

## Online Resource 1

**Article title:** “Mapping and validation QTL which confer partial resistance to broadly virulent post-2000 North American races of stripe rust in hexaploid wheat”

**Journal:** Theoretical and Applied Genetics

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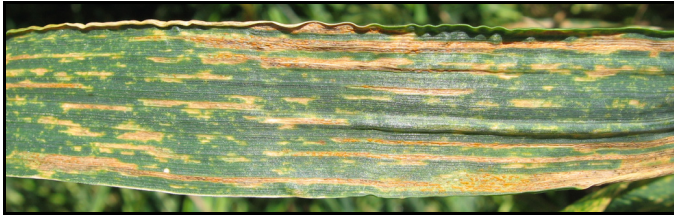
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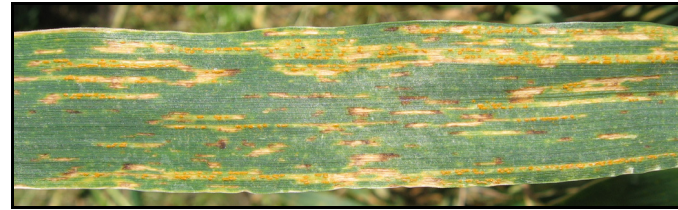
## Parental phenotypes

Typical moderately susceptible reactions of the population parents to current California races of stripe rust, as observed in the field (pictures taken during 2009 field season):

**UC1110**

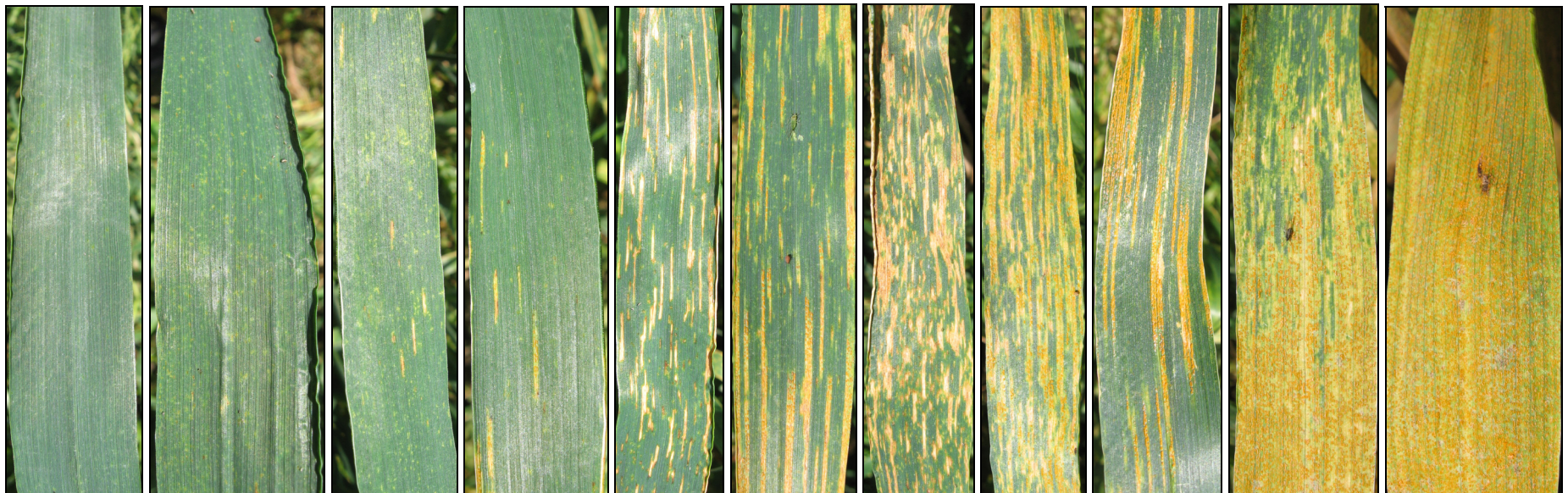


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## 11-point scale

Along with disease severity (% area of leaf affected), the population of RILs was scored using an 11-point scale intended to take into account both infection type (resistant → susceptible) and severity (% leaf area affected) in a single score. The following pictures typify the levels of this 11-point scale (pictures taken during the 2010 field season). See next page for descriptions.



1

2

3

4

5

6

7

8

9

10

11

## Descriptions of levels

- 1** *Resistant I* No flecking, striping, or sporulation of any kind.
- 2** *Resistant II* Flecking, but no striping or sporulation of any kind.
- 3** *Moderately resistant I* Necrotic striping covering < 5% of the leaf area, with no to minimal sporulation.
- 4** *Moderately resistant II* Necrotic striping covering < 5% of the leaf area, with powdery sporulation.
- 5** *Moderately resistant/moderately susceptible I* Necrotic striping covering 5-30% of the leaf area, with no to minimal sporulation.
- 6** *Moderately resistant/moderately susceptible II* Necrotic striping covering 5-30% of the leaf area, with powdery sporulation.
- 7** *Moderately susceptible I* Necrotic striping covering > 30% of the leaf area, with no to minimal sporulation.
- 8** *Moderately susceptible II* Necrotic striping covering > 30% of the leaf area, with powdery sporulation.
- 9** *Susceptible I* Abundant sporulation without preceding necrosis, covering < 30% of leaf area.
- 10** *Susceptible II* Abundant sporulation without preceding necrosis, covering 30-70% of leaf area.
- 11** *Very Susceptible* Abundant sporulation without preceding necrosis, covering >70% of leaf area.