

TDBJQ	1,2a,2c,3,24,10,14a,21,28	0	0	0	0	0	0	0	0	0	0	1	0.9	1	0.3
TDCHG	1,2a,2c,3,24,30,10,18,28	1	0.8	0	0	0	0	0	0	0	0	0	0	1	0.3
TFTSB	1,2a,2c,3,24,26,3ka,11,17,30,B,10,14a	0	0	2	14.3	2	6.3	0	0	0	0	7	6.1	11	2.9
TLBGJ	1,2a,2c,3,9,10,28,39	0	0	0	0	0	0	1	1.2	0	0	0	0	1	0.3
TNBJJ	1,2a,2c,3,9,24,10,28,39	0	0	0	0	4	12.5	12	14.6	0	0	3	2.6	19	5
TNBJJ	1,2a,2c,3,9,24,10,14a,28,39	0	0	0	0	0	0	3	3.7	0	0	8	7	11	2.9
TNRJJ	1,2a,2c,3,9,24,3ka,11,30,10,14a,28,39	4	3.1	0	0	0	0	0	0	0	0	0	0	4	1.1
TPBGJ	1,2a,2c,3,9,24,26,10,28,39	0	0	0	0	0	0	1	1.2	0	0	0	0	1	0.3
TPBJJ	1,2a,2c,3,9,24,26,10,14a,28,39	0	0	0	0	2	6.3	0	0	0	0	1	0.9	3	0.8
Total		128	1	4	32	82	9	115	380						

^a Lines tested were Thatcher lines with genes *Lr1*, *Lr2a*, *Lr2c*, *Lr3*, *Lr9*, *Lr16*, *Lr24*, *Lr26*, *Lr3ka*, *Lr11*, *Lr17*, *Lr30*, *LrB*, *Lr10*, *Lr14a*, *Lr18*, *Lr21*, *Lr28*, *Lr39* and *Lr42*.

^b States of AR, GA, LA, NC, TN and VA.

^c State of NY.

^d States of IL, IN and WI.

^e State of TX

^f State of KS.

^g States of MN, ND, SD

Table 2. Number and frequency (%) of isolates of *Puccinia triticina* in the United States in 2014 virulent to 20 lines of wheat with single resistance genes for leaf rust resistance.

Resistance gene	Area 1 ^a		Area 2 ^b		Area 3 ^c		Area 4 ^d		Area 5 ^e		Area 6 ^f		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Lr1	128	100.0	14	100.0	32	100.0	82	100.0	9	100.0	115	100.0	380	100.0
Lr2a	72	56.3	6	42.9	8	25.0	25	30.5	0	0.0	67	58.3	178	46.8
Lr2c	75	58.6	6	42.9	8	25.0	29	35.4	0	0.0	69	60.0	187	49.2
Lr3	128	100.0	14	100.0	32	100.0	82	100.0	9	100.0	115	100.0	380	100.0
Lr9	6	4.7	0	0.0	6	18.8	38	46.3	1	11.1	24	20.9	75	19.7
Lr16	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lr24	10	7.8	2	14.3	8	25.0	19	23.2	3	33.3	30	26.1	72	18.9
Lr26	66	51.6	7	50.0	10	31.3	24	29.3	3	33.3	22	19.1	132	34.7
Lr3ka	118	92.2	13	92.9	26	81.3	20	24.4	6	66.7	44	38.3	227	59.7
Lr11	116	90.6	14	100.0	25	78.1	0	0.0	1	11.1	31	27.0	187	49.2
Lr17	66	51.6	13	92.9	26	81.3	57	69.5	9	100.0	59	51.3	230	60.5
Lr30	118	92.2	14	100.0	26	81.3	17	20.7	6	66.7	42	36.5	223	58.7
LrB	63	49.2	14	100.0	26	81.3	56	68.3	9	100.0	56	48.7	224	58.9
Lr10	77	60.2	6	42.9	8	25.0	81	98.8	8	88.9	97	84.3	277	72.9
Lr14a	120	93.8	14	100.0	28	87.5	59	72.0	9	100.0	65	56.5	295	77.6
Lr18	55	43.0	1	7.1	0	0.0	0	0.0	1	11.1	0	0.0	57	15.0
Lr21	2	1.6	0	0.0	0	0.0	1	1.2	0	0.0	44	38.3	47	12.4
Lr28	65	50.8	0	0.0	6	18.8	29	35.4	0	0.0	59	51.3	159	41.8
Lr39	10	7.8	0	0.0	6	18.8	74	90.2	1	11.1	74	64.3	165	43.4
Lr42	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	128		14		32		82		9		115		380	

^a States of AR, GA, LA, NC, TN and VA.

^b State of NY.

^c States of IL, IN and WI.

^d State of TX

^e State of KS.

^f States of MN, ND, SD