

South Dakota

2011

AGRICULTURAL CHEMICAL USAGE

Released July 2012

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 2011. All results refer to on-farm use of commercial fertilizers and pesticides on the 2011 South Dakota sorghum crop.

SORGHUM

SOUTH DAKOTA: Nitrogen was applied to 88 percent of South Dakota's 150,000 sorghum acres in 2011. When compared to other states NE applied nitrogen to the same percentage of sorghum acres, while CO, KS, OK and TX, put nitrogen on a lower percentage of sorghum acres in 2011. However, only two states applied nitrogen at lower rates than in South Dakota. South Dakota averaged 1.4 applications per acre treated, at a rate of 47 pounds per acre. Phosphate was applied to 45 percent of the sorghum acreage, averaging 1.0 application per acre at a rate of 28 pounds per acre.

Herbicide was applied on 89 percent of the 2011 sorghum acreage. The most widely used herbicides were Glyphosate isopropylamine Salt (63%), Atrazine (34%), S-metolachlor (25%), and Dimethenamid-P (15%), based on percent of acres treated.

NATIONAL: Nitrogen was applied to 81 percent of the 2011 sorghum planted acreage in the program states¹. Nitrogen was applied an average of 1.3 times per acre at 51 pounds of nitrogen per treatment. In the program states, 54 percent of the sorghum received a phosphate application, while potash was applied to 9 percent of the planted acreage.

Herbicides were applied to 86 percent of the sorghum acres in the program states in 2011. The most widely used herbicides were Atrazine (64%), glyphosate isopropylamine salt (47%), and S-metolachlor (37%), based on percent of acres treated. Insecticides were applied to 6 percent of the sorghum acres in the program states 2011.

¹**Program States** included: Colorado, Kansas, Nebraska, Oklahoma, South Dakota, and Texas.

SORGHUM, SOUTH DAKOTA Fertilizer and Pesticide Usage, Selected Years 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
2003	270	84	1.3	42	54	1.0	30	3	1.0	10	87	(D)
2011	150	88	1.4	47	45	1.0	28	(D)	(D)	(D)	89	(D)

1/ Data for South Dakota only collected in 2003, 2011. (D) Insufficient reports to publish data.

SORGHUM, PROGRAM STATES Fertilizer and Pesticide Usage, 2011

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
CO	220	75	1.3	36	41	1.1	15	(D)	(D)	(D)	75	1/
KS	2,600	83	1.3	48	51	1.1	23	8	1.0	15	96	4
NE	150	88	1.4	60	41	1.1	28	15	1.0	11	84	(D)
OK	300	81	1.6	30	58	1.0	22	13	1.0	5	74	(D)
SD	150	88	1.4	47	45	1.0	28	(D)	(D)	(D)	89	(D)
TX	1,550	77	1.2	64	63	1.0	27	11	1.1	21	72	10
Total	4,970	81	1.3	51	54	1.0	24	9	1.0	16	86	6

1/ No reports. (D) Insufficient reports to publish data.

SORGHUM, SOUTH DAKOTA
Frequency and Extent of Chemical Usage by Active Ingredient, 2011 1/

Active Ingredient	Area Applied	Applications	Rate per Application	Total Applied
	<i>Percent</i>	<i>Number</i>	<i>Lbs/Acre</i>	<i>1,000 Lbs.</i>
Atrazine	34	1.0	0.684	36
Dimethenamid-P	15	1.0	0.862	20
Glyphosate Iso. Salt	63	1.3	0.689	88
Glyphosate Pot. Salt	11	1.4	0.790	18
Metolachlor	10	1.0	1.489	21
S-Metolachlor	25	1.0	0.949	36

1/ Planted area in 2011 for South Dakota was 150,000 acres.

SORGHUM, PROGRAM STATES
Top Practice in Each Pest Management Category, By Percent Area Treated, 2011

Category	Top Practice in Category	CO	KS	NE	OK	SD	TX
Prevention	No-Till or Minimum till used	89	79	71	76	85	39
Avoidance	Rotated crop during past 3 years	68	84	70	76	90	77
Monitoring	Scouted for weeds	91	82	77	87	79	82
Suppression	Ground covers, mulches, or other physical barriers maintained	69	57	69	45	66	37

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