

2002 CORN CHEMICAL USAGE

Nitrogen was applied to 96% of the total 2002 corn acreage in the Program States which includes Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Wisconsin. All of these states had at least 94% or more of the acreage treated. Growers used an average of 1.7 applications per acre while applying 83 pounds of nitrogen per treatment. In the Program States, 79% of the corn planted acreage received a phosphate application and 68% received a potash application.

Herbicides were applied to 89% of the seven-state, corn-planted acreage in 2002, and insecticides were applied to 24%. In Minnesota, Atrazine continued to be the most widely applied herbicide with 37% of the reported acreage being treated. Atrazine was applied at a rate of 0.58 pounds per acre on the average. Acetochlor was the next most widely used with 29% treated. Nicosulfuron and dicamba were applied to 27 and 23% of the acreage, respectively. Insecticides were applied to less than 1% of the corn acreage.

CORN: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Selected States, 2002

State	Area Planted 1,000 Acres	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Area Applied 1/
		Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
IA	12,300	94	1.3	88	72	1.0	56	69	1.0	70	91	12
MN	7,200	95	1.5	77	86	1.1	48	78	1.0	56	96	6
WI	3,650	98	1.7	52	87	1.0	31	88	1.1	54	81	20
Total 2/	51,350	96	1.7	83	79	1.1	54	68	1.1	80	89	24

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Refers to 7 major corn states including: IL, IN, IA, MN, NE, OH, and WI.

CORN: Frequency and Extent of Chemical Usage by Active Ingredient, Minnesota, 2002 1/

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Pounds	Pounds	1,000 Pounds
Herbicides					
Acetochlor	29	1.0	1.58	1.58	3,285
Atrazine	37	1.0	0.58	0.59	1,590
Bromoxynil	4	1.0	0.32	0.32	101
Clopyralid	17	1.0	0.10	0.10	121
Dicamba	23	1.0	0.25	0.25	405
Dicamba, Dimet. salt	8	1.0	0.12	0.12	63
Dicamba, Pot. salt	6	1.0	0.30	0.30	123
Diflufenzopyr-sodium	7	1.0	0.05	0.05	24
Dimethenamid	4	1.0	1.59	1.59	502
Dimethenamid -P	4	1.0	0.92	0.92	292
Flumetsulam	18	1.0	0.04	0.04	47
Foramsulfuron	3	1.0	0.03	0.03	8
Glufosinate-ammonium	9	1.0	0.31	0.31	196
Glyphosate	11	1.1	0.66	0.73	577
Mesotrione	11	1.0	0.08	0.08	64
Nicosulfuron	27	1.0	0.02	0.02	35
Primisulfuron	7	1.0	0.02	0.02	9
Rimsulfuron	22	1.0	0.01	0.01	18
S-Metolachlor	6	1.0	1.78	1.78	809

1/ Planted areas in 2002 for Minnesota were 7.20 million acres.

2/ Refers to acres receiving one or more applications of a specific chemical.

2002 SOYBEAN CHEMICAL USAGE

Nitrogen fertilizer was applied to 20% of the total 2002 soybean acreage in the 20 Program States which includes Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Ohio, South Dakota, Tennessee, Virginia, and Wisconsin. Growers used an average of 1.1 applications per acre while applying an average of 19 pounds of nitrogen per treatment. In the Program States, 26% of the soybean planted acreage received a phosphate application and 29% received a potash application.

Herbicides were applied to 99% of the 20-state, soybean-planted acreage in 2002, while insecticides were applied to 6%. In Minnesota, glyphosate continued to be the most widely applied herbicide with 70% of the reported acreage being treated. Trifluralin, the next most widely used herbicide, was applied to 14% of the soybean acreage and Imazethapyr was applied to 10%. The amount of Minnesota soybean acreage receiving fungicides or insecticides was too small to report.

SOYBEANS: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Selected States, 2002

State	Area Planted 1,000 Acres	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Appli-cations	Rate per Appli-cation	Area Applied 1/	Area Applied 1/
		Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
IA	10,400	3	1.0	26	7	1.0	70	12	10.0	120	99	9
MN	7,200	11	1.0	20	12	1.0	38	10	1.0	52	99	2/
SD	4,250	37	1.1	18	41	1.0	54	15	1.4	27	100	19
WI	1,540	40	1.0	14	35	1.0	35	48	1.0	73	86	2/
Total 3/	71,670	20	1.1	19	26	1.0	48	29	1.0	87	99	6

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Data not published due to insufficient number of reports.

3/ Refers to twenty major soybean states including: AR, IL, IN, IA, KS, KY, LA, MD, MI, MN, MO, MS, NC, ND, NE, OH, SD, TN, VA, and WI

SOYBEANS: Frequency and Extent of Chemical Usage By Active Ingredient, Minnesota, 2002 1/

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Pounds	Pounds	1,000 Pounds
Herbicides					
Fenoxaprop	4	1.0	0.10	0.10	30
Fluazifop-P-butyl	4	1.0	0.04	0.04	13
Fomesafen	7	1.0	0.20	0.20	95
Glyphosate	70	1.2	0.74	0.90	4,516
Glyphosate diam salt	9	1.7	0.67	1.16	732
Imazamox	6	1.0	0.02	0.02	10
Imazethapyr	10	1.0	0.05	0.05	38
Pendimethalin	9	1.0	0.91	0.91	561
Thifensulfuron	2	1.0	0.003	0.003	3/
Trifluralin	14	1.0	0.77	0.77	761

1/ Planted acres in 2002 for Minnesota were 7.20 million acres.

2/ Refers to acres receiving one or more applications of a specific chemical.

3/ Total applied is less than 1,000 lbs.

2002 OTHER SPRING WHEAT CHEMICAL USAGE

Nitrogen was applied to 86 percent of the 2002 other spring wheat planted acreages in three Program States which includes Minnesota, Montana, and North Dakota. Phosphate was applied to 74 percent and potash to 27 percent of the planted acreage in Program States. Spring wheat producers treated 91 percent of other spring wheat planted acreage with herbicides. MCPA was applied to 47 percent of planted acreage, followed by 2,4-D at 36%.

OTHER SPRING WHEAT: Acreage, Percent Receiving Chemicals, Number of Applications, Rates per Application, Major States, 2002

State	Area Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied 1/	Applications	Rate per Application	Area Applied 1/	Applications	Rate per Application	Area Applied 1/	Applications	Rate per Application	Area Applied 1/	Area Applied 1/
	1,000 Acres	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds	Percent	Percent
MN	2,000	89	1.1	62	83	1.0	36	68	1.0	32	84	8
MT	3,750	66	1.2	33	54	1.0	23	21	1.0	19	89	2/
ND	6,900	97	1.6	46	83	1.0	34	19	1.0	24	95	8
Total 3/	12,650	86	1.4	46	74	1.0	31	27	1.0	27	91	6

1/ Refers to acres receiving one or more applications of a specific chemical.

2/ Data not published due to insufficient number of reports.

3/ Refers to three major spring wheat states including: MN, MT and ND.

OTHER SPRING WHEAT: Frequency and Extent of Usage by Active Ingredient, Minnesota, 2002

Active Ingredient	Area Applied 2/	Applications	Rate per Application	Rate per Year	Total Applied
	Percent	Number	Lbs. Per Acre	Lbs. Per Acre	1,000 Pounds
Herbicides					
2,4-D	20	1.0	0.43	0.44	171
Bromoxynil	35	1.0	0.24	0.24	170
Clodinafop-propargil	5	1.0	0.05	0.05	5
Fenoxaprop	30	1.0	0.07	0.07	42
Glyphosate	6	1.0	0.66	0.66	75
MCPA	53	1.0	0.33	0.33	351
Thifensulfuron	8	1.0	0.01	0.01	2
Tribenuron-methyl	7	1.0	0.007	0.007	1
Fungicides					
Propiconazole	5	1.0	0.08	0.08	7

1/ Planted acres in 2002 for Minnesota were 2.00 million acres.

2/ Refers to acres receiving one or more applications of a specific chemical.