Table 2. Number and frequency (%) of isolates of *Puccinia triticina* in the United States in 2018 virulent to 20[a] lines of wheat with single resistance genes for leaf rust resistance.

	Southeast		New York		Wisconsin		Texas - Oklahoma		Kansas-Nebraska		MN, ND, SD		Washington		Total	
Gene	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Lr1	36	100.0	4	100	6	100.0	60	100.0	47	100.0	83	100.0	2	100.0	238	100.0
Lr2a	2	5.6	4	100	0	0.0	2	3.3	1	2.1	15	18.1	0	0.0	24	10.1
Lr2c	2	5.6	4	100	0	0.0	5	8.3	1	2.1	17	20.5	0	0.0	29	12.2
Lr3	35	97.2	4	100	6	100.0	60	100.0	46	97.9	83	100	1	50.0	235	98.7
Lr9	11	30.6	0	0.0	2	33.3	40	66.7	43	91.5	50	60.2	0	0.0	146	61.3
Lr16	0	0.0	0	0.0	0	0.0	1	1.7	1	2.1	3	3.6	0	0.0	5	2.1
Lr24	12	33.3	1	25	2	33.3	32	53.3	43	91.5	51	61.4	0	0.0	141	59.2
Lr26	12	33.3	4	100.0	1	16.7	22	36.7	14	29.8	14	16.9	0	0.0	67	28.2
Lr3ka	35	97.2	4	100.0	6	100.0	51	85.0	43	91.5	49	59.0	0	0.0	188	79
Lr11	25	69.4	4	100.0	4	66.7	6	10.0	1	2.1	0	0.0	0	0.0	40	16.8
Lr17	35	97.2	4	100.0	6	100.0	58	96.7	46	97.9	66	79.5	2	100.0	217	91.2
Lr30	34	94.4	4	100.0	6	100.0	50	83.3	43	91.5	49	59	0	0.0	186	78.2
LrB	35	97.2	1	25.0	6	100.0	57	95.0	46	97.9	65	78.3	2	100.0	212	89.1
Lr10	12	33.3	1	25.0	2	33.3	57	95.0	46	97.9	83	100.0	2	100.0	203	85.3
Lr14a	36	100	1	25.0	6	100.0	57	95.0	47	100	72	86.7	2	100.0	221	92.9
Lr18	0	0.0	0	0.0	0	0.0	2	3.3	0	0.0	0	0.0	0	0.0	2	0.8
Lr21	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	15.7	0	0.0	13	5.5
Lr28	1	2.8	0	0.0	0	0.0	5	8.3	1	2.1	19	22.9	2	100.0	28	11.8
Lr39	11	30.6	0	0.0	2	33.3	51	85.0	46	97.9	77	92.8	0	0.0	187	78.6
Lr42	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0