

Table 31. Seedling reaction of entries in the 1995 Northern Regional Performance Nursery to leaf rust and tan spot. Data provided by R.M. Hunger and W.C. Siegerist, Oklahoma State University, Stillwater, OK.

Entry and Selection	Leaf rust reaction			Tan spot reaction		
	Race 1	Race 2	Bulk	Rep 1	Rep 2	Rep 3
01 CI1442	3+	3+	3+	2	2	2
02 CI17439	3+	3+	3+	2	2	2
03 PI511307	3	3+	3+	3	3	3
04 SD89119	3+	3	3	3	2	2
05 SD89153	3	3	3+	2	1	1
06 SD89180	3	3	3+	3	3	3
07 SD89186	3	3	3	2	3	3
08 SD89205	3	3-c	3c	2	2	3
09 ND8974	3	3	3+	2	3	3
10 ND9043	3c	3cn	3n	3	3	3
11 ND9064	3-nc	3cn	X0;3-n	3	3	3
12 ND9257	3-cn	3-nc	3-n	4	4	4
13 ND9272	3c	3c	3cn	4	4	4
14 ND9274	3-cn	3	3n	2	2	3
15 NE91631	3	3	3+	4	4	4
16 NE91648	3	3c	3c	2	3	3
17 NE90479	3c	3-c	X0;3-c	3	3	3
18 NE92522	3	3	3+	4	4	4
19 NE92628	3-cn	3-cn	X0;3-c	4	4	4
20 NE92662	3=cn	0;	0;	3	3	3
21 XH1752	3-cn	3-cn	X0;3=c	3	3	3
22 XNH1773	3	3c	3	4	4	3
23 XNH1798	3-cn	X0;3-	X0;3-	2	2	2
24 XNH1799	3	3	3+	2	2	2
25 XNH1802	3	3	3+	4	4	4
26 XH1689A	3c	X0;1	0;	3	3	3
27 MT88046	3	3	3+	2	2	2
28 MTSF2238	3c	3	3+	3	2	2
29 W259	3	3	3+	4	4	4
30 AMN4LV	3	3+	3+	4	4	4

The avirulence/virulence formula of each race was: Race 1 = 2a 3ka 9 16 19 / 1 2c 3 11 17 24 26 30; Race 2 = 2a 3ka 9 16 19 26 30 / 1 2c 3 11 17 24; Bulk (a mixture of urediniospores collected from 'Vona', 'Chisholm' and 'Danne') = 9 16 19 26 / 1 2a 2c 3 3ka 11 17 24 30. Leaf rust reactions were obtained using Stakeman's system (USDA Bull. #8617, 1962, 53 pp) of coding rust reactions. Seedlings of Danne, 'Century', and 'Siouxland' were included to demonstrate adequate inoculation and consistent reaction to each race of leaf rust.

Seedlings were inoculated with equal numbers of conidia obtained from three isolates of *Pyrenophora tritici-repentis* at a final concentration of 2000 conidia/ml. Reaction to tan spot was determined using a scale where, 1=small (1-2 mm), dark lesions with no or little chlorosis, 2=lesions 2-3 mm with some chlorosis, 3=lesions 2-3 mm with extensive chlorosis, and 4=lesions >3 mm with coalescing chlorosis and/or necrosis. A reaction of '1' typically occurred on 'Red Chief' checks, and a reaction of '4' typically occurred on 'Tam-105' checks.