Variety	Scald	Net blotch	Septoria	Loose smut	False stripe
Vantage	tr.	mod.	-	-	-
Pirkka	mod.	sl.	tr.	-	-
Compana	sl.	tr.	tr.	-	sl.
Wolfe	mod.	sl.	sl.	-	-
Gateway	mod.	sl.	tr.	tr.	-
Olli	sl.	mod.	tr.	tr.	-

This rating of barley disease severity confirms F. J. Zillinsky's observations recorded above. It supplements the data presented below by H. A. H. Wallace who observed plots in an area free of scald (Rhynchosporium secalis) (R. A. Shoemaker).

Co-operative Barley Tests Survey in 1957

H. A. H. Wallace

An extensive survey of the Prairie Provinces was not made this year, but a survey was made of the plots at Brandon, Portage la Prairie, Morden and Winnipeg, Man. This area is free from scald (Rhynchosporium secalis).

Minerva, Slovak and Piroline at Winnipeg had good resistance to speckled leaf blotch (Septoria passerinii) but were very susceptible to spot blotch (Helminthosporium sorokinianum). In contrast, Freja and Ingred were resistant to spot blotch and susceptible to speckled leaf blotch. As noted in 1956 the 2-row varieties as a group were more resistant to speckled leaf blotch than the 6-row varieties. Traces of yellow dwarf were common. An important observation of this disease, is its greater severity on isolated plants, apparently due to the habits of the aphid. Infection of rod rows wa mostly confined to the end plants. False stripe mosaic, apparently from seed infection, was found on some plants of Opal B, Slovak and Canadian Thorpe.

At Brandon all varieties were completely susceptible to speckled leaf blotch.

Plots of the Western co-operative test at six stations were seen. Hybrid Br M 57-754 was resistant to speckled leaf blotch and susceptible to spot blotch. In contrast Br M 45-680 had fair resistance to spot and net blotch (H. teres). but was susceptible to speckled leaf blotch. Leth. 4362-3, G. B. 61, U. M. 570 W and Husky appear to have some net blotch resistance but are susceptible to speckled leaf blotch. No variety had good resistance to spot blotch. Leth. 4363-45 was very susceptible to bacterial streak.

The Eastern co-operative test at Brandon indicated that 5069-142 and to a lesser extent 5069-40 were resistant to speckled leaf blotch but very susceptible to spot blotch. The Macdonald College hybrids 147, 247, 367 had good resistance to spot blotch but were susceptible to net blotch, speckled leaf blotch and probably to stem rust. The Guelph hybrids 61, 76, 77 seem to have some resistance to net blotch.

In the joint barley test eight hybrids were resistant to speckled leaf blotch and had fair resistance to net blotch but all were susceptible to spot blotch except M 73-812 which was also fairly resistant to physiological brown spot and deserves further testing.

In a special test of standard varieties it was found that Harlan was very resistant to speckled leaf blotch, but like all the other resistant varieties observed it was very susceptible to spot blotch. Titan though fairly resistant to spot blotch was very susceptible to speckled leaf blotch. Peatland and Gartons appear to be fairly susceptible to all leaf spot diseases.

Ergot in Cereals in Western Canada in 1957

R.A. Shoemaker

The data compiled here were collected by J.S. Horricks, Alta., R.C. Russell and B.J. Sallans, Sask., and W. Popp, Man.

Table 4. Results of Ergot Surveys in the Prairie Provinces, 1957.

	Wheat			Barley			Rye		
	Man.	Sask.	Alta.	Man.	Sask.	Alta.	Man.	Sask.	Alta.
Fields with ergot	24	15	1	22	9	1	2	5	7
Fields surveyed	43	203	176	72	68	93	2	7	21
Per cent Fields infected	56	7	0.6	31	13	1	100	71	33

The percentage of infested wheat fields was the highest since the ergot survey began in 1953. Barley infection was greater than average. Rye infection remained high. R.C. Russell noted that wheat infections in Sask. were usually in trace amounts except in one corner of a field where the wheat was close to infected brome grass. In this situation ergot affected a moderate percentage of the wheat heads.