SURVEY OF INSECTICIDE USE IN SUGARBEET IN MINNESOTA AND EASTERN NORTH DAKOTA IN 2010

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

Sugarbeet growers reported on their 2010 insecticide use in sugarbeet acreage by completing the annual pesticide use survey conducted by the NDSU Extension Service. This year's survey reports on insecticide usage patterns for over 138,000 acres in Minnesota and eastern North Dakota (Table 1). Counter 15G, Counter 20CR, Lorsban 15G, and Mustang Max were primarily used as planting-time treatments, whereas Lorsban 4E and Asana were mostly applied postemergence. Poncho Beta was used as a seed treatment at planting. Poncho Beta was commercially available for the first time in 2009 and it was used on 29% of the sugarbeet acreage that year. In 2010, Poncho Beta was used on 36% of the acres. Counter 15G and Lorsban 15G were used on 19% and 2% of the acres, respectively, in 2010, while Counter 15G and Lorsban 15G were applied to 19 and 6% of the acreage, respectively, in 2009. Lorsban 4E was applied to 4% of sugarbeet acres in 2005, 5% in 2006, 4% in 2007, 2% in 2008, 4% in 2009, and 10% in 2010. Mustang was used on 21% of the acreage in 2005, 28% in 2006, 23% in 2007, 31% in 2008, 10% in 2009, and 14% in 2010. Averaged over all insecticides and counties, 90% of the respondents' acreage was treated in 2010 compared to 71% in 2009, 92% in 2008, 80% in 2007, 83% in 2006, and 79% in 2005.

Table 1. Insecticide use by survey respondents in 2010.

County	Respondent acres planted	Number of applications	Not treated	Poncho Beta	Counter 15G	Counter 20G	Mustang	Lorsban 4E	Lorsban 15G	Asana	Other[6]	Total acres treated
			----------% of acres planted----------									
Becker	2,172	4	-	-	-	-	100	-	-	-	-	100
Cass	2,958	8	-	71	19	10	10	-	-	-	-	110
Chippewa[1]	3,150	0	100	-	-	-	-	-	-	-	-	0
Clay	11,446	25	7	30	51	-	-	22	5	-	4	112
Grand Forks	7,337	12	40	17	21	10	14	1	-	-	-	63
Kandiyohi	2,549	4	76	-	-	-	-	-	-	24	-	24
Kittson	5,009	11	8	15	2	-	75	-	-	-	-	92
Marshall	12,423	20	18	64	14	-	5	2	-	-	-	85
Norman[2]	7,028	18	6	33	11	3	72	2	-	-	-	121
Pembina	17,390	31	-	82	8	3	-	40	2	-	19	154
Polk	22,817	44	12	30	43	12	6	-	1	-	<1	93
Renville[3]	6,170	6	82	-	-	-	-	1	-	17	-	18
Richland	5,857	7	54	8	19	3	12	-	-	5	-	47
Traill	7,118	16	7	50	12	-	34	-	3	-	-	99
Traverse[4]	4,046	1	57	43	-	-	-	-	-	-	-	43
Walsh	6,790	21	5	57	17	-	-	47	8	-	15	144
Wilkin[5]	8,418	6	63	-	16	-	20	-	1	-	-	37
No Response	5,610	12	46	19	4	12	13	-	7	-	-	55
Total	138,288	246	24	36	19	4	14	10	2	1	4	90

[1]Includes Swift Counties
[2]Includes Mahnomen County
[3]Includes Faribault, Lac Qui Parle, McLeod, Meeker, Redwood, Sibley, and Yellow Medicine Counties
[4]Includes Big Stone, Grant, and Stevens Counties
[5]Includes Ottertail County
[6]Includes Cruiser (1%), Counter 20CR (1%), and Thimet 20G (2%)

Grower evaluations of insect control, averaged over counties, are presented in Table 2. Satisfaction with sugarbeet root maggot control insecticides generally was good with 90% evaluating control as good or excellent. Performance of other insect control materials was rated as good or excellent by 93% of the respondents.

Table 2. Evaluation of root maggot and other insect control by survey respondents in 2010.

	Root Maggot Control					Other Insect Control				
Insecticide	No. of Responses	Excellent	Good	Fair	Poor	No. of Responses	Excellent	Good	Fair	Poor
		----------% of responses----------					----------% of responses----------			
Asana	1	100	-	-	-	9	22	78	-	-
Counter 15G	59	69	27	2	2	49	73	23	2	2
Counter 20G	10	70	20	10	-	8	100	-	-	-
Counter 20CR	3	100	-	-	-	1	-	-	-	100
Cruiser	2	100	-	-	-	2	50	50	-	-
Lorsban 15G	8	88	12	-	-	4	75	25	-	-
Lorsban 4E	21	43	43	14	-	10	60	40	-	-
Mustang	22	27	45	14	14	32	44	47	9	-
Poncho Beta	80	50	39	10	1	60	55	35	3	7
Thimet 20G	4	100	-	-	-	0	-	-	-	-
Total	210	57	33	8	2	175	59	34	3	3

Cutworms, wireworms, springtails, and white grubs were identified as insect problems other than sugarbeet root maggot for areas treated with insecticides in 2010 (Table 3). Cutworms were the most common non-maggot pest problem.

Table 3. Insects other than root maggot that were treated for control by survey respondents in 2010.

County	Number of Respondents	Cutworm	Grasshopper	Wireworm	Springtail	White Grub
		----------% of responses----------				
Becker	1	-	-	100	-	-
Cass	0	-	-	-	-	-
Chippewa[1]	0	-	-	-	-	-
Clay	6	-	-	33	50	17
Grand Forks	1	-	-	-	100	-
Kandiyohi	2	100	-	-	-	-
Kittson	0	-	-	-	-	-
Marshall	0	-	-	-	-	-
Norman[2]	1	100	-	-	-	-
Pembina	0	-	-	-	-	-
Polk	2	-	-	50	50	-
Renville[3]	4	100	-	-	-	-
Richland	2	50	-	-	-	50
Traill	2	50	-	-	50	-
Traverse[4]	0	-	-	-	-	-
Walsh	0	-	-	-	-	-
Wilkin[5]	0	-	-	-	-	-
No Response	0	-	-	-	-	-
Total	21	43	0	19	29	9

[1]Includes Swift Counties
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Survey data on placement methods used by growers in 2010 is presented in Table 4. The majority (63 of 89) of survey respondents that applied a planting-time granular insecticide used Counter 15G, and nearly equal numbers used band (32%) or modified in-furrow placement (37%). Interestingly, 25% of the producers using Lorsban 15G chose to apply it using modified in-furrow placement. This placement is not recommended by NDSU Extension because Lorsban 15G is more likely to be phytotoxic and cause yield reductions when applied modified in-furrow.

Table 4. Placement of granular insecticides used in sugarbeet in 2010.

Insecticide	No. of Responses	Band	Mod. In-Furrow	Spoon	No Response
		----------% of responses----------			
Counter 15G	63	32	37	19	13
Counter 20CR	4	25	50	-	25
Counter 20G	10	20	50	10	20
Lorsban 15G	8	38	25	12	25
Thimet 20G	4	50	-	-	50
Total	89	31	36	16	17