SURVEY OF INSECTICIDE USE IN SUGARBEET IN WESTERN NORTH DAKOTA AND EASTERN MONTANA - 2003

Alan G. Dexter and John L. Luecke

Extension Sugarbeet Specialist and Sugarbeet Research Specialist

North Dakota State University and the University of Minnesota, Fargo

Sugarbeet growers were asked to report insecticide usage and to evaluate insect control as part of the annual survey of sugarbeet growers. Other portions of the survey are reported in the Plant Pathology and Weed Control sections. Counter was used on 93% of the sugarbeet acreage in 2003, 74% in 2001, 83% in 1999, 76% in 1995, and 85% in 1993 (Table 1). Total insecticide use was 95% of the acreage in 1991, 97% in 1992, 100% in 1993, 104% in 1995, 113% in 1997, 138% in 1999, 111% in 2001, and 115% in 2003. Asana was used on 31% of the acreage in 2001 and on 12% in 1999 but Asana was not reported on the 2003 survey. Lorsban 4E was used on 31% of the acreage in 1999 and on less than 1% in 2001, and on 13% in 2003. Counter 20CR was used on 1% of the acreage in 2003, on 13% in 2001, and was not used in 1999.

Root maggot control was evaluated as excellent or good by 81% of the respondents in 2003 (<u>Table 2</u>) as compared to 79 % in 2001, 71% in 1999 and 68% in 1997. Other insect control was evaluated as excellent or good by 94% of the respondents in 2003. Overall insect control must have been very good in 2003 since insects were not mentioned as a "worst problem" by any respondent (see weed control survey).

Target insects, other than root maggot, listed on the survey included cutworm, grasshopper, wireworm, armyworm, spring tail and flea beetle (<u>Table 3</u>). Wireworm was the most common.

County		Insecticide treated acres								
	Acres Planted	Counter 15G			Lorsban Lorsban 4E 15G		Total			
				% of a	cres planted					
Custer	394	18	22	0	22	30	92			
Dawson	1339	100	0	12	0	0	112			
McKenzie	5038	94	0	0	6	0	100			
Prairie	270	100	0	0	0	0	100			
Richland	3451	99	1	35	<1	9	144			
Roosevelt	200	0	0	100	0	0	100			
Williams	1040	100	0	0	0	12	112			
Total	11,732	93	1	13	3	5	115			

¹Other = Mustang (2) and Gaucho (1).

 $TABLE\ 2.\ Rating\ of\ insect\ control\ by\ survey\ respondents,\ 2003.$

	Root Maggot					Other insects				
Insecticide	Number of Applic.	Exc ¹	Good	Fair	Poor	Number of Applic.	Exc ¹	Good	Fair	Poor

% of responses						% of responses				
Counter 15G	28	39	36	18	7	26	31	69	0	0
Counter 20CR	2	50	50	0	0	1	0	0	100	0
Lorsban 4E	2	50	50	0	0	2	50	50	0	0
Lorsban 15G	3	33	67	0	0	3	33	33	0	33
Other ²	1	100	0	0	0	3	67	33	0	0
Total	36	42	39	14	6	35	34	60	3	3

$$\begin{split} & Exc^1 = excellent \\ & Other^2 = Mustang~(2)~and~Gaucho~(1). \end{split}$$

Table 3. Insects included in the "other" category.

County	Cutworm	Grasshopper	Wireworm	Armyworm (1) Springtail (1) Flea beetle (3)
		% of resp	ondents	
Custer	0	0	0	100
Dawson	0	0	100	0
McKenzie	17	0	50	33
Prairie	0	0	100	0
Richland	25	0	25	50
Roosevelt	0	100	0	0
Williams	0	25	75	0
Total	10	10	50	30