

## Characterization of a stripe rust resistance gene in wheat landrace AUS 27969 from the Watkins collection

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Landraces and wild relatives of wheat are rich repositories of new rust resistance genes. Landraces are preferred over wild relatives for the absence of deleterious effects associated with large alien segments. A common wheat landrace, AUS 27969 (ex Portugal), from the Watkins Collection was resistant under field conditions and produced seedling infection type (IT) 2C against the widely virulent Australian *Puccinia striiformis* f. sp. *tritici* (*Pst*) pathotype 134 E16 A+ Yr17+ Yr27+. AUS 27969 was crossed with the susceptible genotype Avocet S (AvS) and the distribution of F<sub>3</sub> lines conformed to monogenic segregation [40 non-segregating resistant (NSR), 93 segregating (Seg), and 37 non-segregating susceptible (NSS);  $\chi^2 = 1.61$ ,  $P_{2d.f.} > 0.05$ ] when tested with the same pathotype at the seedling stage. The population is currently being selfed to F<sub>6</sub>. DNA from NSR and NSS lines will be sent for high throughput analysis to identify the genomic region carrying the resistance gene. Resistance-linked SNPs will be mapped on the F<sub>6</sub> RIL population. The resistance gene will be backcrossed into modern Australian wheat backgrounds.