

2005 Canola Disease and Flea Beetle Survey – Progress Report

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A canola disease and flea beetle field survey was conducted in North Dakota and Minnesota in 2005. Fields were surveyed a few days after swathing, if possible. A total of 197 and 15 fields were surveyed in North Dakota and Minnesota, respectively. A total of 50 plants (10 plants in 5 different sites per field) were evaluated for diseases in each field and a total of 20 sweeps with a net (4 sweeps in 5 different sites per field) were used to measure the number of flea beetles present in a field.

Results of the survey are summarized in Table 1. This was the second year in which blackleg was recorded as penetrating or superficial lesions. Penetrating lesions would be those that would likely cause economic yield reductions, whereas superficial lesions would cause no to minimal economic yield reductions. Penetrating blackleg lesions were found on 4% of the plants evaluated in North Dakota; blackleg was not found in Minnesota. These figures are similar to the 2004 survey, in which 4.6 and 0.2% of the plants evaluated had penetrating blackleg lesions in North Dakota and Minnesota, respectively. Sclerotinia stem rot was found on 5.5 and 0.3% of the plants evaluated in North Dakota and Minnesota, respectively. Flea beetle populations were similar to the 2004 survey with an average of 10 beetles per 4 sweeps (9 beetles per 4 sweeps in 2004). Flea beetle populations were not measured in Minnesota.

Plants for 2006 are to continue the disease and flea beetle survey in swathed canola in the major canola producing counties of North Dakota, surveying approximately one field for each 5,000 acres planted in 2005. In addition, bertha armyworm and diamondback

moth will be monitored with pheromone traps to indicate infestation risks and to aid producers in making pest management decisions.

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Table 1. Results of the 2005 canola disease/flea beetle survey in North Dakota and Minnesota.

County	# Fields	Blackleg			Sclerotinia/	Aster	Black
		Flea Beetles	Penetrating	Superficial	White Mold	Yellows	Spot
		# in 4 sweeps	% plants	% plants	% plants	% plants	% pod area
North Dakota							
Cavalier	31	5.67	3.61	11.35	8.90	0.13	0.64
Nelson	1	50.60	0.00	0.00	0.00	0.00	(--)
Ramsey	13	1.31	24.15	12.62	4.31	0.00	0.47
Towner	19	12.45	2.42	12.11	11.16	1.89	1.16
NE Ave.	64	7.92	7.38	11.66	8.50	0.63	0.70
Benson	14	18.05	1.86	12.57	10.14	3.00	2.05
Bottineau	14	3.70	2.71	7.29	2.71	2.57	0.44
McHenry	5	2.08	1.60	12.00	2.00	4.80	0.96
Pierce	10	7.08	0.00	10.80	13.80	0.00	0.58
Rolette	10	22.14	1.80	0.00	11.60	1.00	0.07
NC Ave.	53	10.61	1.70	8.42	8.38	2.11	0.53
Burke	4	5.25	2.00	9.50	0.50	0.00	0.59
Divide	1	11.20	2.00	3.00	0.00	0.00	0.32
Mountrail	8	3.75	1.50	21.25	1.50	0.00	0.78
Renville	9	2.78	0.89	17.56	0.89	0.00	0.62
Ward	12	6.30	2.17	11.67	2.50	0.00	0.87
Williams	1	2.60	0.00	0.00	0.00	0.00	0.40
NW Ave.	35	4.73	1.60	14.54	1.49	0.00	0.72
Eddy/Foster	3	3.47	0.00	0.00	1.33	2.67	0.15
Sheridan	4	11.30	2.50	0.00	2.00	1.00	1.38
Stutsman	2	11.00	10.00	5.00	1.00	0.00	0.49
Wells	5	11.44	0.00	0.00	1.60	0.80	0.12
C Ave.	14	9.63	2.14	0.71	1.57	1.14	0.54
McLean	14	5.27	0.71	13.14	0.71	0.00	0.61
McKenzie	1	24.00	4.00	2.00	0.00	0.00	0.24
WC Ave.	15	6.52	0.93	12.40	0.67	0.00	0.58
Misc. Co.	8	25.85	7.75	2.25	0.75	6.25	0.43
Hettinger	8	33.55	7.00	0.00	0.50	0.00	0.68
(Southwest)	16	28.09	7.38	1.13	0.63	3.13	0.55
ND Average		9.97	3.96	9.72	5.49	1.11	0.63
ND Total	197						
Minnesota							
Marshall	6	(--)	0.00	0.00	0.33	0.00	0.07
Roseau	9	(--)	0.00	0.00	0.22	0.00	0.07
MN Average		(--)	0.00	0.00	0.27	0.00	0.07
MN Total	15						
Grand Total	212						