

SURVEY OF WEED CONTROL AND PRODUCTION PRACTICES ON SUGARBEET IN EASTERN NORTH DAKOTA AND MINNESOTA - 2006

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Other portions of the survey are published in the
Entomology and Plant Pathology sections.

The thirty-eighth annual weed control and production practices questionnaire was mailed in September, 2006 to sugarbeet growers producing sugarbeet for the American Crystal Sugar Company, the Minn-Dak Farmers Cooperative, and the Southern Minnesota Beet Sugar Cooperative. Growers were requested to evaluate weed control and sugarbeet injury from specific herbicides, and to list the most important weed and production problems. In addition, growers were requested to list insecticide use, fungicide use, total acreage, acres of hand-weeded sugarbeet, herbicide application methods and cost of hand thinning and hand weeding. Insecticide use and fungicide use portions of the survey can be found in the Entomology and Plant Pathology sections.

Sugarbeet growers planted 744,330 acres of sugarbeet in the Red River Valley and West Central Minnesota in 2006. Growers representing 24 percent of the total acres responded to the survey. The responses to the questionnaire are reported in Tables 1 to 28.

Table 1 gives a summary of herbicide use and performance averaged over all counties. The number of growers reporting the use of a herbicide treatment is listed and the acres treated is expressed as a percentage of the total acreage reported on the survey. Multiple herbicide treatments are tabulated for each grower, thus the number of growers reporting in Table 1 exceeds the total number of survey responses. Also, multiple herbicide treatments on the same acreage are listed separately in the tables, thus acres treated exceeds 100%. The ratings of weed control and sugarbeet injury are presented as the percentage of growers who judged weed control or sugarbeet injury as belonging in the listed categories. Data for individual counties are in Tables 2 through 16.

The trade names listed in the tables for the herbicides are the original trade names. These old trade names also represent the generic formulations of the same active ingredient. Thus Nortron represents Etho SC and Ethotron; Betamix represents D-P Mix and Phen-Des; Betanex represents Des and Alphanex; Progress represents Des-Phen-Etho; Stinger represents ClopyrAg; and Select represents Select Max, Prism, and Arrow.

Total sugarbeet acreage treated with herbicides in 2006 was 386%, which compares to 378% in 2005, 427% in 2004, 437% in 2003, 428% in 2002 and 368% in 2001. The acres treated does not include "other weed control methods" which were non-herbicidal methods. Ro-Neet, Dual, Far-Go, Eptam and Nortron were the soil applied herbicides reported in 2006. Soil applied herbicide use was 47% in 1989, 32% in 1993, 11% in 1998, 4% in 2002, 29% in 2003, 31% in 2004, 24% in 2005 and 23% in 2006. Postemergence herbicide use was 335% in 2006, 336% in 2005, 379% in 2004, 380% in 2003, 388% in 2002 and 342% in 2001. Postemergence herbicide use dropped from 388% in 2002 to 380% in 2003, 379% in 2004, 336% in 2005 and 335% in 2006. Sugarbeet injury from PRE or PPI Dual Magnum declined from 53% of the survey respondents indicating moderate or severe sugarbeet injury in 2003 to 22% indicating moderate or severe injury in 2004, 19% in 2005 and back up to 22% in 2006.

The usage of postemergence grass control herbicides was 215% of the acreage in 2006 as compared to 203% in 2005, 226% in 2004, 214% in 2003, 209% in 2002 and 214% in 2001. Assure II was used on 13% of the acreage in 2002, 15% in 2003, 9% in 2004, 12% in 2005 and 6% in 2006. Prism/Select was used on 190% of the acreage in 2002, 180% in 2003, 198% in 2004, 165% in 2005 and 199% in 2006.

Poast was used on 17% of the acreage in 2002, 19% in 2003, 20% in 2004, 25% in 2005 and 11% in 2006. Most of the grass herbicides were applied in combination with the micro-rate or mid-rate which included an oil adjuvant. About 16% of the acres reported were treated with a grass herbicide used alone. Betanex use was 107% of the acreage in 2001, 112% in 2002, 100% in 2003, 71% in 2004, 51% in 2005 and 62% in 2006. Betamix use was 116% of the acreage in 2001, 139% in 2002, 115% in 2003, 125% in 2004, 95% in 2005 and 93% in 2006. Progress use was 81% of the acreage in 2001, 97% in 2002, 122% in 2003, 137% in 2004, 149% in 2005 and 157% in 2006. Progress use is increasing due to the problem with kochia in sugarbeet. UpBeet use was 278% of the acreage in 2001, 332% in 2002, 324% in 2003, 306% in 2004, 276% in 2005 and 280% in 2006. Stinger use was 138% of the acreage in 1997, 291% in 1999, 298% in 2000, 274% in 2001, 304% in 2002, 305% in 2003, 310% in 2004, 275% in 2005 and 273% in 2006. The most common herbicide treatment in 2006 was Progress + UpBeet + Stinger + Select + Oil adjuvant on 63% of the acreage. Combination treatments that included an oil generally would be micro-rate or mid-rate treatments. Treatments including oil were applied to 258% of the acreage in 2006, 241% in 2005, 273% in 2004, 297% in 2003, 301% in 2002 and 265% in 2001.

The rotary hoe or harrow were used on 41% of the acres in 2006 compared to 56% in 2005, 64% in 2004, 65% in 2003, 42% in 2002, 63% in 2001 and 62% in 2000. The electrical discharge system, weed pullers, mowing or swathing were used on 7.6% of the acreage in 1995, 1.6% in 1997, 2.4% in 2001, 3.1% in 2002, 2% in 2003, 0.5% in 2004, 1.9% in 2005 and 1.7% in 2006.

Kochia was named most often as “worst weed” in sugarbeet in 2006 (Table 18). Kochia was named the worst weed problem by 41% of the survey respondents in 2006 compared to 29% in 2005, 41% in 2004, 46% in 2003, 26% in 2002, 32% in 2001, 43% in 2000, 33% in 1999 and 13% in 1998. The widespread occurrence of kochia that is resistant to UpBeet helps explain the prevalence of kochia being named as worst weed. Rainfall was unusually low in 2006 in several areas which may help explain the increase in the % of respondents who named kochia as worst weed in 2006. Kochia is a weed that thrives in dryer conditions. Pigweed species was the most common “worst weed” choice in 2005, 2002 and 2001. The percentage of respondents indicating pigweed species as their worst weed was 40% in 1999, 18% in 2000, 43% in 2001, 44% in 2002, 25% in 2003, 21% in 2004, 42% in 2005 and 35% in 2006. Common lambsquarters was named most important weed problem in sugarbeet by 18% of respondents in 2006, 15% in 2005, 25% in 2004 and 18% in 2003.

Weeds were named as the most serious production problem by 57% of the survey respondents in 2006 compared to 36% in 2005, 47% in 2004, 61% in 2003, 53% in 2002 and 52% in 2001. (Table 19). The percentage of respondents who named emergence and stand as their worst problem was 5% in 2001, 19% in 2002, 1% in 2003, 21% in 2004, 3% in 2005 and 9% in 2006. The percentage of respondents who named Cercospora leaf spot (CLS) as their worst problem was 36% in 1998, 6% in 1999, 3% in 2000, 1% in 2001, 1% in 2002, 1% in 2003, 0% in 2004, 0% in 2005, and less than 1% in 2006. The Section 18 labels for Eminent in 1999 through 2004, the full label for Eminent in 2005 and the new label for Headline in 2003 probably explain the reduction in Cercospora being identified as the worst problem. Rhizoctonia/aphanomyces was named as worst problem by 18% of the respondents in 2000, 16% in 2001, 9% in 2002, 11% in 2003, 8% in 2004, 22% in 2005 and 13% in 2006. Soil moisture and soil temperature have a very large influence on sugarbeet injury caused by rhizoctonia and aphanomyces.

Rhizomania was listed as a “worst problem” choice for the first time in 1997 (Table 19). Rhizomania caused identifiable yield loss only in the Southern Minnesota Beet Sugar Cooperative in 1998 but it was identified in the Red River Valley in 1999. Rhizomania was named as worst problem by 3% of the respondents in 1998, 2% in 1999 and 2000, by 3% in 2001 and 2002, 2% in 2003, 1% in 2004, 11% in 2005 and 3% in 2006.

The percentage of acreage hand weeded was 62% in 1996, 45% in 1997, 28% in 1998, 25% in 2000, 23% in 2001, 32% in 2002, 30% in 2003, 28% in 2004, 23% in 2005 and 28% in 2006 (Table 22).

Averaged over all herbicides, herbicides were band applied to 38%, broadcast applied with a ground sprayer to 59% and broadcast applied by air to 3% of the sugarbeet acreage in 2006 (Table 23). In 1998, 40% of the acreage was band treated, 37% was band treated in 2000 and 38% in 2002. Herbicides

were applied by air to 14% of the acreage in 2002, 9% in 2000 and 17% in 1998.

The cost of hand weeding and hand thinning varied from zero to \$60/A in 2006 (Table 24). The most common cost was zero dollars for 45% of the respondents. Zero cost responses were 56% in 2000, 57% in 2001, 48% in 2002, 41% in 2003, 47% in 2004 and 57% in 2005. The average cost of hand weeding as calculated from Table 24 was \$14.37/A in 2006 as compared to \$10.78/A in 2005, \$12.61/A in 2004, \$13.75/A in 2003, \$15.95/A in 2002, \$11.15/A in 2001 and \$34/A in 1995. The percentage of respondents who paid nothing for hand labor varied by county from 18% in Clay County to 76% in Norman and Mahanomen Counties.

Sugarbeet acreage operated by respondents to the survey in 2006 varied from less than 50 acres to over 2,000 acres (Table 25). The most common acreage was 400 to 599 acres for 20% of the respondents. Other common acreages were 100 to 199 acres at 10%, 200 to 299 acres at 12%, 300 to 399 acres at 17% and 600 to 799 acres at 16%. Fourteen percent of the respondents reported over 1,000 acres and 21% had over 800 acres. In 1998, 5% reported over 1,000 acres and 11% had over 800 acres.

Soybean followed sugarbeet in 2006 on 44% of the 2005 sugarbeet acreage (Table 26). Wheat was next on 30%, corn on 13% and dry bean on 9% of the 2005 sugarbeet acreage. County responses varied with soybean and corn responses more common follow crops in Cass and Clay counties and south while wheat and dry bean responses were more common north of Cass and Clay counties.

Wheat preceded sugarbeet more than any other crop, on 66% of the acres. Corn preceded sugarbeet on 14%, soybean on 6%, and dry bean on 5% of the 2006 sugarbeet acreage. Corn was the most common crop preceding sugarbeet in Chippewa and Renville counties while wheat was the most common in all other counties.

Row crop cultivation for weed control was used by 99.7% of the respondents to the question. One or two cultivations were used by 91% of the respondents. The average number of cultivations per field was 1.7 times in 2006 while the average was 1.9 in 2005, 2.0 in 2000, 2.4 in 1998, 3.2 in 1992 and 3.4 in 1987. Row crop cultivation has been reduced by half since 1987.

TABLE 1. SUMMARY OF ALL HERBICIDES USED IN SUGARBEET REPORTED IN 2006.

291 GROWERS REPORTED ON 175,294 ACRES.

HERBICIDES (IN ORDER OF ACRES TREATED)	NUMBER GROWERS RPTG.	ACRES TREATED % OF TOTAL	Avg no. of appl	% GROWERS REPORTING WEED CONTROL				% GROWERS REPORTING CROP INJURY					
				NR*EXC	GD	FR	PR	NR	None	Slt	Mod	Sev	
A. SOIL APPLIED HERBICIDES:													
NORTRON(PRE/PPI)	94	17.2	1.0	6	28	51	13	2	9	68	22	1	0
RO-NEET	3	2.8	1.0	0	0	67	33	0	33	33	33	0	0
DUAL(PRE/PPI)	9	2.5	1.0	11	11	67	11	0	11	44	22	22	0
FARGO	3	0.4	1.0	0	33	67	0	0	0	100	0	0	0
EPTAM+RO-NEET	1	0.1	1.0	0	0	100	0	0	100	0	0	0	0
TOTAL-PPI&PRE	110	23.0	1.0	6	25	54	13	2	10	65	22	3	0
=====													
B. POSTEMERGENCE HERBICIDES:													
PROG+STNG+UPB+SELECT+OIL	79	62.5	2.1	8	13	62	18	0	9	34	51	6	0
BMIX+STNG+UPB+SELECT+OIL	61	38.6	1.8	16	7	64	11	2	16	31	44	8	0
PRG+STG+UPB+SLT+NORT+OIL	35	22.2	2.0	9	20	43	23	6	6	40	51	3	0
PROGRESS+STINGER	19	19.1	1.7	5	16	47	26	5	11	32	42	16	0
BNEX+STNG+UPB+SELECT+OIL	44	17.3	1.5	16	9	61	11	2	14	34	50	2	0
PROG+UPBEET+SELECT+OIL	21	15.7	2.0	10	24	48	19	0	14	29	43	10	5
BETAMIX+STING+UPBEET+OIL	34	15.2	1.6	12	15	62	12	0	15	26	56	3	0
SELECT/PRISM	60	15.2	1.1	15	53	17	12	3	25	75	0	0	0
BETANEX+STING+UPBEET+OIL	30	13.5	1.6	10	13	63	13	0	13	33	47	7	0
BMX+STG+UPB+SLT+NORT+OIL	26	13.3	1.9	12	12	69	8	0	12	42	46	0	0
BNX+STG+UPB+SLT+NORT+OIL	26	10.1	1.5	23	19	54	4	0	19	27	42	12	0
BMIX+STING+UPBT+NORT+OIL	18	10.0	1.6	22	22	33	22	0	17	22	56	0	6
PROG+STING+UPBEET+OIL	28	9.2	1.8	7	11	68	14	0	11	25	64	0	0
PROG+STING+UPBT+NORT+OIL	18	7.8	1.9	22	28	28	17	6	22	39	39	0	0
PROGRESS	25	7.5	1.5	16	12	40	28	4	20	16	48	16	0
OTHER COMBINATIONS	15	6.6	1.9	0	20	67	13	0	0	33	53	13	0
BETANEX+UPBEET	19	5.9	1.1	0	16	26	53	5	5	42	47	5	0
PROG+STING+UPB+POAST+OIL	8	4.6	1.9	38	13	13	38	0	38	13	50	0	0
BETANEX+STINGER+UPBEET	14	4.3	1.6	14	14	43	29	0	29	21	36	14	0
BETAMIX+STINGER+UPBEET	15	4.3	1.7	20	0	47	33	0	20	27	47	7	0
PROGRESS+STINGER+UPBEET	9	3.5	1.6	33	11	56	0	0	33	22	44	0	0
BMIX+STING+UPB+POAST+OIL	5	3.3	2.0	0	40	40	20	0	20	20	60	0	0
PROGRESS+UPBEET	9	3.1	1.4	22	22	11	33	11	22	33	44	0	0
BNEX+STING+UPBT+NORT+OIL	10	2.9	1.3	10	30	40	20	0	0	40	50	10	0
BNEX+STING+UPB+POAST+OIL	5	2.8	1.4	0	0	80	20	0	20	20	60	0	0
BETANEX+UPBEET+SELCT+OIL	9	2.3	1.2	0	22	33	44	0	0	33	67	0	0
PROG+STING+UPB+ASURE+OIL	5	2.2	2.0	0	20	60	20	0	0	40	60	0	0
BMIX+STING+UPB+ASURE+OIL	2	2.1	2.0	0	0	50	50	0	0	50	50	0	0
BETAMIX+STINGER	5	2.1	1.4	0	0	40	60	0	0	40	60	0	0
BETAMIX	8	1.7	1.4	13	13	25	25	25	13	13	63	13	0
BETANEX	7	1.4	1.7	14	0	57	14	14	29	0	71	0	0
BMIX+UPBEET+SELECT+OIL	8	1.3	1.1	50	13	38	0	0	50	25	25	0	0
BNEX+STING+UPB+ASURE+OIL	3	1.1	1.0	0	33	67	0	0	0	33	67	0	0
BETANEX+STINGER	6	0.7	1.3	17	17	33	33	0	33	33	33	0	0
BETAMIX+UPBEET	3	0.7	1.3	0	0	67	33	0	0	67	33	0	0
POAST	4	0.5	1.0	25	50	25	0	0	25	75	0	0	0
ASSURE II	4	0.2	1.0	0	75	0	25	0	0	75	25	0	0
TOTAL-POST	697	334.6	1.6	13	18	49	18	2	15	35	44	5	0
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C. PREEMERGE & LAY-BY HERBICIDES:													
OUTLOOK (LAY-BY)	63	14.5	1.0	11	19	35	29	6	14	54	29	3	0
ROUNDUP (PRE)	50	10.5	1.0	12	60	22	6	0	14	80	6	0	0
DUAL (LAY-BY)	6	2.5	1.2	0	0	33	50	17	33	67	0	0	0
TREFLAN (LAY-BY)	6	1.3	1.0	17	0	83	0	0	17	83	0	0	0
TOTAL-PRE&LAY-BY	125	28.7	1.0	11	34	32	19	4	15	66	17	2	0
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D. OTHER WEED CONTROL METHODS:													
ROTARY HOE	95	37.7	1.3	17	7	36	36	4	19	32	45	3	1
HARROW	17	3.3	1.1	18	6	47	29	0	24	29	47	0	0
SWATH/FLAIL/MOW	10	0.6	1.0	30	0	20	40	10	40	30	20	10	0
WEED PULLER	6	0.6	1.0	0	17	0	83	0	17	33	50	0	0

ELECTRICAL (EDS)	3	0.5	1.7	67	0	33	0	0	67	33	0	0	0
TOTAL-OTHER	131	42.8	1.3	18	7	34	37	4	22	31	43	3	1
=====													
TOTAL TREATMENTS	1063	429.1	1.4	13	19	46	20	2	2	3	4	0	0
*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.													

TABLE 2. CASS COUNTY: 16 GROWERS REPORTED ON 7,920 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTD	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	SlT	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON(PRE/PPI)	2	471	5.9	1.0	0	1	1	0	0	0	1	1	0	0
TOTAL-PPI&PRE	2	471	5.9	1.0	0	1	1	0	0	0	1	1	0	0
B. POSTEMERGENCE HERBICIDES:														
BMX+STG+UPB+SLT+NORT+OIL	4	5071	64.0	3.3	0	0	4	0	0	0	3	1	0	0
BETAMIX+STING+UPBEET+OIL	2	4875	61.6	3.0	1	0	1	0	0	1	0	1	0	0
PROG+STNG+UPB+SELECT+OIL	3	4653	58.8	2.0	0	0	2	1	0	0	1	1	1	0
BNEX+STNG+UPB+SELECT+OIL	5	4390	55.4	1.8	1	0	4	0	0	1	2	2	0	0
BMIX+STNG+UPB+SELECT+OIL	3	2965	37.4	1.7	1	0	2	0	0	1	0	2	0	0
BNX+STG+UPB+SLT+NORT+OIL	3	1562	19.7	1.7	1	0	2	0	0	1	0	0	2	0
BETAMIX	1	1113	14.1	3.0	1	0	0	0	0	1	0	0	0	0
BETANEX+STING+UPBEET+OIL	1	1062	13.4	2.0	0	0	1	0	0	0	0	0	1	0
SELECT/PRISM	2	624	7.9	1.0	1	1	0	0	0	1	1	0	0	0
BNEX+STING+UPBT+NORT+OIL	1	600	7.6	2.0	0	0	1	0	0	0	0	0	1	0
PROGRESS+UPBEET	1	330	4.2	1.0	1	0	0	0	0	1	0	0	0	0
BMIX+STING+UPBT+NORT+OIL	1	300	3.8	2.0	0	0	0	1	0	0	0	0	0	1
PRG+STG+UPB+SLT+NORT+OIL	1	258	3.3	1.0	1	0	0	0	0	1	0	0	0	0
PROGRESS	1	200	2.5	1.0	1	0	0	0	0	1	0	0	0	0
PROGRESS+STINGER+UPBEET	1	160	2.0	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-POST	30	28163	355.6	2.0	9	1	18	2	0	9	8	7	5	1
C. PREEMERGE & LAY-BY HERBICIDES:														
ROUNDUP (PRE)	7	1842	23.3	1.0	1	6	0	0	0	1	6	0	0	0
OUTLOOK (LAY-BY)	4	1244	15.7	1.0	1	1	1	1	0	1	2	1	0	0
TOTAL-PRE&LAY-BY	11	3086	39.0	1.0	2	7	1	1	0	2	8	1	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	1	566	7.1	1.0	0	1	0	0	0	0	0	0	0	1
HARROW	1	371	4.7	1.0	1	0	0	0	0	1	0	0	0	0
ELECTRICAL (EDS)	1	320	4.0	1.0	1	0	0	0	0	1	0	0	0	0
TOTAL-OTHER	3	1257	15.9	1.0	2	1	0	0	0	2	0	0	0	1
TOTAL TREATMENTS	46	32977	416.4	1.6	13	10	20	3	0	13	17	9	5	2
*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.														

TABLE 3. CHIPPEWA, KANDIYOHI, AND SWIFT COUNTIES: 16 GROWERS REPORTED ON 8,599 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING							CROP INJURY			
					WEED CONTROL							None	Sl't	Mod	Sev
					NR*	EXC	GD	FR	PR	NR					
A. SOIL APPLIED HERBICIDES:															
NORTRON (PRE/PPI)	10	2533	29.5	1.0	2	1	6	1	0	3	7	0	0	0	
DUAL (PRE/PPI)	3	930	10.8	1.0	0	0	3	0	0	0	2	0	1	0	
EPTAM+RO-NEET	1	155	1.8	1.0	0	0	1	0	0	1	0	0	0	0	
TOTAL-PPI&PRE	14	3618	42.1	1.0	2	1	10	1	0	4	9	0	1	0	
B. POSTEMERGENCE HERBICIDES:															
PROGRESS+STINGER	8	7868	91.5	1.6	1	1	2	3	1	1	2	4	1	0	
PROGRESS	6	3233	37.6	1.5	2	0	2	2	0	3	1	2	0	0	
PROGRESS+STINGER+UPBEET	2	2730	31.7	2.5	0	0	2	0	0	0	0	2	0	0	
SELECT/PRISM	7	2673	31.1	1.0	1	5	1	0	0	3	4	0	0	0	
BMIX+STING+UPBT+NORT+OIL	1	2100	24.4	2.0	1	0	0	0	0	1	0	0	0	0	
BETAMIX+STINGER	1	1800	20.9	2.0	0	0	1	0	0	0	1	0	0	0	
BETANEX+STING+UPBEET+OIL	3	1450	16.9	1.7	1	1	1	0	0	1	0	1	1	0	
PROG+STNG+UPB+SELECT+OIL	2	1287	15.0	1.5	0	0	1	1	0	1	1	0	0	0	
BMX+STG+UPB+SLT+NORT+OIL	2	1250	14.5	1.0	1	1	0	0	0	1	1	0	0	0	
PROG+STING+UPBEET+OIL	1	1014	11.8	2.0	0	0	1	0	0	0	1	0	0	0	
BETANEX+STINGER	2	740	8.6	2.0	1	0	1	0	0	1	1	0	0	0	
PROG+STING+UPBT+NORT+OIL	1	600	7.0	2.0	0	1	0	0	0	0	1	0	0	0	
BETANEX+STINGER+UPBEET	2	515	6.0	1.0	0	1	1	0	0	1	0	0	1	0	
OTHER COMBINATIONS	1	420	4.9	1.0	0	0	1	0	0	0	1	0	0	0	
BETANEX	1	310	3.6	2.0	0	0	1	0	0	1	0	0	0	0	
PROG+STING+UPB+ASURE+OIL	1	300	3.5	1.0	0	0	1	0	0	0	1	0	0	0	
BNX+STG+UPB+SLT+NORT+OIL	1	200	2.3	1.0	0	1	0	0	0	0	1	0	0	0	
BETANEX+UPBEET	1	155	1.8	1.0	0	0	1	0	0	1	0	0	0	0	
POAST	1	50	0.6	1.0	0	0	1	0	0	0	1	0	0	0	
TOTAL-POST	44	28695	333.7	1.5	8	11	18	6	1	15	17	9	3	0	
C. PREEMERGE & LAY-BY HERBICIDES:															
OUTLOOK (LAY-BY)	5	1210	14.1	1.0	1	0	2	2	0	1	4	0	0	0	
DUAL (LAY-BY)	1	507	5.9	1.0	0	0	0	1	0	0	1	0	0	0	
TREFLAN (LAY-BY)	1	350	4.1	1.0	0	0	1	0	0	0	1	0	0	0	
TOTAL-PRE&LAY-BY	7	2067	24.0	1.0	1	0	3	3	0	1	6	0	0	0	
D. OTHER WEED CONTROL METHODS:															
ROTARY HOE	10	5354	62.3	1.5	3	0	4	3	0	3	3	4	0	0	
HARROW	2	350	4.1	1.0	1	0	1	0	0	2	0	0	0	0	
TOTAL-OTHER	12	5704	66.3	1.4	4	0	5	3	0	5	3	4	0	0	

TOTAL TREATMENTS 77 40084 466.1 1.3 15 12 36 13 1 25 35 13 4 0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 4. CLAY AND BECKER COUNTIES: 22 GROWERS REPORTED ON 20,744 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON(PRE/PPI)	9	3026	14.6	1.0	1	1	6	1	0	1	6	2	0	0
DUAL(PRE/PPI)	1	1850	8.9	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-PPI&PRE	10	4876	23.5	1.0	1	1	7	1	0	1	7	2	0	0

B. POSTEMERGENCE HERBICIDES:

PROG+STNG+UPB+SELECT+OIL	8	29776	143.5	2.5	0	1	6	1	0	0	3	5	0	0
BETANEX+STING+UPBEET+OIL	3	6600	31.8	1.3	0	0	3	0	0	0	2	1	0	0
PRG+STG+UPB+SLT+NORT+OIL	3	6588	31.8	2.0	0	2	1	0	0	0	0	3	0	0
BNX+STG+UPB+SLT+NORT+OIL	7	3819	18.4	1.1	1	1	4	1	0	1	1	5	0	0
OTHER COMBINATIONS	2	3700	17.8	2.0	0	0	2	0	0	0	0	2	0	0
BMIX+STING+UPB+ASURE+OIL	1	3600	17.4	3.0	0	0	1	0	0	0	0	1	0	0
BMIX+STNG+UPB+SELECT+OIL	2	2196	10.6	1.0	0	1	1	0	0	0	2	0	0	0
BETAMIX+STING+UPBEET+OIL	5	1892	9.1	1.4	1	1	3	0	0	1	1	3	0	0
PROG+STING+UPB+POAST+OIL	3	1820	8.8	1.3	1	0	0	2	0	1	0	2	0	0
PROG+UPBEET+SELECT+OIL	2	1400	6.7	1.0	0	0	0	2	0	0	0	2	0	0
PROGRESS+STINGER+UPBEET	1	1350	6.5	3.0	1	0	0	0	0	1	0	0	0	0
SELECT/PRISM	4	1241	6.0	1.3	1	1	1	1	0	1	3	0	0	0
BMX+STG+UPB+SLT+NORT+OIL	3	1148	5.5	2.0	1	0	1	1	0	1	0	2	0	0
BETANEX+UPBEET	1	850	4.1	1.0	0	0	1	0	0	0	0	1	0	0
BNEX+STING+UPBT+NORT+OIL	2	750	3.6	1.0	0	0	2	0	0	0	0	2	0	0
BMIX+STING+UPBT+NORT+OIL	2	684	3.3	1.0	1	0	1	0	0	0	0	2	0	0
BNEX+STNG+UPB+SELECT+OIL	2	675	3.3	1.0	0	1	1	0	0	0	1	1	0	0
PROG+STING+UPBEET+OIL	3	624	3.0	1.0	0	0	3	0	0	0	0	3	0	0
PROGRESS	3	390	1.9	1.0	0	1	2	0	0	0	1	1	1	0
PROG+STING+UPBT+NORT+OIL	1	388	1.9	1.0	0	0	1	0	0	0	0	1	0	0
BMIX+UPBEET+SELECT+OIL	1	214	1.0	1.0	1	0	0	0	0	1	0	0	0	0
TOTAL-POST	59	69705	336.0	1.5	8	9	34	8	0	7	14	37	1	0

C. PREEMERGE & LAY-BY HERBICIDES:

OUTLOOK (LAY-BY)	6	4448	21.4	1.0	2	1	2	1	0	2	2	1	1	0
ROUNDUP (PRE)	5	876	4.2	1.0	2	3	0	0	0	3	2	0	0	0
TOTAL-PRE&LAY-BY	11	5324	25.7	1.0	4	4	2	1	0	5	4	1	1	0

D. OTHER WEED CONTROL METHODS:

ROTARY HOE	11	17398	83.9	1.5	3	2	3	3	0	3	4	4	0	0
HARROW	4	3200	15.4	1.0	1	1	0	2	0	1	0	3	0	0
SWATH/FLAIL/MOW	1	60	0.3	1.0	1	0	0	0	0	1	0	0	0	0

TOTAL-OTHER	16	20658	99.6	1.3	5	3	3	5	0	5	4	7	0	0
TOTAL TREATMENTS	96	100563	484.8	1.4	18	17	46	15	0	18	29	47	2	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 5. GRAND FORKS COUNTY: 13 GROWERS REPORTED ON 8,792 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON (PRE/PPI)	3	767	8.7	1.0	0	0	2	1	0	0	3	0	0	0
TOTAL-PPI&PRE	3	767	8.7	1.0	0	0	2	1	0	0	3	0	0	0
B. POSTEMERGENCE HERBICIDES:														
PROG+UPBEET+SELECT+OIL	4	8250	93.8	3.0	0	2	2	0	0	0	1	3	0	0
PROG+STING+UPBT+NORT+OIL	4	5477	62.3	1.8	2	0	2	0	0	2	2	0	0	0
PROG+STNG+UPB+SELECT+OIL	3	2636	30.0	2.0	1	0	2	0	0	1	0	2	0	0
OTHER COMBINATIONS	1	1906	21.7	2.0	0	0	0	1	0	0	0	1	0	0
BNEX+STNG+UPB+SELECT+OIL	3	1853	21.1	1.0	1	1	1	0	0	1	0	2	0	0
BMIX+STNG+UPB+SELECT+OIL	4	1400	15.9	1.0	1	0	2	1	0	1	2	1	0	0
PROGRESS+STINGER	1	1200	13.6	2.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STING+UPBEET+OIL	1	1200	13.6	2.0	0	0	1	0	0	0	1	0	0	0
PRG+STG+UPB+SLT+NORT+OIL	2	1079	12.3	1.0	1	0	0	1	0	1	1	0	0	0
BMIX+STING+UPBT+NORT+OIL	1	1060	12.1	2.0	1	0	0	0	0	1	0	0	0	0
BETANEX+UPBEET	1	952	10.8	1.0	0	0	0	1	0	0	1	0	0	0
PROGRESS+STINGER+UPBEET	1	952	10.8	1.0	0	1	0	0	0	0	1	0	0	0
BNEX+STING+UPB+ASURE+OIL	1	568	6.5	1.0	0	0	1	0	0	0	0	1	0	0
BMIX+UPBEET+SELECT+OIL	1	530	6.0	1.0	1	0	0	0	0	1	0	0	0	0
BETANEX+UPBEET+SELCT+OIL	1	450	5.1	1.0	0	0	0	1	0	0	1	0	0	0
BNX+STG+UPB+SLT+NORT+OIL	1	300	3.4	1.0	1	0	0	0	0	1	0	0	0	0
PROGRESS+UPBEET	1	102	1.2	2.0	0	1	0	0	0	0	1	0	0	0
SELECT/PRISM	1	70	0.8	1.0	1	0	0	0	0	1	0	0	0	0
TOTAL-POST	32	29985	341.0	1.6	10	5	12	5	0	10	11	11	0	0
C. PREEMERGE & LAY-BY HERBICIDES:														
ROUNDUP (PRE)	2	1150	13.1	1.0	0	2	0	0	0	0	2	0	0	0
OUTLOOK (LAY-BY)	1	568	6.5	1.0	0	0	0	1	0	0	0	1	0	0
TOTAL-PRE&LAY-BY	3	1718	19.5	1.0	0	2	0	1	0	0	2	1	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	4	2681	30.5	1.0	3	0	1	0	0	3	0	0	1	0
TOTAL-OTHER	4	2681	30.5	1.0	3	0	1	0	0	3	0	0	1	0
TOTAL TREATMENTS	42	35151	399.8	1.5	13	7	15	7	0	13	16	12	1	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 6. KITTSON COUNTY: 10 GROWERS REPORTED ON 5,739 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	SlT	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON(PRE/PPI)	1	80	1.4	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-PPI&PRE	1	80	1.4	1.0	0	0	1	0	0	0	1	0	0	0
B. POSTEMERGENCE HERBICIDES:														
PROG+STNG+UPB+SELECT+OIL	7	8897	155.0	2.6	0	0	7	0	0	0	4	3	0	0
BNEX+STNG+UPB+SELECT+OIL	3	3290	57.3	1.7	1	1	1	0	0	1	2	0	0	0
PROGRESS	1	2385	41.6	3.0	0	0	1	0	0	0	0	1	0	0
PRG+STG+UPB+SLT+NORT+OIL	2	1600	27.9	1.5	0	0	1	1	0	0	1	1	0	0
BETANEX+STING+UPBEET+OIL	1	1000	17.4	1.0	0	0	1	0	0	0	1	0	0	0
BETAMIX+STINGER+UPBEET	1	900	15.7	3.0	0	0	1	0	0	0	0	1	0	0
SELECT/PRISM	2	870	15.2	1.0	0	1	1	0	0	0	2	0	0	0
PROG+STING+UPB+POAST+OIL	1	320	5.6	1.0	1	0	0	0	0	1	0	0	0	0
BETANEX	1	200	3.5	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+UPBEET+SELCT+OIL	1	200	3.5	1.0	0	1	0	0	0	0	0	1	0	0
BETAMIX	1	142	2.5	1.0	0	0	0	0	1	0	1	0	0	0
BMIX+UPBEET+SELECT+OIL	1	80	1.4	1.0	0	1	0	0	0	0	1	0	0	0
TOTAL-POST	22	19884	346.5	1.8	2	4	14	1	1	2	12	8	0	0
C. PREEMERGE & LAY-BY HERBICIDES:														
ROUNDUP (PRE)	2	390	6.8	1.0	0	2	0	0	0	0	2	0	0	0
TOTAL-PRE&LAY-BY	2	390	6.8	1.0	0	2	0	0	0	0	2	0	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	2	260	4.5	1.0	0	0	1	1	0	0	0	2	0	0
TOTAL-OTHER	2	260	4.5	1.0	0	0	1	1	0	0	0	2	0	0
TOTAL TREATMENTS	27	20614	359.2	1.7	2	6	16	2	1	2	15	10	0	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 7. MARSHALL COUNTY: 22 GROWERS REPORTED ON 12,425 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTD	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON(PRE/PPI)	1	680	5.5	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-PPI&PRE	1	680	5.5	1.0	0	0	1	0	0	0	1	0	0	0
B. POSTEMERGENCE HERBICIDES:														
PROG+UPBEET+SELECT+OIL	6	9781	78.7	2.3	0	1	3	2	0	0	3	1	1	1
PROG+STNG+UPB+SELECT+OIL	9	9072	73.0	2.3	1	1	5	2	0	1	3	5	0	0
BMIX+STNG+UPB+SELECT+OIL	3	7170	57.7	2.0	0	0	2	1	0	0	0	2	1	0
PRG+STG+UPB+SLT+NORT+OIL	3	3100	24.9	2.0	0	0	1	1	1	0	0	3	0	0
BETANEX+UPBEET	5	2268	18.3	1.2	0	1	2	2	0	0	2	3	0	0
PROG+STING+UPBEET+OIL	2	1337	10.8	2.5	0	1	0	1	0	0	0	2	0	0
PROGRESS+UPBEET	3	1324	10.7	1.0	0	0	0	3	0	0	1	2	0	0
BNEX+STNG+UPB+SELECT+OIL	2	1210	9.7	1.5	0	0	2	0	0	0	0	2	0	0
PROG+STING+UPBT+NORT+OIL	2	850	6.8	1.0	0	0	0	1	1	0	0	2	0	0
PROG+STING+UPB+POAST+OIL	1	800	6.4	2.0	0	1	0	0	0	0	0	1	0	0
BETAMIX+STING+UPBEET+OIL	1	660	5.3	1.0	0	1	0	0	0	0	1	0	0	0
BETANEX+STINGER+UPBEET	1	430	3.5	1.0	0	0	1	0	0	0	1	0	0	0
SELECT/PRISM	3	336	2.7	1.0	0	3	0	0	0	0	3	0	0	0
BETAMIX+STINGER+UPBEET	3	324	2.6	1.3	0	0	1	2	0	0	1	2	0	0
BETANEX+UPBEET+SELCT+OIL	1	300	2.4	1.0	0	0	1	0	0	0	1	0	0	0
BETAMIX+UPBEET	1	203	1.6	1.0	0	0	0	1	0	0	0	1	0	0
PROGRESS+STINGER+UPBEET	1	156	1.3	1.0	0	0	1	0	0	0	0	1	0	0
PROGRESS+STINGER	1	50	0.4	1.0	0	0	1	0	0	0	0	0	1	0
TOTAL-POST	48	39371	316.9	1.7	1	9	20	16	2	1	16	27	3	1
C. PREEMERGE & LAY-BY HERBICIDES:														
OUTLOOK (LAY-BY)	4	940	7.6	1.0	0	1	2	1	0	0	1	3	0	0
ROUNDUP (PRE)	2	804	6.5	1.0	0	0	2	0	0	0	2	0	0	0
TOTAL-PRE&LAY-BY	6	1744	14.0	1.0	0	1	4	1	0	0	3	3	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	9	4368	35.2	1.1	2	1	2	2	2	3	4	2	0	0
SWATH/FLAIL/MOW	1	163	1.3	1.0	0	0	0	1	0	1	0	0	0	0
WEED PULLER	1	50	0.4	1.0	0	0	0	1	0	0	1	0	0	0
TOTAL-OTHER	11	4581	36.9	1.1	2	1	2	4	2	4	5	2	0	0
TOTAL TREATMENTS	66	46376	373.2	1.5	3	11	27	21	4	5	25	32	3	1

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 8. NORMAN AND MAHNOMEN COUNTIES: 17 GROWERS REPORTED ON 10,069 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON (PRE/PPI)	7	2011	20.0	1.0	0	3	4	0	0	1	2	4	0	0
FARGO	1	114	1.1	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-PPI&PRE	8	2125	21.1	1.0	0	3	5	0	0	1	3	4	0	0
B. POSTEMERGENCE HERBICIDES:														
BMIX+STNG+UPB+SELECT+OIL	8	13209	131.2	2.3	2	0	6	0	0	2	4	2	0	0
BNEX+STNG+UPB+SELECT+OIL	4	4333	43.0	1.0	2	0	2	0	0	2	1	1	0	0
PROG+STNG+UPB+SELECT+OIL	5	3848	38.2	2.0	2	1	2	0	0	2	0	3	0	0
OTHER COMBINATIONS	2	2500	24.8	2.0	0	0	2	0	0	0	0	1	1	0
PROG+STING+UPBT+NORT+OIL	2	1690	16.8	2.0	0	1	0	1	0	0	0	2	0	0
BETANEX+UPBEET+SELCT+OIL	1	1630	16.2	2.0	0	0	0	1	0	0	0	1	0	0
BETANEX+STINGER+UPBEET	1	1350	13.4	3.0	0	0	1	0	0	0	1	0	0	0
BMX+STG+UPB+SLT+NORT+OIL	1	1020	10.1	3.0	0	0	1	0	0	0	0	1	0	0
BNX+STG+UPB+SLT+NORT+OIL	2	980	9.7	2.0	0	0	2	0	0	1	0	0	1	0
BETAMIX+STING+UPBEET+OIL	3	927	9.2	1.3	0	0	1	2	0	0	0	3	0	0
SELECT/PRISM	1	450	4.5	1.0	0	0	1	0	0	0	1	0	0	0
BETAMIX+STINGER+UPBEET	1	342	3.4	3.0	0	0	1	0	0	0	1	0	0	0
PRG+STG+UPB+SLT+NORT+OIL	1	300	3.0	1.0	0	0	0	1	0	0	0	1	0	0
BMIX+UPBEET+SELECT+OIL	1	288	2.9	2.0	0	0	1	0	0	1	0	0	0	0
PROG+STING+UPBEET+OIL	1	100	1.0	1.0	0	1	0	0	0	0	0	1	0	0
TOTAL-POST	34	32967	327.4	1.9	6	3	20	5	0	8	8	16	2	0
C. PREEMERGE & LAY-BY HERBICIDES:														
ROUNDUP (PRE)	3	3965	39.4	1.0	0	2	1	0	0	0	2	1	0	0
OUTLOOK (LAY-BY)	2	1250	12.4	1.0	0	0	2	0	0	0	1	1	0	0
TOTAL-PRE&LAY-BY	5	5215	51.8	1.0	0	2	3	0	0	0	3	2	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	4	1743	17.3	1.0	1	0	1	2	0	1	0	3	0	0
SWATH/FLAIL/MOW	1	200	2.0	1.0	0	0	1	0	0	1	0	0	0	0
TOTAL-OTHER	5	1943	19.3	1.0	1	0	2	2	0	2	0	3	0	0
TOTAL TREATMENTS	52	42250	419.6	1.6	7	8	30	7	0	11	14	25	2	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 9. PEMBINA COUNTY: 12 GROWERS REPORTED ON 6,190 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON (PRE/PPI)	3	1270	20.5	1.0	0	0	1	1	1	0	3	0	0	0
FARGO	1	500	8.1	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-PPI&PRE	4	1770	28.6	1.0	0	0	2	1	1	0	4	0	0	0
B. POSTEMERGENCE HERBICIDES:														
PROG+STNG+UPB+SELECT+OIL	6	5360	86.6	1.8	1	0	3	2	0	1	0	4	1	0
PRG+STG+UPB+SLT+NORT+OIL	1	4000	64.6	4.0	0	0	1	0	0	0	1	0	0	0
BMIX+STNG+UPB+SELECT+OIL	3	2716	43.9	2.0	0	0	2	0	1	1	1	1	0	0
BNEX+STNG+UPB+SELECT+OIL	2	2566	41.5	1.5	0	0	1	1	0	0	0	2	0	0
BNX+STG+UPB+SLT+NORT+OIL	1	1434	23.2	3.0	0	1	0	0	0	0	0	1	0	0
PROG+STING+UPBEET+OIL	2	1315	21.2	2.0	0	0	1	1	0	0	1	1	0	0
BETANEX+STINGER+UPBEET	2	905	14.6	2.5	0	0	0	2	0	0	1	0	1	0
PROG+STING+UPB+ASURE+OIL	1	566	9.1	1.0	0	0	0	1	0	0	0	1	0	0
PROG+STING+UPBT+NORT+OIL	1	500	8.1	2.0	0	0	1	0	0	0	1	0	0	0
BMIX+STING+UPBT+NORT+OIL	1	478	7.7	1.0	0	1	0	0	0	0	0	1	0	0
PROGRESS+STINGER+UPBEET	1	430	6.9	1.0	1	0	0	0	0	1	0	0	0	0
BETAMIX+STINGER+UPBEET	1	200	3.2	2.0	0	0	0	1	0	0	0	0	1	0
OTHER COMBINATIONS	1	200	3.2	5.0	0	0	0	1	0	0	0	0	1	0
BETANEX+STING+UPBEET+OIL	1	50	0.8	1.0	0	0	1	0	0	0	0	1	0	0
BETAMIX+STING+UPBEET+OIL	1	40	0.6	1.0	0	0	1	0	0	0	0	1	0	0
TOTAL-POST	25	20760	335.4	2.0	2	2	11	9	1	3	5	13	4	0
C. PREEMERGE & LAY-BY HERBICIDES:														
OUTLOOK (LAY-BY)	3	770	12.4	1.0	0	0	1	0	2	0	1	1	1	0
ROUNDUP (PRE)	1	220	3.6	1.0	0	1	0	0	0	0	1	0	0	0
TOTAL-PRE&LAY-BY	4	990	16.0	1.0	0	1	1	0	2	0	2	1	1	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	4	2340	37.8	1.0	0	0	1	3	0	1	3	0	0	0
HARROW	1	150	2.4	1.0	0	0	1	0	0	0	1	0	0	0
SWATH/FLAIL/MOW	1	25	0.4	1.0	0	0	0	0	1	0	0	0	1	0
TOTAL-OTHER	6	2515	40.6	1.0	0	0	2	3	1	1	4	0	1	0
TOTAL TREATMENTS	39	26035	420.6	1.6	2	3	16	13	5	4	15	14	6	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 10. POLK COUNTY: 47 GROWERS REPORTED ON 29,561 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
NORTRON (PRE/PPI)	14	5943	20.1	1.0	0	4	10	0	0	0	11	2	1	0
TOTAL-PPI&PRE	14	5943	20.1	1.0	0	4	10	0	0	0	11	2	1	0
B. POSTEMERGENCE HERBICIDES:														
PROG+STNG+UPB+SLCT+OIL	19	27735	93.8	1.9	1	5	11	2	0	1	8	10	0	0
BMIX+STNG+UPB+SLCT+OIL	19	12062	40.8	1.4	1	2	15	1	0	0	6	11	2	0
BMIX+STNG+UPB+OIL	10	9083	30.7	1.5	1	2	7	0	0	1	3	6	0	0
PRG+STG+UPB+SL+NORT+OIL	10	9013	30.5	2.1	0	3	5	2	0	0	6	3	1	0
BMX+STG+UPB+SLT+NORT+OIL	8	7413	25.1	1.6	0	1	7	0	0	0	4	4	0	0
SELECT/PRISM	8	4917	16.6	1.0	2	3	2	1	0	2	6	0	0	0
BETANEX+UPBEET	6	4224	14.3	1.0	0	1	1	4	0	0	3	3	0	0
BNEX+STNG+UPB+SELECT+OIL	7	3997	13.5	1.4	1	0	6	0	0	0	2	5	0	0
BETANEX+STING+UPBEET+OIL	6	2870	9.7	1.3	1	2	3	0	0	1	2	3	0	0
BMIX+STING+UPB+POAST+OIL	1	1980	6.7	2.0	0	1	0	0	0	0	1	0	0	0
BNX+STG+UPB+SLT+NORT+OIL	2	1700	5.8	1.5	0	1	1	0	0	0	1	1	0	0
PROG+UPBEET+SELECT+OIL	4	1665	5.6	1.0	2	0	2	0	0	2	1	1	0	0
PROG+STING+UPB+POAST+OIL	1	1480	5.0	2.0	0	0	1	0	0	0	0	1	0	0
BNEX+STING+UPB+ASURE+OIL	2	1370	4.6	1.0	0	1	1	0	0	0	1	1	0	0
PROG+STING+UPBEET+OIL	4	1262	4.3	1.3	2	0	2	0	0	2	0	2	0	0
PROG+STING+UPBT+NORT+OIL	2	1200	4.1	1.0	0	2	0	0	0	0	1	1	0	0
PROG+STING+UPB+ASURE+OIL	1	1100	3.7	2.0	0	1	0	0	0	0	1	0	0	0
PROGRESS+UPBEET	2	1079	3.7	1.5	1	0	1	0	0	1	1	0	0	0
BMIX+UPBEET+SELECT+OIL	3	1075	3.6	1.0	2	0	1	0	0	1	1	1	0	0
BETANEX+STINGER+UPBEET	1	740	2.5	1.0	0	0	1	0	0	0	0	1	0	0
BMIX+STING+UPBT+NORT+OIL	1	700	2.4	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+UPBEET+SELCT+OIL	2	510	1.7	1.0	0	1	1	0	0	0	1	1	0	0
PROGRESS	1	370	1.3	1.0	0	1	0	0	0	0	1	0	0	0
BETAMIX+UPBEET	1	347	1.2	1.0	0	0	1	0	0	0	1	0	0	0
ASSURE II	2	195	0.7	1.0	0	1	0	1	0	0	2	0	0	0
OTHER COMBINATIONS	1	144	0.5	1.0	0	0	1	0	0	0	0	1	0	0
BETAMIX+STINGER+UPBEET	1	80	0.3	1.0	0	0	1	0	0	0	0	1	0	0
TOTAL-POST	125	98311	332.6	1.5	14	28	72	11	0	11	53	58	3	0
C. PREEMERGE & LAY-BY HERBICIDES:														
OUTLOOK (LAY-BY)	15	7265	24.6	1.0	0	5	5	4	1	0	10	5	0	0
ROUNDUP (PRE)	12	4597	15.6	1.0	1	6	4	1	0	1	11	0	0	0
TREFLAN (LAY-BY)	5	1905	6.4	1.0	1	0	4	0	0	1	4	0	0	0
TOTAL-PRE&LAY-BY	32	13767	46.6	1.0	2	11	13	5	1	2	25	5	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	24	15145	51.2	1.3	1	3	12	7	1	1	9	14	0	0
WEED PULLER	5	1030	3.5	1.0	0	1	0	4	0	1	1	3	0	0
HARROW	2	400	1.4	1.0	0	0	2	0	0	0	1	1	0	0
TOTAL-OTHER	31	16575	56.1	1.2	1	4	14	11	1	2	11	18	0	0
TOTAL TREATMENTS	202	134596	455.3	1.3	17	47	109	27	2	15	100	83	4	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 11. RENVILLE, FAIRBAULT, LAC QUI PARLE, REDWOOD, SIBLEY, YELLOW MEDICINE, AND STEARNS COUNTIES: 29 GROWERS REPORTED ON 14,970 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev
A. SOIL APPLIED HERBICIDES:														
RO-NEET	2	4798	32.1	1.0	0	0	2	0	0	1	1	0	0	0
NORTRON (PRE/PPI)	17	3374	22.5	1.0	2	7	6	2	0	2	11	4	0	0
DUAL (PRE/PPI)	3	847	5.7	1.0	1	0	1	1	0	1	0	1	1	0
TOTAL-PPI&PRE	22	9019	60.2	1.0	3	7	9	3	0	4	12	5	1	0
B. POSTEMERGENCE HERBICIDES:														
PROGRESS+STINGER	6	21347	142.6	2.0	0	1	3	2	0	1	1	3	1	0
SELECT/PRISM	19	11639	77.7	1.3	2	8	3	5	1	3	16	0	0	0
BETANEX+STING+UPBEET+OIL	6	5267	35.2	2.2	1	0	4	1	0	1	1	4	0	0
PROGRESS	11	4397	29.4	1.5	1	1	3	5	1	1	1	6	3	0
PROG+STNG+UPB+SELECT+OIL	2	2187	14.6	2.5	0	0	0	2	0	0	1	0	1	0
BETAMIX+STINGER+UPBEET	3	2095	14.0	1.7	2	0	1	0	2	1	0	0	0	0
BETANEX	3	1700	11.4	2.3	0	0	1	1	1	0	0	3	0	0
BETAMIX+STINGER	3	1270	8.5	1.3	0	0	0	3	0	0	1	2	0	0
BMIX+STING+UPBT+NORT+OIL	2	1258	8.4	1.5	1	0	1	0	0	1	1	0	0	0
BETAMIX	5	1207	8.1	1.2	0	1	1	2	1	0	0	4	1	0
BETAMIX+STING+UPBEET+OIL	3	1103	7.4	1.0	1	0	1	1	0	1	0	1	1	0
BETANEX+STINGER+UPBEET	2	853	5.7	2.0	1	0	0	1	0	1	0	1	0	0
BMX+STG+UPB+SLT+NORT+OIL	1	850	5.7	1.0	1	0	0	0	0	1	0	0	0	0
OTHER COMBINATIONS	1	482	3.2	2.0	0	1	0	0	0	0	0	1	0	0
PROGRESS+STINGER+UPBEET	2	381	2.5	1.0	1	0	1	0	0	1	0	1	0	0
PROG+STING+UPBT+NORT+OIL	1	304	2.0	2.0	1	0	0	0	0	1	0	0	0	0
BNEX+STING+UPBT+NORT+OIL	1	210	1.4	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STINGER	2	195	1.3	1.0	0	1	0	1	0	0	0	2	0	0
PROGRESS+UPBEET	1	150	1.0	1.0	0	0	0	0	1	0	0	1	0	0
POAST	1	145	1.0	1.0	0	1	0	0	0	0	1	0	0	0
BMIX+STNG+UPB+SELECT+OIL	1	45	0.3	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-POST	76	57085	381.3	1.5	12	14	21	24	5	14	25	30	7	0
C. PREEMERGE & LAY-BY HERBICIDES:														
OUTLOOK (LAY-BY)	8	3533	23.6	1.0	1	0	4	3	0	3	2	3	0	0
DUAL (LAY-BY)	3	1408	9.4	1.0	0	0	1	2	0	2	1	0	0	0
TOTAL-PRE&LAY-BY	11	4941	33.0	1.0	1	0	5	5	0	5	3	3	0	0
D. OTHER WEED CONTROL METHODS:														
ROTARY HOE	12	6781	45.3	1.7	1	0	5	6	0	2	3	6	1	0
HARROW	3	265	1.8	1.3	0	0	1	2	0	0	1	2	0	0
TOTAL-OTHER	15	7046	47.1	1.6	1	0	6	8	0	2	4	8	1	0
TOTAL TREATMENTS	124	78091	521.6	1.4	17	21	41	40	5	25	44	46	9	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 12. RICHLAND COUNTY: 22 GROWERS REPORTED ON 16,197 ACRES.

NO. OF GROWERS REPORTING

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	WEED CONTROL					CROP INJURY			
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod

A. SOIL APPLIED HERBICIDES:

NORTRON (PRE/PPI)	5	1600	9.9	1.0	0	3	2	0	0	0	3	2	0	0
DUAL (PRE/PPI)	2	700	4.3	1.0	0	1	1	0	0	0	1	1	0	0
TOTAL-PPI&PRE	7	2300	14.2	1.0	0	4	3	0	0	0	4	3	0	0

B. POSTEMERGENCE HERBICIDES:

BMIX+STNG+UPB+SELECT+OIL	3	8020	49.5	2.3	1	0	2	0	0	1	1	1	0	0
PRG+STG+UPB+SLT+NORT+OIL	3	5873	36.3	2.0	0	0	3	0	0	0	2	1	0	0
BMX+STG+UPB+SLT+NORT+OIL	5	5372	33.2	1.8	0	0	4	1	0	0	1	4	0	0
PROG+STNG+UPB+SELECT+OIL	3	4836	29.9	2.0	0	0	3	0	0	0	1	2	0	0
BETAMIX+STING+UPBEET+OIL	3	4530	28.0	2.7	0	0	3	0	0	0	1	2	0	0
PROG+STING+UPBEET+OIL	5	3580	22.1	2.4	0	0	3	2	0	0	1	4	0	0
BNX+STG+UPB+SLT+NORT+OIL	2	3374	20.8	1.5	1	0	1	0	0	0	1	1	0	0
PROGRESS	1	2000	12.3	2.0	0	0	1	0	0	0	0	1	0	0
BETAMIX+STINGER+UPBEET	2	1950	12.0	1.0	0	0	0	2	0	0	0	2	0	0
BMIX+STING+UPBT+NORT+OIL	3	1894	11.7	1.7	0	0	2	1	0	0	1	2	0	0
BETANEX+UPBEET	1	1410	8.7	2.0	0	0	0	1	0	0	0	1	0	0
PROG+STING+UPB+ASURE+OIL	1	1350	8.3	3.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STINGER+UPBEET	1	1300	8.0	1.0	0	0	0	1	0	0	0	1	0	0
BNEX+STNG+UPB+SELECT+OIL	2	1248	7.7	1.5	0	0	2	0	0	0	0	2	0	0
BNEX+STING+UPBT+NORT+OIL	3	1160	7.2	1.0	0	1	0	2	0	0	3	0	0	0
PROG+STING+UPBT+NORT+OIL	2	1025	6.3	2.0	0	1	0	1	0	0	2	0	0	0
SELECT/PRISM	3	1004	6.2	1.0	0	2	0	0	1	1	2	0	0	0
PROG+UPBEET+SELECT+OIL	1	999	6.2	1.0	0	1	0	0	0	0	0	1	0	0
BETANEX+STING+UPBEET+OIL	2	800	4.9	1.0	0	0	1	1	0	0	1	1	0	0
BETAMIX+STINGER	1	600	3.7	1.0	0	0	1	0	0	0	0	1	0	0
OTHER COMBINATIONS	1	289	1.8	1.0	0	0	1	0	0	0	0	1	0	0
ASSURE II	1	121	0.7	1.0	0	1	0	0	0	0	1	0	0	0
TOTAL-POST	49	52735	325.6	1.7	2	6	28	12	1	2	18	29	0	0

C. PREEMERGE & LAY-BY HERBICIDES:

DUAL (LAY-BY)	2	2388	14.7	1.5	0	0	1	0	1	0	2	0	0	0
OUTLOOK (LAY-BY)	4	1025	6.3	1.0	0	0	1	3	0	0	2	2	0	0
ROUNDUP (PRE)	4	767	4.7	1.0	0	3	1	0	0	0	4	0	0	0
TOTAL-PRE&LAY-BY	10	4180	25.8	1.1	0	3	3	3	1	0	8	2	0	0

D. OTHER WEED CONTROL METHODS:

ROTARY HOE	2	2450	15.1	1.5	0	0	1	1	0	0	1	1	0	0
SWATH/FLAIL/MOW	3	590	3.6	1.0	1	0	0	2	0	0	2	1	0	0
TOTAL-OTHER	5	3040	18.8	1.2	1	0	1	3	0	0	3	2	0	0
TOTAL TREATMENTS	71	62255	384.4	1.5	3	13	35	18	2	2	33	36	0	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 13. TRAILL COUNTY: 10 GROWERS REPORTED ON 5,638 ACRES.

NO. OF GROWERS REPORTING	
WEED CONTROL	CROP INJURY

TREATMENT NO. ACRES % OF Ave # -----
RPTG. TRTED TOTAL App NR* EXC GD FR PR NR None Slt Mod Sev

A. SOIL APPLIED HERBICIDES:

NORTRON(PRE/PPI)	3	1750	31.0	1.0	1	0	2	0	0	1	1	1	0	0
TOTAL-PPI&PRE	3	1750	31.0	1.0	1	0	2	0	0	1	1	1	0	0

B. POSTEMERGENCE HERBICIDES:

PROG+UPBEET+SELECT+OIL	2	4242	75.2	2.0	0	0	2	0	0	0	0	1	1	0
BMIX+STNG+UPB+SELECT+OIL	3	3660	64.9	2.7	2	0	0	1	0	2	0	0	1	0
BNEX+STNG+UPB+SELECT+OIL	4	3636	64.5	2.0	1	0	1	1	1	1	2	0	1	0
BMIX+STING+UPB+POAST+OIL	1	1800	31.9	3.0	0	1	0	0	0	0	0	1	0	0
PRG+STG+UPB+SLT+NORT+OIL	3	1706	30.3	1.3	0	0	2	0	1	0	1	2	0	0
PROG+STNG+UPB+SELECT+OIL	2	1287	22.8	1.5	0	0	2	0	0	0	0	2	0	0
PROG+STING+UPBEET+OIL	1	1080	19.2	3.0	0	1	0	0	0	0	0	1	0	0
BETANEX+UPBEET+SELCT+OIL	1	720	12.8	2.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STING+UPBEET+OIL	1	650	11.5	2.0	0	0	1	0	0	0	0	1	0	0
BETAMIX+STINGER+UPBEET	1	325	5.8	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX	1	160	2.8	1.0	1	0	0	0	0	1	0	0	0	0
BMIX+UPBEET+SELECT+OIL	1	110	2.0	1.0	0	0	1	0	0	0	0	1	0	0
ASSURE II	1	75	1.3	1.0	0	1	0	0	0	0	0	1	0	0
TOTAL-POST	22	19451	345.0	1.9	4	3	11	2	2	4	3	12	3	0

C. PREEMERGE & LAY-BY HERBICIDES:

ROUNDUP (PRE)	3	995	17.6	1.0	1	1	1	0	0	1	1	1	0	0
OUTLOOK (LAY-BY)	4	923	16.4	1.0	2	0	1	0	1	2	2	0	0	0
TOTAL-PRE&LAY-BY	7	1918	34.0	1.0	3	1	2	0	1	3	3	1	0	0

D. OTHER WEED CONTROL METHODS:

ELECTRICAL (EDS)	1	405	7.2	3.0	0	0	1	0	0	0	1	0	0	0
ROTARY HOE	1	250	4.4	1.0	1	0	0	0	0	0	0	1	0	0
TOTAL-OTHER	2	655	11.6	2.0	1	0	1	0	0	0	1	1	0	0
TOTAL TREATMENTS	34	23774	421.7	1.6	9	4	16	2	3	8	8	15	3	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 14. TRAVERSE, BIG STONE, GRANT, AND STEVENS COUNTIES: 12 GROWERS REPORTED ON 6,882 ACRES.

NO. OF GROWERS REPORTING	
WEED CONTROL	CROP INJURY

TREATMENT NO. ACRES % OF Ave # -----
 RPTG. TRTED TOTAL App NR* EXC GD FR PR NR None Slt Mod Sev

A. SOIL APPLIED HERBICIDES:

NORTRON(PRE/PPI)	2	140	2.0	1.0	0	0	1	1	0	0	2	0	0	0
TOTAL-PPI&PRE	2	140	2.0	1.0	0	0	1	1	0	0	2	0	0	0

B. POSTEMERGENCE HERBICIDES:

PROG+STNG+UPB+SELECT+OIL	3	4386	63.7	1.3	0	0	3	0	0	0	3	0	0	0
PROG+STING+UPB+POAST+OIL	2	3600	52.3	3.0	1	0	0	1	0	1	1	0	0	0
PROGRESS+STINGER	3	3068	44.6	1.7	0	1	2	0	0	0	3	0	0	0
BMIX+STING+UPBT+NORT+OIL	4	2192	31.9	1.3	0	2	0	2	0	0	1	3	0	0
PROG+STING+UPBEET+OIL	2	2076	30.2	2.5	0	0	2	0	0	0	1	1	0	0
PROG+STING+UPBT+NORT+OIL	2	1600	23.2	4.0	1	0	1	0	0	1	0	1	0	0
BNEX+STING+UPBT+NORT+OIL	1	1524	22.1	2.0	0	1	0	0	0	0	0	1	0	0
BNX+STG+UPB+SLT+NORT+OIL	2	1150	16.7	1.5	0	1	1	0	0	0	2	0	0	0
PRG+STG+UPB+SLT+NORT+OIL	1	800	11.6	2.0	0	1	0	0	0	0	1	0	0	0
BETANEX+STING+UPBEET+OIL	1	680	9.9	2.0	0	0	1	0	0	1	0	0	0	0
BMX+STG+UPB+SLT+NORT+OIL	1	675	9.8	1.0	0	1	0	0	0	0	1	0	0	0
BMIX+STNG+UPB+SELECT+OIL	2	480	7.0	1.5	0	0	0	2	0	0	0	2	0	0
OTHER COMBINATIONS	1	454	6.6	1.0	0	1	0	0	0	0	1	0	0	0
BETAMIX+STING+UPBEET+OIL	1	340	4.9	1.0	0	0	1	0	0	1	0	0	0	0
SELECT/PRISM	2	314	4.6	1.0	0	1	1	0	0	1	1	0	0	0
BETANEX+STINGER	1	280	4.1	1.0	0	0	1	0	0	1	0	0	0	0
POAST	1	90	1.3	1.0	1	0	0	0	0	1	0	0	0	0
TOTAL-POST	30	23709	344.5	1.7	3	9	13	5	0	7	15	8	0	0

C. PREEMERGE & LAY-BY HERBICIDES:

OUTLOOK (LAY-BY)	3	1330	19.3	1.0	0	2	0	1	0	0	3	0	0	0
TOTAL-PRE&LAY-BY	3	1330	19.3	1.0	0	2	0	1	0	0	3	0	0	0

D. OTHER WEED CONTROL METHODS:

HARROW	1	250	3.6	1.0	0	0	1	0	0	0	1	0	0	0
SWATH/FLAIL/MOW	1	20	0.3	1.0	1	0	0	0	0	1	0	0	0	0
TOTAL-OTHER	2	270	3.9	1.0	1	0	1	0	0	1	1	0	0	0
TOTAL TREATMENTS	37	25449	369.8	1.6	4	11	15	7	0	8	21	8	0	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 15. WALSH COUNTY: 23 GROWERS REPORTED ON 10,118 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev

A. SOIL APPLIED HERBICIDES:

NORTRON (PRE/PPI)	7	2598	25.7	1.0	0	0	3	3	1	0	6	1	0	0
RO-NEET	1	84	0.8	1.0	0	0	0	1	0	0	0	1	0	0
TOTAL-PPI&PRE	8	2682	26.5	1.0	0	0	3	4	1	0	6	2	0	0

B. POSTEMERGENCE HERBICIDES:

PROG+STNG+UPB+SELECT+OIL	6	3292	32.5	2.0	0	1	2	3	0	0	1	3	2	0
BMIX+STNG+UPB+SELECT+OIL	6	3244	32.1	1.5	1	1	4	0	0	2	1	3	0	0
BNEX+STING+UPB+POAST+OIL	4	3224	31.9	1.5	0	0	3	1	0	1	1	2	0	0
BNEX+STNG+UPB+SELECT+OIL	8	2655	26.2	1.5	0	0	5	3	0	0	3	5	0	0
PROG+STING+UPBEET+OIL	4	2604	25.7	1.5	0	0	4	0	0	1	2	1	0	0
PROGRESS+UPBEET	1	2400	23.7	3.0	0	1	0	0	0	0	0	1	0	0
BETAMIX+STING+UPBEET+OIL	3	1834	18.1	1.7	0	1	1	1	0	0	2	1	0	0
SELECT/PRISM	5	1538	15.2	1.0	1	4	0	0	0	2	3	0	0	0
BETANEX+STING+UPBEET+OIL	2	1529	15.1	1.5	0	0	1	1	0	0	1	1	0	0
BMIX+STING+UPBT+NORT+OIL	1	1250	12.4	2.0	0	0	1	0	0	0	0	1	0	0
PROG+UPBEET+SELECT+OIL	2	1160	11.5	2.0	0	1	1	0	0	1	1	0	0	0
BMIX+STING+UPB+POAST+OIL	2	1052	10.4	2.0	0	0	1	1	0	1	0	1	0	0
BETAMIX+STINGER+UPBEET	1	1000	9.9	2.0	1	0	0	0	0	1	0	0	0	0
OTHER COMBINATIONS	2	795	7.9	2.0	0	1	1	0	0	0	1	1	0	0
BNEX+STING+UPBT+NORT+OIL	1	684	6.8	2.0	0	1	0	0	0	0	1	0	0	0
BETAMIX	1	600	5.9	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STINGER+UPBEET	3	523	5.2	1.0	1	1	1	0	0	2	0	1	0	0
BETANEX+UPBEET	4	409	4.0	1.0	0	1	0	2	1	0	2	1	1	0
PRG+STG+UPB+SLT+NORT+OIL	1	252	2.5	3.0	0	0	0	1	0	0	0	1	0	0
PROGRESS	1	200	2.0	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+UPBEET+SELCT+OIL	2	190	1.9	1.0	0	0	0	2	0	0	0	2	0	0
BETANEX	1	100	1.0	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STINGER	1	28	0.3	1.0	0	0	0	1	0	0	1	0	0	0
TOTAL-POST	62	30563	302.1	1.5	4	13	28	16	1	11	20	28	3	0

C. PREEMERGE & LAY-BY HERBICIDES:

ROUNDUP (PRE)	6	2122	21.0	1.0	1	2	2	1	0	1	4	1	0	0
OUTLOOK (LAY-BY)	1	80	0.8	1.0	0	1	0	0	0	0	1	0	0	0
TOTAL-PRE&LAY-BY	7	2202	21.8	1.0	1	3	2	1	0	1	5	1	0	0

D. OTHER WEED CONTROL METHODS:

ROTARY HOE	8	5707	56.4	1.4	0	0	3	5	0	0	3	4	1	0
HARROW	3	724	7.2	1.0	0	0	2	1	0	0	1	2	0	0
ELECTRICAL (EDS)	1	200	2.0	1.0	1	0	0	0	0	1	0	0	0	0
SWATH/FLAIL/MOW	1	40	0.4	1.0	0	0	1	0	0	0	1	0	0	0
TOTAL-OTHER	13	6671	65.9	1.2	1	0	6	6	0	1	5	6	1	0
TOTAL TREATMENTS	90	42118	416.3	1.4	6	16	39	27	2	13	36	37	4	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

TABLE 16. WILKIN AND OTTERTAIL COUNTIES: 20 GROWERS REPORTED ON 11,450 ACRES.

TREATMENT	NO. RPTG.	ACRES TRTED	% OF TOTAL	Ave # App	NO. OF GROWERS REPORTING									
					WEED CONTROL					CROP INJURY				
					NR*	EXC	GD	FR	PR	NR	None	Slt	Mod	Sev

A. SOIL APPLIED HERBICIDES:

NORTRON (PRE/PPI)	10	3973	34.7	1.0	0	6	2	2	0	0	6	4	0	0
FARGO	1	105	0.9	1.0	0	1	0	0	0	0	1	0	0	0
TOTAL-PPI&PRE	11	4078	35.6	1.0	0	7	2	2	0	0	7	4	0	0

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B. POSTEMERGENCE HERBICIDES:

BMIX+STNG+UPB+SELECT+OIL	4	10430	91.1	2.8	1	0	2	1	0	0	1	2	1	0
BMIX+STING+UPBT+NORT+OIL	1	5589	48.8	3.0	0	1	0	0	0	0	1	0	0	0
PRG+STG+UPB+SLT+NORT+OIL	4	4400	38.4	2.5	1	1	1	1	0	0	1	3	0	0
BNX+STG+UPB+SLT+NORT+OIL	5	3170	27.7	1.8	2	0	3	0	0	1	1	3	0	0
BNEX+STING+UPB+POAST+OIL	1	1600	14.0	1.0	0	0	1	0	0	0	0	1	0	0
BETAMIX+STING+UPBEET+OIL	2	1365	11.9	1.5	0	0	2	0	0	0	1	1	0	0
PROG+STING+UPBEET+OIL	3	1070	9.3	1.3	0	0	3	0	0	0	1	2	0	0
BMIX+STING+UPB+POAST+OIL	1	1000	8.7	1.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STINGER+UPBEET	1	975	8.5	3.0	0	0	1	0	0	0	0	1	0	0
SELECT/PRISM	3	940	8.2	1.0	0	3	0	0	0	0	3	0	0	0
BETAMIX+UPBEET	1	660	5.8	2.0	0	0	1	0	0	0	1	0	0	0
OTHER COMBINATIONS	2	600	5.2	1.5	0	0	2	0	0	0	2	0	0	0
POAST	1	580	5.1	1.0	0	1	0	0	0	0	1	0	0	0
PROG+STING+UPB+ASURE+OIL	1	552	4.8	3.0	0	0	1	0	0	0	0	1	0	0
BETANEX+STING+UPBEET+OIL	2	535	4.7	1.0	0	1	0	1	0	0	1	1	0	0
BNEX+STNG+UPB+SELECT+OIL	2	510	4.5	1.0	0	1	1	0	0	0	2	0	0	0
BMX+STG+UPB+SLT+NORT+OIL	1	470	4.1	1.0	0	0	1	0	0	0	1	0	0	0
BETAMIX+STINGER+UPBEET	1	270	2.4	2.0	0	0	1	0	0	0	1	0	0	0
PROG+STNG+UPB+SELECT+OIL	1	220	1.9	1.0	0	1	0	0	0	0	1	0	0	0
BMIX+STING+UPB+ASURE+OIL	1	110	1.0	1.0	0	0	0	1	0	0	1	0	0	0
BNEX+STING+UPBT+NORT+OIL	1	110	1.0	1.0	1	0	0	0	0	0	0	1	0	0
TOTAL-POST	39	35156	307.0	1.7	5	9	21	4	0	1	20	17	1	0

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C. PREEMERGE & LAY-BY HERBICIDES:

OUTLOOK (LAY-BY)	3	810	7.1	1.0	0	1	1	1	0	0	3	0	0	0
ROUNDUP (PRE)	3	630	5.5	1.0	0	2	0	1	0	0	3	0	0	0
TOTAL-PRE&LAY-BY	6	1440	12.6	1.0	0	3	1	2	0	0	6	0	0	0

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D. OTHER WEED CONTROL METHODS:

ROTARY HOE	3	1100	9.6	1.7	1	0	0	1	1	1	0	2	0	0
SWATH/FLAIL/MOW	1	20	0.2	1.0	0	0	0	1	0	0	0	1	0	0
TOTAL-OTHER	4	1120	9.8	1.5	1	0	0	2	1	1	0	3	0	0
TOTAL TREATMENTS	60	41794	365.0	1.5	6	19	24	10	1	2	33	24	1	0

*NO RESPONSE, EXC=EXCELLENT, GD=GOOD, FR=FAIR, PR=POOR.

Table 18. A summary of the most important weed problem responses from 1980 to 2006.

Weed indicated as most important weed problem in sugarbeet														
Year	PI WE 1	FXT L	COLQ	WIO A	WIBW	WIMU	KOCZ	COCB	SMWE	EBN S	COMA	LAS A	VELE	WAHE
-----Percent of responses-----														
1980	43	23	10	10	8	1								
1981	46	20	8	6	9	3	5							
1982	44	8	7	9	11	7	14							
1983	50	8	11	6	5	4	12							
1984	54	5	6	6	5	4	10							
1985	43	2	11	9	6	5	12							
1986	71	5	4	3	2	1	5	4						
1987	61	7	6	3	6	2	6	2						
1988	75	2	5	1	2	<1	9	1						
1989	54	5	4	1	5	<1	21	1						
1990	51	2	8	1	5	0	23	1	3					
1991	59	3	4	0	2	0	18	2	3					
1992	47	4	8	3	4	<1	16	3	8					
1993	38	3	6	6	8	1	13	3	9	3	2			
1994	61	2	6	2	8	1	8	2	6	2	1			
1995	71	2	4	1	2	1	4	1	8	4	1			
1996	72	4	4	2	1	1	3	2	6	2	1			
1997	53	7	4	2	6	1	3	2	5	4	1			
1998	51	9	7	2	4	1	13	1	4	1	<1			
1999	40	2	10	2	1	<1	33	1	3	1	<1	2		
2000	18	2	19	<1	2	<1	43	2	3	<1	<1	2		1
2001	43	1	10	<1	1	0	32	1	4	4	<1	1		2
2002	44	<1	14	<1	<1	0	26	1	4	<1	<1	<1	2	5
2003	25	<1	18	<1	<1	0	46	<1	4	<1	<1	1	1	2
2004	21	<1	25	1	0	0	41	1	4	1	1	1	2	1
2005	42	<1	15	0	<1	0	29	2	4	<1	0	<1	1	1
2006	35	0	18	0	0	0	41	<1	3	0	0	0	1	<1

1PIWE = Pigweed species, FXTL = Green & Yellow foxtail, COLQ = Common lambsquarters, WIOA = Wild oats, WIBW = Wild buckwheat, WIMU = Wild mustard, KOCZ = Kochia, COCB = Common cocklebur, SMWE = Smartweed, EBNS = Eastern black nightshade, COMA = Common mallow, LASA = Lanceleaf sage, VELE = Velvetleaf and WAHE = Waterhemp.

Table 19. A summary of the worst production problem responses from 1980 to 2006.

Production problem indicated as worst in sugarbeet										
Year	No Problem	Weeds	Weather	Emergence/stand	Labor mgmt.	Root Maggot	Cercospora leaf spot	Herbicide injury	Rhizomania	Rhizoctonia/Aphanomyces
	-----percent of									
	responses-----									

1980	5	23	42	28	2	0	0			
1981	4	35	38	16	1	0	6			
1982	10	39	35	9	3	4	0			
1983	3	37	37	13	2	1	5			
1984	5	26	49	8	2	1	2			
1985	4	20	45	17	1	1	1			
1986	4	39	31	18	1	1	1			
1987	5	42	23	22	2	0	2			
1988	1	37	12	40	1	1	1			
1989	5	38	19	16	3	8	2			
1990	5	42	20	10	2	8	4			
1991	3	26	4	18	1	26	7			8
1992	11	45	9	15	5	9	1			3
1993	3	40	21	16	4	1	2			12
1994	3	56	12	13	4	1	3			8
1995	2	51	6	2	3	<1	24			11
1996	6	53	12	11	6	2	3			6
1997	15	34	13	12	3	1	5		2	14
1998	3	25	9	4	1	1	36		3	17
1999	14	39	14	12	2	1	6		2	9
2000	8	48	9	10	1	<1	3		2	18
2001	6	52	13	5	2	1	1		3	16
2002	4	53	11	19	1	<1	<1		3	9
2003	7	61	9	4	1	<1	1	4	2	11
2004	6	47	10	21	2	1	0	1	1	8
2005	3	36	22	3	3	0	0	0	11	22
2006	9	57	5	9	1	0	<1	1	3	13

TABLE 20. Worst weed problem in sugarbeet, 2006.

County	Responses	No Problem	MIWE ¹	COCB	COLQ	COMA	VELE	EBNS	FXTL
		-----% of respondents-----							
Cass	17	0	0	0	6	0	0	0	0
Chippewa ²	17	0	0	0	41	0	0	0	0
Clay ³	20	0	0	0	15	0	0	0	0
Grand Forks	13	0	0	0	15	0	0	0	0
Kittson	10	0	0	0	0	0	0	0	0
Marshall	23	0	0	0	17	0	0	0	0
Norman ⁴	17	0	0	0	18	0	0	0	0
Pembina	12	0	0	0	8	0	0	0	0
Polk	48	2	0	0	25	0	0	0	0
Renville ⁵	32	0	0	3	31	0	9	0	0
Richland	21	0	0	0	19	0	0	0	0
Trail	10	0	0	0	20	0	0	0	0
Wadena ⁶	12	0	0	0	15	0	0	0	0
Walsh	22	0	0	0	9	0	0	0	0
Wilkin ⁷	19	0	0	5	5	0	0	0	0
Total	294	<1	0	<1	18	0	1	0	0

Table continued

LE 20 (con't). Worst weed problem in sugarbeet, 2006.

County	KOCZ	LASA	PIWE	SMWE	WAHE	WIBW	WIMU	WIOA	Other ⁸
		-----% of respondents-----							
Cass	41	0	47	6	0	0	0	0	0
Chippewa ²	0	0	41	12	6	0	0	0	0
Clay ³	55	0	30	0	0	0	0	0	0
Grand Forks	54	0	31	0	0	0	0	0	0
Kittson	70	0	30	0	0	0	0	0	0
Marshall	57	0	22	0	0	0	0	0	4
Norman ⁴	47	0	35	0	0	0	0	0	0
Pembina	59	0	33	0	0	0	0	0	0
Polk	40	0	29	2	0	0	0	0	2
Renville ⁵	3	0	38	16	0	0	0	0	0
Richland	29	0	52	0	0	0	0	0	0

Traill	40	0	40	0	0	0	0	0	0
Traverse ⁶	23	0	62	0	0	0	0	0	0
Walsh	86	0	5	0	0	0	0	0	0
Wilkin ⁷	42	0	48	0	0	0	0	0	0
Total	41	0	35	3	<1	0	0	0	<1

¹MIWE = Milkweed; COCB = Common cocklebur; COLQ = Common lambsquarters; COMA = Common mallow; VELE = velvetleaf; EBNS = eastern black nightshade; FXTL = Green & yellow foxtail; KOCZ = Kochia; LASA = Lanceleaf sage; PIWE = pigweed species; SMWE = Smartweed; WAHE = Waterhemp; WIBW = Wild buckwheat; WIOA = Wild oats.

²Includes Swift and Kandiyohi Counties.

³Includes Becker County.

⁴Includes Mahnomen County.

⁵Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle and Sibley Counties.

⁶Includes Grant, Stevens and Big Stone Counties.

⁷Includes Ottertail County.

⁸Other weeds = biennial wormwood.

TABLE 21. Most serious production problem in sugarbeet, 2006.

County	Response	No Prob	Weeds	Emerg/Stand	Labor Mgmt	Root Maggot	CLS ¹	Rhizomania	Rhizoctonia/Aphanomyces	Weather	Herb injury	Other ⁸
-----% of respondents-----												
Cass	17	0	71	12	0	0	0	5	12	0	0	0
Chippewa ²	12	9	91	0	0	0	0	0	0	0	0	0
Clay ³	22	14	55	5	4	0	0	4	14	0	0	4
Grand Forks	14	7	72	0	0	0	0	7	7	0	7	0
Kittson	10	0	90	0	0	0	0	0	0	10	0	0
Marshall	22	9	59	5	0	0	0	0	9	19	0	0
Norman ⁴	17	18	53	0	6	0	0	0	18	0	5	0
Pembina	11	9	64	9	0	0	0	0	18	0	0	0
Polk	48	13	42	19	2	0	0	0	8	15	0	2
Renville ⁵	30	0	37	10	0	0	7	13	30	0	3	0
Richland	20	20	55	5	0	0	0	5	10	5	0	0
Traill	10	10	80	0	0	0	0	0	10	0	0	0
Traverse ⁶	11	9	64	18	0	0	0	0	9	0	0	0
Walsh	23	9	53	17	0	0	0	0	17	4	0	0
Wilkin ⁷	21	10	62	5	5	0	0	5	9	0	4	0
Total	287	9	57	9	1	0	<1	3	13	5	1	1

¹CLS = Cercospora leaf spot.

²Includes Swift and Kandiyohi Counties.

³Includes Becker County.

⁴Includes Mahnomen County.

⁵Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁶Includes Grant, Stevens and Big Stone Counties.

⁷Includes Ottertail County.

⁸Other = Fusarium, Springtails

TABLE 22. Sugarbeet acreage that was hand weeded, 2006.

County	Acres planted by respondents	Hand weeded
		% of acres
Cass	7,920	30
Chippewa ²	8,599	52
Clay ³	20,744	35
Grand Forks	8,792	35
Kittson	5,739	11
Marshall	12,425	18
Norman ⁴	10,069	5
Pembina	6,190	40
Polk	29,561	10
Renville ⁵	14,970	66
Richland	16,197	30
Traill	5,638	20
Traverse ⁶	6,882	44
Walsh	10,118	21
Wilkin ⁷	11,450	23
Total	175,294	28

²Includes Swift and Kandiyohi Counties.

³Includes Becker County.

⁴Includes Mahnomen County.

⁵Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁶Includes Grant, Stevens and Big Stone Counties.

⁷Includes Ottertail County.

TABLE 23. Method of herbicide application, 2006.

Herbicide	Band	Method of application	
		Broadcast ground	Broadcast air
		-----% of acres-----	
Roundup (PRE)	14	82	4
Treflan (Lay-By)	60	40	0
Dual (PRE/PPI/Lay-By)	0	100	0
Nortron (PRE/PPI)	94	6	0
Outlook (Lay-By)	54	37	9
Betamix/Betanex/Progress	32	67	1
Poast, Select, Assure II	11	78	11
Bnex/Bmix/Progress+UpBeet	47	41	12
Bnex/Bmix/Progress+Stinger	16	81	3
Bnex/Bmix/Progress+UpB+Stinger	27	64	9
Bnex/Bmix/Prog + UpB + Sting + Nortron + Grass	53	47	0
Bnex/Bmix/Prog+UpB+Sting+Grass	35	64	1
Bnex/Bmix/Prog + UpB + Sting + Nortron	55	41	4
Bnex/Bmix/Prog + UpBeet + Grass	25	75	<1
All herbicides	38	59	3

Marshall	5	4	4	0	0	0	0	0
Norman ⁴	0	0	0	0	0	0	0	0
Pembina	8	0	8	0	0	8	0	0
Polk	0	0	0	0	0	0	0	0
Renville ⁵	14	0	0	7	0	0	0	0
Richland	0	5	5	0	0	0	0	0
Traill	10	10	0	10	0	0	0	0
Traverse ⁶	0	17	8	0	8	0	0	0
Walsh	4	0	0	4	0	0	0	0
Wilkin ⁷	0	5	5	5	0	0	0	0
Total	5	3	2	3	<1	<1	0	0

²Includes Swift and Kandiyohi Counties.

³Includes Becker County.

⁴Includes Mahnomon County.

⁵Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁶Includes Grant, Stevens and Big Stone Counties.

⁷Includes Ottertail County.

TABLE 25. Total sugarbeet acreage operated by respondents to the survey, 2006.

County	Respon dents	Acres of sugarbeet					
		<50	50-99	100-199	200-299	300-399	400-599
		-----% of respondents-----					
Cass	16	0	0	19	6	31	19
Chippewa ¹	16	0	0	13	13	19	25
Clay ²	22	0	0	5	23	18	14
Grand Forks	13	0	0	0	8	0	38
Kittson	10	0	0	10	0	40	10
Marshall	22	0	9	14	9	5	23
Norman ³	17	6	0	18	6	24	18
Pembina	12	0	8	0	17	0	50
Polk	47	2	4	4	8	13	17
Renville ⁴	29	3	0	31	24	14	7
Richland	22	0	0	0	14	18	18
Traill	10	0	0	0	10	40	10
Traverse ⁵	12	0	0	8	17	17	17

Walsh	23	9	9	0	4	17	35
Wilkin ⁶	20	0	5	20	10	25	10
Total	291	2	3	10	12	17	20

Table continued.

TABLE 25 (cont.). Total sugarbeet acreage operated by respondents to the survey, 2006.

County	Acres of sugarbeet				
	600-799	800-999	1000-1499	1500-1999	>2000
	-----% of respondents-----				
Cass	12	0	13	0	0
Chippewa ¹	6	12	13	0	0
Clay ²	0	5	18	4	14
Grand Forks	23	15	15	0	0
Kittson	20	0	20	0	0
Marshall	27	5	0	5	4
Norman ³	5	12	5	0	6
Pembina	8	0	17	0	0
Polk	30	9	6	4	2
Renville ⁴	10	3	4	0	3
Richland	9	9	23	9	0
Traill	20	10	10	0	0
Traverse ⁵	33	0	0	8	0
Walsh	13	13	0	0	0
Wilkin ⁶	10	5	0	15	0
Total	16	7	9	3	2

¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomen County.

⁴Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁵Includes Grant, Stevens and Big Stone Counties.

⁶Includes Ottertail County.

Table 26. 2006 Crop Acreage Following 2005 Sugarbeet.

	Alafa lfa	Barle y	Corn ⁷	Dry bean	Fall ow	Oat	Pea	Pota to	Soybe an	Sunflo wer	Whea t
Respo nses	1	6	59	49	1	1	8	1	153	6	130

	Acres	% of acres										
Cass	6587	2	0	30	2	0	0	0	0	47	0	19
Chippewa ¹	8582	0	0	37	1	0	0	<1	0	59	0	2
Clay ²	19470	0	0	12	2	0	0	0	0	75	0	12
Grand Forks	7160	0	7	0	20	0	2	0	0	26	1	44
Kittson	4731	0	0	0	0	0	0	0	0	37	0	63
Marshall	11887	0	4	0	6	0	0	0	0	33	0	57
Norman ³	9178	0	0	29	0	0	0	0	0	23	3	45
Pembina	5704	0	0	0	28	1	0	0	<1	6	8	56
Polk	27078	0	0	1	14	0	0	0	0	31	0	54
Renville ⁴	13380	0	0	23	3	0	0	13	0	60	0	1
Richland	14362	0	0	23	2	0	0	0	0	61	0	15
Traill	5325	0	5	3	53	0	0	0	0	14	0	25
Traverse ⁵	4964	0	0	30	0	0	0	0	0	52	0	19
Walsh	7696	0	0	<1	40	0	0	0	0	18	0	41
Wilkin ⁶	9827	0	0	17	0	0	0	0	0	67	8	8
Total	15593	<1	<1	13	9	<1	<1	1	<1	44	1	30

¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomon County.

⁴Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁵Includes Grant, Stevens and Big Stone Counties.

⁶Includes Ottertail County.

⁷Includes sweet corn.

Table 27. Crops preceeding 2006 Sugarbeet.

	Alafa lfa	Barl ey	Cor n ⁷	Dry bean	Fallo w	Fla x	Oat	Pea	Potat o	Soybe an	Sunflo wer	Whea t
Respon ses	0	23	82	32	36	1	1	8	25	76	0	234
	Acres	% of acres										
Cass	7375	0	9	0	0	2	0	0	0	10	0	79
Chippewa ¹	8200	0	0	97	0	0	0	1	0	2	0	0
Clay ²	21489	0	2	9	0	0	0	0	<1	12	0	77
Grand Forks	10132	0	5	0	19	3	0	<1	0	4	0	69
Kittson	5279	0	2	0	0	27	0	0	0	0	0	71
Marshall	13864	0	11	0	2	0	0	0	0	3	0	84
Norman ³	12468	0	1	3	19	6	1	0	0	11	0	58

Pembina	6416	0	4	0	14	12	0	0	0	13	<1	0	56
Polk	31144	0	<1	0	6	<1	0	0	0	1	2	0	90
Renville ⁴	16499	0	0	64	0	<1	0	0	14	0	20	0	2
Richland	16062	0	0	17	0	0	0	0	0	0	2	0	81
Traill	4857	0	10	2	0	6	0	0	0	0	3	0	78
Traverse ⁵	7927	0	0	29	0	19	0	0	0	0	2	0	50
Walsh	11980	0	<1	0	12	1	0	0	0	22	7	0	57
Wilkin ⁶	11619	0	<1	7	0	<1	0	0	0	0	5	0	87
Total	185311	0	2	14	5	3	<1	<1	1	2	6	0	66

¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomen County.

⁴Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle, Sibley and Stearns Counties.

⁵Includes Grant, Stevens and Big Stone Counties.

⁶Includes Ottertail County.

⁷Includes sweet corn.

Table 28. Number of row crop cultivations per field for weeds in 2006.

County	Number of responses	Number of Cultivations				
		Zero	One	Two	Three	Four
-----% of respondents-----						
Cass	15	0	60	40	0	0
Chippewa ¹	14	0	29	64	7	0
Clay ²	21	0	38	52	10	0
Grand Forks	12	0	100	0	0	0
Kittson	7	0	100	0	0	0
Marshall	22	0	68	32	0	0
Norman ³	17	6	41	47	6	0
Pembina	12	0	33	67	0	0
Polk	43	0	40	56	4	0
Renville ⁴	26	0	50	46	4	0
Richland	22	0	9	59	32	0
Traill	7	0	43	57	0	0
Traverse ⁵	11	0	18	73	9	0
Walsh	19	0	32	58	10	0
Wilkin ⁶	20	0	5	70	20	0

Total	268	<1	41	50	8	<1
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¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomon County.

⁴Includes Redwood, Faribault, Yellow Medicine, Lac Qui Parle , Sibley and Stearns Counties.

⁵Includes Grant, Stevens and Big Stone Counties.

⁶Includes Ottertail County.