Bunt of Winter Wheat in South Alberta

J. S. Horricks and J. E. Moffatt

A form of dwarf bunt was first found in the field in south Alberta in 1955. This form appears atypical and does not produce excessive tillering or stunting of the host plant. The sheath on the spore is not as thick, or the germination period as long, as it is in the form that occurs in Ontario.

In 1957, 296 samples of winter wheat representing the crop years 1951-1957 were obtained from grain elevators. Microscopic examination revealed that 104 of the 296 samples contained bunt spores. Thirty-one % contained spores of Tilletia foetida, 16% spores of T. caries and 5% spores of T. contraversa. The oldest record of T. contraversa found was from a 1954 sample of Jones Fife winter wheat from Glenwood.

Host varietal differences were evident. Fifty-eight % of the Jones Fife samples, 38% of the Kharkov, and 18% of the Yogo samples were infested with various bunt spores. Spores of T. contraversa occurred in 29% of the Jones Fife samples, 3% of the Kharkov and none of the Yogo samples. Jones Fife comprises only about 10% of the winter wheat grown in Alberta.

Field surveys revealed common bunt in four, and dwarf bunt in four, of 99 fields examined in 1957. In 1958, 57 fields were examined. Twelve fields contained some common bunt and 10 fields had some dwarf bunt present.

Cereal Smuts in Western Canada in 1958

W. Popp

Data obtained in the 1958 survey for smut in cereal crops in Manitoba are presented in Table 5. Yield losses based on the percentage of smutted heads in different fields ranged and averaged 0-12 and 1% in wheat, 0-20 and 2.3% in barley, and 0-1 and 0-.03% in oats.

Table 5. Cereal smuts in Manitoba - 1958

Cereal	Smut	Percent smut	
		Range	Mean
Wheat	Loose	0-12	1.0
	Bunt	-	0
Barley	Loose	0-20	1.9
	Covered	0-5	0.25
	False loose	0-10	0.14
Oats	Loose and Covered	0-1	0.06