Pesticide Use and Pest Management Practices for Major Crops in North Dakota - 2000

ER-79 October 2002

P. Glogoza, M. McMullen, R. Zollinger, A. Thostenson,

T. DeJong, W. Meyer, N. Schauer, J. Olson

North Dakota State University NDSU Extension Service

PESTICIDE USE FOR ALFALFA

Alfalfa is the most widely grown perennial legume in North Dakota (Table 26). Its primary use is for hay, but it is also used for pasture and haylage, and as a green manure crop.

Herbicides were applied to only 1% of the alfalfa acreage (Table 27). Nine different herbicide actives were

mentioned by survey respondents. Only 2,4-D at 0.1%, glyphosate at 0.3%, and picloram at 0.3% were reported at sufficient levels to estimate use.

Insecticides were applied to only 0.2% of the 1.3 million alfalfa acres. Three insecticide actives were mentioned. None were reported at a sufficient level to estimate use.

TABLE 26. Production summary for ALFALFA, North Dakota, 1996-2000 (NDASS, 2001)	2001)
---------------------------------------------------------------------------------	-------

	Acres		Yield		Marketing	V. L C	Value per	т	
Year	Planted Harvested		Per Acre Production		Year Avg. Price	Value of Production	harvested Acre	U.S. Production	
	(000	Acres)	(tons)	(000 tons)	(\$/ton)	(000 Dols.)	(Dols.)	(%)	(Rank)
1996	1,700	1,700	1.85	3,145	55.50	174,548	102.68	4	11
1997	1,750	1,750	1.50	2,625	65.00	170,625	97.50	3	13
1998	1,400	1,400	1.75	2,450	57.50	140,875	100.63	3	13
1999	1,450	1,450	2.15	3,118	43.00	134,074	92.46	4	12
2000	1,350	1,350	2.40	3,240	46.00	149,040	110.40	4	11

TABLE 27 . ALFALFA: Herbicide and Insecticide usage and application method. North Dakota, 2000

								Method of		
	Acres	Acres.	Ap	Applications			Applicator		Application	
	Treated ²	Treated	1 X	2 X	3 X	Farm	Custom	Aerial	Ground	
	(1000)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Herbicide ¹										
2,4-D	1.1	0.1	96.7	3.3		51.8	48.2		100.0	
Dicamba	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Glyphosate	4.7	0.3	100.0			31.1	68.9		100.0	
Glyphosate + Dicamba	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Imazethapyr	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Imazethapyr + Pendimethalin	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Picloram	4.1	0.3	99.1	0.9		99.8	0.2		100.0	
Sethoxydim	NS	NS	NS	NS	NS	NS	NS	NS	NS	
All Insecticides	13.5	1.0	99.5	0.5		69.3	30.7		100.0	
Insecticide										
Bifenthrin	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Carbofuran	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Malathion	NS	NS	NS	NS	NS	NS	NS	NS	NS	
All Insecticides	2.8	0.2	100.0			16.7	83.3	83.3	16.7	

¹Herbicides applied as a tank mixture were considered separately unless a commercial premix was used.

 2 Multiple applications to the same acre were reported as separate values. Acres treated can exceed 100% of the planted acres.

NS - not sufficient to estimate district or state projections.

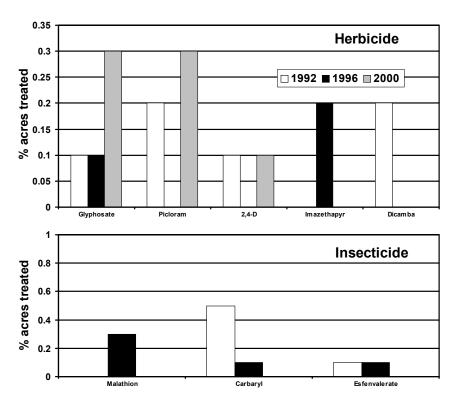


Figure 10. Percent of North Dakota alfalfa acres treated with the top five active ingredients from the herbicide and insecticide pesticide groups reported in the 1992, 1996, and 2000 statewide pesticide use surveys.