

# South Dakota 2010 AGRICULTURAL CHEMICAL USAGE

Released July 2011

**OVERVIEW:** The agricultural chemical use estimates in this report are based on data compiled from the Agricultural Resources Management Study (ARMS) conducted during the fall of 2010. All results refer to on-farm use of commercial fertilizers and pesticides on the 2010 South Dakota corn crop.

## CORN

**SOUTH DAKOTA:** Nitrogen was applied to 99 percent of South Dakota's 4.55 million corn acres in 2010. When compared to other states (IA, MN, NE and ND), South Dakota had slightly fewer applications, but at somewhat heavier rates. South Dakota averaged 1.6 applications per acre treated, at a rate of 83 pounds per acre. Phosphate was applied to 85 percent of the corn acreage, averaging 1.1 applications per acre with a rate of 45 pounds per acre. Potash was applied to 35 percent of the acreage, averaging 1.0 applications per acre, at a rate of 29 pounds per acre.

Herbicide was applied on 100 percent of the acreage. Glyphosate iso. salt (Roundup) was the most popular herbicide for corn, treating 93 percent of the acres at the rate of 0.713 pounds per acre. Atrazine was also a popular chemical, with applications made on 38 percent of the state's corn, at a rate of 0.642 pounds per acre. Insecticides were applied to only 1 percent of the states corn acreage.

**NATIONAL:** Nitrogen was applied to 97 percent of the 2010 corn planted acreage in the program states<sup>1</sup>. Corn growers used an average of 1.8 applications per acre while applying 78 pounds of nitrogen per treatment. In the program states, 78 percent of the corn received a phosphate application, while potash was applied to 61 percent of the planted acreage.

Herbicides were applied to 98 percent of the corn acres in the program states in 2010. Glyphosate iso. salt was the most widely used herbicide, with 66 percent of the acres being treated at a rate of 1.065 pounds per acre. Atrazine was the second most widely applied herbicide, with 61 percent of the planted acres treated. In 2010, 12 percent of the corn planted acreage was treated with insecticides, with Tefluthrin, Bifenthrin, and Cyfluthrin being the most widely used insecticides.

<sup>1</sup>Program States include Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Texas, and Wisconsin.

### CORN, SOUTH DAKOTA Fertilizer and Pesticide Usage, Selected Years, 2010 1/

Year	Acres Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied	Appli-cations	Rate per Application	Area Applied	Appli-cations	Rate per Application	Area Applied	Appli-cations	Rate per Application	Area Applied	Area Applied
	(1,000)	Percent	Number	Lbs/Acre	Percent	Number	Lbs/Acre	Percent	Number	Lbs/Acre	Percent	Percent
2000	4,300	99	1.5	63	92	1.0	36	39	1.0	21	100	15
2001	3,800	95	1.5	72	69	1.0	43	32	1.0	29	96	8
2003	4,400	92	1.3	71	78	1.1	42	25	1.1	23	96	2/
2005	4,450	95	1.4	79	79	1.1	40	37	1.0	26	100	12
2010	4,550	99	1.6	83	85	1.1	45	35	1.0	29	100	1

1/ Data for South Dakota not collected in 2002, 2004, 2006, 2007, 2008, or 2009. 2/ Insufficient reports to publish data.

### CORN, SELECTED STATES Fertilizer and Pesticide Usage, 2010

State	Acres Planted	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied	Appli-cations	Rate per Application	Area Applied	Appli-cations	Rate per Application	Area Applied	Appli-cations	Rate per Application	Area Applied	Area Applied
	(1,000)	Percent	Number	Lbs/Acre	Percent	Number	Lbs/Acre	Percent	Number	Lbs/Acre	Percent	Percent
IA	13,400	95	1.7	83	72	1.0	63	68	1.0	78	100	8
MN	7,700	87	1.6	78	72	1.2	43	68	1.1	57	95	7
NE	9,150	99	1.9	73	69	1.2	35	20	1.2	22	97	4
ND	2,050	100	2.0	78	94	1.4	33	53	1.0	32	100	1/
SD	4,550	99	1.6	83	85	1.1	45	35	1.0	29	100	1
Total	81,675	97	1.8	78	78	1.2	52	61	1.1	73	98	12

1/ Insufficient reports to publish data for one or more pesticide classes. 2/ Total for program states, listed above.

**CORN, SOUTH DAKOTA**  
**Frequency and Extent of Chemical Usage by Active Ingredient, 2010 1/**

Active Ingredient 2/	Common Trade Name	Area Applied	Applications	Rate per Application	Total Applied
		<i>Percent</i>	<i>Number</i>	<i>Lbs/Acre</i>	<i>1,000 Lbs.</i>
Acetochlor	Harness	37	1.0	1.255	2,117
Atrazine	2/	38	1.0	0.642	1,117
Dicamba, Dimet. Salt	Banvel	5	1.0	0.610	150
Glyphosate Iso. Salt	Roundup	93	1.5	0.713	4,550
Isoxaflutole	Balance	16	1.0	0.085	62
Mesotrione	Callisto	3	1.0	0.108	14

1/ Planted area in 2010 for South Dakota was 4.55 million acres. 2/ Chemical marketed under several trade names.

Carter Anderson, Director Steve Noyes, Deputy Director
---