn: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Kansas:	3,450					
Nitrogen		100	1.4	101	147	506.0
Phosphate		78	1.1	32	36	97.3
Potash		39	1.2	22	28	37.1
Kentucky:	1,330					
Nitrogen		99	1.7	86	151	198.7
Phosphate		81	1.0	79	82	88.3
Potash		80	1.0	85	87	92.0
Michigan:	2,200					
Nitrogen		99	2.0	53	110	240.1
Phosphate		96	1.0	44	46	96.9
Potash		83	1.3	65	84	154.3
Minnesota:	7,100					
Nitrogen		97	1.9	59	114	786.4
Phosphate		91	1.2	52	63	404.2
Potash		76	1.0	68	70	377.9
Missouri:	2,850					
Nitrogen		100	1.4	106	148	422.7
Phosphate		82	1.0	56	58	136.3
Potash		82	1.0	70	72	169.1
Nebraska:	8,500					
Nitrogen		99	1.9	79	150	1,260.7
Phosphate		82	1.0	33	35	243.2
Potash		22	1.0	11	11	21.5
New York:	980					
Nitrogen		99	1.4	51	73	71.2
Phosphate		89	1.0	49	52	45.6
Potash		78	1.1	49	55	41.8
North Carolina:	730					
Nitrogen		96	1.9	64	123	86.0
Phosphate		88	1.1	53	58	37.5
Potash		86	1.0	78	84	52.7
North Dakota:	1,080					
Nitrogen		98	1.6	61	98	103.0
Phosphate		80	1.0	43	45	38.8
Potash		29	1.0	26	28	8.7
Ohio:	3,550					
Nitrogen		100	2.3	70	162	572.8
Phosphate		92	1.1	60	69	224.2
Potash		83	1.1	84	97	287.0

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Corn: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Pennsylvania:	1,550					
Nitrogen		95	1.6	43	71	103.8
Phosphate		87	1.0	42	44	59.9
Potash		67	1.0	33	35	35.9
South Dakota:	4,300					
Nitrogen		99	1.5	63	99	418.9
Phosphate		92	1.0	36	39	153.6
Potash		39	1.0	21	21	36.1
Texas:	2,100					
Nitrogen		98	1.7	82	148	304.0
Phosphate		85	1.0	43	45	80.3
Potash		27	1.0	28	28	15.9
Wisconsin:	3,500					
Nitrogen		97	1.6	53	88	300.7
Phosphate		89	1.0	37	39	120.6
Potash		90	1.0	49	51	161.0
Total:	73,770					
Nitrogen		98	1.7	77	136	9,752.5
Phosphate		84	1.1	51	57	3,477.5
Potash		66	1.0	75	79	3,783.7

Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	CO	IA	IL	IN	KS	KY
Herbicides							
2,4-D	P	P	P	P	P	P	P
Acetamide	P		*	*	P	*	
Acetochlor	P	P	P	P	P	P	P
Alachlor	P	*	*	P	P	P	P
Ametryn	P						
Atrazine	P	P	P	P	P	P	P
Bentazon	P		*	*	*		
Bromoxynil	P	*	P	*	*	*	
Carfentrazone-ethyl	P	*	P	*		P	
Chloramben	*						*
Clomazone	*				*		
Clopyralid	P	*	P	P	P	*	
Cyanazine	P	*	*		*		*
Dicamba	P	P	P	P	P	P	*
Dicamba, Dimet. salt	P	P	P	P	*	*	
Dicamba, Pot. salt	P	P	P	P	*	*	
Dichlorprop	P				*		
Diflufenzopyr-sodium	P	P	P	P	*	*	
Dimethenamid	P	*	P	P	P	P	*
Diuron	*						*
EPTC	P		*	*			
Flumetsulam	P		P	P	P	*	
Flumiclorac-Pentyl	*		*				
Glufosinate-ammonium	P		P	*	*	*	*
Glyphosate	P	P	P	P	P	P	P
Halosulfuron	P		*	*		*	
Imazapyr	P	*	P	P	P	P	P
Imazethapyr	P	*	P	P	P	P	P
Isoxaflutole	P	*	P	P	P	*	
MCPA	*			*			
Metolachlor	P	P	P	P	P	P	P
Metribuzin	P		*	*	P	*	
Nicosulfuron	P	P	P	P	P	P	*
Paraquat	P	*		P	P		P
Pendimethalin	P	*	*	*	*	*	*
Primisulfuron	P	*	P	P	P	P	P
Propachlor	*						
Prosulfuron	P			*	P	P	P	*
Pyridate	P	P	P	*		*	
Rimsulfuron	P	P	P	P	P	P	*
S-Metolachlor	P	*	p	p	p	P	P
Sethoxydim	*	*					
Simazine	P			P	P	*	P
Sulfosate	P				*		*
Thifensulfuron	P	*	*	*	*		
Tribenuron-methyl	*						
Trifluralin	P		*		*		
Vernolate	*		*				

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Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	MI	MN	MO	NC	ND	NE
Herbicides						
2,4-D	P	P	P	P	P	P
Acetamide	*		P		*	P
Acetochlor	P	P	P	*	P	P
Alachlor	*	P	P	P		P
Ametryn				P		
Atrazine	P	P	P	P	P	P
Bentazon	*	*				
Bromoxynil	P	P	*		P	*
Carfentrazone-ethyl		*	*			*
Chloramben						
Clomazone						
Clopyralid	P	P	P		P	P
Cyanazine	*	*	*	*		P
Dicamba	P	P	*	*	P	P
Dicamba, Dimet. salt	*	P			P	P
Dicamba, Pot. salt		P	*			P
Dichlorprop				*		
Diflufenzopyr-sodium	*	P			P	P
Dimethenamid	*	P	*	*	*	P
Diuron						
EPTC		*			P	
Flumetsulam	P	P	P		P	P
Flumiclorac-Pentyl	*					
Glufosinate-ammonium		*	P	*	*	*
Glyphosate	P	P	P	P	P	P
Halosulfuron						P
Imazapyr	*	*	P	*		P
Imazethapyr	*	*	P	*		P
Isoxaflutole			*		*	P
MCPA						*
Metolachlor	P	P	P	P		P
Metribuzin	*		P		*	P
Nicosulfuron	P	P	P	*	P	P
Paraquat			*	P		
Pendimethalin	P	*	*	*	*	
Primisulfuron	*	P	P	*	*	P
Propachlor		*				
Prosulfuron			P	*		P
Pyridate	*	*				*
Rimsulfuron	P	P	P		P	P
S-Metolachlor	P	P	p	P		P
Sethoxydim				*		
Simazine	*		P	P		*
Sulfosate	*		*			*
Thifensulfuron		*		*	*	P
Tribenuron-methyl				*		
Trifluralin						
Vernolate						

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Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	NY	OH	PA	SD	TX	WI
Herbicides						
2,4-D	*	P	P	P	*	*
Acetamide		*			*	*
Acetochlor		P	P	P	*	P
Alachlor	P	P	*	*	*	P
Ametryn						
Atrazine	P	P	P	P	P	P
Bentazon	*			*		
Bromoxynil				P	*	*
Carfentrazone-ethyl				*	*	*
Chloramben						
Clomazone						
Clopyralid	*	P	*	P		P
Cyanazine	*	P	*	*	*	P
Dicamba	P	P	P	P	P	P
Dicamba, Dimet. salt		P	*	*	*	P
Dicamba, Pot. salt	*	*	*	*		P
Dichlorprop		*		*		
Diflufenzopyr-sodium		P	*	*	*	*
Dimethenamid	*	P	*	*	P	P
Diuron					*	
EPTC		*		P		
Flumetsulam	P	P	*	P		P
Flumiclorac-Pentyl				*		
Glufosinate-ammonium		*		*		*
Glyphosate	P	P	P	P	P	P
Halosulfuron	*					*
Imazapyr			*	P	*	*
Imazethapyr			*	P	*	*
Isoxaflutole		P	*	P	*	
MCPA						
Metolachlor	P	P	P	P	*	P
Metribuzin		*			*	*
Nicosulfuron	P	P	P	P	P	P
Paraquat		*	*			
Pendimethalin	P	P	P	*	P	P
Primisulfuron	*	P	*	P	P	P
Propachlor	*			*		
Prosulfuron		*		*	P	*
Pyridate	*	*	*	*		
Rimsulfuron	P	*	P	P	P	P
S-Metolachlor	p	P	p	*	P	P
Sethoxydim						
Simazine		P	*			*
Sulfosate						
Thifensulfuron	*		P		*	*
Tribenuron-methyl						
Trifluralin					*	
Vernolate						

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Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	CO	IA	IL	IN	KS	KY
Insecticides							
Bt(Bacillus thur.)	*						
Bifenthrin	P	*				*	
Carbofuran	P		*	*		*	*
Chlorethoxyfos	P			*	*		
Chlorpyrifos	P	*	P	P	P	*	*
Cyfluthrin	P	P	P	*	*	*	
Diazinon	*	*	*		*		
Dimethoate	P	*				*	
Disulfoton	*		*				
Esfenvalerate	P	*	*	P			
Ethyl parathion	*	*					
Fipronil	P	*	*	*	*	*	
Fonofos	*		*				
Lambda-cyhalothrin	P		*	P	*	*	*
Methyl parathion	P	*				*	
Permethrin	P	*	P	P	*	*	*
Phorate	P						
Propargite	P	*					
Tebupirimphos	P	P	P	*	*	*	
Tefluthrin	P	P	*	P	P	*	*
Terbufos	P	P	*	P	*		
Trimethacarb	*						
Fungicides							
Propiconazole	*			*			

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

Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	MI	MN	MO	NC	ND	NE
Insecticides						
Bt(Bacillus thur.)						*
Bifenthrin						*
Carbofuran						
Chlorethoxyfos						*
Chlorpyrifos	*	*	P	*	*	P
Cyfluthrin		*	*			P
Diazinon	*					
Dimethoate						*
Disulfoton						
Esfenvalerate			*			*
Ethyl parathion						
Fipronil	*					P
Fonofos	*					*
Lambda-cyhalothrin			P		*	*
Methyl parathion						P
Permethrin	*		P			P
Phorate		*		*		*
Propargite						
Tebupirimphos		*	*			P
Tefluthrin		P				P
Terbufos	*	*		P		P
Trimethacarb						*
Fungicides						
Propiconazole	*					*

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

Corn: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	NY	OH	PA	SD	TX	WI
Insecticides						
Bt(Bacillus thur.)						
Bifenthrin			*		P	
Carbofuran			*		*	P
Chlorethoxyfos						
Chlorpyrifos	P	P	P	*	P	P
Cyfluthrin			*	*	P	P
Diazinon						
Dimethoate					P	
Disulfoton						
Esfenvalerate		*				*
Ethyl parathion						
Fipronil		*		*	*	*
Fonofos						
Lambda-cyhalothrin		*	*		*	
Methyl parathion						
Permethrin		*	P		P	
Phorate						
Propargite					*	
Tebupirimphos			*	*	P	P
Tefluthrin	*	*	P	*	P	P
Terbufos	*		*		P	*
Trimethacarb						
Fungicides						
Propiconazole						

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

Corn: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide 3/		Other Chemicals	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
CO	1,350	97	1,501	59	505				
IL 2/	11,200	100	28,190	43	3,131				
IN	5,700	99	15,460	30	797				
IA	12,300	100	24,518	16	635				
KS	3,450	93	7,765	31	287				
KY	1,330	95	2,600	26	65				
MI 2/	2,200	99	5,658	10	131				
MN	7,100	99	10,597	8	369				
MO	2,850	87	5,988	20	114				
NE 2/	8,500	97	16,862	55	1,470				
NY	980	92	2,312	31	204				
NC	730	93	1,732	46	363				
ND 2/	1,080	71	1,284						
OH	3,550	99	10,339	24	603				
PA	1,550	100	4,419	57	302				
SD	4,300	100	5,790	15	44				
TX	2,100	81	2,039	55	426				
WI	3,500	95	6,410	20	365				
Total	73,770	97	153,464	29	9,811				

1/ Total Applied excludes Bt's (Bacillus thuringiensis). Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more of the pesticide classes.
3/ Insufficient reports to publish data for one or more of the States surveyed.

Corn: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	8	1.0	0.39	0.40	2,359
Acetamide	2	1.0	0.50	0.50	792
Acetochlor	25	1.0	1.70	1.73	31,442
Alachlor	4	1.0	1.73	1.74	4,748
Ametryn	*	1.0	1.14	1.14	114
Atrazine	68	1.0	1.00	1.07	53,954
Bentazon	2	1.0	0.26	0.26	327
Bromoxynil	4	1.0	0.29	0.30	884
Carfentrazone-ethyl	1	1.0	0.06	0.06	54
Clopyralid	9	1.0	0.10	0.10	640
Cyanazine	*	1.0	1.36	1.36	865
Dicamba	21	1.0	0.20	0.20	3,132
Dicamba, Dimet. salt	3	1.0	0.18	0.18	394
Dicamba, Pot. salt	5	1.0	0.37	0.37	1,407
Dichlorprop	*	1.2	0.20	0.26	10
Diflufenzopyr-sodium	3	1.0	0.07	0.07	157
Dimethenamid	7	1.0	1.06	1.06	5,738
EPTC	1	1.0	3.51	3.62	2,884
Flumetsulam	10	1.0	0.04	0.04	301
Glufosinate-ammonium	2	1.0	0.33	0.33	585
Glyphosate	9	1.1	0.59	0.70	4,438
Halosulfuron	*	1.0	0.03	0.03	15
Imazapyr	2	1.0	0.002	0.002	3
Imazethapyr	3	1.0	0.01	0.01	22
Isoxaflutole	3	1.0	0.07	0.07	171
Metolachlor	12	1.0	1.65	1.67	14,232
Metribuzin	2	1.0	0.13	0.13	190
Nicosulfuron	15	1.0	0.02	0.02	199
Paraquat	1	1.0	0.52	0.52	570
Pendimethalin	3	1.0	1.25	1.27	2,360
Primisulfuron	9	1.0	0.02	0.02	140
Prosulfuron	4	1.0	0.009	0.009	25
Pyridate	5	1.0	0.66	0.66	2,268
Rimsulfuron	9	1.0	0.01	0.01	82
S-Metolachlor	16	1.0	1.26	1.33	15,383
Simazine	2	1.0	1.13	1.13	2,029
Sulfosate	*	1.0	0.67	0.67	173
Thifensulfuron	*	1.0	0.01	0.01	6
Trifluralin	*	1.0	0.60	0.60	43
Insecticides:					
Bifenthrin	2	1.0	0.07	0.07	93
Carbofuran	*	1.3	0.95	1.25	580
Chlorethoxyfos	*	1.0	0.10	0.10	52
Chlorpyrifos	6	1.0	1.05	1.05	4,516
Cyfluthrin	2	1.0	0.006	0.006	10
Dimethoate	*	1.0	0.48	0.48	109
Esfenvalerate	*	1.0	0.13	0.13	55
Fipronil	4	1.0	0.11	0.11	320

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Corn: Agricultural Chemical Applications,
States Surveyed, 2000 (continued) 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Insecticides: (cont.)					
Lambda-cyhalothrin	2	1.0	0.02	0.02	25
Methyl parathion	*	1.1	0.41	0.46	246
Permethrin	3	1.0	0.10	0.10	182
Phorate	*	1.0	0.91	0.91	65
Propargite	*	1.0	1.00	1.00	46
Tebupirimphos	2	1.0	0.12	0.12	197
Tefluthrin	7	1.0	0.10	0.10	478
Terbufos	3	1.0	1.14	1.23	2,781

* Area applied is less than one percent.
1/ Planted acres in 2000 for the 18 states surveyed were 73.8 million acres. States included are CO, IL, IN, IA, KS, KY, MI, MN, MO, NE, NY, NC, ND, OH, PA, SD, TX and WI.

Corn: Agricultural Chemical Applications,
Colorado, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	6	1.2	0.19	0.24	20
Acetochlor	9	1.0	0.72	0.72	89
Atrazine	56	1.0	0.78	0.82	615
Dicamba	38	1.0	0.13	0.13	67
Dicamba, Dimet. salt	4	1.0	0.08	0.08	4
Dicamba, Pot. salt	3	1.0	0.25	0.25	10
Diflufenzopyr-sodium	4	1.0	0.03	0.03	2
Glyphosate	29	1.7	0.34	0.58	228
Metolachlor	6	1.0	1.44	1.44	113
Nicosulfuron	31	1.0	0.01	0.01	5
Pyridate	12	1.0	0.37	0.37	61
Rimsulfuron	27	1.0	0.01	0.01	4
Insecticides:					
Cyfluthrin	12	1.0	0.004	0.004	**
Tebupirimphos	12	1.0	0.07	0.07	11
Tefluthrin	4	1.0	0.05	0.05	3
Terbufos	21	1.0	1.02	1.02	284

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Colorado were 1.35 million acres.

Corn: Agricultural Chemical Applications,
Illinois, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	13	1.0	0.42	0.43	642
Acetochlor	20	1.0	1.97	2.04	4,491
Alachlor	*	1.1	1.76	1.97	177
Atrazine	81	1.1	1.09	1.21	10,927
Clopyralid	6	1.0	0.09	0.09	64
Dicamba	21	1.0	0.12	0.12	288
Dicamba, Dimet. salt	4	1.0	0.13	0.13	65
Dicamba, Pot. salt	10	1.0	0.41	0.41	460
Diflufenzopyr-sodium	4	1.0	0.05	0.05	26
Dimethenamid	14	1.0	1.10	1.10	1,677
Flumetsulam	6	1.0	0.03	0.03	24
Glyphosate	6	1.1	0.54	0.61	382
Imazapyr	3	1.0	0.002	0.002	**
Imazethapyr	3	1.0	0.007	0.007	2
Isoxaflutole	4	1.0	0.09	0.09	42
Metolachlor	20	1.0	1.67	1.55	3,721
Nicosulfuron	8	1.1	0.02	0.02	17
Paraquat	3	1.0	0.55	0.55	182
Primisulfuron	20	1.0	0.02	0.02	50
Prosulfuron	9	1.0	0.008	0.008	9
Rimsulfuron	8	1.0	0.01	0.01	10
S-Metolachlor	25	1.0	1.42	1.44	4,054
Simazine	4	1.0	1.01	1.01	430
Insecticides:					
Chlorpyrifos	13	1.0	1.20	1.20	1,799
Esfenvalerate	2	1.0	0.07	0.07	18
Lambda-cyhalothrin	4	1.0	0.02	0.02	9
Permethrin	2	1.0	0.10	0.10	26
Tefluthrin	10	1.0	0.10	0.10	122
Terbufos	4	1.4	1.24	1.75	791

* Area applied is less than one percent.
** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Illinois were 11.2 million acres.

Corn: Agricultural Chemical Applications,
Indiana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	13	1.0	0.38	0.41	318
Acetamide	2	1.0	0.50	0.50	66
Acetochlor	26	1.0	2.00	2.01	2,918
Alachlor	3	1.0	2.06	2.06	330
Atrazine	80	1.0	1.38	1.41	6,432
Clopyralid	10	1.0	0.10	0.10	56
Dicamba	13	1.0	0.22	0.22	157
Dimethenamid	6	1.0	1.23	1.23	427
Flumetsulam	11	1.0	0.04	0.04	25
Glyphosate	11	1.0	0.47	0.47	287
Imazapyr	4	1.0	0.002	0.002	1
Imazethapyr	4	1.0	0.007	0.007	2
Isoxaflutole	3	1.0	0.06	0.06	9
Metolachlor	41	1.0	1.50	1.50	1,601
Metribuzin	2	1.0	0.13	0.13	15
Nicosulfuron	5	1.0	0.01	0.01	3
Paraquat	*	1.0	0.50	0.50	21
Primisulfuron	8	1.0	0.02	0.02	9
Prosulfuron	4	1.0	0.008	0.008	2
Rimsulfuron	5	1.0	0.009	0.009	2
Simazine	5	1.0	0.94	0.94	277
S-Metolachlor	27	1.0	1.25	1.25	1,909
Insecticides:					
Chlorpyrifos	8	1.0	1.04	1.04	499
Tefluthrin	13	1.0	0.10	0.10	75

* Area applied is less than one percent.
1/ Planted acres in 2000 for Indiana were 5.70 million acres.

Corn: Agricultural Chemical Applications,
Iowa, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	10	1.0	0.35	0.35	414
Acetochlor	32	1.0	1.76	1.83	7,294
Atrazine	64	1.1	0.81	0.90	7,119
Bromoxynil	12	1.0	0.27	0.29	414
Carfentrazone-ethyl	3	1.0	0.08	0.08	31
Clopyralid	9	1.0	0.10	0.10	115
Dicamba	19	1.0	0.23	0.23	540
Dicamba, Dimet. salt	3	1.0	0.06	0.06	23
Dicamba, Pot. salt	9	1.0	0.37	0.37	425
Diflufenzopyr-sodium	3	1.0	0.03	0.03	9
Dimethenamid	7	1.0	1.18	1.18	1,032
Flumetsulam	10	1.0	0.04	0.04	45
Glufosinate-ammonium	7	1.0	0.32	0.32	294
Glyphosate	7	1.0	0.55	0.55	479
Imazapyr	2	1.0	0.002	0.002	1
Imazethapyr	2	1.0	0.007	0.007	2
Isoxaflutole	6	0.9	0.08	0.08	62
Metolachlor	10	1.0	1.97	1.97	2,316
Nicosulfuron	18	1.0	0.02	0.02	37
Primisulfuron	8	1.0	0.02	0.02	21
Pyridate	20	1.0	0.73	0.73	1,775
Rimsulfuron	10	1.0	0.01	0.01	14
S-Metolachlor	3	1.2	1.44	1.75	541
Insecticides:					
Chlorpyrifos	3	1.0	0.91	0.91	340
Cyfluthrin	5	1.0	0.006	0.006	4
Permethrin	1	1.0	0.12	0.12	16
Tebupirimphos	5	1.0	0.13	0.13	74

1/ Planted acres in 2000 for Iowa were 12.3 million acres.

Corn: Agricultural Chemical Applications,
Kansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	7	1.0	0.34	0.35	84
Acetochlor	10	1.0	1.94	1.94	683
Alachlor	5	1.0	1.99	1.99	360
Atrazine	81	1.1	0.91	1.04	2,910
Carfentrazone-ethyl	2	1.0	0.02	0.02	1
Dicamba	10	1.0	0.18	0.18	58
Dimethenamid	12	1.0	0.66	0.66	277
Glyphosate	15	1.3	0.58	0.77	394
Imazapyr	2	1.0	0.003	0.003	**
Imazethapyr	2	1.0	0.009	0.009	1
Metolachlor	5	1.0	1.33	1.33	231
Nicosulfuron	13	1.2	0.01	0.01	6
Primisulfuron	7	1.0	0.03	0.03	7
Prosulfuron	7	1.0	0.009	0.009	2
Rimsulfuron	12	1.2	0.01	0.01	5
S-Metolachlor	32	1.5	1.36	2.05	2,243

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Kansas were 3.45 million acres.

Corn: Agricultural Chemical Applications,
Kentucky, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	11	1.0	0.45	0.45	64
Acetochlor	3	1.0	1.23	1.23	44
Alachlor	4	1.0	1.98	1.98	106
Atrazine	75	1.1	1.15	1.35	1,341
Glyphosate	7	1.0	0.74	0.74	72
Imazapyr	15	1.0	0.002	0.002	**
Imazethapyr	15	1.0	0.006	0.006	1
Metolachlor	17	1.1	2.26	2.52	946
Paraquat	25	1.0	0.51	0.51	166
Primisulfuron	4	1.0	0.03	0.03	2
Simazine	8	1.0	1.25	1.25	133
S-Metolachlor	6	1.0	1.05	1.05	138

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Kentucky were 1.33 million acres.

Corn: Agricultural Chemical Applications,
Michigan, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	9	1.0	0.44	0.44	83
Acetochlor	48	1.0	1.64	1.64	1,721
Atrazine	70	1.1	0.96	1.11	1,705
Bromoxynil	9	1.0	0.46	0.46	94
Clopyralid	10	1.0	0.10	0.10	21
Dicamba	17	1.0	0.18	0.18	68
Flumetsulam	20	1.0	0.05	0.05	23
Glyphosate	15	1.0	0.74	0.74	244
Metolachlor	17	1.1	1.32	1.32	277
Nicosulfuron	8	1.0	0.02	0.02	4
Pendimethalin	18	1.0	0.90	0.90	366
Rimsulfuron	5	1.0	0.01	0.01	2
S-Metolachlor	10	1.0	1.43	1.43	190

1/ Planted acres in 2000 for Michigan were 2.20 million acres.

Corn: Agricultural Chemical Applications,
Minnesota, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	1	1.0	0.40	0.40	39
Acetochlor	41	1.0	1.44	1.44	4,176
Alachlor	2	1.0	2.00	2.00	308
Atrazine	39	1.0	0.67	0.69	1,930
Bromoxynil	3	1.0	0.27	0.27	59
Clopyralid	20	1.0	0.09	0.09	135
Dicamba	54	1.0	0.22	0.22	856
Dicamba, Dimet. salt	4	1.0	0.13	0.13	41
Dicamba, Pot. salt	5	1.0	0.30	0.30	106
Diflufenzopyr-sodium	4	1.0	0.05	0.05	16
Dimethenamid	7	1.0	1.32	1.32	685
Flumetsulam	21	1.0	0.03	0.04	51
Glyphosate	3	1.1	0.69	0.80	189
Metolachlor	2	1.0	2.85	2.89	393
Nicosulfuron	35	1.0	0.01	0.01	35
Primisulfuron	6	1.0	0.02	0.02	10
Rimsulfuron	12	1.0	0.01	0.01	10
S-Metolachlor	6	1.0	1.51	1.51	606
Insecticides:					
Tefluthrin	4	1.0	0.10	0.10	26

1/ Planted acres in 2000 for Minnesota were 7.10 million acres.

Corn: Agricultural Chemical Applications,
Missouri, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	5	1.0	0.51	0.51	77
Acetamide	4	1.0	0.50	0.50	61
Acetochlor	17	1.0	2.48	2.48	1,199
Alachlor	3	1.0	1.74	1.74	124
Atrazine	76	1.1	1.21	1.40	3,029
Clopyralid	4	1.0	0.11	0.11	11
Flumetsulam	4	1.0	0.04	0.04	4
Glufosinate-ammonium	2	1.0	0.33	0.33	16
Glyphosate	6	1.0	0.62	0.62	108
Imazapyr	6	1.0	0.002	0.002	**
Imazethapyr	6	1.0	0.006	0.006	1
Metolachlor	13	1.1	1.39	1.57	582
Metribuzin	4	1.0	0.13	0.13	15
Nicosulfuron	17	1.0	0.01	0.01	7
Primisulfuron	4	1.0	0.02	0.02	3
Prosulfuron	1	1.0	0.007	0.007	**
Rimsulfuron	16	1.0	0.009	0.01	5
S-Metolachlor	12	1.0	1.30	1.30	446
Simazine	4	1.0	0.69	0.69	77
Insecticides:					
Chlorpyrifos	4	1.0	0.68	0.68	79
Lambda-cyhalothrin	4	1.0	0.02	0.02	2
Permethrin	12	1.0	0.08	0.08	28

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Missouri were 2.85 million acres.

Corn: Agricultural Chemical Applications,
Nebraska, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	4	1.0	0.42	0.43	165
Acetamide	5	1.0	0.64	0.66	259
Acetochlor	17	1.0	1.59	1.59	2,346
Alachlor	5	1.0	1.71	1.71	668
Atrazine	80	1.0	1.06	1.11	7,497
Clopyralid	8	1.0	0.12	0.12	78
Cyanazine	2	1.0	1.08	1.08	158
Dicamba	16	1.0	0.17	0.17	239
Dicamba, Dimet salt	3	1.0	0.41	0.41	96
Dicamba, Pot. salt	2	1.0	0.35	0.35	51
Diflufenzopyr-sodium	3	1.0	0.16	0.16	38
Dimethenamid	5	1.0	1.03	1.03	443
Flumetsulam	8	1.0	0.04	0.04	29
Glyphosate	3	1.1	0.62	0.72	182
Halosulfuron	3	1.0	0.03	0.03	6
Imazapyr	2	1.0	0.002	0.002	**
Imazethapyr	6	1.0	0.02	0.02	12
Isoxaflutole	3	1.0	0.06	0.06	14
Metolachlor	13	1.0	1.32	1.32	1,469
Metribuzin	5	1.0	0.16	0.16	64
Nicosulfuron	12	1.0	0.03	0.03	28
Primisulfuron	10	1.0	0.02	0.02	17
Prosulfuron	7	1.0	0.008	0.008	5
Rimsulfuron	8	1.0	0.01	0.01	9
S-Metolachlor	32	1.0	1.04	1.04	2,790
Thifensulfuron	*	1.0	0.008	0.008	**
Insecticides:					
Chlorpyrifos	4	1.0	0.78	0.78	246
Cyfluthrin	5	1.0	0.007	0.007	3
Fipronil	21	1.0	0.10	0.10	178
Methyl parathion	3	1.0	0.37	0.37	84
Permethrin	4	1.0	0.06	0.06	17
Tebupirimphos	5	1.0	0.14	0.14	57
Tefluthrin	12	1.0	0.09	0.09	95
Terbufos	7	1.0	1.13	1.13	675

* Area applied is less than one percent.
** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Nebraska were 8.50 million acres.

Corn: Agricultural Chemical Applications,
New York, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Alachlor	16	1.0	2.25	2.25	362
Atrazine	81	1.0	1.09	1.10	867
Dicamba	14	1.0	0.39	0.42	58
Flumetsulam	25	1.0	0.04	0.04	11
Glyphosate	2	1.0	0.91	0.91	20
Metolachlor	25	1.0	1.95	1.95	484
Nicosulfuron	13	1.0	0.02	0.02	2
Pendimethalin	25	1.0	1.31	1.31	325
Rimsulfuron	11	1.0	0.01	0.01	3
S-Metolachlor	8	1.0	1.43	1.43	108
Insecticides:					
Chlorpyrifos	17	1.0	1.02	1.02	173

1/ Planted acres in 2000 for New York were 980,000 acres.

Corn: Agricultural Chemical Applications,
North Carolina, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	5	1.0	0.39	0.39	14
Alachlor	12	1.0	1.86	1.86	167
Ametryn	14	1.0	1.11	1.11	114
Atrazine	79	1.0	1.29	1.29	737
Glyphosate	30	1.0	0.53	0.53	115
Metolachlor	33	1.0	1.42	1.42	345
Paraquat	15	1.0	0.45	0.45	49
S-Metolachlor	13	1.0	1.11	1.11	109
Simazine	2	1.0	1.12	1.12	20
Insecticides:					
Terbufos	38	1.0	1.14	1.14	318

1/ Planted acres in 2000 for North Carolina were 730,000 acres.

Corn: Agricultural Chemical Applications,
North Dakota, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	4	1.0	0.35	0.35	16
Acetochlor	20	1.0	1.08	1.14	250
Atrazine	13	1.0	0.35	0.35	48
Bromoxynil	8	1.0	0.29	0.29	25
Clopyralid	6	1.0	0.11	0.11	7
Dicamba	20	1.0	0.19	0.19	41
Dicamba, Dimet. salt	9	1.0	0.16	0.16	16
Diflufenzopyr-sodium	9	1.0	0.06	0.06	6
EPTC	16	1.0	3.55	3.77	663
Flumetsulam	5	1.0	0.04	0.04	2
Glyphosate	4	1.0	0.45	0.48	20
Nicosulfuron	32	1.0	0.02	0.03	9
Rimsulfuron	9	1.0	0.01	0.01	1

1/ Planted acres in 2000 for North Dakota were 1.08 million acres.

Corn: Agricultural Chemical Applications,
Ohio, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	17	1.0	0.42	0.42	251
Acetochlor	30	1.0	2.22	2.22	2,368
Alachlor	8	1.0	1.48	1.48	403
Atrazine	82	1.0	1.28	1.28	3,721
Clopyralid	4	1.0	0.09	0.09	11
Cyanazine	1	1.0	1.25	1.25	57
Dicamba	7	1.0	0.31	0.31	71
Dicamba, Dimet. salt	6	1.0	0.13	0.13	26
Diflufenzopyr-sodium	6	1.0	0.05	0.05	10
Dimethenamid	9	1.0	1.34	1.34	414
Flumetsulam	5	1.0	0.04	0.04	7
Glyphosate	22	1.0	0.57	0.59	467
Isoxaflutole	9	1.0	0.08	0.08	24
Metolachlor	14	1.0	1.33	1.33	677
Nicosulfuron	5	1.0	0.03	0.03	4
Pendimethalin	*	1.0	0.86	0.86	18
Primisulfuron	2	1.0	0.01	0.01	1
S-Metolachlor	18	1.0	1.03	1.03	659
Simazine	18	1.0	1.60	1.60	999
Insecticides:					
Chlorpyrifos	13	1.0	1.15	1.15	544

* Area applied is less than one percent.
1/ Planted acres in 2000 for Ohio were 3.55 million acres.

Corn: Agricultural Chemical Applications,
Pennsylvania, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	6	1.0	0.48	0.48	46
Acetochlor	18	1.0	1.96	1.96	551
Atrazine	87	1.0	1.10	1.10	1,484
Dicamba	27	1.0	0.15	0.15	62
Glyphosate	11	1.0	0.89	0.95	166
Metolachlor	21	1.0	1.80	1.81	601
Nicosulfuron	22	1.0	0.02	0.02	6
Pendimethalin	46	1.0	1.21	1.21	859
Rimsulfuron	20	1.0	0.01	0.01	4
S-Metolachlor	15	1.0	1.18	1.18	282
Thifensulfuron	5	1.0	0.008	0.008	1
Insecticides:					
Chlorpyrifos	7	1.0	1.10	1.10	126
Permethrin	2	1.0	0.13	0.13	4
Tefluthrin	29	1.0	0.10	0.10	46

1/ Planted acres in 2000 for Pennsylvania were 1.55 million acres.

Corn: Agricultural Chemical Applications,
South Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	2	1.1	0.76	0.86	89
Acetochlor	34	1.0	0.98	1.03	1,507
Atrazine	42	1.0	0.54	0.59	1,062
Bromoxynil	7	1.0	0.23	0.23	70
Clopyralid	12	1.0	0.07	0.07	36
Dicamba	30	1.0	0.28	0.28	363
EPTC	6	1.0	2.93	3.10	797
Flumetsulam	12	1.0	0.02	0.02	13
Glyphosate	16	1.6	0.63	1.06	748
Imazapyr	4	1.0	0.002	0.002	**
Imazethapyr	4	1.0	0.007	0.007	1
Isoxaflutole	4	1.0	0.07	0.07	12
Metolachlor	5	1.0	0.21	0.21	47
Nicosulfuron	21	1.0	0.01	0.01	12
Primisulfuron	8	1.0	0.02	0.02	6
Rimsulfuron	13	1.0	0.008	0.008	5

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for South Dakota were 4.30 million acres.

Corn: Agricultural Chemical Applications,
Texas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Atrazine	70	1.0	0.70	0.76	1,106
Dicamba	6	1.0	0.16	0.16	19
Dimethenamid	6	1.0	0.69	0.69	80
Glyphosate	6	1.2	0.70	0.90	116
Nicosulfuron	11	1.0	0.02	0.02	4
Pendimethalin	5	1.3	0.37	0.49	55
Primisulfuron	11	1.0	0.02	0.02	5
Prosulfuron	12	1.0	0.01	0.01	3
Rimsulfuron	5	1.0	0.04	0.04	4
S-Metolachlor	16	1.0	0.92	0.92	302
Insecticides:					
Bifenthrin	19	1.0	0.08	0.08	31
Chlorpyrifos	4	1.0	0.76	0.76	66
Cyfluthrin	8	1.0	0.004	0.004	1
Dimethoate	5	1.0	0.43	0.43	42
Permethrin	10	1.0	0.07	0.07	15
Tebupirimphos	8	1.0	0.08	0.08	13
Tefluthrin	8	1.0	0.09	0.09	15
Terbufos	12	1.0	0.82	0.82	208

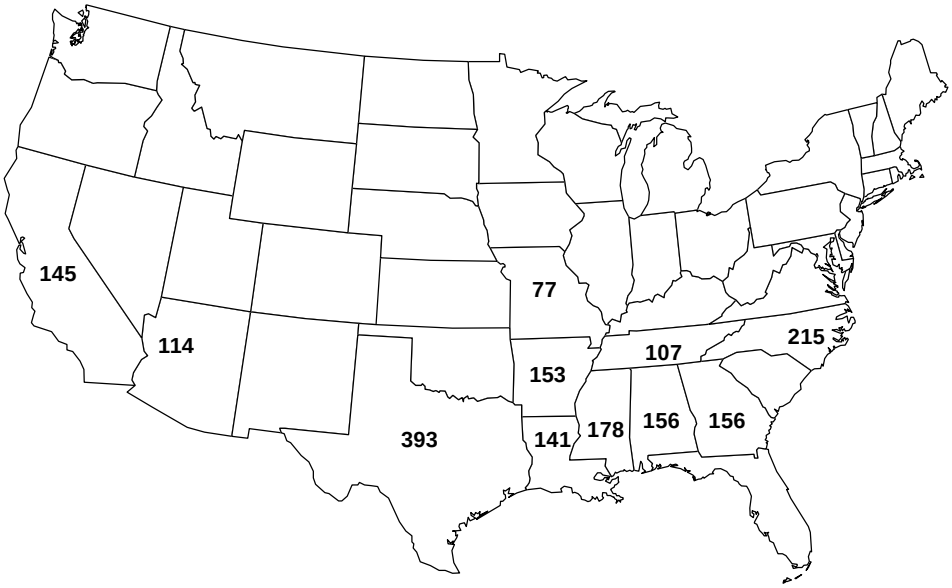
1/ Planted acres in 2000 for Texas were 2.10 million acres.

Corn: Agricultural Chemical Applications,
Wisconsin, 2000 1/

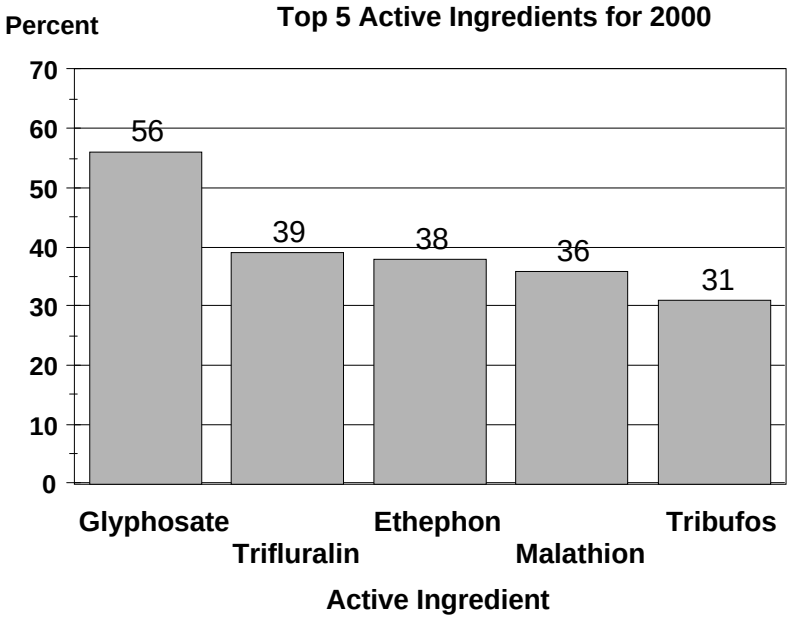
Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Acetochlor	26	1.0	1.87	1.88	1,694
Alachlor	16	1.0	2.10	2.10	1,150
Atrazine	52	1.0	0.79	0.79	1,424
Clopyralid	31	1.0	0.09	0.09	99
Cyanazine	2	1.0	1.19	1.19	80
Dicamba	18	1.0	0.18	0.18	111
Dicamba, Dimet. salt	2	1.0	0.15	0.15	12
Dicamba, Pot. salt	18	1.0	0.41	0.41	259
Dimethenamid	5	1.0	0.65	0.65	106
Flumetsulam	36	1.0	0.05	0.05	61
Glyphosate	6	1.0	1.09	1.09	221
Metolachlor	5	1.0	1.85	1.85	325
Nicosulfuron	24	1.0	0.02	0.02	14
Pendimethalin	4	1.0	1.22	1.22	159
Primisulfuron	5	1.0	0.02	0.02	4
Rimsulfuron	14	1.0	0.007	0.007	3
S-Metolachlor	15	1.0	1.18	1.19	618
Insecticides:					
Carbofuran	3	1.0	1.00	1.00	105
Chlorpyrifos	6	1.0	1.00	1.00	219
Cyfluthrin	1	1.0	0.006	0.006	**
Tebupirimphos	1	1.0	0.13	0.13	6
Tefluthrin	7	1.0	0.11	0.11	25

** Total applied is less than 1,000 pounds.
1/ Planted acres in 2000 for Wisconsin were 3.50 million acres.

Upland Cotton: Number of Usable Reports, 2000



Upland Cotton - Percent of Acres Treated



Surveyed states: AL, AR, AZ, CA, GA, LA, MS, MO, NC, TN and TX

Upland Cotton: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted	Percent of Acres Treated and Total Applied					
	Acreage	Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
AL	590	100	60.5	95	35.2	91	46.7
AZ	280	98	35.6	30	4.7	8	0.9
AR	960	100	84.2	78	30.5	84	66.1
CA	775	98	105.4	29	12.6	12	5.3
GA	1,500	96	124.9	94	77.6	93	117.7
LA	710	100	60.7	64	20.1	66	33.0
MS	1,300	100	147.7	44	29.5	68	86.1
MO	400	100	40.4	86	11.7	95	33.5
NC	930	96	76.0	80	34.9	91	98.5
TN	570	99	47.5	93	29.8	98	50.4
TX	6,400	63	263.4	54	136.9	26	31.1
Total	14,415	83	1,046.3	63	423.5	53	569.3

Upland Cotton: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Alabama:	590					
Nitrogen		100	1.5	67	103	60.5
Phosphate		95	1.0	58	63	35.2
Potash		91	1.1	78	87	46.7
Arizona:	280					
Nitrogen		98	2.1	59	129	35.6
Phosphate		30	1.1	50	57	4.7
Potash		8	1.1	34	39	0.9
Arkansas:	960					
Nitrogen		100	1.4	61	88	84.2
Phosphate		78	1.0	39	41	30.5
Potash		84	1.0	80	82	66.1
California:	775					
Nitrogen		98	1.9	71	139	105.4
Phosphate		29	1.2	46	57	12.6
Potash		12	1.1	51	58	5.3
Georgia:	1,500					
Nitrogen		96	1.9	44	87	124.9
Phosphate		94	1.1	47	55	77.6
Potash		93	1.1	73	84	117.7

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Upland Cotton: Fertilizer Primary Nutrient Applications, States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Louisiana:	710					
Nitrogen		100	1.1	77	86	60.7
Phosphate		64	1.0	44	44	20.1
Potash		66	1.0	70	70	33.0
Mississippi:	1,300					
Nitrogen		100	1.5	72	114	147.7
Phosphate		44	1.0	50	52	29.5
Potash		68	1.0	92	97	86.1
Missouri:	400					
Nitrogen		100	1.6	62	101	40.4
Phosphate		86	1.0	33	34	11.7
Potash		95	1.0	86	88	33.5
North Carolina:	930					
Nitrogen		96	1.9	43	85	76.0
Phosphate		80	1.1	41	47	34.9
Potash		91	1.2	93	116	98.5
Tennessee:	570					
Nitrogen		99	1.2	70	84	47.5
Phosphate		93	1.0	56	56	29.8
Potash		98	1.1	82	90	50.4
Texas:	6,400					
Nitrogen		63	1.3	48	65	263.4
Phosphate		54	1.0	38	40	136.9
Potash		26	1.0	18	19	31.1
Total:	14,415					
Nitrogen		83	1.5	56	88	1,046.3
Phosphate		63	1.0	43	46	423.5
Potash		53	1.0	68	74	569.3

Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	AL	AR	AZ	CA	GA	LA
Herbicides							
2,4-D	P	*					*
Alachlor	*						*
Bromoxynil	P	*	P	*	P		*
Clethodim	P	*	P	*		*	P
Clomazone	P	*	*			*	*
Cyanazine	P	P	P	P	*	P	P
Dicamba	*						
DSMA	P	*	*			P	*
Diuron	P	P	P	P	P	P	P
Ethalfluralin	*	*				*	
Fenoxaprop-P-ethyl	P						*
Fluazifop-P-butyl	P		P	*	P		P
Fluometuron	P	P	P	P		P	P
Fomesafen	*	*				*	
Glyphosate	P	P	P	P	P	P	P
Lactofen	P		*				*
Linuron	P	*	*				*
MSMA	P	P	P	*	*	P	P
Metolachlor	P		P	*	P		P
Norflurazon	P	P	P	*		*	P
Oxyfluorfen	P		*		P		
Pendimethalin	P	P	P	P	P	P	P
Prometryn	P	P	P	P	P	*	P
Pyridate	P	*					
Pyrithiobac-sodium	P	P	P	P	P	P	P
Quizalofop-ethyl	P		*				*
S-Metolachlor	P		*		*		*
Sethoxydim	P					*	*
Sulfosate	*						
Thifensulfuron	*		*				*
Tribenuron-methyl	*		*				
Trifluralin	P	P	P	P	P	P	P

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

Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed				
	MO	MS	NC	TN	TX
Herbicides					
2,4-D	*	P	P		P
Alachlor					
Bromoxynil	P	P	P	*	*
Clethodim	*	P	P	*	P
Clomazone	P	P	*	P	*
Cyanazine	P	P	P	P	*
Dicamba	*		*		
DSMA		*	*	*	
Diuron	*	P	*	P	P
Ethalfluralin					
Fenoxaprop-P-ethyl				*	*
Fluazifop-P-butyl	*	*		*	P
Fluometuron	P	P	P	P	P
Fomesafen					
Glyphosate	P	P	P	P	P
Lactofen		P			
Linuron	*	*			
MSMA	P	P	P	P	P
Metolachlor	P	P	*	*	*
Norflurazon	P	P	P		*
Oxyfluorfen		*			
Pendimethalin	P	P	P	P	P
Prometryn	P	P	P	*	P
Pyridate	*				P
Pyrithiobac-sodium	P	P	P	P	P
Quizalofop-ethyl	*		*		
S-Metolachlor	*		*		*
Sethoxydim	*	*			*
Sulfosate	*	*	*		
Thifensulfuron			*		
Tribenuron-methyl					
Trifluralin	P	P	P	P	P

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

Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	AL	AR	AZ	CA	GA	LA
Insecticides							
Abamectin	*			*	*		
Acephate	P	P	P	P	P	P	P
Aldicarb	P	P	P	*	P	P	P
Amitraz	P			*	*	*	*
Azadirachtin	*						
Azinphos-methyl	P		*	*			
Bt(Bacillus thur.)	P		*	*	P		*
Benzoic Acid	*						*
Bifenthrin	P		*	*	P		*
Buprofezin	*			*	*		
Carbaryl	*						
Carbofuran	P		*		P		P
Chlorpyrifos	P	*	*	P	P	*	*
Cyfluthrin	P		P	*	*	P	P
Cypermethrin	P	P	P	P	*	*	P
Deltamethrin	P				*	P	*
Dicofol	P		*	*	P		
Dicrotophos	P	P	P			*	P
Diflubenzuron	P				*	*	
Dimethoate	P	*	*	*	P	*	P
Disulfoton	P	P	*	*		*	*
Emamectin benzoate	P						*
Endosulfan	P			P	*		*
Esfenvalerate	P		P		*	*	
Ethyl parathion	*					*	
Fenpropathrin	*			*	*		
Fenvalerate	*						
Imidacloprid	P	*	P		P	*	P
Indoxacarb	P						
Lambda-cyhalothrin	P	*	P	P	*	P	P
Malathion	P		P	*		*	P
Methamidophos	P		P				P
Methidathion	*						
Methomyl	P			P	*		
Methyl parathion	P	*	*	*		P	P
Naled	P				P		
Oxamyl	P	*	P	P	P		*
Permethrin	P					*	*
Petroleum distillate	*				*		
Phorate	P	P	P	*	P	P	P
Phosphamidon	*				*		
Profenofos	P		*	*	*	*	P
Propargite	P				*		*
Pyriproxyfen	P			P	P		
Spinosad	P		P			*	P
Sulfur	P			*	*		
Sulprofos	*						
Tebufenozide	P				P		
Thiodicarb	P		*	*			*
Tralomethrin	P		*			P	*
Zeta-cypermethrin	P	*	P		*	*	P

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Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed				
	MO	MS	NC	TN	TX
Insecticides					
Abamectin					
Acephate	P	P	P	P	P
Aldicarb	P	P	P	*	P
Amitraz	*	*			
Azadirachtin			*		
Azinphos-methyl	*	*		*	P
Bt(Bacillus thur.)		*		*	P
Benzoic Acid					*
Bifenthrin	P	*		*	*
Buprofezin					
Carbaryl			*		
Carbofuran	*	P			P
Chlorpyrifos	*			*	P
Cyfluthrin	P	P	P	P	P
Cypermethrin	P	P	P	P	P
Deltamethrin	*	*	P		P
Dicofol				*	*
Dicrotophos	*	P	*	P	P
Diflubenzuron		*			*
Dimethoate	*	*	P	*	*
Disulfoton	*	P	*	P	*
Emamectin benzoate		*			P
Endosulfan					P
Esfenvalerate	*				P
Ethyl parathion					*
Fenpropathrin					
Fenvalerate			*		
Imidacloprid	P	*	*	P	P
Indoxacarb					P
Lambda-cyhalothrin	P	P	P	P	P
Malathion	*	P		P	P
Methamidophos		*		*	
Methidathion				*	
Methomyl		*	*	*	*
Methyl parathion	P	*		P	P
Naled					
Oxamyl	P	P		P	P
Permethrin	*	*		*	*
Petroleum distillate					*
Phorate	*	*	P	*	P
Phosphamidon					
Profenofos	P	P		*	
Propargite					
Pyriproxyfen					
Spinosad		P		*	P
Sulfur			*		
Sulprofos		*			
Tebufenozide					P
Thiodicarb		*	*		*
Tralomethrin		*	*		*
Zeta-cypermethrin	P	*	P		P

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Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	AL	AR	AZ	CA	GA	LA
Fungicides							
Carboxin	P						
Chlorothalonil	*						
Etridiazole	P	P	*	*	*		P
Fenarimol	*						
Iprodione	*		*				*
Mancozeb	*			*			
Mefenoxam	P	P	P				P
Metalaxyl	P		*				*
PCNB	P	P	P	*	*		*
Other Chemicals							
Bacillus cereus	P	P	P	P	P	P	P
Cacodylic acid	P			*	P		
Chloropicrin	*			*		*	
Cyclanilide	P	P	P		P	P	P
Cytokinins	P		*	*			
Dichloropropene	P	*		*		*	
Dimethipin	P	*	*		*	P	*
Endothall	P	*	*	*	P		
Ethephon	P	P	P	P	P	P	P
Gibberellic acid	P		*				P
Gossyplure	*			*			
Hexadecadien(Z,Z)	*			*			
Indole-3-butyric acid	P		*				P
Mepiquat chloride	P	P	P	P	P	P	P
Metam-sodium	*				*		
Methyl bromide	*			*			
Monocarbamide dihyd.	P		P	P	P	P	P
Paraquat	P	P	*	P	P	P	*
Potassium gibberella	*						
Sodium chlorate	P	*	P	P	P	*	P
Thidiazuron	P	P	P	P	P	P	P
Tribufos	P	P	P	*	P	P	P

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

Upland Cotton: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed				
	MO	MS	NC	TN	TX
Fungicides					
Carboxin		*	*		
Chlorothalonil	*				
Etridiazole		P	*	P	*
Fenarimol	*				
Iprodione		*			
Mancozeb					
Mefenoxam		P	P	P	
Metalaxyl		P	*		
PCNB		P	P	P	*
Other Chemicals					
Bacillus cereus	*	P	P	P	P
Cacodylic acid			*	*	*
Chloropicrin					
Cyclanilide	P	P	P	P	P
Cytokinins	*		*	*	*
Dichloropropene					
Dimethipin	P	*	P		*
Endothall	*	*			*
Ethephon	P	P	P	P	P
Gibberellic acid	*	P		*	P
Gossyplure					
Hexadecadien(Z,Z)					
Indole-3-butyric acid	*	P	*	*	P
Mepiquat chloride	P	P	P	P	P
Metam-sodium					
Methyl bromide					
Monocarbamide dihyd.	*	*	P		P
Paraquat	P	P	P	P	P
Potassium gibberella			*	*	*
Sodium chlorate	*	P	P		P
Thidiazuron	P	P	P	P	P
Tribufos	P	P	P	P	*

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

Upland Cotton: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide 3/		Other Chemicals4/	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
AL	590	97	1,435	67	270	16	84	58	398
AZ	280	94	497	66	455	10	31	79	670
AR	960	95	1,993	82	1,610	17	57	89	1,459
CA	775	99	1,475	90	1,051	1	9	99	2,714
GA	1,500	98	3,526	81	725			78	3,258
LA	710	96	1,825	98	4,795	23	229	88	749
MS	1,300	98	3,557	99	6,112	15	131	99	1,986
MO 2/	400	94	677	90	360			97	695
NC	930	99	2,375	94	510	4	19	91	1,921
TN	570	99	1,347	100	4,333	20	77	93	691
TX 2/	6,400	92	7,847	69	20,639			29	1,593
Total	14,415	95	26,554	80	40,860	6	641	61	16,134

1/ Total Applied excludes Bt's (Bacillus thuringiensis). Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more of the pesticide classes.
3/ Insufficient reports to publish data for one or more of the States surveyed.
4/ Total applied excludes Bacillus Cereus. Total quantities are not calculated, because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
Herbicides:					
2,4-D	1	1.0	0.83	0.85	171
Bromoxynil	6	1.5	0.37	0.58	498
Clethodim	3	1.1	0.15	0.17	64
Clomazone	2	1.0	0.43	0.43	95
Cyanazine	10	1.1	0.69	0.76	1,091
DSMA	1	1.0	1.69	1.74	334
Diuron	20	1.1	0.34	0.40	1,138
Fenoxaprop-P-ethyl	*	1.2	0.10	0.13	2
Fluazifop-P-butyl	*	1.2	0.22	0.27	28
Fluometuron	20	1.1	0.61	0.70	1,976
Glyphosate	56	1.7	0.67	1.18	9,529
Lactofen	*	1.0	0.10	0.11	9
Linuron	*	1.0	0.46	0.49	17
MSMA	14	1.2	0.95	1.21	2,402
Metolachlor	2	1.0	0.92	0.92	253
Norflurazon	4	1.0	0.58	0.59	343
Oxyfluorfen	*	1.3	0.30	0.41	58
Pendimethalin	22	1.0	0.73	0.77	2,488
Prometryn	14	1.1	0.61	0.70	1,363
Pyridate	*	1.0	0.22	0.22	25
Pyrithiobac-sodium	14	1.1	0.04	0.05	105
Quizalofop-ethyl	*	1.0	0.05	0.05	1
S-Metolachlor	*	1.0	0.52	0.53	73
Sethoxydim	*	1.1	0.14	0.15	16
Trifluralin	39	1.0	0.74	0.77	4,399
Insecticides:					
Abamectin	3	1.0	0.007	0.007	3
Acephate	12	1.5	0.50	0.76	1,288
Aldicarb	26	1.0	0.63	0.65	2,483
Amitraz	*	1.2	0.29	0.37	23
Azinphos-methyl	2	1.7	0.26	0.44	143
Bt(Bacillus thur.)2/	1	1.6			
Bifenthrin	2	1.2	0.06	0.07	19
Buprofezin	*	1.0	0.33	0.33	9
Carbofuran	5	1.0	0.24	0.25	172
Chlorpyrifos	5	1.5	0.63	1.01	659
Cyfluthrin	8	1.3	0.08	0.11	122
Cypermethrin	8	1.1	0.06	0.07	79
Deltamethrin	2	1.5	0.09	0.14	35
Dicofol	1	1.0	0.94	0.95	192
Dicrotophos	8	1.4	0.22	0.32	364
Diflubenzuron	*	1.0	0.14	0.14	3
Dimethoate	2	1.1	0.25	0.28	73
Disulfoton	1	1.0	0.76	0.76	141
Emamectin benzoate	2	1.2	0.008	0.01	2
Endosulfan	2	1.4	0.63	0.90	215
Esfenvalerate	*	1.0	0.04	0.04	5
Fenpropathrin	*	1.1	0.18	0.20	14
Imidacloprid	3	1.1	0.03	0.04	17
Indoxacarb	3	1.0	0.10	0.10	45
Lambda-cyhalothrin	9	1.5	0.02	0.03	46
Malathion	36	6.9	0.89	6.17	31,923

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Upland Cotton: Agricultural Chemical Applications,
States Surveyed, 2000 (continued) 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Insecticides: (cont.)					
Methamidophos	2	1.0	0.34	0.35	84
Methomyl	1	1.0	0.24	0.25	46
Methyl parathion	5	2.1	0.58	1.25	815
Naled	*	1.0	0.94	0.94	50
Oxamyl	11	1.8	0.25	0.47	722
Permethrin	*	1.0	0.04	0.05	1
Phorate	5	1.0	0.63	0.63	439
Profenofos	1	1.2	0.48	0.62	124
Propargite	*	1.1	1.21	1.36	59
Pyriproxyfen	*	1.0	0.05	0.05	3
Spinosad	5	1.9	0.07	0.13	90
Sulfur	*	1.0	1.19	1.25	38
Tebufenozide	2	1.0	0.14	0.14	31
Thiodicarb	*	1.3	0.22	0.29	11
Tralomethrin	2	1.1	0.02	0.03	6
Zeta-cypermethrin	3	1.5	0.03	0.05	20
Fungicides:					
Carboxin	*	1.0	0.008	0.008	**
Etridiazole	2	1.0	0.18	0.18	59
Iprodione	*	1.0	0.15	0.15	11
Mefenoxam	2	1.0	0.03	0.03	11
Metalaxyl	*	1.0	0.06	0.06	6
Pentachloronitrobenz	5	1.0	0.72	0.77	528
Other Chemicals:					
Bacillus cereus 2/	13	1.4			
Cacodylic acid	1	1.0	0.70	0.72	108
Cyclanilide	12	1.0	0.11	0.11	191
Cytokinins 3/	*	1.4			
Dichloropropene	*	1.0	29.58	29.58	1,280
Dimethipin	2	1.1	0.31	0.34	89
Endothall	*	1.0	0.06	0.06	7
Ethephon	38	1.0	0.90	0.97	5,359
Gibberellic acid 3/	1	1.5			
Indole-3-butyric 3/	2	1.5			
Mepiquat chloride	23	1.6	0.03	0.04	147
Monocarbamide dihyd.	7	1.0	2.25	2.26	2,371
Paraquat	13	1.0	0.29	0.31	601
Sodium chlorate	5	1.0	1.99	2.09	1,542
Thidiazuron	29	1.0	0.10	0.10	423
Tribufos	31	1.0	0.76	0.82	3,647

* Area applied is less than one percent.
** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for the 11 states surveyed were 14.4 million acres. States included are AL, AZ, AR, CA, GA, LA, MS, MO, NC, TN and TX.
2/ Rates and total applied are not available because amounts of active ingredient are not comparable between products.
3/ Rates and total applied are not available because amount of active ingredient is too small.

Upland Cotton: Agricultural Chemical Applications,
Alabama, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Cyanazine	8	1.0	0.88	0.88	44
Diuron	9	1.0	0.68	0.72	39
Fluometuron	35	1.1	0.67	0.75	155
Glyphosate	70	1.8	0.73	1.36	563
MSMA	22	1.0	1.30	1.36	176
Norflurazon	13	1.0	0.58	0.58	43
Pendimethalin	35	1.0	0.76	0.81	168
Prometryn	12	1.0	0.85	0.89	64
Pyrithiobac-sodium	7	1.0	0.03	0.03	1
Trifluralin	28	1.0	0.69	0.69	112
Insecticides:					
Acephate	3	1.0	0.20	0.20	3
Aldicarb	40	1.0	0.58	0.60	143
Cypermethrin	14	1.1	0.07	0.07	6
Dicrotophos	13	1.1	0.23	0.26	20
Disulfoton	6	1.0	0.84	0.84	31
Phorate	10	1.0	0.84	0.84	47
Fungicides:					
Etridiazole	9	1.0	0.15	0.15	8
Mefenoxam	7	1.0	0.06	0.06	2
PCNB	15	1.0	0.83	0.83	74
Other Chemicals:					
Bacillus cereus 2/	10	1.0			
Cyclanilide	11	1.0	0.10	0.10	6
Ethephon	25	1.1	0.81	0.93	139
Mepiquat chloride	13	1.2	0.02	0.03	2
Paraquat	6	1.0	0.26	0.26	9
Thidiazuron	14	1.0	0.04	0.04	4
Tribufos	42	1.0	0.73	0.77	192

1/ Planted acres in 2000 for Alabama were 590,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Arizona, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Cyanazine	13	1.0	0.58	0.58	21
Diuron	70	1.2	0.20	0.25	49
Fluometuron	3	1.0	0.42	0.43	3
Glyphosate	23	1.6	0.77	1.29	84
Pendimethalin	25	1.1	0.93	1.03	72
Prometryn	45	1.3	0.97	1.28	160
Pyrithiobac-sodium	13	1.0	0.07	0.08	3
Trifluralin	36	1.0	0.77	0.82	83
Insecticides:					
Acephate	46	1.6	0.71	1.17	150
Chlorpyrifos	20	2.0	0.59	1.19	67
Cypermethrin	9	1.1	0.07	0.08	2
Endosulfan	29	1.0	1.14	1.22	98
Lambda-cyhalothrin	15	1.6	0.04	0.06	3
Methomyl	10	1.0	0.30	0.32	9
Oxamyl	10	1.5	0.74	1.13	32
Pyriproxyfen	10	1.0	0.05	0.05	1
Other Chemicals:					
Bacillus cereus 2/	25	1.1			
Ethephon	31	1.0	0.36	0.38	33
Mepiquat chloride	27	1.2	0.03	0.03	3
Monocarbamide dihyd.	28	1.0	1.08	1.08	84
Paraquat	14	1.0	0.32	0.33	13
Sodium chlorate	19	1.1	2.66	2.98	155
Thidiazuron	68	1.0	0.06	0.06	12

1/ Planted acres in 2000 for Arizona were 280,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Arkansas, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bromoxynil	36	1.6	0.31	0.52	181
Clethodim	4	1.0	0.14	0.14	6
Cyanazine	15	1.1	0.82	0.91	133
Diuron	12	1.0	0.53	0.54	63
Fluazifop-P-butyl	2	1.0	0.09	0.09	2
Fluometuron	43	1.1	0.53	0.60	247
Glyphosate	39	2.1	0.52	1.12	425
MSMA	21	1.2	0.74	0.92	183
Metolachlor	4	1.0	0.90	0.90	35
Norflurazon	11	1.0	1.07	1.14	123
Pendimethalin	27	1.0	0.69	0.69	176
Prometryn	21	1.2	0.40	0.50	103
Pyrithiobac-sodium	37	1.4	0.04	0.06	22
Trifluralin	29	1.0	0.77	0.78	220
Insecticides:					
Acephate	13	1.0	0.43	0.44	57
Aldicarb	38	1.0	0.63	0.65	238
Cyfluthrin	20	1.5	0.04	0.06	11
Cypermethrin	11	1.0	0.03	0.03	3
Dicrotophos	15	1.3	0.16	0.20	29
Esfenvalerate	3	1.0	0.03	0.03	1
Imidacloprid	4	1.3	0.02	0.03	1
Lambda-cyhalothrin	19	1.8	0.01	0.02	4
Malathion	22	5.4	0.97	5.27	1,134
Methamidophos	4	1.1	0.12	0.14	5
Oxamyl	10	2.1	0.22	0.48	48
Phorate	2	1.0	0.47	0.47	11
Spinosad	14	2.3	0.08	0.18	24
Zeta-cypermethrin	10	1.4	0.04	0.06	5
Fungicides:					
Mefenoxam	12	1.0	0.03	0.03	3
PCNB	10	1.0	0.41	0.42	40
Other Chemicals:					
Bacillus cereus 2/	6	1.2			
Cyclanilide	28	1.3	0.08	0.11	28
Ethephon	72	1.3	0.73	0.95	652
Mepiquat chloride	24	1.8	0.03	0.06	14
Monocarbamide dihyd.	7	1.0	2.35	2.35	156
Sodium chlorate	6	1.0	0.97	1.01	62
Thidiazuron	10	1.0	0.06	0.07	7
Tribufos	61	1.4	0.63	0.89	521

1/ Planted acres in 2000 for Arkansas were 960,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications, California, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bromoxynil	11	2.1	0.42	0.91	79
Diuron	43	1.0	0.03	0.04	12
Fluazifop-P-butyl	2	1.1	0.22	0.24	3
Glyphosate	34	1.6	1.09	1.77	462
Metolachlor	4	1.0	1.90	1.90	66
Oxyfluorfen	8	1.0	0.37	0.37	22
Pendimethalin	31	1.0	1.18	1.18	289
Prometryn	20	1.1	1.47	1.63	257
Pyrithiobac-sodium	9	1.3	0.07	0.09	7
Trifluralin	36	1.0	0.81	0.84	234
Insecticides:					
Acephate	4	1.0	0.69	0.72	24
Aldicarb	35	1.2	1.30	1.67	452
Bt(Bacillus thur.)2/	4	1.0			
Bifenthrin	8	1.0	0.07	0.08	5
Carbofuran	3	1.0	0.26	0.28	7
Chlorpyrifos	16	1.2	0.89	1.13	141
Dicofol	25	1.0	0.93	0.94	180
Dimethoate	2	1.0	0.30	0.30	5
Imidacloprid	7	1.0	0.04	0.04	2
Naled	7	1.0	0.94	0.94	50
Oxamyl	4	1.0	0.55	0.55	16
Phorate	11	1.0	0.97	1.00	86
Pyriproxyfen	5	1.0	0.05	0.05	2
Tebufenozide	3	1.1	0.09	0.10	2
Other Chemicals:					
Bacillus cereus 2/	44	1.1			
Cacodylic acid	12	1.0	0.87	0.90	82
Cyclanilide	3	1.0	0.11	0.11	3
Endothall	5	1.0	0.10	0.10	4
Ethephon	56	1.0	1.11	1.17	509
Mepiquat chloride	69	1.1	0.03	0.03	18
Monocarbamide dihyd.	22	1.0	2.42	2.50	421
Paraquat	40	1.0	0.31	0.34	106
Sodium chlorate	22	1.0	4.54	4.82	815
Thidiazuron	46	1.0	0.07	0.07	25
Tribufos	42	1.0	1.50	1.53	500

1/ Planted acres in 2000 for California were 775,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Georgia, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Cyanazine	12	1.0	1.00	1.00	176
DSMA	9	1.0	1.61	1.61	207
Diuron	14	1.3	0.21	0.27	58
Fluometuron	25	1.1	0.69	0.78	288
Glyphosate	76	1.4	0.71	1.07	1,217
MSMA	25	1.0	1.30	1.37	515
Pendimethalin	32	1.1	0.82	0.91	431
Pyrithiobac-sodium	13	1.0	0.04	0.04	8
Trifluralin	41	1.0	0.90	0.90	556
Insecticides:					
Acephate	3	1.0	0.66	0.66	30
Aldicarb	48	1.0	0.61	0.61	447
Cyfluthrin	7	1.1	0.03	0.04	4
Deltamethrin	6	1.3	0.02	0.03	2
Lambda-cyhalothrin	7	1.4	0.02	0.03	3
Methyl parathion	7	1.1	0.69	0.81	79
Phorate	9	1.0	0.64	0.64	90
Tralomethrin	10	1.2	0.02	0.03	4
Other Chemicals:					
Bacillus cereus 2/	5	1.4			
Cyclanilide	20	1.0	0.12	0.12	37
Dimethipin	3	1.3	0.34	0.47	21
Ethephon	66	1.0	1.08	1.08	1,077
Mepiquat chloride	11	1.4	0.02	0.03	6
Monocarbamide dihyd.	10	1.0	2.78	2.78	408
Paraquat	4	1.0	0.44	0.44	28
Thidiazuron	41	1.0	0.09	0.09	54
Tribufos	51	1.0	0.60	0.61	470

1/ Planted acres in 2000 for Georgia were 1.50 million acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Louisiana, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	16	1.0	0.17	0.18	20
Cyanazine	18	1.0	0.75	0.78	100
Diuron	55	1.2	0.46	0.58	228
Fluazifop-P-butyl	1	1.6	0.13	0.22	2
Fluometuron	46	1.6	0.45	0.74	239
Glyphosate	44	2.1	0.67	1.44	449
MSMA	43	1.6	0.89	1.43	439
Metolachlor	8	1.0	0.91	0.92	51
Norflurazon	10	1.0	0.29	0.30	21
Pendimethalin	14	1.0	0.64	0.64	63
Prometryn	22	1.4	0.54	0.79	120
Pyrithiobac-sodium	23	1.2	0.05	0.06	10
Trifluralin	11	1.0	0.66	0.68	54
Insecticides:					
Acephate	41	1.7	0.35	0.61	177
Aldicarb	33	1.1	0.52	0.60	140
Carbofuran	11	1.0	0.34	0.34	26
Cyfluthrin	13	1.8	0.03	0.06	6
Cypermethrin	20	1.3	0.07	0.10	14
Dicrotophos	20	1.7	0.27	0.48	69
Dimethoate	3	1.6	0.26	0.43	9
Imidacloprid	12	1.0	0.03	0.03	3
Lambda-cyhalothrin	19	2.1	0.02	0.05	7
Malathion	77	8.6	0.87	7.57	4,155
Methamidophos	4	1.0	0.38	0.38	11
Methyl parathion	4	4.3	0.39	1.68	50
Phorate	3	1.0	0.61	0.65	13
Profenofos	2	1.5	0.86	1.30	19
Spinosad	16	3.8	0.07	0.28	32
Zeta-cypermethrin	3	1.0	0.04	0.04	1
Fungicides:					
Etridiazole	13	1.0	0.24	0.24	22
Mefenoxam	8	1.0	0.03	0.03	2
Other Chemicals:					
Bacillus cereus 2/	6	2.3			
Cyclanilide	3	1.0	0.10	0.10	2
Ethephon	48	1.0	0.78	0.83	284
Gibberellic acid 3/	4	1.5			
Indole-3-butyric 3/	4	1.5			
Mepiquat chloride	27	1.8	0.02	0.03	6
Monocarbamide dihyd.	8	1.0	2.48	2.48	140
Sodium chlorate	2	1.0	1.13	1.13	16
Thidiazuron	76	1.0	0.07	0.07	38
Tribufos	49	1.1	0.68	0.74	258

1/ Planted acres in 2000 for Louisiana were 710,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.
3/ Rates and total applied are not available because amount of active ingredient is too small.

Upland Cotton: Agricultural Chemical Applications, Mississippi, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	8	1.0	0.71	0.71	72
Bromoxynil	10	1.5	0.41	0.63	85
Clethodim	3	1.0	0.12	0.12	4
Clomazone	6	1.0	0.51	0.51	40
Cyanazine	36	1.3	0.52	0.68	316
Diuron	41	1.1	0.50	0.58	310
Fluometuron	45	1.0	0.61	0.66	382
Glyphosate	71	2.0	0.64	1.32	1,214
Lactofen	5	1.0	0.11	0.11	8
MSMA	35	1.4	0.71	1.06	483
Metolachlor	6	1.0	0.46	0.46	35
Norflurazon	12	1.0	0.47	0.47	75
Pendimethalin	16	1.0	0.62	0.62	132
Prometryn	27	1.2	0.54	0.67	231
Pyrithiobac-sodium	25	1.2	0.03	0.03	11
Trifluralin	10	1.0	0.72	0.73	93
Insecticides:					
Acephate	30	1.6	0.59	0.99	388
Aldicarb	22	1.0	0.53	0.53	150
Carbofuran	8	1.1	0.26	0.30	30
Cyfluthrin	12	1.2	0.03	0.03	5
Cypermethrin	16	1.1	0.04	0.05	11
Dicrotophos	23	1.3	0.30	0.42	122
Disulfoton	5	1.0	0.81	0.81	51
Lambda-cyhalothrin	8	1.5	0.02	0.03	3
Malathion	92	6.0	0.72	4.35	5,193
Oxamyl	6	1.0	0.18	0.18	14
Profenofos	3	1.1	0.61	0.71	29
Spinosad	12	1.5	0.06	0.09	14
Fungicides:					
Etridiazole	7	1.0	0.20	0.20	17
Mefenoxam	3	1.0	0.04	0.04	1
Metalaxyl	3	1.0	0.04	0.04	2
PCNB	13	1.0	0.66	0.66	109
Other Chemicals:					
Bacillus cereus 2/	11	1.4			
Cyclanilide	13	1.0	0.10	0.10	16
Ethephon	46	1.1	0.90	0.99	597
Gibberellic acid 3/	6	1.0			
Indole-3-butyric 3/	6	1.0			
Mepiquat chloride	13	1.4	0.03	0.05	8
Paraquat	9	1.3	0.32	0.42	52
Sodium chlorate	12	1.1	1.16	1.29	199
Thidiazuron	70	1.0	0.15	0.16	143
Tribufos	60	1.0	1.08	1.10	863

1/ Planted acres in 2000 for Mississippi were 1.30 million acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.
3/ Rates and total applied are not available because amount of active ingredient is too small.

Upland Cotton: Agricultural Chemical Applications,
Missouri, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bromoxynil	48	1.3	0.41	0.55	106
Clomazone	7	1.0	0.25	0.25	7
Cyanazine	37	1.0	0.26	0.27	40
Fluometuron	53	1.0	0.38	0.38	81
Glyphosate	29	1.6	0.78	1.31	151
MSMA	6	1.0	0.58	0.60	15
Metolachlor	9	1.0	0.85	0.85	32
Norflurazon	7	1.0	0.37	0.40	11
Pendimethalin	15	1.0	0.62	0.62	38
Prometryn	6	1.0	0.29	0.30	7
Pyrithiobac-sodium	48	1.0	0.03	0.03	6
Trifluralin	49	1.0	0.62	0.62	123
Insecticides:					
Acephate	12	2.1	0.34	0.74	37
Aldicarb	52	1.0	0.65	0.67	139
Bifenthrin	17	1.7	0.04	0.08	5
Cyfluthrin	10	1.7	0.03	0.06	2
Cypermethrin	11	1.0	0.04	0.04	2
Imidacloprid	11	1.0	0.02	0.02	1
Lambda-cyhalothrin	17	1.5	0.01	0.02	2
Methyl parathion	9	2.1	0.33	0.69	25
Oxamyl	23	1.5	0.28	0.42	40
Profenofos	9	1.8	0.48	0.87	32
Zeta-cypermethrin	14	2.2	0.03	0.07	4
Other Chemicals:					
Cyclanilide	10	1.4	0.16	0.23	9
Dimethipin	7	1.0	0.29	0.29	8
Ethephon	78	1.1	0.94	1.06	329
Mepiquat chloride	31	2.5	0.06	0.15	18
Paraquat	4	1.0	0.28	0.28	5
Thidiazuron	18	1.0	0.06	0.06	4
Tribufos	78	1.0	0.91	0.99	310

1/ Planted acres in 2000 for Missouri were 400,000 acres.

Upland Cotton: Agricultural Chemical Applications,
North Carolina, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	3	1.0	0.30	0.30	9
Bromoxynil	8	1.3	0.41	0.54	39
Clethodim	3	1.0	0.11	0.11	3
Cyanazine	15	1.0	0.92	0.94	127
Fluometuron	39	1.0	0.84	0.90	331
Glyphosate	80	1.8	0.64	1.16	861
MSMA	32	1.1	1.16	1.37	412
Norflurazon	8	1.0	0.73	0.73	53
Pendimethalin	38	1.0	0.70	0.71	252
Prometryn	24	1.0	0.67	0.73	165
Pyrithiobac-sodium	13	1.0	0.04	0.05	6
Trifluralin	12	1.0	0.67	0.67	75
Insecticides:					
Acephate	16	1.0	0.27	0.28	40
Aldicarb	60	1.0	0.67	0.67	373
Cyfluthrin	31	1.3	0.04	0.05	15
Cypermethrin	5	1.8	0.06	0.12	5
Deltamethrin	5	1.6	0.04	0.06	3
Dimethoate	2	1.6	0.10	0.15	3
Lambda-cyhalothrin	33	1.6	0.02	0.04	11
Phorate	4	1.0	0.90	0.90	35
Zeta-cypermethrin	7	1.8	0.04	0.07	5
Fungicides:					
Mefenoxam	2	1.0	0.03	0.03	1
PCNB	4	1.0	0.52	0.52	17
Other Chemicals:					
Bacillus cereus 2/	37	1.5			
Cyclanilide	40	1.0	0.14	0.14	51
Dimethipin	10	1.0	0.27	0.27	26
Ethephon	78	1.0	1.06	1.09	786
Mepiquat chloride	61	1.6	0.03	0.05	27
Monocarbamide dihyd.	27	1.0	3.14	3.14	791
Paraquat	8	1.1	0.42	0.47	37
Sodium chlorate	4	1.0	0.57	0.57	21
Thidiazuron	11	1.0	0.08	0.08	9
Tribufos	39	1.0	0.46	0.46	167

1/ Planted acres in 2000 for North Carolina were 930,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Tennessee, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clomazone	7	1.0	0.43	0.43	17
Cyanazine	19	1.0	0.99	0.99	108
Diuron	28	1.3	0.62	0.83	132
Fluometuron	14	1.0	0.95	0.96	77
Glyphosate	91	2.6	0.60	1.61	837
MSMA	19	1.0	0.77	0.78	85
Pendimethalin	13	1.0	0.75	0.75	54
Pyrithiobac-sodium	4	1.0	0.03	0.03	1
Trifluralin	2	1.2	0.85	1.02	10
Insecticides:					
Acephate	10	1.1	0.34	0.40	24
Cyfluthrin	39	1.0	0.03	0.03	7
Cypermethrin	19	1.2	0.04	0.05	5
Dicrotophos	24	1.6	0.23	0.37	50
Disulfoton	8	1.0	0.54	0.54	25
Imidacloprid	10	1.3	0.02	0.03	2
Lambda-cyhalothrin	7	1.7	0.03	0.05	2
Malathion	99	9.6	0.73	7.02	3,970
Methyl parathion	8	1.7	0.47	0.83	37
Oxamyl	39	1.7	0.18	0.32	70
Fungicides:					
Etridiazole	8	1.0	0.12	0.12	6
Mefenoxam	12	1.0	0.04	0.04	2
PCNB	20	1.0	0.60	0.60	69
Other Chemicals:					
Bacillus cereus 2/	34	1.1			
Cyclanilide	38	1.0	0.12	0.12	26
Ethephon	75	1.0	1.07	1.07	458
Mepiquat chloride	83	1.8	0.03	0.05	24
Paraquat	7	1.0	0.42	0.43	17
Thidiazuron	5	1.0	0.10	0.10	3
Tribufos	55	1.0	0.52	0.52	162

1/ Planted acres in 2000 for Tennessee were 570,000 acres.
2/ Rates and total applied are not calculated because amounts of active ingredient are not comparable between products.

Upland Cotton: Agricultural Chemical Applications,
Texas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	*	1.0	1.64	1.64	76
Clethodim	2	1.2	0.17	0.21	29
Diuron	12	1.1	0.25	0.30	234
Fluazifop-P-butyl	*	1.3	0.32	0.43	20
Fluometuron	4	1.0	0.66	0.66	173
Glyphosate	50	1.5	0.67	1.02	3,266
MSMA	1	1.0	0.86	0.91	60
Pendimethalin	18	1.0	0.64	0.69	813
Prometryn	10	1.0	0.38	0.38	235
Pyridate	2	1.0	0.18	0.18	19
Pyrithiobac-sodium	7	1.1	0.06	0.07	30
Trifluralin	58	1.0	0.72	0.76	2,839
Insecticides:					
Acephate	6	1.5	0.57	0.87	358
Aldicarb	13	1.0	0.43	0.43	357
Azinphos-methyl	4	1.8	0.27	0.51	136
Bt (Bacillus thur.)2/	2	1.6			
Carbofuran	7	1.0	0.21	0.22	96
Chlorpyrifos	5	1.9	0.64	1.22	404
Cyfluthrin	*	1.0	1.14	1.14	71
Cypermethrin	6	1.1	0.08	0.08	30
Deltamethrin	2	1.9	0.16	0.30	30
Dicrotophos	5	1.5	0.14	0.22	70
Emamectin benzoate	3	1.1	0.007	0.008	1
Endosulfan	2	1.6	0.47	0.77	114
Esfenvalerate	1	1.0	0.05	0.05	4
Imidacloprid	1	1.1	0.01	0.02	1
Indoxacarb	7	1.0	0.10	0.10	45
Lambda-cyhalothrin	5	1.1	0.03	0.03	10
Malathion	41	6.5	1.02	6.65	17,421
Methyl parathion	6	2.3	0.64	1.52	606
Oxamyl	15	2.0	0.25	0.51	496
Phorate	4	1.0	0.44	0.44	124
Spinosad	4	1.1	0.06	0.07	16
Tebufenozide	3	1.0	0.14	0.14	29
Zeta-cypermethrin	*	1.2	0.03	0.04	3

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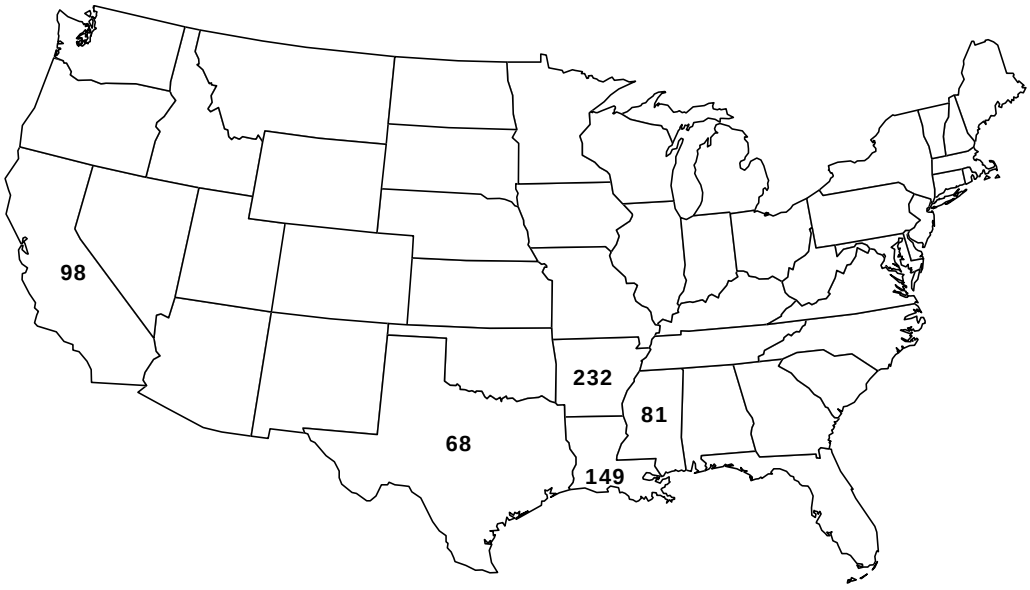
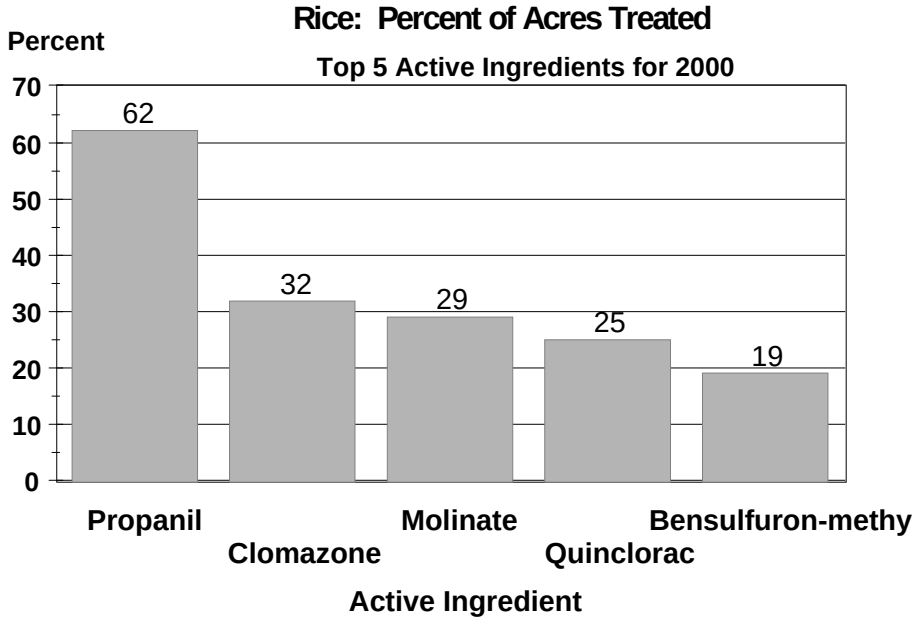
Upland Cotton: Agricultural Chemical Applications,
Texas, 2000 1/ (continued)

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Other Chemicals (cont.):					
Bacillus cereus 2/	7	1.7			
Cyclanilide	3	1.0	0.07	0.07	13
Ethephon	12	1.0	0.62	0.66	495
Gibberellic acid 3/	1	2.1			
Indole-3-butyric 3/	1	1.9			
Mepiquat chloride	12	1.6	0.02	0.03	21
Monocarbamide dihyd.	4	1.0	1.13	1.13	263
Paraquat	19	1.0	0.26	0.27	320
Sodium chlorate	3	1.0	0.66	0.66	141
Thidiazuron	19	1.0	0.09	0.10	124

* Area applied is less than one percent.
1/ Planted acres in 2000 for Texas were 6.40 million acres.
2/ Rates and total applied are not available because amounts of active ingredient are not comparable between products.
3/ Rates and total applied are not available because amount of active ingredient is too small.

Rice: Number of Usable Reports, 2000





Surveyed states are AR, CA, LA, MS and TX

Rice: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Area Receiving and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
AR	1,420	99	205.0	44	33.9	41	35.9
CA 1/	550	100	54.1	88	23.7		
LA	485	100	61.9	84	20.7	83	24.3
MS 1/	220	100	39.4				
TX 1/	215	100	50.2			89	7.3
Total	2,890	100	410.6	59	87.7	47	75.9

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

Rice: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Arkansas:	1,420					
Nitrogen		99	2.2	65	145	205.0
Phosphate		44	1.0	52	54	33.9
Potash		41	1.0	62	62	35.9
California:	550					
Nitrogen		100	2.2	43	99	54.1
Phosphate		88	1.0	48	49	23.7
Potash 1/						
Louisiana:	485					
Nitrogen		100	2.0	63	128	61.9
Phosphate		84	1.0	47	51	20.7
Potash		83	1.0	56	61	24.3
Mississippi:	220					
Nitrogen		100	3.4	53	179	39.4
Phosphate 1/						
Potash 1/						
Texas:	215					
Nitrogen		100	4.4	53	234	50.2
Phosphate 1/						
Potash		89	1.1	34	38	7.3
Total:	2,890					
Nitrogen		100	2.4	59	144	410.6
Phosphate		59	1.0	49	51	87.7
Potash		47	1.0	53	56	75.9

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

Rice: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed					
	ALL	AR	CA	LA	MS	TX
Herbicides						
2,4-D	P	P	*	P	P	*
2,4-D, Dimethylamine	*			*		
Acifluorfen	P	P			P	
Bensulfuron-methyl	P	*	P	P	*	P
Bentazon	P	P		*	*	P
Clomazone	P	P		*	P	*
Fenoxaprop-P-ethyl	P	*	P		*	
Glyphosate	P	P		P	P	P
Halosulfuron	P	P		P	P	P
Imazethapyr	*	*				*
MCPA	P		*			*
Molinate	P	P	P	P	P	P
Paraquat	P	*		*	*	*
Pendimethalin	P	P	*	*	*	*
Propanil	P	P	P	P	P	P
Quinclorac	P	P		P	P	P
Sethoxydim	*	*				
Sulfosate	*	*		*		
Thiobencarb	P	*	P		*	P
Triclopyr	P	P	P	*	P	*
Insecticides						
Carbaryl	P	*	*			*
Carbofuran	*		*	*		
Diflubenzuron	*		*		*	
Fipronil	*					*
Hexythiazox	*				*	
Lambda-cyhalothrin	P	*	P	*	P	P
Malathion	P	*		*	*	
Methyl parathion	P	*		P	*	P
Piperonyl butoxide	*	*				
Pyrethrins	*	*				

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

Rice: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredients	States Surveyed					
	ALL	AR	CA	LA	MS	TX
Fungicides						
Azoxystrobin	P	P	*	P	*	P
Benomyl	*			*		
Copper hydroxide	*	*				*
Copper sulfate	P		*			
Propiconazole	P	*		*	*	*
Other Chemicals						
Cytokinins	*	*				
Gibberellic acid	*	*		*		
Indole-3 butyric acid	*	*				
Metam-sodium	*			*		
Sodium chlorate	P	P		*	*	*

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

Rice: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other Chemicals 2/	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
AR	1,420	98	5,250	2	10	7	21	4	35
CA	550	100	3,427	30	35	26	465		
LA	485	93	1,080	31	99	43	38	2	23
MS 3/	220	100	807	45	16	29	13		
TX 3/	215	100	959	73	199	55	19		
Total	2,890	98	11,523	22	359	23	556	2	81

1/ Total Applied excludes Bt's (Bacillus thuringiensis). Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more of the States surveyed.
3/ Insufficient reports to publish data for one or more of the pesticide classes.

Rice: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	17	1.0	0.82	0.83	416
Acifluorfen	4	1.0	0.18	0.18	21
Bensulfuron-methyl	19	1.0	0.05	0.05	28
Bentazon	6	1.2	0.42	0.51	85
Clomazone	32	1.0	0.44	0.45	414
Fenoxaprop-P-ethyl	1	1.0	0.06	0.06	2
Glyphosate	12	1.1	0.77	0.91	329
Halosulfuron	9	1.0	0.03	0.03	9
MCPA	1	1.0	0.38	0.38	14
Molinate	29	1.0	2.61	2.79	2,376
Paraquat	*	1.1	0.49	0.55	4
Pendimethalin	8	1.0	0.86	0.93	201
Propanil	62	1.1	2.90	3.38	6,020
Quinclorac	25	1.0	0.14	0.14	103
Thiobencarb	13	1.0	3.35	3.45	1,337
Triclopyr	18	1.0	0.26	0.27	144
Insecticides:					
Carbaryl	1	1.0	0.98	1.01	36
Carbofuran	2	1.0	0.43	0.46	21
Lambda-cyhalothrin	13	1.1	0.03	0.03	11
Malathion	*	1.0	0.57	0.57	3
Methyl parathion	9	2.1	0.51	1.11	286
Fungicides:					
Azoxystrobin	17	1.1	0.14	0.16	76
Copper sulfate	5	1.0	3.11	3.38	461
Propiconazole	3	1.4	0.14	0.21	16
Other Chemicals:					
Sodium chlorate	2	1.0	1.35	1.35	71

* Area applied is less than one percent.
1/ Planted acres in 2000 for the 5 states surveyed were 2.89 million acres. States included are AR, CA, LA, MS and TX.

Rice: Agricultural Chemical Applications,
Arkansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	12	1.0	0.63	0.65	112
Acifluorfen	6	1.0	0.17	0.17	16
Bentazon	6	1.3	0.39	0.53	44
Clomazone	45	1.0	0.43	0.43	275
Glyphosate	15	1.2	0.74	0.92	198
Halosulfuron	6	1.0	0.05	0.05	4
Molinate	19	1.0	2.16	2.33	631
Pendimethalin	13	1.1	0.83	0.91	165
Propanil	75	1.2	2.74	3.31	3,532
Quinclorac	18	1.0	0.15	0.15	39
Triclopyr	14	1.0	0.27	0.30	59
Fungicides:					
Azoxystrobin	5	1.2	0.14	0.17	13
Other Chemicals:					
Sodium chlorate	3	1.0	0.77	0.77	35

1/ Planted acres in 2000 for Arkansas were 1.42 million acres.

Rice: Agricultural Chemical Applications,
California, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bensulfuron-methyl	30	1.0	0.05	0.05	9
Fenoxaprop-P-ethyl	4	1.0	0.06	0.06	1
Molinate	59	1.0	3.39	3.44	1,121
Propanil	60	1.0	3.33	3.46	1,147
Thiobencarb	50	1.0	3.75	3.75	1,035
Triclopyr	50	1.0	0.22	0.22	61
Insecticides:					
Lambda-cyhalothrin	22	1.2	0.03	0.04	4

1/ Planted acres in 2000 for California were 550,000 acres.

Rice: Agricultural Chemical Applications,
Louisiana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	40	1.0	1.11	1.11	213
Bensulfuron-methyl	55	1.0	0.04	0.04	11
Glyphosate	5	1.0	1.00	1.00	25
Halosulfuron	6	1.0	0.02	0.02	1
Molinate	30	1.1	2.19	2.55	368
Propanil	27	1.2	2.46	3.14	404
Quinclorac	42	1.0	0.13	0.13	27
Insecticides:					
Methyl parathion	16	1.8	0.59	1.09	87
Fungicides:					
Azoxystrobin	38	1.1	0.15	0.17	32

1/ Planted acres in 2000 for Louisiana were 485,000 acres.

Rice: Agricultural Chemical Applications,
Mississippi, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	41	1.0	0.75	0.77	70
Acifluorfen	10	1.0	0.22	0.22	5
Clomazone	68	1.0	0.54	0.56	84
Glyphosate	28	1.1	0.85	0.98	61
Halosulfuron	11	1.0	0.04	0.04	1
Molinate	16	1.0	2.39	2.39	84
Propanil	43	1.2	3.36	4.07	385
Quinclorac	43	1.1	0.21	0.24	22
Insecticides:					
Lambda-cyhalothrin	38	1.0	0.03	0.04	3

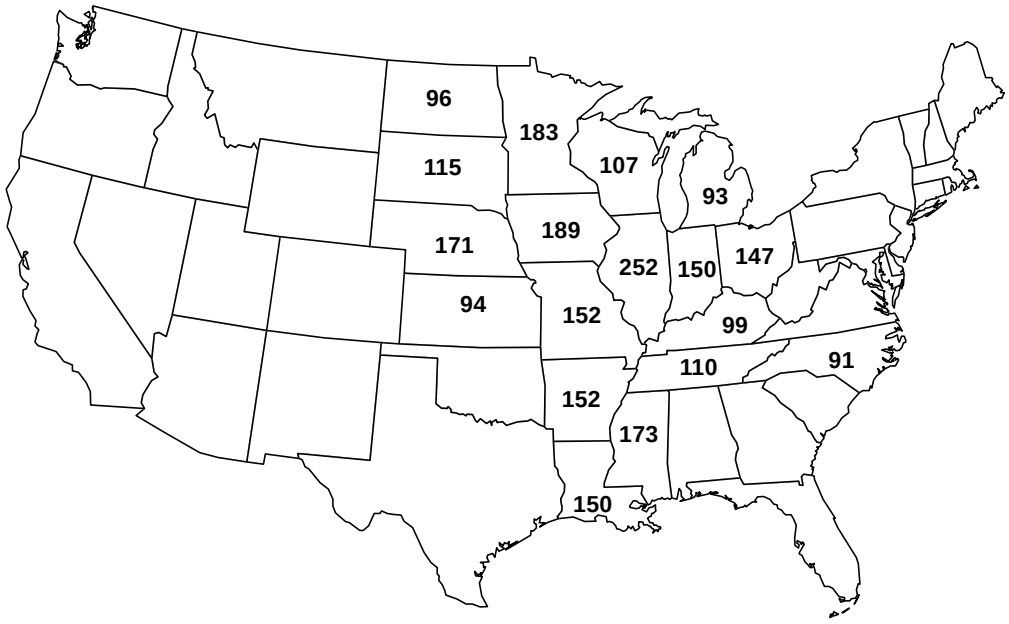
1/ Planted acres in 2000 for Mississippi were 220,000 acres.

Rice: Agricultural Chemical Applications,
Texas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bensulfuron-methyl	24	1.1	0.12	0.13	7
Bentazon	32	1.0	0.47	0.51	35
Glyphosate	22	1.1	0.84	0.94	45
Halosulfuron	48	1.0	0.03	0.03	3
Molinate	38	1.0	1.90	2.08	172
Propanil	82	1.0	2.98	3.13	552
Quinclorac	58	1.0	0.11	0.12	15
Thiobencarb	16	1.0	1.68	1.75	59
Insecticides:					
Lambda-cyhalothrin	36	1.0	0.02	0.02	2
Methyl parathion	50	2.8	0.57	1.65	179
Fungicides:					
Azoxystrobin	53	1.0	0.14	0.14	16

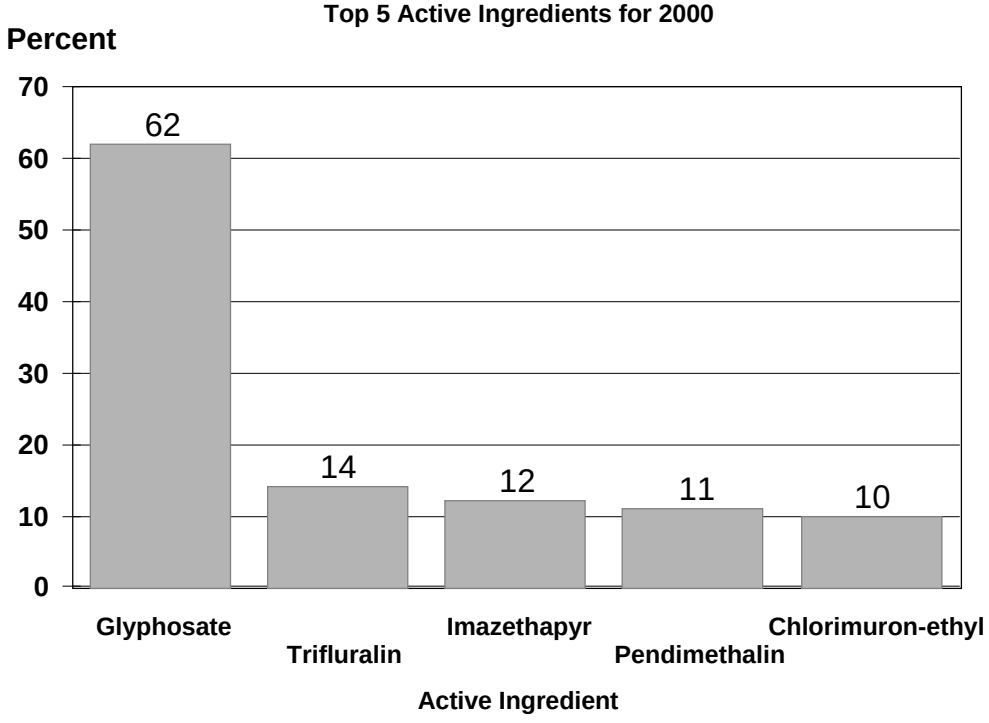
1/ Planted acres in 2000 for Texas were 215,000 acres.

Soybeans: Number of Usable Reports, 2000



Soybeans: Percent of Acres Treated

Top 5 Active Ingredients for 2000



Surveyed states are AR, IL, IN, IA, KS, KY, LA, MI, MN, MS, MO, NE, NC, ND, OH, SD, TN, and WI

Soybeans: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
AR	3,350	10	21.0	30	43.4	31	73.0
IL	10,500	11	16.8	16	77.5	29	286.0
IN	5,650	7	11.0	15	53.9	33	207.8
IA	10,700	15	81.0	22	110.1	22	138.0
KS 1/	2,950	18	10.3	16	16.9		
KY	1,200	13	7.7	40	31.7	39	37.7
LA	930	6	1.5	20	7.3	26	15.6
MI	2,100	37	11.1	40	44.8	72	131.2
MN	7,300	8	10.2	9	24.1	24	118.6
MS	1,700	9	3.4	19	14.3	20	23.5
MO	5,150	20	27.5	28	98.1	27	94.2
NE	4,650	30	19.8	20	36.7	15	6.2
NC	1,400	38	12.6	62	64.7	47	47.7
ND 1/	1,900	46	27.8	41	25.3		
OH	4,450	25	21.7	32	70.2	47	192.8
SD	4,400	38	24.3	43	66.0	12	12.2
TN	1,180	18	3.0	29	14.3	31	22.2
WI	1,500	24	6.5	30	16.6	40	46.2
Total	71,010	18	317.2	24	815.9	27	1,456.5

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

Soybeans: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Arkansas:	3,350					
Nitrogen		10	1.1	55	61	21.0
Phosphate		30	1.0	43	43	43.4
Potash		31	1.0	71	71	73.0
Illinois:	10,500					
Nitrogen		11	1.0	14	15	16.8
Phosphate		16	1.0	47	47	77.5
Potash		29	1.0	93	95	286.0
Indiana:	5,650					
Nitrogen		7	1.3	22	29	11.0
Phosphate		15	1.0	65	65	53.9
Potash		33	1.0	112	112	207.8
Iowa:	10,700					
Nitrogen		15	1.0	49	49	81.0
Phosphate		22	1.0	47	47	110.1
Potash		22	1.0	59	59	138.0

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Soybeans: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Kansas:	2,950					
Nitrogen		18	1.2	16	20	10.3
Phosphate		16	1.0	34	36	16.9
Potash 1/						
Kentucky:	1,200					
Nitrogen		13	1.4	34	49	7.7
Phosphate		40	1.0	61	66	31.7
Potash		39	1.0	79	80	37.7
Louisiana:	930					
Nitrogen		6	1.0	29	29	1.5
Phosphate		20	1.0	38	38	7.3
Potash		26	1.0	65	65	15.6
Michigan:	2,100					
Nitrogen		37	1.0	13	14	11.1
Phosphate		40	1.0	53	53	44.8
Potash		72	1.0	87	87	131.2
Minnesota:	7,300					
Nitrogen		8	1.0	16	17	10.2
Phosphate		9	1.0	34	35	24.1
Potash		24	1.0	67	69	118.6
Mississippi:	1,700					
Nitrogen		9	1.0	22	23	3.4
Phosphate		19	1.0	45	45	14.3
Potash		20	1.0	70	70	23.5
Missouri:	5,150					
Nitrogen		20	1.0	25	26	27.5
Phosphate		28	1.0	68	68	98.1
Potash		27	1.0	69	69	94.2
Nebraska:	4,650					
Nitrogen		30	1.0	14	14	19.8
Phosphate		20	1.0	38	40	36.7
Potash		15	1.0	9	9	6.2
North Carolina:	1,400					
Nitrogen		38	1.0	24	24	12.6
Phosphate		62	1.0	72	74	64.7
Potash		47	1.0	72	72	47.7

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Soybeans: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
North Dakota:	1,900					
Nitrogen		46	1.2	25	32	27.8
Phosphate		41	1.0	31	32	25.3
Potash 1/						
Ohio:	4,450					
Nitrogen		25	1.1	18	20	21.7
Phosphate		32	1.0	50	50	70.2
Potash		47	1.0	92	92	192.8
South Dakota:	4,400					
Nitrogen		38	1.0	14	14	24.3
Phosphate		43	1.0	35	35	66.0
Potash		12	1.0	23	23	12.2
Tennessee:	1,180					
Nitrogen		18	1.0	14	14	3.0
Phosphate		29	1.0	42	42	14.3
Potash		31	1.0	60	60	22.2
Wisconsin:	1,500					
Nitrogen		24	1.1	16	18	6.5
Phosphate		30	1.0	36	37	16.6
Potash		40	1.0	75	77	46.2
Total:	71,010					
Nitrogen		18	1.0	23	24	317.2
Phosphate		24	1.0	48	48	815.9
Potash		27	1.0	76	76	1,456.5

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

Soybeans: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	AR	IA	IL	IN	KS	KY
Herbicides							
2,4-D	P		P	P	P	*	*
2,4-DB	*			*			*
Acetamide	P		*	*			
Acifluorfen	P	P	*	P		*	*
Alachlor	P	*	*	*		*	*
Atrazine	*			*			*
Bentazon	P	P	*	P	*		*
Chlorimuron-ethyl	P	P	P	P	P	P	P
Clethodim	P	P	P	P	P	*	*
Clomazone	P	*	P	*	*		
Clopyralid	*						
Cloransulam-methyl	P		P	P	P	*	*
Dicamba	*						
Dichlorprop	*				*		*
Diclofop-methyl	*						
Dimethenamid	P						
Diuron	*						
Ethalfluralin	P						
Fenoxaprop-P-ethyl	P		P	P	P		P
Fluazifop-P-butyl	P	*	P	P	P		P
Flumetsulam	P	*	*	*	*		
Flumiclorac-Pentyl	P	*	*				
Fomesafen	P	*	P	P	P		P
Glyphosate	P	P	P	P	P	P	P
Glyphosate,isopropyl	*				*		
Imazamox	P		P	P	P	*	*
Imazaquin	P	P	*	P	P	P	P
Imazethapyr	P		P	P	P	P	*
Lactofen	P		P	P		*	*
Linuron	P			*			
Metolachlor	P	*	*	*	P	*	*
Metribuzin	P	*	*	P	P	*	*
Nicosulfuron	*			*			
Norflurazon	*						
Oxyfluorfen	*						
Paraquat	P	*		*			*
Pendimethalin	P	*	P	P	P	P	P
Pyridate	*		*	*			*
Quizalofop-ethyl	P	*	*	*	*	*	*
Rimsulfuron	*			*			
S-Metolachlor	P	*		*	*		
Sethoxydim	P	*	P	P	*	*	
Sulfentrazone	P		P	P	P		*
Sulfosate	P		P	P	P	*	P
Thifensulfuron	P		P	P	P	*	*
Tribenuron-methyl	*						*
Trifluralin	P	P	P	P	*	P	*

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

Soybeans: Active Ingredient Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	LA	MI	MN	MO	MS	NC
Herbicides						
2,4-D	*	*		*	P	
2,4-DB						
Acetamide				*		
Acifluorfen	P		P	*	P	*
Alachlor	*	*	*			
Atrazine						
Bentazon	P		P	*	P	
Chlorimuron-ethyl	P	*	P	P	P	*
Clethodim	P	*	*	*	P	*
Clomazone	P	*		*	P	
Clopyralid						
Cloransulam-methyl	*	P	*	P	P	*
Dicamba	*					
Dichlorprop						
Diclofop-methyl						*
Dimethenamid	*		*			
Diuron	*					
Ethalfluralin						
Fenoxaprop-P-ethyl	*		P	*		*
Fluazifop-P-butyl	P		P	P	*	*
Flumetsulam	*	*	*	*	P	*
Flumiclorac-Pentyl				*		
Fomesafen	*		P	P	*	*
Glyphosate	P	P	P	P	P	P
Glyphosate, isopropy						
Imazamox		P	P	*		
Imazaquin	P	P		P	P	*
Imazethapyr		P	P	P		
Lactofen		*	P	P		
Linuron		*	*			
Metolachlor	P	*		*	P	*
Metribuzin	P	*		*	P	*
Nicosulfuron						
Norflurazon	*					
Oxyfluorfen	*					
Paraquat	*				*	*
Pendimethalin	*	P	P	P	P	P
Pyridate						
Quizalofop-ethyl	*	*	*	*		
Rimsulfuron						
S-Metolachlor	*	*	*			*
Sethoxydim	*		P	*	P	
Sulfentrazone	P	*	*	P	*	
Sulfosate	P	*	*	P	*	
Thifensulfuron		*	P	*		*
Tribenuron-methyl			*			*
Trifluralin	*		P	P	P	*

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

Soybeans: Active Ingredient Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	ND	NE	OH	SD	TN	WI
Herbicides						
2,4-D		*	P	*		P
2,4-DB					*	
Acetamide		*	*			*
Acifluorfen	*	*	*	*	P	
Alachlor		P	*			
Atrazine						
Bentazon	P		*	P	P	
Chlorimuron-ethyl		P	P	*	P	*
Clethodim	*	*	P	P	P	*
Clomazone		*		*	*	
Clopyralid		*				
Cloransulam-methyl	*	P	P	*	*	P
Dicamba		*	*	*		
Dichlorprop			*			
Diclofop-methyl						
Dimethenamid		*	*			P
Diuron						
Ethalfluralin	P					
Fenoxaprop-P-ethyl	*	*		*	*	
Fluazifop-P-butyl	*	*		*	P	
Flumetsulam		P	P	*	*	*
Flumiclorac-Pentyl		*	*		*	
Fomesafen	P	*	*		P	*
Glyphosate	P	P	P	P	P	P
Glyphosate, isopropyl			*			
Imazamox	P		P	P		P
Imazaquin		*	P	*	*	
Imazethapyr	P	P	P	P	*	P
Lactofen	*	*	*	*	*	
Linuron			*			
Metolachlor		P	P		*	
Metribuzin		P	P		*	*
Nicosulfuron						
Norflurazon						
Oxyfluorfen						
Paraquat		*			P	
Pendimethalin	P	P	P	P	P	P
Pyridate						
Quizalofop-ethyl	*	*	*		*	*
Rimsulfuron						
S-Metolachlor			*		*	*
Sethoxydim	P		*	P		
Sulfentrazone		*	P	*	*	*
Sulfosate	*	P	P	P	*	*
Thifensulfuron	*	P	P	*	*	*
Tribenuron-methyl						
Trifluralin	P	P		P	P	*

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

Soybeans: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	AR	IA	IL	IN	KS	KY
Insecticides							
Acephate	*						
Aldicarb	*						
Carbaryl	*						*
Carbofuran	*		*				
Chlorpyrifos	P		*				
Diazinon	*						*
Diflubenzuron	*	*					
Esfenvalerate	P			*			
Lambda-cyhalothrin	P	*		*			
Methomyl	*						
Methyl parathion	P				*		
Permethrin	P		*			*	
Spinosad	P	*					
Thiodicarb	P						
Tralomethrin	*	*					
Fungicides							
Azoxystrobin	*						
Benomyl	*						
Carboxin	*						
Metalaxyl	*						
Thiabendazole	*						

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

Soybeans: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	LA	MI	MN	MO	MS	NC
Insecticides						
Acephate	*				*	
Aldicarb						*
Carbaryl		*				
Carbofuran	*					
Chlorpyrifos						
Diazinon						
Diflubenzuron					*	
Esfenvalerate	*				*	*
Lambda-cyhalothrin	P				*	*
Methomyl	*				*	
Methyl parathion	*					
Permethrin	*					
Spinosad	P				*	
Thiodicarb	P				*	*
Tralomethrin						
Fungicides						
Azoxystrobin	*					
Benomyl					*	
Carboxin	*					
Metalaxyl					*	
Thiabendazole	*					

--continued

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

Soybeans: Active Ingredients Applied and Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed					
	ND	NE	OH	SD	TN	WI
Insecticides						
Acephate		*				
Aldicarb						
Carbaryl						
Carbofuran						
Chlorpyrifos				*		*
Diazinon						
Diflubenzuron						
Esfenvalerate				*		
Lambda-cyhalothrin						
Methomyl						*
Methyl parathion						
Permethrin						
Spinosad						
Thiodicarb						
Tralomethrin						
Fungicides						
Azoxystrobin						
Benomyl						
Carboxin						
Metalaxyl						
Thiabendazole						

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

Soybeans: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide 3/		Other Chemicals	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
AR	3,350	86	2,918	3	4				
IL	10,500	98	10,582	1	3				
IN 2/	5,650	99	5,414						
IA 2/	10,700	98	13,053						
KS 2/	2,950	94	2,953						
KY	1,200	88	1,151	1	6				
LA	930	96	1,091	56	173	5	2		
MI 2/	2,100	98	2,094						
MN	7,300	95	7,151						
MS 2/	1,700	99	2,096	5	23				
MO	5,150	98	5,867						
NE 2/	4,650	98	5,795						
NC	1,400	92	1,016	7	15				
ND	1,900	99	2,046						
OH	4,450	98	4,586	1	2				
SD	4,400	98	4,863						
TN	1,180	95	1,319	1	8				
WI	1,500	85	1,169						
Total	71,010	97	75,164	2	303				

1/ Total Applied excludes Bt's (Bacillus thuringiensis). Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more of the pesticide classes, for one or more of the States surveyed.
3/ Insufficient reports to publish data for one or more of the States surveyed.

Soybeans: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	5	1.0	0.44	0.44	1,507
Acetamide	*	1.0	0.49	0.49	153
Acifluorfen	3	1.0	0.19	0.20	359
Alachlor	1	1.0	1.65	1.65	1,346
Bentazon	2	1.0	0.77	0.82	1,381
Chlorimuron-ethyl	10	1.1	0.01	0.02	114
Clethodim	4	1.0	0.12	0.12	381
Clomazone	*	1.0	0.62	0.62	431
Cloransulam-methyl	4	1.0	0.02	0.02	59
Dimethenamid	*	1.0	0.95	0.95	321
Ethalfluralin	*	1.0	0.83	0.83	192
Fenoxaprop-P-ethyl	4	1.0	0.11	0.11	364
Fluazifop-P-butyl	5	1.0	0.04	0.04	152
Flumetsulam	2	1.0	0.05	0.05	60
Flumiclorac-Pentyl	*	1.0	0.02	0.02	5
Fomesafen	7	1.0	0.19	0.19	911
Glyphosate	62	1.3	0.68	0.95	41,847
Imazamox	6	1.0	0.03	0.03	123
Imazaquin	4	1.0	0.09	0.09	221
Imazethapyr	12	1.0	0.05	0.05	438
Lactofen	2	1.0	0.08	0.08	104
Linuron	*	1.0	0.40	0.40	30
Metolachlor	2	1.0	1.69	1.70	1,916
Metribuzin	4	1.0	0.22	0.23	582
Paraquat	*	1.0	0.36	0.36	82
Pendimethalin	11	1.0	0.95	0.97	7,512
Quizalofop-ethyl	*	1.0	0.05	0.05	27
S-Metolachlor	*	1.2	1.24	1.54	1,071
Sethoxydim	2	1.0	0.24	0.24	384
Sulfentrazone	4	1.0	0.15	0.15	449
Sulfosate	4	1.2	0.92	1.19	2,987
Thifensulfuron	6	1.0	0.003	0.003	11
Trifluralin	14	1.0	0.90	0.90	9,291
Insecticides:					
Chlorpyrifos	*	1.2	0.43	0.52	12
Esfenvalerate	*	1.0	0.03	0.03	7
Lambda-cyhalothrin	*	1.0	0.02	0.02	4
Methyl parathion	*	1.1	0.48	0.56	168
Permethrin	*	1.0	0.08	0.08	3
Spinosad	*	1.0	0.04	0.04	5
Thiodicarb	*	1.0	0.47	0.47	29

* Area applied is less than one percent.
1/ Planted acres in 2000 for the 18 states surveyed were 71.0 million acres. States included are AR, IL, IN, IA, KS, KY, LA, MI, MN, MS, MO, NE, NC, ND, OH, SD, TN and WI.

Soybeans: Agricultural Chemical Applications,
Arkansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Acifluorfen	10	1.0	0.20	0.22	75
Bentazon	6	1.1	0.54	0.63	124
Chlorimuron-ethyl	6	1.0	0.01	0.01	2
Clethodim	4	1.0	0.18	0.18	26
Glyphosate	63	1.5	0.59	0.94	1,984
Imazaquin	5	1.0	0.07	0.07	12
Trifluralin	8	1.0	1.09	1.15	321

1/ Planted acres in 2000 for Arkansas were 3.35 million acres.

Soybeans: Agricultural Chemical Applications,
Illinois, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	11	1.0	0.43	0.43	508
Acifluorfen	3	1.0	0.13	0.13	46
Bentazon	3	1.0	0.51	0.51	139
Chlorimuron-ethyl	18	1.0	0.01	0.01	22
Clethodim	8	1.0	0.09	0.09	80
Cloransulam-methyl	7	1.0	0.02	0.02	13
Fenoxaprop-P-ethyl	4	1.0	0.15	0.15	63
Fluazifop-P-butyl	4	1.0	0.05	0.05	21
Fomesafen	8	1.0	0.23	0.23	199
Glyphosate	55	1.3	0.66	0.91	5,266
Imazamox	13	1.0	0.03	0.03	46
Imazaquin	4	1.0	0.10	0.10	40
Imazethapyr	13	1.0	0.06	0.06	76
Lactofen	4	1.0	0.08	0.08	33
Metribuzin	6	1.0	0.13	0.13	88
Pendimethalin	18	1.0	1.11	1.14	2,158
Sethoxydim	4	1.0	0.20	0.20	80
Sulfentrazone	10	1.0	0.13	0.13	139
Sulfosate	1	1.6	1.10	1.78	268
Thifensulfuron	9	1.0	0.002	0.002	2
Trifluralin	8	1.0	0.86	0.86	755

1/ Planted acres in 2000 for Illinois were 10.5 million acres.

Soybeans: Agricultural Chemical Applications,
Indiana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	14	1.0	0.46	0.46	373
Chlorimuron-ethyl	19	1.1	0.01	0.01	12
Clethodim	5	1.0	0.10	0.10	32
Cloransulam-methyl	5	1.0	0.01	0.01	3
Fenoxaprop-P-ethyl	10	1.0	0.16	0.16	88
Fluazifop-P-butyl	10	1.0	0.05	0.05	29
Fomesafen	6	1.0	0.14	0.14	45
Glyphosate	71	1.4	0.66	0.97	3,894
Imazamox	5	1.0	0.02	0.02	6
Imazaquin	2	1.0	0.10	0.10	14
Imazethapyr	9	1.0	0.04	0.04	20
Metolachlor	2	1.0	1.20	1.20	154
Metribuzin	6	1.0	0.12	0.12	42
Pendimethalin	5	1.0	0.85	0.86	235
Sulfentrazone	5	1.0	0.16	0.16	42
Sulfosate	4	1.3	1.15	1.49	321
Thifensulfuron	19	1.0	0.002	0.002	2

1/ Planted acres in 2000 for Indiana were 5.65 million acres.

Soybeans: Agricultural Chemical Applications,
Iowa, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	4	1.0	0.39	0.39	161
Chlorimuron-ethyl	6	1.1	0.007	0.007	5
Clethodim	1	1.0	0.08	0.08	11
Clomazone	2	1.0	0.90	0.90	149
Cloransulam-methyl	8	1.0	0.02	0.02	18
Fenoxaprop-P-ethyl	11	1.0	0.09	0.09	108
Fluazifop-P-butyl	11	1.0	0.03	0.03	38
Fomesafen	10	1.0	0.21	0.22	240
Glyphosate	55	1.3	0.68	0.93	5,441
Imazamox	6	1.0	0.02	0.02	14
Imazethapyr	19	1.0	0.06	0.06	113
Lactofen	4	1.0	0.05	0.05	21
Pendimethalin	11	1.0	0.98	0.98	1,108
Sethoxydim	2	1.0	0.27	0.27	58
Sulfentrazone	4	1.0	0.16	0.17	72
Sulfosate	5	1.1	1.05	1.15	610
Thifensulfuron	7	1.0	0.002	0.002	1
Trifluralin	41	1.0	0.93	0.93	4,087

1/ Planted acres in 2000 for Iowa were 10.7 million acres.

Soybeans: Agricultural Chemical Applications,
Kansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Chlorimuron-ethyl	8	1.0	0.007	0.007	2
Glyphosate	77	1.2	0.73	0.87	1,977
Imazaquin	5	1.0	0.11	0.11	16
Imazethapyr	6	1.0	0.05	0.05	9
Pendimethalin	10	1.0	1.03	1.03	304
Trifluralin	8	1.0	1.11	1.11	279

1/ Planted acres in 2000 for Kansas were 2.95 million acres.

Soybeans: Agricultural Chemical Applications,
Kentucky, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Chlorimuron-ethyl	28	1.0	0.05	0.05	17
Fenoxaprop-P-ethyl	33	1.0	0.09	0.09	37
Fluazifop-P-butyl	33	1.0	0.03	0.03	13
Fomesafen	16	1.0	0.28	0.28	54
Glyphosate	40	1.1	0.70	0.80	381
Imazaquin	3	1.0	0.11	0.11	4
Pendimethalin	11	1.0	0.64	0.64	85
Sulfosate	14	1.0	0.98	1.06	180

1/ Planted acres in 2000 for Kentucky were 1.20 million acres.

Soybeans: Agricultural Chemical Applications,
Louisiana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Acifluorfen	4	1.0	0.20	0.22	8
Bentazon	2	1.1	0.29	0.33	7
Chlorimuron-ethyl	19	1.4	0.01	0.02	3
Clethodim	3	1.0	0.13	0.13	3
Clomazone	2	1.0	0.65	0.65	13
Fluazifop-P-butyl	3	1.4	0.06	0.09	2
Glyphosate	76	1.6	0.67	1.11	787
Imazaquin	20	1.0	0.05	0.05	9
Metolachlor	3	1.0	1.64	1.64	47
Metribuzin	2	1.0	0.26	0.26	5
Sulfentrazone	9	1.0	0.14	0.14	12
Sulfosate	3	1.1	1.62	1.90	46
Insecticides:					
Lambda-cyhalothrin	11	1.0	0.02	0.02	2
Spinosad	5	1.0	0.04	0.04	2
Thiodicarb	6	1.0	0.47	0.47	28

1/ Planted acres in 2000 for Louisiana were 930,000 acres.

Soybeans: Agricultural Chemical Applications,
Michigan, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Cloransulam-methyl	1	1.0	0.03	0.03	1
Glyphosate	76	1.2	0.77	0.98	1,562
Imazamox	1	1.0	0.03	0.03	1
Imazaquin	3	1.0	0.05	0.05	3
Imazethapyr	13	1.0	0.05	0.05	15
Pendimethalin	13	1.0	0.71	0.71	196

1/ Planted acres in 2000 for Michigan were 2.10 million acres.

Soybeans: Agricultural Chemical Applications,
Minnesota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Acifluorfen	1	1.0	0.16	0.16	15
Bentazon	2	1.3	0.89	1.22	167
Chlorimuron-ethyl	2	1.0	0.005	0.005	1
Fenoxaprop-P-ethyl	5	1.0	0.08	0.08	30
Fluazifop-P-butyl	5	1.0	0.03	0.03	12
Fomesafen	17	1.0	0.15	0.15	186
Glyphosate	60	1.4	0.67	0.94	4,126
Imazamox	9	1.0	0.03	0.03	19
Imazethapyr	15	1.0	0.04	0.04	42
Lactofen	2	1.0	0.05	0.05	6
Pendimethalin	8	1.0	1.04	1.04	623
Sethoxydim	*	1.6	0.28	0.46	24
Thifensulfuron	3	1.0	0.003	0.003	1
Trifluralin	17	1.0	0.81	0.81	1,027

* Area applied is less than one percent.
1/ Planted acres in 2000 for Minnesota were 7.30 million acres.

Soybeans: Agricultural Chemical Applications,
Mississippi, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	5	1.0	0.69	0.69	55
Acifluorfen	7	1.0	0.22	0.22	28
Bentazon	3	1.0	0.28	0.28	13
Chlorimuron-ethyl	7	1.0	0.01	0.01	2
Clethodim	21	1.0	0.17	0.18	66
Clomazone	2	1.0	0.39	0.39	12
Cloransulam-methyl	5	1.0	0.02	0.02	1
Flumetsulam	7	1.0	0.04	0.04	5
Glyphosate	63	1.7	0.69	1.22	1,313
Imazaquin	12	1.0	0.08	0.08	17
Metolachlor	5	1.0	1.41	1.41	116
Metribuzin	9	1.0	0.29	0.29	45
Pendimethalin	11	1.0	0.55	0.59	108
Sethoxydim	4	1.0	0.23	0.23	15
Trifluralin	19	1.0	0.88	0.88	278

1/ Planted acres in 2000 for Mississippi were 1.70 million acres.

Soybeans: Agricultural Chemical Applications,
Missouri, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Chlorimuron-ethyl	25	1.4	0.02	0.02	32
Cloransulam-methyl	5	1.0	0.01	0.01	3
Fluazifop-P-butyl	3	1.0	0.04	0.04	6
Fomesafen	7	1.0	0.17	0.17	63
Glyphosate	66	1.3	0.73	0.97	3,309
Imazaquin	10	1.0	0.11	0.11	56
Imazethapyr	5	1.0	0.08	0.08	20
Lactofen	4	1.0	0.10	0.10	22
Pendimethalin	14	1.0	0.97	0.97	718
Sulfentrazone	11	1.0	0.19	0.19	114
Sulfosate	6	1.6	0.34	0.55	160
Trifluralin	6	1.0	1.01	1.01	299

1/ Planted acres in 2000 for Missouri were 5.15 million acres.

Soybeans: Agricultural Chemical Applications,
Nebraska, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Alachlor	6	1.0	1.38	1.38	381
Chlorimuron-ethyl	3	1.0	0.004	0.004	1
Cloransulam-methyl	3	1.0	0.03	0.03	3
Flumetsulam	3	1.0	0.04	0.04	5
Glyphosate	72	1.2	0.75	0.91	3,049
Imazethapyr	22	1.0	0.06	0.06	56
Metolachlor	3	1.0	0.89	0.89	107
Metribuzin	7	1.1	0.34	0.38	117
Pendimethalin	22	1.0	1.04	1.04	1,061
Sulfosate	3	1.0	0.98	0.98	158
Trifluralin	14	1.0	0.77	0.77	492

1/ Planted acres in 2000 for Nebraska were 4.65 million acres.

Soybeans: Agricultural Chemical Applications,
North Carolina, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Glyphosate	74	1.1	0.68	0.79	818
Pendimethalin	5	1.0	0.63	0.63	48

1/ Planted acres in 2000 for North Carolina were 1.40 million acres.

Soybeans: Agricultural Chemical Applications,
North Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bentazon	15	1.0	0.84	0.89	259
Ethalfluralin	11	1.0	0.92	0.92	192
Fomesafen	14	1.0	0.19	0.19	50
Glyphosate	22	1.6	0.60	0.99	415
Imazamox	24	1.0	0.03	0.03	15
Imazethapyr	38	1.0	0.04	0.04	31
Pendimethalin	12	1.0	0.88	0.88	209
Sethoxydim	8	1.0	0.31	0.32	47
Trifluralin	48	1.0	0.87	0.87	795

1/ Planted acres in 2000 for North Dakota were 1.90 million acres.

Soybeans: Agricultural Chemical Applications,
Ohio, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	10	1.0	0.40	0.40	173
Chlorimuron-ethyl	12	1.3	0.02	0.02	11
Clethodim	7	1.0	0.11	0.11	33
Cloransulam-methyl	6	1.0	0.01	0.01	4
Flumetsulam	5	1.0	0.05	0.05	12
Glyphosate	65	1.4	0.66	0.92	2,690
Imazamox	5	1.0	0.03	0.03	5
Imazaquin	9	1.0	0.09	0.09	33
Imazethapyr	3	1.0	0.04	0.04	6
Metolachlor	2	1.0	1.95	1.95	185
Metribuzin	6	1.0	0.26	0.26	66
Pendimethalin	3	1.2	0.46	0.58	65
Sulfentrazone	8	1.0	0.12	0.12	44
Sulfosate	9	1.0	0.94	0.94	390
Thifensulfuron	7	1.3	0.002	0.003	1

1/ Planted acres in 2000 for Ohio were 4.45 million acres.

Soybeans: Agricultural Chemical Applications,
South Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Bentazon	6	1.0	1.33	1.33	346
Clethodim	4	1.0	0.10	0.10	16
Glyphosate	67	1.5	0.65	1.02	3,028
Imazamox	4	1.0	0.02	0.02	4
Imazethapyr	23	1.0	0.04	0.04	39
Pendimethalin	8	1.2	0.53	0.67	227
Sethoxydim	5	1.0	0.37	0.37	80
Sulfosate	4	1.0	0.90	0.98	175
Trifluralin	21	1.0	0.93	0.93	845

1/ Planted acres in 2000 for South Dakota were 4.40 million acres.

Soybeans: Agricultural Chemical Applications,
Tennessee, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Acifluorfen	2	1.0	0.23	0.23	4
Bentazon	3	1.0	0.49	0.49	17
Chlorimuron-ethyl	17	1.3	0.01	0.01	2
Clethodim	13	1.0	0.12	0.13	19
Fluazifop-P-butyl	6	1.0	0.11	0.11	7
Fomesafen	5	1.0	0.25	0.25	15
Glyphosate	85	1.4	0.71	1.04	1,048
Paraquat	1	1.0	0.44	0.44	7
Pendimethalin	3	1.0	0.76	0.76	27
Trifluralin	5	1.0	1.11	1.11	68

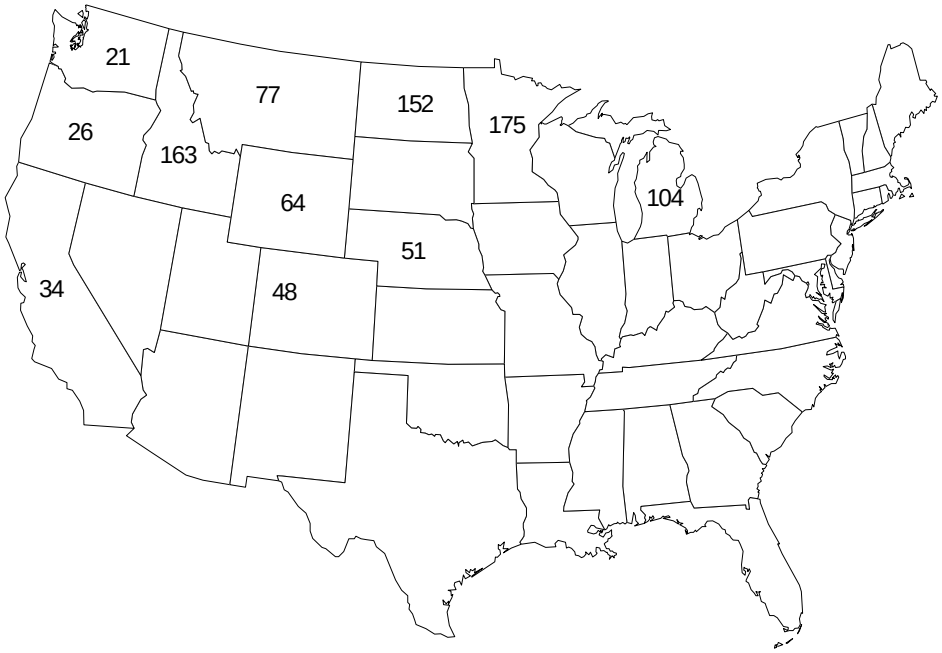
1/ Planted acres in 2000 for Tennessee were 1.18 million acres.

Soybeans: Agricultural Chemical Applications,
Wisconsin, 2000 1/

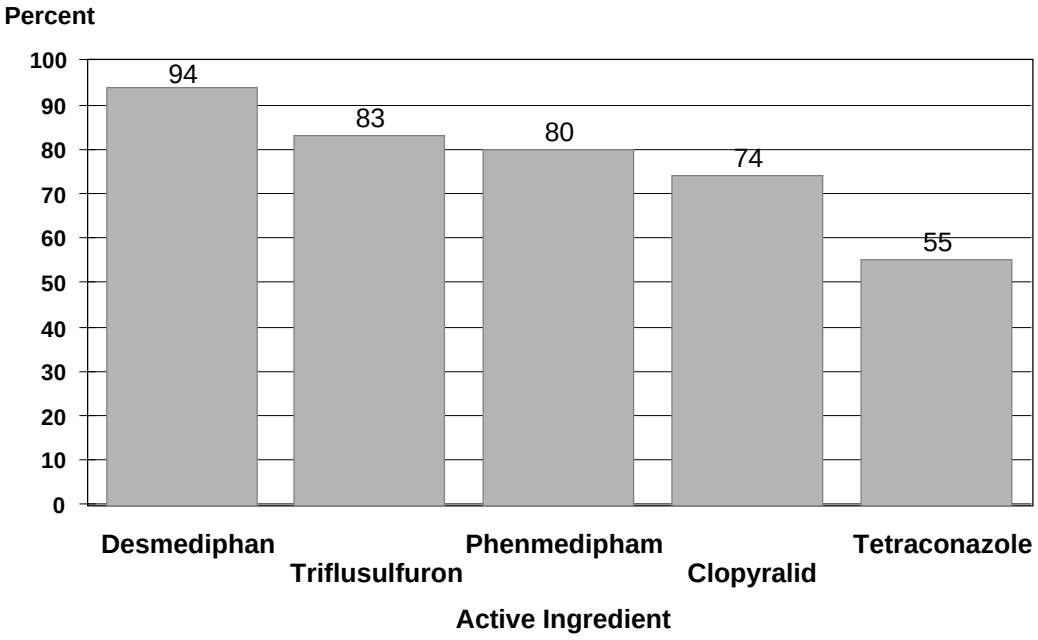
Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	4	1.0	0.19	0.19	10
Cloransulam-methyl	7	1.0	0.02	0.02	2
Dimethenamid	2	1.0	0.87	0.87	23
Glyphosate	58	1.1	0.75	0.87	759
Imazamox	13	1.0	0.03	0.03	7
Imazethapyr	11	1.0	0.06	0.06	10
Pendimethalin	17	1.0	0.89	0.89	223

1/ Planted acres in 2000 for Wisconsin were 1.50 million acres.

Sugarbeets: Number of Usable Reports, 2000



Sugarbeets: Percent of Acres Treated
Top 5 Active Ingredients for 2000



Surveyed states are CA, CO, ID, MI, MN, MT, NE, ND, OR, WA, and WY

Sugarbeets: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
CA	98	99	12.0	90	7.0	19	0.9
CO	72	98	6.3	79	2.8	38	0.7
ID	212	97	30.2	86	20.3	43	7.3
MI	189	100	25.7	98	11.7	95	31.5
MN	490	100	40.6	97	30.0	54	11.0
MT	61	100	8.9	99	5.5	66	1.7
NE	78	95	9.5	88	3.3	29	0.3
ND	258	94	17.4	92	12.7	38	2.8
OR	16	100	2.3	79	1.0	23	0.3
WA	28	99	2.3	77	1.4	55	1.0
WY	61	97	11.0	97	5.7	42	1.3
Total	1,563	98	166.2	92	101.4	50	58.8

Sugarbeets: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
California:	98					
Nitrogen		99	1.8	67	124	12.0
Phosphate		90	1.0	80	80	7.0
Potash		19	1.0	48	48	0.9
Colorado:	72					
Nitrogen		98	1.4	62	90	6.3
Phosphate		79	1.0	50	50	2.8
Potash		38	1.0	25	25	0.7
Idaho:	212					
Nitrogen		97	1.9	74	147	30.2
Phosphate		86	1.2	88	111	20.3
Potash		43	1.0	78	81	7.3
Michigan:	189					
Nitrogen		100	2.2	60	136	25.7
Phosphate		98	1.0	61	63	11.7
Potash		95	1.3	126	175	31.5
Minnesota	490					
Nitrogen		100	1.2	66	83	40.6
Phosphate		97	1.1	56	64	30.0
Potash		54	1.0	40	41	11.0

--continued

Sugarbeets: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Montana:	61					
Nitrogen		100	1.5	94	146	8.9
Phosphate		99	1.0	86	92	5.5
Potash		66	1.0	38	42	1.7
Nebraska:	78					
Nitrogen		95	1.8	69	128	9.5
Phosphate		88	1.0	47	48	3.3
Potash		29	1.0	14	14	0.3
North Dakota:	258					
Nitrogen		94	1.2	60	72	17.4
Phosphate		92	1.0	49	54	12.7
Potash		38	1.0	29	29	2.8
Oregon:	16					
Nitrogen		100	1.5	93	141	2.3
Phosphate		79	1.1	69	76	1.0
Potash		23	1.2	56	72	0.3
Washington:	28					
Nitrogen		99	1.6	50	83	2.3
Phosphate		77	1.0	66	66	1.4
Potash		55	1.1	60	66	1.0
Wyoming:	61					
Nitrogen		97	1.9	95	186	11.0
Phosphate		97	1.2	80	97	5.7
Potash		42	1.2	41	49	1.3
Total:	1,563					
Nitrogen		98	1.5	68	109	166.2
Phosphate		92	1.1	64	70	101.4
Potash		50	1.1	67	75	58.8

Sugarbeets: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	CA	CO	ID	MI	MN	MT
Herbicides							
2,4-D	*					*	
Clethodim	P	P	P	*	*	P	P
Clopyralid	P	*	P	P	P	P	P
Cycloate	P		P	P	P	*	*
Desmedipham	P	P	P	P	P	P	P
Dimethenamid	*						
EPTC	P	*	*	P		*	*
Ethofumesate	P	P	P	P	P	P	P
Glyphosate	P	P	*	P	*	P	P
Metolachlor	*						
Paraquat	*						
Phenmedipham	P	P	P	P	P	P	P
Pyrazon	P	*		*	P		
Quizalofop-ethyl	P		P	P	P	P	P
Rimsulfuron	*						
Sethoxydim	P	P	*	P	*	P	*
Trifluralin	P	P	*	P		P	*
Triflusulfuron methyl	P	P	P	P	P	P	P
Insecticides							
Aldicarb	P	*	*	P			P
Bt (Bacillus thur.)	P	*				*	*
Carbaryl	*	*	*				
Carbofuran	*			*			
Chlorpyrifos	P	P	*	P	*	P	P
Diazinon	P	*	*	*	*		
Esfenvalerate	P	P	*	P	*	*	P
Malathion	*	*					
Methomyl	P	P					
Methyl parathion	*			*			
Naled	*	*					
Oxydemeton-methyl	*						
Phorate	P	*	*	*			
Piperonyl butoxide	*	*					
Pyrethrins	*	*					
Terbufos	P		P	P	*	P	P

--continued

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

Sugarbeets: Active Ingredient Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed				
	ND	NE	OR	WA	WY
Herbicides					
2,4-D					
Clethodim	P	P		P	P
Clopyralid	P	P	P	*	P
Cycloate	*	P	*	P	P
Desmedipham	P	P	P	P	P
Dimethenamid				*	
EPTC		*	P	P	P
Ethofumesate	P	P	P	P	P
Glyphosate	P	*	P	*	*
Metolachlor				*	
Paraquat	*				
Phenmedipham	P	P	P	P	P
Pyrazon					
Quizalofop-ethyl	P	*	P	*	*
Rimsulfuron				*	
Sethoxydim	P	P	*	*	*
Trifluralin	*	*	P	*	*
Triflusulfuron methyl	P	P	P	P	P
Insecticides					
Aldicarb		*	P	*	P
Bt (Bacillus thur.)	*				
Carbaryl					
Carbofuran			*		
Chlorpyrifos	P	*	P	*	*
Diazinon					
Esfenvalerate	P	*	P	*	*
Malathion					
Methomyl					
Methyl parathion					
Naled					
Oxydemeton-methyl			*		
Phorate	P	*		*	*
Piperonyl butoxide					
Pyrethrins					
Terbufos	P	P	*		P

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

Sugarbeets: Active Ingredients Applied and Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed						
	ALL	CA	CO	ID	MI	MN	MT
Fungicides							
Azoxystrobin	P			*			*
Benomyl	P		*		P		P
Mancozeb	P	*			P	P	
Maneb	P				*	*	*
Mefenoxam	*			*	*		*
Sulfur	P	P	P	P	*		
Tetraconazole	P		P		P	P	P
Thiophanate-methyl	P		*		*	P	
Triadimefon	*	*		*			
Triphenyltin hydrox.	P		*	*	P	P	P
Other Chemicals							
Dichloropropene	P			*			*
Endothall	P	*			*	*	
Gibberellic acid	*						
Indole-3-butyric acid	*						
Metam-sodium	*			*			

--continued

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

Sugarbeets: Active Ingredient Publication Status
By States Surveyed, 2000 (continued)

Active Ingredient	States Surveyed				
	ND	NE	OR	WA	WY
Fungicides					
Azoxystrobin		*			
Benomyl	*				
Mancozeb	P			*	
Maneb	*				
Mefenoxam					
Sulfur		*	P	*	
Tetraconazole	P	*			*
Thiophanate-methyl	P	*			
Triadimefon			*		
Triphenyltin hydroxi	P	*	*		
Other Chemicals					
Dichloropropene		*	*		P
Endothall	*				
Gibberellic acid	*				
Indole-3-butyric acid	*				
Metam-sodium					

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

Sugarbeets: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide 3/		Other Chemicals3/	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
CA 2/	98	87	90	79	187	72	5,588		
CO	72	98	42	29	19	56	32		
ID	212	100	333	95	368	41	1,932	4	987
MI 2/	189	99	140	12	11	86	75		
MN 2/	490	100	358	60	492	95	301		
MT 2/	61	100	55	89	77	61	13		
NE 2/	78	98	69	51	51	22	7		
ND 2/	258	100	169	81	416	96	153		
OR 2/	16	100	23	75	18	33	35		
WA 2/	28	97	64	19	5				
WY 2/	61	87	43	79	97			16	976
Total	1,563	98	1,386	63	1,741	72	8,141	3	2,748

1/ Total Applied excludes Bt's (Bacillus thuringiensis). Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more of the pesticide classes.
3/ Insufficient reports to publish data for one or more of the States surveyed.

Sugarbeets: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	46	2.5	0.04	0.11	77
Clopyralid	74	2.8	0.03	0.09	102
Cycloate	5	1.0	1.84	1.84	139
Desmedipham	94	2.8	0.07	0.18	270
EPTC	6	1.0	2.61	2.64	230
Ethofumesate	37	2.1	0.06	0.14	82
Glyphosate	13	1.1	0.39	0.43	86
Phenmedipham	80	2.6	0.05	0.14	170
Pyrazon	6	1.0	0.82	0.85	76
Quizalofop-ethyl	10	1.6	0.04	0.06	9
Sethoxydim	11	1.7	0.19	0.33	56
Trifluralin	5	1.0	0.65	0.66	55
Triflusulfuron	83	2.7	0.008	0.02	29
Insecticides:					
Aldicarb	7	1.0	1.84	1.87	198
Bt(Bacillus thu./2:	*	1.0			
Carbofuran	*	1.0	0.54	0.54	4
Chlorpyrifos	12	1.2	0.92	1.11	204
Diazinon	2	2.4	0.73	1.78	67
Esfenvalerate	5	1.9	0.02	0.05	3
Methomyl	2	1.1	0.46	0.52	17
Phorate	2	1.0	1.31	1.31	45
Terbufos	41	1.0	1.81	1.82	1,168
Fungicides:					
Azoxystrobin	*	1.0	0.12	0.12	**
Benomyl	4	1.0	0.24	0.25	15
Mancozeb	4	1.0	1.44	1.53	99
Maneb	1	1.2	1.29	1.64	32
Sulfur	11	1.8	25.13	45.70	7,595
Tetraconazole	55	1.6	0.10	0.16	136
Thiophanate-methyl:	6	1.1	0.23	0.26	25
Triadimefon	*	1.0	0.23	0.24	1
Triphenyltin hydr.:	44	1.4	0.23	0.34	238
Other Chemicals:					
Dichloropropene	1	1.0	107.48	107.48	2,348
Endothall	*	1.4	0.27	0.38	4
Metam-sodium	*	1.0	80.56	80.56	396

* Area applied is less than one percent.
** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for the 11 states surveyed were 1.56 million acres. States included are CA, CO, ID, MI, MN, MT, NE, ND, OR, WA and WY.
2/ Rates and total applied are not available because amounts of active ingredient are not comparable between products.

Sugarbeets: Agricultural Chemical Applications,
California, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	7	1.0	0.08	0.09	**
Desmedipham	69	1.5	0.11	0.17	11
Ethofumesate	6	1.2	0.44	0.53	3
Glyphosate	15	1.0	0.60	0.60	9
Phenmedipham	69	1.5	0.11	0.17	11
Sethoxydim	51	1.5	0.33	0.51	25
Trifluralin	9	1.0	0.72	0.72	7
Triflusulfuron methyl	26	1.1	0.01	0.01	**
Insecticides:					
Chlorpyrifos	65	1.2	0.88	1.07	69
Esfenvalerate	7	1.0	0.04	0.04	**
Methomyl	33	1.1	0.47	0.53	17
Fungicides:					
Sulfur	71	2.3	33.73	80.29	5,588

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for California were 98,000 acres.

Sugarbeets: Agricultural Chemical Applications,
Colorado, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	36	1.0	0.02	0.02	1
Clopyralid	46	1.2	0.05	0.07	2
Cycloate	8	1.0	1.31	1.31	7
Desmedipham	83	1.2	0.05	0.06	3
Ethofumesate	65	1.0	0.13	0.14	7
Phenmedipham	83	1.2	0.05	0.06	3
Quizalofop-ethyl	12	1.0	0.05	0.05	**
Triflusulfuron methyl	80	1.2	0.009	0.01	**
Insecticides:					
Terbufos	15	1.0	1.32	1.42	15
Fungicides:					
Sulfur	7	1.1	4.69	5.56	29
Tetraconazole	24	1.0	0.09	0.09	2

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Colorado were 71,500 acres.

Sugarbeets: Agricultural Chemical Applications,
Idaho, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clopyralid	62	2.2	0.03	0.07	9
Cycloate	13	1.0	2.39	2.39	65
Desmedipham	100	2.9	0.04	0.13	28
EPTC	20	1.0	2.93	2.93	125
Ethofumesate	94	2.7	0.05	0.12	25
Glyphosate	24	1.0	0.39	0.40	20
Phenmedipham	100	2.9	0.04	0.13	28
Quizalofop-ethyl	23	2.0	0.03	0.07	3
Sethoxydim	13	1.0	0.24	0.26	7
Trifluralin	9	1.0	0.50	0.50	10
Triflusulfuron methyl	84	2.6	0.02	0.04	7
Insecticides:					
Aldicarb	38	1.0	1.96	1.97	157
Chlorpyrifos	5	1.0	0.79	0.85	10
Esfenvalerate	12	3.3	0.02	0.06	2
Terbufos	42	1.0	1.93	1.94	173
Fungicides:					
Sulfur	39	1.4	16.17	23.23	1,931

1/ Planted acres in 2000 for Idaho were 212,000 acres.

Sugarbeets: Agricultural Chemical Applications,
Michigan, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clopyralid	78	2.5	0.03	0.07	10
Cycloate	3	1.0	3.03	3.03	16
Desmedipham	92	2.0	0.06	0.12	21
Ethofumesate	14	1.5	0.08	0.13	3
Phenmedipham	90	2.0	0.06	0.11	19
Pyrazon	35	1.0	0.97	0.99	66
Quizalofop-ethyl	12	1.3	0.05	0.07	2
Triflusulfuron	87	2.0	0.01	0.01	2
Fungicides:					
Benomyl	11	1.0	0.25	0.25	5
Mancozeb	10	1.0	1.44	1.57	30
Tetraconazole	82	1.2	0.10	0.12	18
Triphenyltin hydrox.	23	1.2	0.22	0.27	12

1/ Planted acres in 2000 for Michigan were 189,000 acres.

Sugarbeets: Agricultural Chemical Applications,
Minnesota, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	75	2.6	0.04	0.10	38
Clopyralid	95	3.2	0.03	0.10	46
Desmedipham	100	3.3	0.07	0.25	121
Ethofumesate	20	2.1	0.04	0.08	8
Glyphosate	4	1.0	0.50	0.50	10
Phenmedipham	70	3.0	0.05	0.15	52
Quizalofop-ethyl	9	1.4	0.04	0.06	3
Sethoxydim	16	1.7	0.16	0.28	21
Trifluralin	6	1.0	0.84	0.84	23
Triflusulfuron methyl	94	3.3	0.007	0.02	10
Insecticides:					
Chlorpyrifos	9	1.2	0.98	1.22	53
Terbufos	51	1.0	1.75	1.75	439
Fungicides:					
Mancozeb	6	1.0	1.46	1.57	50
Tetraconazole	90	1.9	0.10	0.19	84
Thiophanate-methyl	10	1.1	0.24	0.29	14
Triphenyltin hydrox.	84	1.6	0.23	0.37	150

1/ Planted acres in 2000 for Minnesota were 490,000 acres.

Sugarbeets: Agricultural Chemical Applications,
Montana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	65	2.6	0.04	0.12	5
Clopyralid	92	2.5	0.03	0.08	5
Desmedipham	99	2.7	0.05	0.15	9
Ethofumesate	41	2.3	0.07	0.17	4
Glyphosate	67	1.0	0.42	0.42	17
Phenmedipham	97	2.7	0.05	0.13	8
Quizalofop-ethyl	5	2.0	0.02	0.04	**
Triflusulfuron methyl	91	2.6	0.01	0.03	2
Insecticides:					
Aldicarb	9	1.2	1.51	1.94	10
Chlorpyrifos	27	1.0	0.53	0.53	9
Esfenvalerate	28	1.7	0.02	0.04	1
Terbufos	61	1.0	1.50	1.54	57
Fungicides:					
Benomyl	49	1.0	0.24	0.26	8
Tetraconazole	21	1.2	0.08	0.09	1
Triphenyltin hydrox.	28	1.0	0.22	0.23	4

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Montana were 60,700 acres.

Sugarbeets: Agricultural Chemical Applications,
Nebraska, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	41	1.0	0.09	0.09	3
Clopyralid	66	1.8	0.04	0.08	4
Cycloate	17	1.0	1.72	1.72	23
Desmedipham	90	2.0	0.08	0.15	11
Ethofumesate	70	1.2	0.18	0.22	12
Phenmedipham	86	2.0	0.07	0.15	10
Sethoxydim	3	1.0	0.16	0.16	**
Triflusulfuron methyl	70	2.0	0.01	0.02	1
Insecticides:					
Terbufos	46	1.0	1.30	1.34	48

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Nebraska were 78,200 acres.

Sugarbeets: Agricultural Chemical Applications,
North Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	83	2.9	0.04	0.11	24
Clopyralid	85	3.1	0.03	0.10	22
Desmedipham	98	3.3	0.06	0.21	54
Ethofumesate	32	2.5	0.05	0.12	10
Glyphosate	9	1.0	0.64	0.67	16
Phenmedipham	75	3.0	0.05	0.14	28
Quizalofop-ethyl	8	1.4	0.04	0.06	1
Sethoxydim	4	3.4	0.06	0.21	2
Triflusulfuron methyl	87	3.2	0.006	0.02	4
Insecticides:					
Chlorpyrifos	13	1.3	1.25	1.68	56
Esfenvalerate	3	1.7	0.04	0.07	**
Phorate	4	1.0	1.03	1.03	9
Terbufos	69	1.0	1.97	1.97	351
Fungicides:					
Mancozeb	5	1.0	1.31	1.33	18
Tetraconazole	85	1.4	0.09	0.13	30
Thiophanate-methyl	10	1.0	0.29	0.29	7
Triphenyltin hydrox.	83	1.3	0.24	0.32	69

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for North Dakota were 258,000 acres.

Sugarbeets: Agricultural Chemical Applications,
Oregon, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clopyralid	58	2.6	0.03	0.09	1
Desmedipham	89	2.8	0.05	0.15	2
EPTC	15	1.3	2.75	3.79	9
Ethofumesate	31	2.9	0.07	0.20	1
Glyphosate	39	1.0	0.45	0.45	3
Phenmedipham	89	2.8	0.05	0.15	2
Quizalofop-ethyl	10	1.0	0.07	0.07	**
Trifluralin	27	1.0	0.55	0.55	2
Triflusulfuron methyl	88	2.6	0.01	0.03	**
Insecticides:					
Aldicarb	29	1.0	1.58	1.58	7
Chlorpyrifos	26	1.0	0.79	0.79	3
Esfenvalerate	26	1.0	0.03	0.03	**
Fungicides:					
Sulfur	23	1.0	8.36	8.96	34

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Oregon were 16,200 acres.

Sugarbeets: Agricultural Chemical Applications,
Washington, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	41	1.9	0.12	0.24	3
Cycloate	32	1.0	1.57	1.57	14
Desmedipham	83	2.6	0.08	0.21	5
EPTC	38	1.0	2.11	2.11	22
Ethofumesate	57	1.5	0.17	0.28	5
Phenmedipham	83	2.6	0.07	0.20	5
Triflusulfuron methyl	80	2.4	0.01	0.03	1

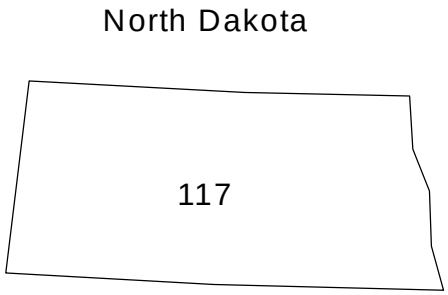
1/ Planted acres in 2000 for Washington were 28,400 acres.

Sugarbeets: Agricultural Chemical Applications,
Wyoming, 2000 1/

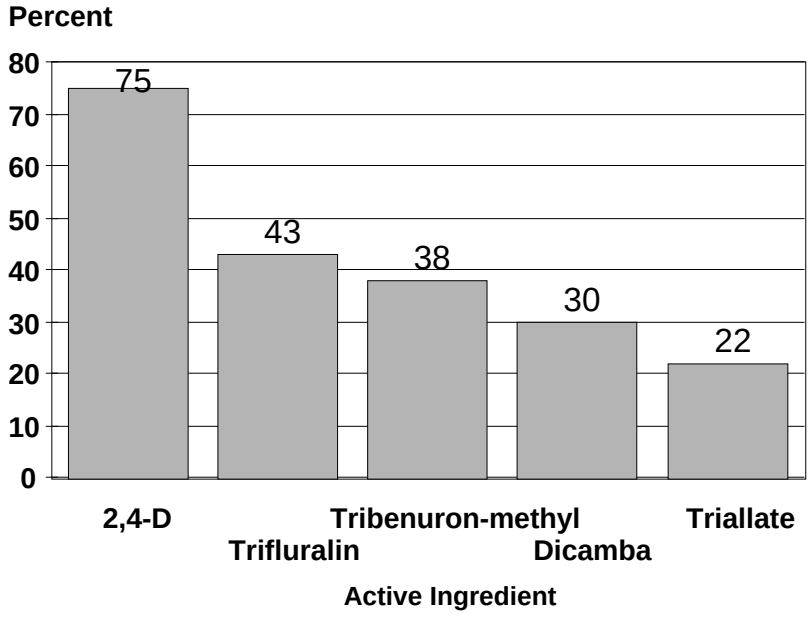
Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Clethodim	35	1.7	0.06	0.11	2
Clopyralid	71	2.1	0.03	0.07	3
Cycloate	15	1.0	0.78	0.79	7
Desmedipham	86	2.1	0.05	0.10	5
EPTC	12	1.0	2.15	2.15	15
Ethofumesate	37	1.1	0.15	0.17	4
Phenmedipham	78	2.2	0.04	0.09	4
Triflusulfuron methyl	79	2.1	0.009	0.02	1
Insecticides:					
Aldicarb	13	1.0	1.98	1.98	15
Terbufos	62	1.0	1.96	2.07	78
Other Chemicals:					
Dichloropropene	16	1.0	99.79	99.79	976

1/ Planted acres in 2000 for Wyoming were 61,000 acres.

Durum Wheat: Number of Usable Reports, 2000



Durum Wheat: Percent of Acres Treated
Top 5 Active Ingredients for 2000
North Dakota



Durum Wheat: Fertilizer Use for North Dakota, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
ND	3,250	86	173.8	66	47.6	5	2.1

Durum Wheat: Fertilizer Primary Nutrient Applications,
North Dakota, 2000

Primary Nutrient	Planted Acreage	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
North Dakota	3,250					
Nitrogen		86	1.7	36	62	173.8
Phosphate		66	1.0	22	22	47.6
Potash		5	1.0	14	14	2.1

Durum Wheat: Active Ingredient Publication Status
North Dakota, 2000

Active Ingredient	ND
Herbicides:	
2,4-D	P
2,4-D, Dimethylamine	*
Bromoxynil	P
Clodinafop-propargil	*
Clopyralid	*
Dicamba	P
Dicamba, Dimet. salt	*
Fenoxaprop-P-ethyl	P
Fluroxypyr	*
Glyphosate	P
MCPA	P
Metsulfuron-methyl	*
Thifensulfuron	*
Tralkoxydim	*
Triallate	P
Triasulfuron	*
Tribenuron-methyl	P
Trifluralin	P
Insecticides	
Chlorpyrifos	*
Fungicides	
Propiconazole	*
Tebuconazole	*

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

Durum Wheat: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
North Dakota, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide		Fungicide		Other Chemicals	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
ND 2/	3,250	97	2,807						

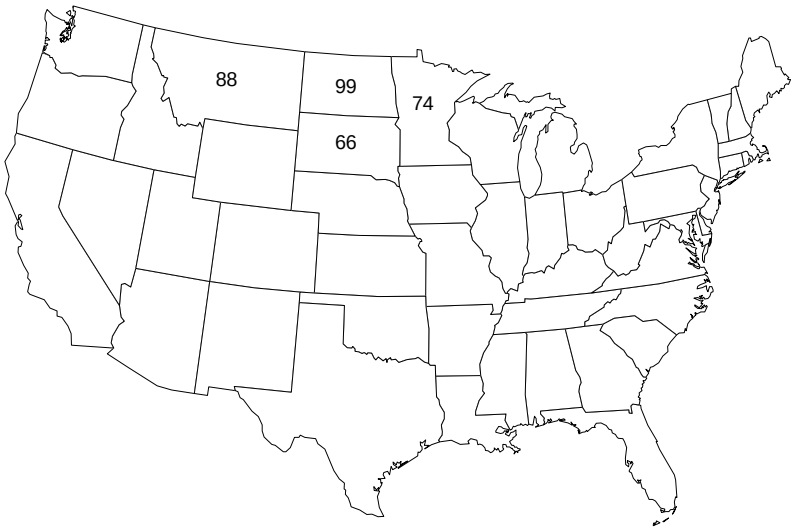
2/ Insufficient reports to publish data for one or more of the pesticide classes.

Durum Wheat: Agricultural Chemical Applications,
North Dakota, 2000 1/

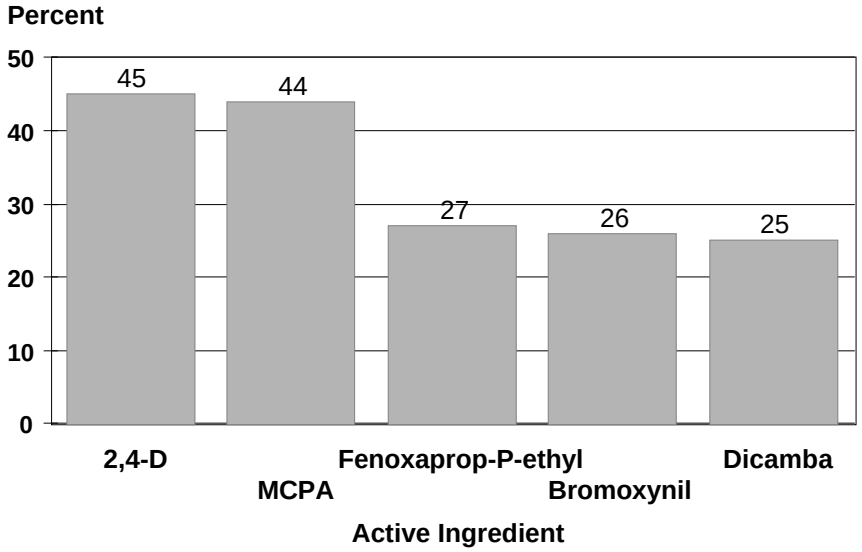
Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	75	1.0	0.36	0.38	912
Bromoxynil	3	1.0	0.22	0.22	21
Dicamba	30	1.0	0.05	0.05	52
Fenoxaprop-P-ethyl	11	1.0	0.04	0.04	16
Glyphosate	20	1.0	0.54	0.57	372
MCPA	20	1.0	0.32	0.32	210
Triallate	22	1.0	0.87	0.87	628
Tribenuron-methyl	38	1.0	0.006	0.006	7
Trifluralin	43	1.0	0.37	0.37	519

1/ Planted acres in 2000 for North Dakota were 3.25 million acres.

Other Spring Wheat: Number of Usable Reports, 2000



Other Spring Wheat: Percent of Acres Treated
Top 5 Active Ingredients for 2000



Surveyed states are MN, MT, ND, and SD

Other Spring Wheat: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
MN	2,000	94	169.8	85	51.8	73	29.3
MT	3,350	90	167.6	84	75.5	36	15.6
ND	6,800	97	501.8	83	170.1	12	13.3
SD	1,650	95	98.1	83	36.7	12	2.8
Total	13,800	95	937.3	84	334.1	27	61.0

Other Spring Wheat: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Minnesota:	2,000					
Nitrogen		94	1.1	76	90	169.8
Phosphate		85	1.0	30	30	51.8
Potash		73	1.0	20	20	29.3
Montana:	3,350					
Nitrogen		90	1.7	32	56	167.6
Phosphate		84	1.1	24	27	75.5
Potash		36	1.0	12	13	15.6
North Dakota:	6,800					
Nitrogen		97	1.6	46	76	501.8
Phosphate		83	1.0	30	30	170.1
Potash		12	1.0	16	16	13.3
South Dakota:	1,650					
Nitrogen		95	1.4	42	63	98.1
Phosphate		83	1.0	26	27	36.7
Potash		12	1.0	14	14	2.8
Total:	13,800					
Nitrogen		95	1.5	45	72	937.3
Phosphate		84	1.0	28	29	334.1
Potash		27	1.0	16	17	61.0

Other Spring Wheat: Active Ingredient Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed				
	ALL	MN	MT	ND	SD
Herbicides					
2,4-D	P	P	P	P	P
2,4-D, Dimethylamine	*		*		
Bromoxynil	P	P	P	P	P
Chlorsulfuron	*		*		*
Clodinafop-propargil	*	*	*		
Clopyralid	P	P		P	P
Dicamba	P	P	P	P	P
Fenoxaprop-P-ethyl	P	P	*	P	*
Fluroxypyr	P	*	*	P	
Glyphosate	P	*	P	P	*
Imazamethabenz	P		*	*	
MCPA	P	P	P	P	P
Metsulfuron-methyl	P		P		P
Picloram	P		*	*	*
Prosulfuron	*		*		*
Thifensulfuron	P	P	*	*	P
Tralkoxydim	P	*	*	P	
Triallate	P		P	*	*
Triasulfuron	P		P		
Tribenuron-methyl	P	P	P	P	P
Trifluralin	P	*	*	P	
Insecticides					
Chlorpyrifos	*	*		*	
Methyl parathion	*	*			
Fungicides					
Propiconazole	*	*			
Tebuconazole	P	*		*	

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

Other Spring Wheat: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 3/		Fungicide 3/		Other Chemicals	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
MN 2/	2,000	92	1,845						
MT	3,350	92	2,955						
ND 2/	6,800	97	4,205						
SD	1,650	93	619						
Total	13,800	95	9,624	2	49	15	149		

2/ Insufficient reports to publish data for one or more of the pesticide classes.
3/ Insufficient reports to publish data for one or more of the States surveyed.

Other Spring Wheat: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Appli-cations	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	45	1.0	0.33	0.35	2,137
Bromoxynil	26	1.0	0.24	0.24	871
Clopyralid	14	1.0	0.10	0.10	179
Dicamba	25	1.2	0.09	0.11	383
Fenoxaprop-P-ethyl	27	1.0	0.08	0.08	302
Fluroxypyr	3	1.0	0.15	0.15	62
Glyphosate	20	1.5	0.41	0.62	1,707
Imazamethabenz	1	1.0	0.37	0.37	69
MCPA	44	1.0	0.34	0.34	2,072
Metsulfuron-methyl	3	1.0	0.004	0.004	1
Picloram	2	1.0	0.01	0.01	3
Thifensulfuron	4	1.0	0.01	0.01	7
Tralkoxydim	7	1.0	0.19	0.19	189
Triallate	9	1.0	1.08	1.08	1,301
Triasulfuron	9	1.0	0.02	0.02	21
Tribenuron-methyl	15	1.0	0.01	0.01	23
Trifluralin	6	1.0	0.34	0.34	287
Fungicides:					
Tebuconazole	9	1.0	0.06	0.06	72

1/ Planted acres in 2000 for the 4 states surveyed were 13.8 million acres.
States included are MN, MT, ND and SD.

Other Spring Wheat: Agricultural Chemical Applications,
Minnesota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	11	1.0	0.35	0.35	78
Bromoxynil	25	1.0	0.24	0.24	119
Clopyralid	45	1.0	0.10	0.10	90
Dicamba	3	1.0	0.10	0.10	6
Fenoxaprop-P-ehtyl	28	1.0	0.06	0.06	36
MCPA	75	1.0	0.45	0.45	676
Thifensulfuron	7	1.0	0.01	0.01	2
Tribenuron-methyl	7	1.0	0.006	0.006	**

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for Minnesota were 2.00 million acres.

Other Spring Wheat: Agricultural Chemical Applications,
Montana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	63	1.1	0.34	0.40	845
Bromoxynil	8	1.0	0.23	0.23	63
Dicamba	38	1.7	0.11	0.19	245
Glyphosate	42	1.9	0.29	0.57	807
MCPA	13	1.0	0.26	0.26	114
Metsulfuron-methyl	6	1.0	0.006	0.006	1
Triallate	21	1.0	1.14	1.14	782
Triasulfuron	39	1.0	0.02	0.02	21
Tribenuron-methyl	4	1.0	0.009	0.009	1

1/ Planted acres in 2000 for Montana were 3.35 million acres.

Other Spring Wheat: Agricultural Chemical Applications,
North Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	43	1.0	0.32	0.32	938
Bromoxynil	40	1.0	0.24	0.24	652
Clopyralid	11	1.0	0.09	0.09	73
Dicamba	21	1.0	0.06	0.06	86
Fenoxaprop-P-ethyl	40	1.0	0.09	0.09	238
Fluroxypyr	6	1.0	0.15	0.15	61
Glyphosate	5	1.1	0.53	0.58	182
MCPA	53	1.0	0.31	0.31	1,130
Tralkoxydim	3	1.0	0.17	0.17	36
Tribenuron-methyl	25	1.0	0.01	0.01	20
Trifluralin	11	1.0	0.34	0.34	248

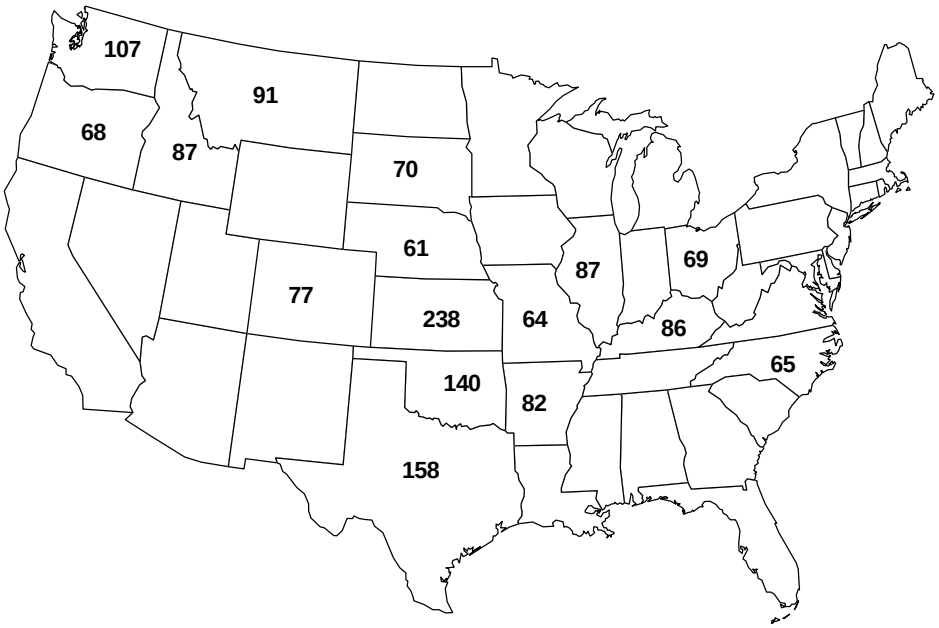
1/ Planted acres in 2000 for North Dakota were 6.80 million acres.

Other Spring Wheat: Agricultural Chemical Applications,
South Dakota, 2000 1/

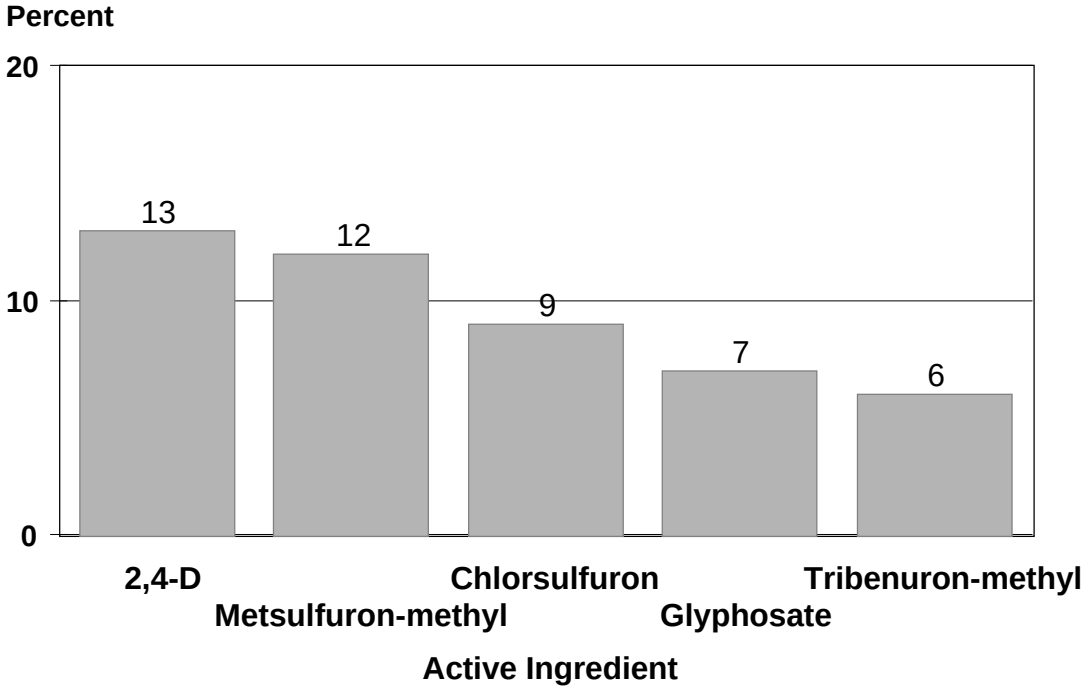
Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	56	1.0	0.30	0.30	276
Bromoxynil	8	1.0	0.27	0.27	37
Clopyralid	12	1.0	0.08	0.08	16
Dicamba	42	1.0	0.07	0.07	46
MCPA	30	1.0	0.31	0.31	152
Metsulfuron-methyl	10	1.0	0.003	0.003	**
Thifensulfuron	11	1.0	0.009	0.009	2
Tribenuron-methyl	11	1.0	0.005	0.005	1

** Total applied is less than 1,000 lbs.
1/ Planted acres in 2000 for South Dakota were 1.65 million acres.

Winter Wheat: Number of Usable Reports, 2000



Winter Wheat: Percent of Acres Treated
Top 5 Active Ingredients for 2000



Surveyed states are AR, CO, ID, IL, KS, KY, MO, MT, NE, NC, OH, OK, OR, SD, TX, and WA

Winter Wheat: Fertilizer Use by State, 2000
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acre Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Mil. Lbs	Percent	Mil. Lbs	Percent	Mil. Lbs
AR	1,180	92	110.1	28	12.3	28	16.0
CO 1/	2,500	87	85.2	14	5.6		
ID	780	90	75.5	54	12.1	13	2.7
IL	950	98	80.1	82	55.5	78	65.7
KS	9,800	94	522.9	65	178.7	6	11.2
KY	670	80	52.0	62	25.9	60	29.2
MO	1,050	96	86.8	76	39.9	84	59.1
MT	1,500	82	74.2	77	34.0	43	8.2
NE 1/	1,750	90	76.5	68	31.5		
NC	720	88	78.3	48	15.8	56	30.9
OH	1,120	94	107.0	81	64.1	82	74.0
OK	6,100	97	393.3	62	148.4	5	8.3
OR	750	99	46.1	11	1.8	7	1.4
SD	1,350	91	60.8	61	26.6	12	1.3
TX	6,000	55	280.2	35	79.7	14	32.0
WA	1,850	100	111.7	30	10.2	6	1.3
Total	38,070	87	2,240.7	54	742.1	17	342.3

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

Winter Wheat: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Arkansas:	1,180					
Nitrogen		92	1.6	63	101	110.1
Phosphate		28	1.0	38	38	12.3
Potash		28	1.0	49	49	16.0
Colorado:	2,500					
Nitrogen		87	1.2	32	39	85.2
Phosphate		14	1.0	16	16	5.6
Potash 1/						
Idaho:	780					
Nitrogen		90	1.8	58	108	75.5
Phosphate		54	1.0	27	29	12.1
Potash		13	1.0	24	27	2.7
Illinois:	950					
Nitrogen		98	1.7	49	86	80.1
Phosphate		82	1.0	68	71	55.5
Potash		78	1.0	87	88	65.7

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Winter Wheat: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
Kansas:	9,800					
Nitrogen		94	1.5	37	57	522.9
Phosphate		65	1.0	28	28	178.7
Potash		6	1.0	18	18	11.2
Kentucky:	670					
Nitrogen		80	1.6	60	97	52.0
Phosphate		62	1.0	61	62	25.9
Potash		60	1.0	72	72	29.2
Missouri:	1,050					
Nitrogen		96	1.7	51	86	86.8
Phosphate		76	1.0	49	50	39.9
Potash		84	1.0	66	67	59.1
Montana:	1,500					
Nitrogen		82	1.5	38	60	74.2
Phosphate		77	1.0	30	30	34.0
Potash		43	1.0	13	13	8.2
Nebraska:	1,750					
Nitrogen		90	1.4	32	49	76.5
Phosphate		68	1.0	26	26	31.5
Potash 1/						
North Carolina:	720					
Nitrogen		88	1.4	84	124	78.3
Phosphate		48	1.0	45	46	15.8
Potash		56	1.0	75	76	30.9
Ohio:	1,120					
Nitrogen		94	1.9	51	102	107.0
Phosphate		81	1.0	66	70	64.1
Potash		82	1.0	80	81	74.0
Oklahoma:	6,100					
Nitrogen		97	1.6	41	67	393.3
Phosphate		62	1.0	39	39	148.4
Potash		5	1.0	24	26	8.3
Oregon:	750					
Nitrogen		99	1.3	48	62	46.1
Phosphate		11	1.0	21	22	1.8
Potash		7	1.0	26	26	1.4

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Winter Wheat: Fertilizer Primary Nutrient Applications,
States Surveyed and Total, 2000 (continued)

Primary Nutrient	Planted Acreage	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	1,000 Acres	Percent	Number	Pounds per Acre		Mil. Lbs
South Dakota:	1,350					
Nitrogen		91	1.4	35	50	60.8
Phosphate		61	1.0	30	32	26.6
Potash		12	1.0	8	8	1.3
Texas:	6,000					
Nitrogen		55	1.4	57	84	280.2
Phosphate		35	1.1	33	38	79.7
Potash		14	1.3	28	39	32.0
Washington:	1,850					
Nitrogen		100	1.3	46	60	111.7
Phosphate		30	1.1	16	19	10.2
Potash		6	1.0	12	13	1.3
Total:	38,070					
Nitrogen		87	1.5	44	67	2,240.7
Phosphate		54	1.0	35	36	742.1
Potash		17	1.0	49	52	342.3

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

Winter Wheat: Active Ingredient Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed								
	ALL	AR	CO	ID	IL	KS	KY	MO	MT
Herbicides									
2,4-D	P	P	P	P	*	P	*	*	P
2,4-D, Dimethylamine	*								
2-(2,4-DP),Dimethyla	*								
Acetamide	*								
Acetic acid	*								
Atrazine	*		*						
Bromoxynil	P	*		P					*
Carfentrazone-ethyl	P			*					
Chlorsulfuron	P		*	P		P			*
Clopyralid	*			*					*
Dicamba	P		P	P		P			P
Diclofop-methyl	P	P		*					
Difenzoquat	*	*							
Diuron	P								
Fenoxaprop-P-ethyl	P			*					*
Glyphosate	P	*	P	*		P			P
Imazamethabenz	P			*					*
MCPA	P		*	P		*			P
Metribuzin	P			*				*	
Metsulfuron-methyl	P		*	P		P			P
Paraquat	*						*		
Picloram	P	*		*		*			P
Prosulfuron	P			*					
Quinclorac	*								
Sulfosate	*								
Sulfusulfuron	P			*		*			*
Thifensulfuron	P	P	*	P	P		P	P	*
Tralkoxydim	P								P
Triallate	P			*					P
Triasulfuron	P		*	*		P			P
Tribenuron-methyl	P	P	P	P	*		P	P	*
Trifluralin	*								

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

Winter Wheat: Active Ingredient Publication Status
By States Surveyed, 2000

Active Ingredient	States Surveyed							
	NC	NE	OH	OK	OR	SD	TX	WA
Herbicides								
2,4-D	P	P	P	P	P	P	P	P
2,4-D, Dimethylamine					*			
2-(2,4-DP),Dimethyla	*							
Acetamide					*			
Acetic acid					*			
Atrazine		*						
Bromoxynil					P	*		P
Carfentrazone-ethyl					*			*
Chlorsulfuron	*	*		P	P		*	P
Clopyralid					*	*		*
Dicamba		*		*	P	P	*	P
Diclofop-methyl	P				*			*
Difenzoquat					*			*
Diuron					P			
Fenoxaprop-P-ethyl								*
Glyphosate	*	*		*	P	P	*	P
Imazamethabenz					*			*
MCPA	*		*	*	P	P	*	P
Metribuzin					P			P
Metsulfuron-methyl	*	P		P	P	P	P	P
Paraquat								
Picloram							*	
Prosulfuron								*
Quinclorac					*			
Sulfosate	*	*						
Sulfusulfuron				P	*			P
Thifensulfuron	P		*		P	*		P
Tralkoxydim					*			*
Triallate					*			*
Triasulfuron		P		*	*	*	*	P
Tribenuron-methyl	P		*		P	*		P
Trifluralin					*			

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

Winter Wheat: Active Ingredient Publication Status
By States Surveyed, 2000

Active Ingredient	ALL	AR	CO	ID	IL	KS	KY	MO	MT
Insecticides									
Carbofuran	*								
Chlorpyrifos	P		*	*		P			*
Dimethoate	P								
Disulfoton	*			*			*		
Lambda-cyhalothrin	P						*	*	
Malathion	*						*		
Fungicides:									
Benomyl	*								
Metalaxyl	*								
Propiconazol	P	*					*	*	
Thiophanate-methyl	*						*	*	

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

Winter Wheat: Active Ingredient Publication Status
By States Surveyed, 2000

Active Ingredient	State Surveyed							
	NC	NE	OH	OK	OR	SD	TX	WA
Insecticides								
Carbofuran	*							
Chlorpyrifos				*			*	
Dimethoate				*			*	
Disulfoton								
Lambda-cyhalothrin	*							
Malathion				*				
Fungicides								
Benomyl					*			
Metalaxyl		*						
Propiconazol	*				*			*
Thiophanate-methyl					*			*

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

Winter Wheat: Pesticide, Total Acreage,
Percent of Area Receiving Applications and Total Applied,
States Surveyed and Total, 2000

State	Planted Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 3/		Fungicide 3/		Other Chemicals3/	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
AR 2/	1,180	41	239						
CO 2/	2,500	23	281						
ID	780	89	411	4	15				
IL	950	44	21						
KS	9,800	31	478	8	395				
KY	670	51	57	8	15	6	5		
MO 2/	1,050	51	47			2	4		
MT 2/	1,500	91	745						
NE 2/	1,750	26	248						
NC 2/	720	65	206	19	3				
OH	1,120	18	53						
OK 2/	6,100	25	94						
OR	750	99	550			13	62		
SD	1,350	56	415						
TX	6,000	12	441	1	26				
WA 2/	1,850	95	847						
Total	38,070	37	5,133	4	548	1	82		

2/ Insufficient reports to publish data for one or more of the pesticide classes.
3/ Insufficient reports to publish data for one or more of the States surveyed.

Winter Wheat: Agricultural Chemical Applications,
States Surveyed, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	13	1.0	0.40	0.43	2,075
Bromoxynil	1	1.0	0.23	0.23	116
Carfentrazone-ethyl	*	1.0	0.01	0.01	**
Chlorsulfuron	9	1.0	0.01	0.01	39
Dicamba	4	1.2	0.09	0.11	158
Diclofop-methyl	*	1.0	0.56	0.57	170
Diuron	*	1.0	1.23	1.23	18
Fenoxaprop-P-ethyl	*	1.3	0.06	0.08	6
Fluroxypyr	*	1.0	0.06	0.06	19
Glyphosate	7	1.3	0.39	0.53	1,493
Imazamethabenz	*	1.0	0.30	0.30	20
MCPA	3	1.0	0.36	0.36	453
Metribuzin	*	1.0	0.23	0.23	77
Metsulfuron-methyl	12	1.0	0.003	0.003	13
Picloram	*	1.0	0.02	0.02	3
Prosulfuron	*	1.0	0.01	0.01	3
Sulfosulfuron	3	1.0	0.004	0.004	5
Thifensulfuron	6	1.0	0.02	0.02	35
Tralkoxydim	*	1.0	0.19	0.19	43
Triallate	*	1.0	1.30	1.30	105
Triasulfuron	3	1.0	0.01	0.01	15
Tribenuron-methyl	6	1.0	0.008	0.008	19
Insecticides:					
Chlorpyrifos	3	1.0	0.40	0.40	505
Dimethoate	*	1.0	0.27	0.27	24
Lambda-cyhalothrin	*	1.0	0.02	0.02	2
Fungicides:					
Propiconazole	*	1.0	0.10	0.10	25

* Area applied is less than one percent.
** Total applied is less than 1,000 lbs.
1/ Harvested acres in 2000 for the 16 states surveyed were 38.1 million acres. States included are AR, CO, ID, IL, KS, KY, MO, MT, NE, NC, OH, OK, OR, SD, TX and WA.

Winter Wheat: Agricultural Chemical Applications,
Arkansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	16	1.0	0.50	0.50	94
Diclofop-methyl	11	1.0	0.50	0.51	69
Thifensulfuron	13	1.0	0.01	0.01	2
Tribenuron-methyl	13	1.0	0.006	0.006	**

** Total applied is less than 1,000 lbs.
1/ Harvested acres in 2000 for Arkansas were 1.18 million acres.

Winter Wheat: Agricultural Chemical Applications,
Colorado, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	9	1.0	0.33	0.33	75
Dicamba	6	1.6	0.10	0.17	27
Glyphosate	6	2.3	0.30	0.69	111
Tribenuron-methyl	2	1.1	0.005	0.006	**

** Total applied is less than 1,000 lbs.
1/ Harvested acres in 2000 for Colorado were 2.50 million acres.

Winter Wheat: Agricultural Chemical Applications,
Idaho, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	42	1.0	0.41	0.41	135
Bromoxynil	16	1.0	0.26	0.26	32
Chlorsulfuron	8	1.0	0.01	0.01	1
Dicamba	5	1.0	0.05	0.05	2
MCPA	35	1.0	0.37	0.37	98
Metsulfuron-methyl	31	1.0	0.006	0.006	1
Thifensulfuron	26	1.0	0.01	0.01	2
Tribenuron-methyl	36	1.0	0.006	0.006	2

1/ Harvested acres in 2000 for Idaho were 780,000 acres.

Winter Wheat: Agricultural Chemical Applications,
Illinois, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Thifensulfuron	42	1.0	0.02	0.02	8

1/ Harvested acres in 2000 for Illinois were 950,000 acres.

Winter Wheat: Agricultural Chemical Applications,
Kansas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	5	1.0	0.44	0.46	232
Chlorsulfuron	21	1.0	0.01	0.01	21
Dicamba	*	1.0	0.20	0.22	21
Glyphosate	4	1.0	0.46	0.50	196
Metsulfuron-methyl	16	1.0	0.002	0.002	3
Triasulfuron	4	1.0	0.01	0.01	5
Insecticides:					
Chlorpyrifos	8	1.0	0.50	0.50	395

* Area applied is less than one percent.
1/ Harvested acres in 2000 for Kansas were 9.80 million acres.

Winter Wheat: Agricultural Chemical Applications,
Kentucky, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Thifensulfuron	49	1.0	0.02	0.02	5
Tribenuron-methyl	49	1.0	0.008	0.008	3

1/ Harvested acres in 2000 for Kentucky were 670,000 acres.

Winter Wheat: Agricultural Chemical Applications,
Missouri, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
Thifensulfuron	45	1.0	0.01	0.01	7
Tribenuron-methyl	45	1.0	0.007	0.007	3

1/ Harvested acres in 2000 for Missouri were 1.05 million acres.

Winter Wheat: Agricultural Chemical Applications,
Montana, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	58	1.0	0.22	0.23	202
Dicamba	36	1.2	0.06	0.08	42
Fluroxypyr	20	1.0	0.06	0.06	18
Glyphosate	39	1.6	0.35	0.59	346
MCPA	6	1.0	0.27	0.27	23
Metsulfuron-methyl	24	1.0	0.003	0.003	1
Picloram	2	1.0	0.01	0.01	**
Tralkoxydim	15	1.0	0.19	0.19	41
Triallate	2	1.0	1.34	1.34	46
Triasulfuron	29	1.0	0.01	0.01	5

** Total applied is less than 1,000 lbs.
1/ Harvested acres in 2000 for Montana were 1.50 million acres.

Winter Wheat: Agricultural Chemical Applications,
Nebraska, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	12	1.2	0.25	0.32	66
Metsulfuron-methyl	16	1.0	0.006	0.006	2
Triasulfuron	8	1.0	0.01	0.01	2

1/ Harvested acres in 2000 for Nebraska were 1.75 million acres.

Winter Wheat: Agricultural Chemical Applications,
North Carolina, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	10	1.0	0.66	0.66	47
Diclofop-methyl	20	1.0	0.58	0.58	82
Thifensulfuron	35	1.0	0.02	0.02	5
Tribenuron-methyl	35	1.0	0.01	0.01	3

1/ Harvested acres in 2000 for North Carolina were 720,000 acres.

Winter Wheat: Agricultural Chemical Applications,
Ohio, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	6	1.0	0.36	0.36	23

1/ Harvested acres in 2000 for Ohio were 1.12 million acres.

Winter Wheat: Agricultural Chemical Applications,
Oklahoma, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	3	1.0	0.30	0.30	47
Chlorsulfuron	12	1.0	0.01	0.01	7
Metsulfuron-methyl	12	1.0	0.002	0.002	1
Sulfosulfuron	11	1.0	0.004	0.004	3

1/ Harvested acres in 2000 for Oklahoma were 6.10 million acres.

Winter Wheat: Agricultural Chemical Applications,
Oregon, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	51	1.0	0.63	0.64	244
Bromoxynil	4	1.0	0.15	0.15	5
Chlorsulfuron	23	1.0	0.01	0.01	2
Dicamba	32	1.0	0.05	0.05	12
Diuron	2	1.0	1.22	1.22	18
Glyphosate	35	1.1	0.36	0.41	110
MCPA	31	1.0	0.39	0.39	91
Metribuzin	12	1.0	0.23	0.24	21
Metsulfuron-methyl	50	1.0	0.004	0.004	2
Thifensulfuron	20	1.0	0.01	0.01	2
Tribenuron-methyl	21	1.0	0.006	0.006	1

1/ Harvested acres in 2000 for Oregon were 750,000 acres.

Winter Wheat: Agricultural Chemical Applications,
South Dakota, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	26	1.0	0.32	0.32	114
Dicamba	15	1.1	0.13	0.15	31
Glyphosate	39	1.1	0.40	0.46	244
MCPA	4	1.0	0.35	0.35	19
Metsulfuron-methyl	20	1.0	0.004	0.004	1

1/ Harvested acres in 2000 for South Dakota were 1.35 million acres.

Winter Wheat: Agricultural Chemical Applications,
Texas, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	9	1.3	0.52	0.67	345
Metsulfuron-methyl	1	1.2	0.004	0.005	**

** Total applied is less than 1,000 lbs.
1/ Harvested acres in 2000 for Texas were 6.00 million acres.

Winter Wheat: Agricultural Chemical Applications,
Washington, 2000 1/

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 lbs
Herbicides:					
2,4-D	40	1.0	0.50	0.51	371
Bromoxynil	14	1.0	0.22	0.22	58
Chlorsulfuron	13	1.0	0.01	0.01	3
Dicamba	3	1.0	0.16	0.16	8
Glyphosate	24	1.0	0.39	0.42	186
MCPA	24	1.0	0.34	0.34	150
Metribuzin	10	1.0	0.23	0.23	42
Metsulfuron-methyl	20	1.0	0.003	0.003	1
Sulfosulfuron	24	1.0	0.004	0.004	2
Thifensulfuron	14	1.0	0.01	0.01	3
Triasulfuron	5	1.0	0.007	0.007	1
Tribenuron-methyl	13	1.0	0.005	0.005	1

1/ Harvested acres in 2000 for Washington were 1.85 million acres.

Survey Procedures: The data for this report were obtained from the 2000 Agricultural Resources Management Study (ARMS). Data for corn, upland cotton, rice, soybeans, sugarbeets, durum wheat, other spring wheat, and winter wheat were collected during the months of August through December of 2000. Large screening samples were drawn from the NASS List Sampling Frame. This extensive sampling frame covers all types of farms and accounts for approximately 82% of all land in farms in the U.S. The screening samples were selected in such a way as to insure that all farms on the list had a possibility of being selected. Farms that were more likely to be producers of crops of interest were more likely to be in the screening sample. The sampled farms were screened to determine the presence of all the crops of interest. From this subpopulation of operations identified as producing the crop of interest, a subsample of farms was selected in such a way as to insure that each identified producer had an opportunity to be selected. In general, larger farms were more likely to be selected than smaller farms.

Once a farm producing a particular crop of interest was selected, one field containing this crop was randomly selected from all the fields on the farm producing that crop. The operator of the sampled field was personally interviewed to obtain information on chemical applications made to the selected field.

Estimation Procedures: The chemical applications data, reported by product name or trade name, are reviewed within State and across States for reasonableness and consistency. This review compares reported data with manufacturer's recommendations and with data from other farm operators using the same product. Following this review, product information is 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 (except cotton) published in the annual NASS report "**Crop Production - 2000 Summary**" [Cr Pr 2-1(01)] for corn, soybeans, sugarbeets, other spring wheat, durum, and winter wheat. The estimates of cotton acreage were revised and published in the monthly NASS report "**Crop Production**" [Cr Pr 2-2(5-01)] released on May 10, 2001.

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 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.

The results of this survey are subject to sampling variability. Sampling variability is a measure of how the estimates would differ if other samples had been drawn. 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 use of a commonly used product, such as atrazine, will exhibit less variability than a more rarely used product. For more commonly used chemicals, cv's will range from 5-30 percent at the U.S. level and 5-75 percent at the state or regional level. Some rarer items could have cv's above 100 percent. These items have insufficient data for publication and these instances are noted with an asterisk (*).

Non-sampling errors 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 mistakes between collection and publication. In these surveys, all survey procedures and analyses were carried out in a consistent and orderly manner to minimize the occurrence of these types of errors.

Terms and Definitions

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

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

Application Rates: Refer to the average number of pounds of a fertilizer primary nutrient or pesticide active ingredient applied to an acre of land. Rate per acre is the average number of pounds applied in one application. Rate per crop year is the average number of pounds applied counting multiple applications. Number of applications is the average number of times a treated acre receives a specific agricultural chemical.

Area applied: Represents the percentage of crop acres receiving one or more applications of a specific agricultural chemical. This report does not contain acre treatments. However, acre treatments can be calculated by multiplying the acres planted by the percent of area applied and the average number of applications.

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.

Fertilizer: Refers to applications of the primary nutrients, nitrogen, phosphate, and potash.

Pesticides: As defined by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), pesticides include any substance or mixture of 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. Some formulations as in the case of pre-mixes, can contain more than one active ingredient.

Trade Name, Common Name, and Pesticide Class

The following is a list of the common name, associated class and trade name of active ingredients in this publication. The classes are herbicides (H), insecticides (I), fungicides (F), and other chemicals (O). This list is provided as an aid in reviewing pesticide data. Pre-mixes are not cataloged. The list is not complete for all pesticides used on field crops and NASS does not mean to imply the use of any specific trade name.

Class	Common Name	Trade Name
H,O	2,4-D	several
H	2,4-D, Dimethylamine Salt	Saber, Trimec
H	2,4-DB	Butoxone, Butyrac
H	2-(2,4-DP), Dimethylamine	Triamine
H	3Pyridinecarboxylic acid	Cadre
I	Abamectin	Agri-Mek, Avid, Zephyr
I	Acephate	Orthene, Payload
H	Acetamide	Axiom
H	Acetic acid	several
H	Acetochlor	Harness, Topnotch
H	Acifluorfen	Blazer, Tackle
H	Alachlor	Lasso
I	Aldicarb	Temik
H	Ametryn	Evik
I	Amitraz	Ovasyn
O	Arsenic acid	Dessicant
H	Atrazine	AAtrex, Atrazine
I	Azadirachtin	Align, Neemix, Margosan-o
I	Azinphos-methyl	Guthion
F	Azoxystrobin	Abound, Quadris
O	Bacillus cereus	Mep-Plus
F	Bas Copper Zinc Sulfate	Coposil
F	Basic copper sulfate	Top Cop, Tri-Basic
I	Beauveria bassiana	Mycotrol
H	Benefin	Balan
F	Benomyl	Benlate
H	Bensulfuron-methyl	Duet, Londax
H	Bentazon	Basagran, Pledge
I	Benzoic acid	Intrepid
I	Bifenthrin	Brigade, Capture, Talstar
H	Bromacil	Hyvar
H	Bromoxynil	Brominal, Buctril
I	Bt (Bacillus thuringiensis)	several
I	Buprofezin	Applaud
H	Butylate	Genate, Sutan
O	Cacodylic acid	Bolls-Eye, Cotton-Aide
F	Captan	Captan
I,O	Carbaryl	Savit, Sevin
I	Carbofuran	Furadan
F	Carboxin	Vitavax
H	Carfentrazone-ethyl	Aim
H	Chloramben	Amiben
I	Chlorethoxyfos	Fortress
I	Chlorfenapyr	Alert, Pirate
H	Chlorimuron-ethyl	Classic
O	Chloropicrin	several
F	Chlorothalonil	Bravo, Daconil
I	Chlorpyrifos	Lorsban, Dursban
H	Chlorsulfuron	Finesse, Glean, Telar
H	Clethodim	Select
H	Clodinafop-propargil	Discover
H	Clomazone	Command
H	Clopyralid	Reclaim, Stinger
H	Cloransulam-methyl	FirstRate

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Class	Common Name	Trade Name
F	Copper ammonium	Copper-Count-N
F	Copper hydroxide	several
F	Copper resinate	Tenn-Cop
F	Copper sulfate	Copper sulfate
I	Cryolite	Kryocide
H	Cyanazine	Bladex, Conquest, Cycle, Extrazine
O	Cyclanilide	Finish
H	Cycloate	Ro-Neet
I	Cyfluthrin	Baythroid
F	Cymoxanil	Curzate
I	Cypermethrin	Ammo, Cymbush
O	Cytokinins	Burst, Promalin, Triggrr
H	DCPA	Dacthal
I	Deltamethrin	Decis
H	Desmedipham	Betamix, Progress
I	Diazinon	several
H	Dicamba	Banvel
H	Dicamba, Dimethlamine salt	Distinct
H	Dicamba, Pot. salt	Marksman
O	Dichloropropene	Telone
H	Dichlorprop	Weedone
H	Diclofop-methyl	Hoelon
F	Dicloran	Allisan, Botran
I	Dicofol	Kelthane
I	Dicrotophos	Bidrin
H	Difenzoquat	Avenge
I	Diflubenzuron	Dimilin, Micromite, Vengeance
H	Diflufenzopyr-sodium	Distinct
H	Dimethenamid	Frontier, Guardsman
O	Dimethipin	Harvade
I	Dimethoate	several
F	Dimethomorph	Acrobat
H,O	Diquat	Diquat
I	Disulfoton	Di-Syston
H	Diuron	Direx, Karmex
H	DSMA	DSMA
I	Emamectin benzoate	Denim, Proclaim
I	Endosulfan	Thiodan
O	Endothall	Accelerate, Des-I-Cate
H	EPTC	Eptam, Eradicane, Genep
I	Esfenvalerate	Asana
H	Ethalfluralin	Curbit, Sonalan
O	Ethephon	Cerone, Ethrel, Prep
I	Ethion	Ethion
H	Ethofumesate	Progress
I	Ethoprop	Holdem, Mocap
I	Ethyl parathion	several
F	Etridiazole	Terraclor
F	Fenarimol	Rubigan
H	Fenoxaprop-P-ethyl	several
I	Fenpropathrin	Danitol
I	Fenvalerate	Depth Charge, Pydrin
I	Fipronil	Regent
H	Fluazifop-P-butyl	Fusilade
H	Flumetsulam	Broadstrike
H	Flumiclorac-Pentyl	Resource
H	Fluometuron	Cotoran, Meturon
H	Fluroxypyr	Starane
H	Fluroxypyr 1	Starane+Salvo
F	Flutolanil	Moncut, Prostar
H	Fomesafen	Reflex
I	Fonofos	Dyfonate
O	GABA	Auxigro
O	Garlic oil	Envirepel, Nutripel
O	Gibberellic acid	GibGro, ProGibb, ProVide
H	Glufosinate-ammonium	Ignite
H,O	Glyphosate	Ranger, Rattler, Rodeo, Roundup

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Class	Common Name	Trade Name
H	Glyphosate, isopropylamine	Backdraft
O	Gossyplure	Checkmate, NoMate, Stirrup
H	Halosulfuron	Battalion, Permit
I	Helicoverpa zea NPV	Gemstar
O	Hexadecadien (Z,Z)	Checkmate, NoMate
I	Hexythiozox	Hexygon, Savey
O	Hydrogen peroxide	Tsunami 100
O	IBA	PGR IV
H	Imazamethabenz	Assert
H	Imazamox	Raptor
H	Imazapyr	Lightning, Topsite
H	Imazaquin	Scepter
H	Imazethapyr	Pursuit
I	Imidacloprid	Admire
O	Indole-3-butyric acid	Early Harvest, Stimulate
I	Indoxacarb	Steward
F	Iprodione	Rovral
H	Isoxaflutole	Balance
O	L-Glutamic acid	Auxigro
H	Lactofen	Cobra
I	Lambda-cyhalothrin	Karate, Saber, Warrior
H	Linuron	Linex, Lorox
I	Malathion	several
O	Maleic hydrazide	Royal MH-30, Super Sprout Stop
F	Mancozeb	several
F	Maneb	several
H	MCPA	several
F	Mefenoxam	Ridomil Gold
O	Mepiquat chloride	Pix, Ponnax
F	Metalaxyl	Ridomil
O	Metam-sodium	Vapam
I	Methamidophos	Monitor
I	Methidathion	Supracide
I	Methomyl	Lannate
I	Methoxychlor	several
O	Methyl bromide	several
O	Methyl isothiocyanate	Vorlex
I	Methyl parathion	several
F	Metiram	Polyram
H	Metolachlor	several
H	Metribuzin	Axiom, Lexone, Sencor
H	Metsulfuron-methyl	Ally, Escort
I	Mevinphos	Phosdrin
H	Molinate	Ordram
O	Monocarbamide dihydrogensulfat	Enquik, Wilthin
H	MSMA	several
I	Naled	Dibrom
H	Napropamide	Devrinol
H	Nicosulfuron	Accent
H	Norflurazon	Evital, Solicam, Zorial
I	Oxamyl	Vydate
I	Oxydemeton-methyl	Metasystox-R
H	Oxyfluorfen	Goal
H,O	Paraquat	Cyclone, Gramoxone, Starfire
F	PCNB	Terraclor
O	Pelargonic Acid	Thinnex Blossom Thinner
H	Pendimethalin	Prowl
I	Permethrin	Ambush, Pounce
I	Petroleum distillate	several
H	Phenmedipham	Spin-Aid
I	Phorate	Thimet
I	Phosmet	Imidan
I	Phosphamidon	phosphamidon
H	Picloram	Grazon, Tordon
I	Piperonyl butoxide	Butacide, Incite, PBO-8
O	Potassium gibberellate	Early Harvest
I	Potassium salts	M-Pede,Safer Insecticidal Soap

--continued

Class	Common Name	Trade Name
H	Primisulfuron	Beacon
I	Profenofos	Curacron
H	Prometryn	Caparol, Cotton-Pro
H	Propachlor	Ramrod
F	Propamocarb hydrochlorida	Tattoo
H	Propanil	Stam, Wham
I	Propargite	Comite, Omite
F	Propiconazole	Banner, Orbit, Tilt
H	Prosulfuron	Peak
H	Pyrazon	Pyramin
I	Pyrethrins	several
H	Pyridate	Tough
H	Pyridinecarboxylic acid	Cadre
I	Pyriproxyfen	Knack
H	Pyrithiobac-sodium	Staple
H	Quinclorac	Facet
H	Quizalofop-ethyl	Assure
H	Rimsulfuron	Basis
I	Rotenone	Rotenone
H	S-Metolachlor	several
H	Sethoxydim	Poast
H	Simazine	Princep, Simazine
O	Sodium chlorate	several
I	Spinosad	SpinTor, Success, Tracer
H	Sulfentrazone	Authority, Canopy
H	Sulfosate	Touchdown
H	Sulfosulfuron	Maverick
I,F	Sulfur	several
O	Sulfuric acid	sulfuric acid
I	Sulprofos	Bolstar
F	Tebuconazole	Folicur, Lynx
I	Tebufenozide	Confirm
I	Tebupirimphos	Aztec
I	Tefluthrin	Force
I	Terbufos	Counter
F	Tetraconazole	Eminent
F	Thiabendazole	Mertect, Terrazole
O	Thidiazuron	Dropp
H	Thifensulfuron	Pinnacle
H	Thiobencarb	Abolish, Bolero
I	Thiodicarb	Larvin
F	Thiophanate-methyl	Topsin
H	Tralkoxydim	Achieve
I	Tralomethrin	Scout
F	Triadimefon	Bayleton
H	Triallate	Buckle, Far-go
H	Triasulfuron	Amber, Rave
H	Tribenuron-methyl	Express
O	Tribufos	Def, Folex
H	Triclopyr	Garlon
H	Trifluralin	Treflan, Trific, Trilin
H	Triflusulfuron-methyl	UpBeet
I	Trimethacarb	Broot
F	Triphenyltin hydroxide	several
H	Vernolate	Vernam
I	Zeta-cypermethrin	Fury, Mustang

C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C

1. **Were commercial FERTILIZERS applied to this field for the 2000 corn crop?** . . . . . **YES=1**

CODE	EDIT TABLE
0808	0201

2. [*If COMMERCIAL fertilizers were applied, continue, else go to item 7.*]

3. **How many trips were made across this field to apply commercial fertilizers for the 2000 crop** (*include applications made by airplanes and commercial applicators*)**?** . . . . . .

NUMBER
0809

4. **Now I need to record information for each application.**

CHECK LIST

INCLUDE	EXCLUDE
☐ Custom applied fertilizers	☐ Micronutrients
☐ Fertilizer applied in the fall of 1999 and those applied earlier if this field was fallow in 1999	☐ Unprocessed manure
☐ Commercially prepared manure	☐ Fertilizer applied to previous crops in this field

T-TYPE	TABLE
2	001

LINE 99	OFFICE USE LINES IN TABLE	0213

LINE	2 MATERIALS USED [*Enter percentage analysis or actual pounds of plant nutrients applied per acre.*] [*Show Common Fertilizers in Respondent Booklet.*] N Nitrogen	P_2O_5 Phosphate	K_2O Potash	3 What quantity was applied per acre? [*Leave this column blank if actual nutrients were reported.*]	4 [*Enter material code.*] 1 Pounds; 12 Gallons; 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall Before seeding; 2 In the spring Before seeding; 3 At seeding; 4 After seeding	6 How was this applied? 1 Broadcast, ground without incorporation; 2 Broadcast, ground with incorporation; 3 Broadcast, by air; 4 In seed furrow; 5 In irrigation water; 6 Chisel, injected or knifed in; 7 Banded/Sidedressed in or over row; 8 Foliar or directed spray; 9 Spot treatments	7 How many acres were treated in this application? ACRES
01	0205	0206	0207	0208	0209	0210	0211	0212 .___
02	0205	0206	0207	0208	0209	0210	0211	0212 .___
03	0205	0206	0207	0208	0209	0210	0211	0212 .___
04	0205	0206	0207	0208	0209	0210	0211	0212 .___
05	0205	0206	0207	0208	0209	0210	0211	0212 .___
06	0205	0206	0207	0208	0209	0210	0211	0212 .___
07	0205	0206	0207	0208	0209	0210	0211	0212 .___
08	0205	0206	0207	0208	0209	0210	0211	0212 .___

T-TYPE	TABLE	LINE
0	000	00

1. **Including both custom applications and applications made by this operation, let's list all the chemicals used on this field for the 2000 corn crop.**

Were any herbicides, insecticides, fungicides or other chemicals used on the corn field for the 2000 crop?. . . . . . **YES = 1**

CODE	EDIT TABLE
0849	0301

[*Probe for applications made in the fall of 1999* (*and those made earlier if this field was fallow*).]

[*If no pesticides applied, go to Section* **E**.]

Include *defoliants, fungicides, herbicides, insecticides and pesticides.*
Include *biological and botanical pesticides.*

Exclude *fertilizers reported earlier and seed treatments.*

	T-TYPE	TABLE
	3	001
LINE 99	OFFICE USE LINES IN TABLE	0319

NOTES	LINE	2 What products were applied to this field? [*Show product codes from Respondent Booklet.*]	3 Was this product bought in liquid or dry form? [*Enter L or D.*]	4 Was this part of a tank mix? [*If tank mix, enter line number of first product in mix.*]	5 When was this applied? 1 BEFORE planting 3 AT planting 4 AFTER planting	6 OR 7 How much was applied per acre per application?	7 What was the total amount applied per application in this field?	8 [*Enter unit code.*] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Ounces 30 Grams
	01	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	02	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	03	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	04	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	05	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	06	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	07	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	08	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	09	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	10	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	11	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	12	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	13	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310
	14	0305		0306	0307	0308 • ___ ___	0309 • ___ ___	0310

2. [*For pesticides not listed in Respondent Booklet, specify* --]

LINE	Pesticide Type (*Herbicide, Insecticide Fungicide, etc.*)	EPA No. or Tradename and Formulation	Form Purchased (Liquid or Dry)	Where Purchased [*Ask only if EPA No. cannot be reported.*]

APPLICATION CODES for column 9

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by air (*Aerial application*)
4 In seed furrow
5 In Irrigation water
6 Chisel/injected or knifed in
7 Banded in or over row
8 Foliar or directed spray
9 Spot treatment

LINE	9 **How was this product applied?** [*Enter code from above.*]	10 **How many acres in this field were treated with this product?** ACRES	11 **What was the number of times applied?** NUMBER	12 **What was the PRIMARY target pest for this application?** [*Show Target Pest codes from Respondent Booklet.*]	13 **Prior to this application was this years pest problem--** 1 worse than normal? 3 normal? 5 less than normal? 7 unknown? 9 not applicable?	14 **Were these applications made by--** 1 Operator, Partner, Family member? 2 Custom applicator? 3 Employee / Other?
01	0311	0312 •___	0313	0314	0315	0316
02	0311	0312 •___	0313	0314	0315	0316
03	0311	0312 •___	0313	0314	0315	0316
04	0311	0312 •___	0313	0314	0315	0316
05	0311	0312 •___	0313	0314	0315	0316
06	0311	0312 •___	0313	0314	0315	0316
07	0311	0312 •___	0313	0314	0315	0316
08	0311	0312 •___	0313	0314	0315	0316
09	0311	0312 •___	0313	0314	0315	0316
10	0311	0312 •___	0313	0314	0315	0316
11	0311	0312 •___	0313	0314	0315	0316
12	0311	0312 •___	0313	0314	0315	0316
13	0311	0312 •___	0313	0314	0315	0316
14	0311	0312 •___	0313	0314	0315	0316

T-TYPE	TABLE	LINE
0	000	00

Index

Information Contacts

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

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Listed below is the contact within the Economic Research Service for additional information.

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Released May 16, 2001 by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Agricultural Chemical Usage" call (202) 720-6146, office hours 7:30 a.m. to 4:00 p.m. ET.

The next "Agricultural Chemical Usage" report for field crops will be released in May 2002. This report will cover agricultural chemical use for the 2001 crop year for corn, cotton, potatoes, and soybeans in major states.

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