SURVEY OF INSECTICIDE USE IN SUGARBEET IN EASTERN NORTH DAKOTA AND MINNESOTA - 2006

Aaron L. Carlson¹, John L. Luecke¹, Alan G. Dexter¹, and Mark A. Boetel²

¹Sugarbeet Research Technician, Sugarbeet Research Specialist, and Extension Sugarbeet Specialist

North Dakota State University - University of Minnesota, Fargo, ND and ² Associate Professor, Dept. of Entomology, North Dakota State University

Other portions of the survey are published in the Weed Control and Plant Pathology sections

Sugarbeet growers reported sugarbeet acreage treated with insecticide on the annual survey of sugarbeet growers (Table 1). Counter 15G, Counter 20CR, Lorsban 15G, and Mustang Max were primarily used as planting-time treatments, whereas Lorsban 4E and Asana were primarily applied postemergence. Counter 15G and Lorsban 15G were used on 36% and 11% of the acres, respectively, in 2006 while Counter 15G was used on 43% and Lorsban 15G on 7% of the acreage in 2005. Lorsban 4E usage was 11% in 2001, 2% in 2002, 2003 and 2004, 4% in 2005, and 5% in 2006. Mustang was used on 13% of the acreage in 2003 and 2004, 21% in 2005, and 28% in 2006. Averaged over all insecticides and counties, 83% of the acreage was treated in 2006 compared to 79% in 2005, 75% in 2004 and 2003, 70% in 2002, 83% in 2001 and 71% in 2000.

The grower evaluations of insect control averaged over counties are presented in Table 2. The satisfaction with root magget control generally was good with 94% evaluating control as good or excellent. Other insect control was evaluated as good or excellent by 89% of the respondents.

Cutworm, wireworm, springtail, Lygus, white grub, and defoliating weevil were identified as insect problems other than sugarbeet root maggot treated with insecticide in 2006 (Table 3). Cutworm and wireworm were the most common non-maggot pests.

Numbe Acre Total Count Count Lorsb Lorsba acres of not er er n County Asana Mustan treat trea ted 15G 20CR 15G 4E appl. ed g -% of acres-Cass 19 7 49 0 6 0 51 107 7 0 7 0 Chippewa 3 93 0 0 O

0

3

30

10

<1

0

0

34

11

109

100

35

78

0

0

 $Clav^2$

Grand

Forks

28

15

Table 1. Insecticide use by survey respondents in 2006.

Kittson	9	6	11	0	6	0	0	77	94
Marshall	21	1	43	2	11	0	0	44	99
Norman ³	22	0	35	0	0	0	0	68	103
Pembina	17	0	78	9	9	38	0	0	134
Polk	53	0	52	6	9	3	0	34	103
Renv ₄ ille	10	71	0	0	8	2	11	1	22
Richland	13	59	14	0	13	0	2	11	41
Traill	10	16	44	0	0	0	0	42	86
Trav ₅ erse	2	77	0	0	0	1	4	0	5
Walsh	33	0	72	9	21	31	0	0	133
Wilkin ⁶	16	18	24	1	11	0	0	46	83
Total	271	21	36	2	11	5	2	28	83

Table 2. Insecticide usage and evaluation of root maggot control by survey respondents in 2006.

	Root Maggot Control					Other Insect Control					
Insecticide	No. of appl.	Excel	Good	Fair	Poor	No. of appl.	Excel	Good	Fair	Poor	
	% of responses						% of responses				
Counter 15G	110	67	29	3	1	73	45	45	6	4	
Counter 20CR	7	71	29	0	0	4	75	25	0	0	
Lorsban 15G	27	63	37	0	0	17	47	47	0	6	
Lorsban 4E	19	42	47	5	5	16	56	25	19	0	
Mustang Max	53	64	21	11	4	66	50	36	11	3	
Asana	3	67	33	0	0	10	70	30	0	0	
Total	219	64	30	5	2	186	50	39	8	3	

¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomen County.

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

⁵Includes Grant, Stevens, and Big Stone Counties.

⁶Includes Ottertail County.

Table 3. Insects other than root magget that were treated for control in 2006.

County	Number of Appli- cations	Cut- worm	Grass- hopper	Wireworm	Spring- tail	Other ⁷			
% of responses									
Cass	6	83	0	17	0	0			
Chippewa ¹	1	100	0	0	0	0			
${\sf Clay}^2$	8	25	0	38	25	13			
Grand Forks	1	0	100	0	0	0			
Kittson	3	33	0	67	0	0			
Marshall	0	0	0	0	0	0			
Norman ³	7	57	0	29	0	14			
Pembina	1	100	0	0	0	0			
Polk	12	25	0	25	42	8			
Renville ⁴	5	100	0	0	0	0			
Richland	6	16	16	17	17	33			
Traill	2	50	0	0	50	0			
Traverse ⁵	2	50	0	0	0	50			
Walsh	1	0	0	100	0	0			
Wilkin ⁶	0	0	0	0	0	0			
Total	55	45	4	24	16	12			

¹Includes Swift and Kandiyohi Counties.

²Includes Becker County.

³Includes Mahnomen County.

 $^{{\}tt 4Includes}$ Redwood, Fairbault, Yellow Medicine, Lac Qui Parle, Sibley, and Stearns Counties.

 $^{{\}tt 5Includes}$ ${\tt Grant},$ ${\tt Stevens},$ and ${\tt Big}$ ${\tt Stone}$ ${\tt Counties}.$

⁶Includes Ottertail County.

⁷Includes white grub (3), Lygus (2), and defoliating weevil(1).