

SURVEY OF FUNGICIDE USE IN SUGARBEET IN WESTERN NORTH DAKOTA AND EASTERN MONTANA IN 2007

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Other portions of this survey can be found in the Weed Control and Entomology sections.

Sugarbeet growers were asked to report fungicide usage and to indicate the number of applications per acre as a part of the biennial survey of sugarbeet growers in western North Dakota and eastern Montana. Foliar fungicide was applied to 78% of sugarbeet acreage in 2007 (Table 1). This compares to 1% in 2005, 180% in 2003, and 191% in 2001. Super or Agri Tin was not applied by any respondents for only the second time throughout 10 years of surveying. The availability of fungicides such as Eminent and Headline has been one factor in the reduction of Super Tin use.

Fungicides were applied at a rate of 0.8 applications per respondent as calculated from [Table 2](#). A summary of fungicide applications from 1991 to 2007 is shown in [Table 2](#). Of the acres of sugarbeet treated with fungicide, 95% received aerial applications and 5% received applications by a ground sprayer (data not shown).

Cercospora leaf spot control was rated excellent or good by 79% of respondents ([Table 3](#)). This compares to 100% in 2005 and 94% in 2003.

Nearly 15% of respondent acres were seeded to rhizomania-resistant varieties ([Table 4](#)), increasing from 5% in 2005. The percent (14%) of respondent acres believed to be affected by rhizomania, aphanomyces, rhizoctonia, and fusarium is also shown in [Table 4](#).

Table 1. A summary of the fungicide use by survey respondents from 1991 to 2007.

Year	Acres Planted	Fungicide applied									Total	
		Super/Agri Tin	Eminent	Headline	Tin + Gem	Topsin	Mancozebs	Topsin/ Benlate	Mancozebs + Topsin	Coppers		Other ¹
-----% of acres planted-----												
2007	8,346	-	35	36	-	-	-	-	-	-	7	78
2005	7,733	-	-	1	-	-	-	-	-	-	-	1
2003	11,732	16	61	78	18	-	7	1	-	-	-	180
2001	22,125	64	50	-	-	2	<1	75	-	-	-	191
1999	12,296	113	7	-	-	3	2	93	10	-	-	228
1997	11,059	77	-	-	-	-	-	19	-	6	-	101
1995	12,338	260	-	-	-	-	51	18	-	3	7	336
1993	9,242	38	-	-	-	-	-	-	-	3	2	43
1992	12,791	23	-	-	-	-	-	-	-	-	2	25
1991	15,784	41	-	-	-	-	-	-	-	7	9	57

¹Other includes 2007: Quadris; 1995: Du-Ter, AgscoTN, and sulfur; 1992: unknown; 1991: Du-Ter and AgscoTN

Table 2. A summary of the number of fungicide applications per respondent from 1991 to 2007.

Year	Number of respondents	Fungicide applications					
		0	1	2	3	4	5
		-----% of respondents-----					
2007	21	33	53	14	-	-	-
2005	24	96	4	-	-	-	-
2003	38	16	26	50	8	-	-
2001	65	2	14	57	28	-	-
1999	45	4	2	55	36	-	2
1997	43	28	42	28	2	-	-
1995	63	5	38	54	3	-	-
1993	66	81	14	5	-	-	-
1992	70	87	7	6	-	-	-
1991	84	50	27	17	6	-	-

Table 3. Cercospora control rating by fungicide in 2007.

Fungicide	Responses	Cercospora control rating			
		Excellent	Good	Fair	Poor
		-----% of responses-----			
Eminent	5	60	40	-	-
Headline	7	14	57	29	-
Other ¹	2	50	-	50	-
Total	14	36	43	21	0

¹Includes Quadris (2)**Table 4. Root diseases as a percent of planted acres from 2003 to 2007.**

Year	Respondent acres planted	Seeded to Rhizomania resistant variety	% of acres planted			
			Affected by Rhizomania	Affected by Aphanomyces	Affected by Rhizoctonia	Affected by Fusarium
2007	8,346	14.9	0.2	3.4	6.9	3.5
2005	7,733	4.6	1.9	NA	NA	NA
2003	11,732	NA ¹	2.8	NA	NA	NA

¹NA = Question not asked on that year's survey