

**Supplementary Table S1:** 1-9 scoring scale for leaf rust disease severity in rye (*Secale cereale* L.)

<b>Group</b>	<b>Score</b>	<b>Phenotype</b>	<b>Leaf Coverage (%)</b>	<b>Incidence (%)</b>
Resistant	1	No disease	0-0.01	0
	2	Few colonies/pustules/spots per plant	0.1	1-49
Partially Resistant	3	Few colonies/pustules/spots per tiller	0.5	51-100
	4	Several colonies/pustules/spots on lower leaves: < 10 % coverage	1	100
Partially Susceptible	5	Lower leaves: 10-25 % coverage	5	100
	6	Upper leaves: <10% coverage, lower leaves: 25-50 % coverage	10	100
Susceptible	7	Upper leaves: <25% coverage, lower leaves: 50-75 % coverage	25	100
	8	Half of leaves dead with lower leaves: 75-95 % coverage	50	100
	9	No green	75-100	100