

Table S1 Virulence / avirulence formulas for the four *Pst* races used in the GWAS for seedling resistance.

<i>Pst</i> race code	Virulence / avirulence formula
PSTv-4	Yr1, Yr6, Yr9, Yr17, Yr27, YrSP, YrTye / Yr5, Yr7, Yr8, Yr10, Yr15, Yr24, Yr32, Yr43, Yr44, YrTr1, YrExp2
PSTv-14	Yr1, Yr6, Yr7, Yr8, Yr9, Yr17, Yr27, Yr43, Yr44, YrTr1, YrExp2, YrTye / Yr5, Yr10, Yr15, Yr24, Yr32, YrSP
PSTv-37	Yr6, Yr7, Yr8, Yr9, Yr17, Yr27, Yr43, Yr44, YrTr1, YrExp2 / Yr1, Yr5, Yr10, Yr15, Yr24, Yr32, YrTye, YrSP
PSTv-40	Yr6, Yr7, Yr8, Yr9, Yr10, Yr24, Yr27, Yr32, Yr43, Yr44, YrTr1, YrExp2 / Yr1, Yr5, Yr10, Yr15, YrTye, YrSP