

Hessian Fly Variety Tests, Prattville and Fairhope, AL 2014-2015

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Replicated plots were planted at Prattville Agricultural Research Unit on 6 November 2014 and Gulf Coast Research and Extension Center in Fairhope, AL on 14 November 2014. Plots were 5 ft X 22 ft, and replicated 4 times (RCBD). Plots were harvested on 5 June in Fairhope and 8 June in Prattville. Wheat plants were dug from 6 locations per plot (the equivalent of 24 inches of row per plot). In Prattville 50 tillers were examined per plot examined to determine the level of Hessian fly infestation. In Fairhope, all tillers were examined.

Hessian fly pressure was low in Fairhope and very low in Prattville, so results should be interpreted with caution. The varieties with the most field resistance to Hessian flies were SS 8415, Terral TV 8861, the Pioneer variety 26R94, the Pioneer variety 26R61, and Terral TV 8848. The varieties AgriPro Oakes, AgriPro Cypress, Terral LA 754, USG 3404, and AgriPro Harrison were the most susceptible. Yields are not presented because high winds caused the majority of wheat plants to lodge. This made it impossible to get accurate estimates of yield from the small plots.

Table 1. Relative resistance of commercial wheat varieties, Fairhope and Prattville, AL 2014-2015.

| Variety | Fairhope, AL 23 Feb. | | Prattville, AL 18 May | |
|---------------------|--|----|--------------------------|---|
| | No. Hessian fly larvae and pupae/plant | | Percent infested tillers | No. Hessian fly larvae and pupae/tiller |
| SS 8415 | 0.00 | c | - | - |
| Terral TV 8861 | 0.00 | c | 0.0 | 0.00 b |
| Pioneer 26R94 | 0.02 | bc | 0.0 | 0.00 b |
| Pioneer 26R61 | - | | 1.0 | 0.01 b |
| Terral TV 8848 | - | | 1.5 | 0.02 b |
| AgriPro SY Harrison | 0.09 | ab | 4.0 | 0.05 ab |
| USG 3404 | 0.10 | ab | - | - |
| Terral LA 754 | 0.14 | a | - | - |
| AgriPro SY Cypress | 0.15 | a | - | - |
| AgriPro Oakes | - | | 9.0 | 0.14 a |

Means within a column followed by the same letter are not significantly different, alpha=0.05, Tukey's LSD.

Single row nursery plots were planted at Gulf Coast Research and Extension Center in Fairhope, AL on November 7, 2015. Plots were 3 ft long, with 1 ft row spacing. Twenty commercial varieties or near commercial breeding lines were replicated twice, in a randomized complete block design. 1 row-ft was excavated on 29 Jan and 27 Mar. All tillers were examined to determine the level of Hessian fly infestation on 29 January. At least 30 tillers per plot were examined to determine the level of Hessian fly infestation on 27 March. Overall infestation was relatively low on 29 January. Most resistant varieties were AGS 2026, Oglethorpe, PIO26R41, TV 8848, AGS 2035, GA 10E46, TV 821, and AGS 2038. Most susceptible varieties were USG 3251, TV 8525, Progeny 357, TV 754, Progeny 125, USG 3438, SS 8340, Progeny 185, Progeny 870, DG 9053, and SS 520.

Table 2. Relative resistance of commercial wheat varieties and plant breeding lines in single row nursery plots, Fairhope, AL 2014-2015.

| Variety | No. Hessian fly larvae and pupae/plant, 29 Jan 2015 | No. Hessian fly larvae and pupae/tiller, 27 March 2015 |
|-------------|---|--|
| AGS 2026 | 0.0 c | 0.0 h |
| Oglethorpe | 0.0 c | 0.1 gh |
| PIO26R41 | 0.0 c | 0.2 gh |
| TV 8848 | 0.0 c | 0.2 fgh |
| AGS 2035 | 0.2 bc | 0.3 fgh |
| GA 10E46 | 0.6 abc | 0.3 e-h |
| TV 821 | 0.5 abc | 0.4 d-h |
| AGS 2038 | 0.1 bc | 0.6 c-h |
| Progeny 117 | 0.7 ab | 1.1 b-g |
| USG 3251 | 0.5 abc | 1.2 a-f |
| TV 8525 | 0.3 abc | 1.3 a-e |
| Progeny 357 | 0.5 abc | 1.4 a-d |
| TV 754 | 0.4 abc | 1.4 abc |
| Progeny 125 | 0.4 abc | 1.5 abc |
| USG 3438 | 1.0 a | 1.8 ab |
| SS 8340 | 0.7 abc | 1.9 ab |
| Progeny 185 | 0.5 abc | 2.0 ab |
| Progeny 870 | 1.0 a | 2.1 ab |
| DG 9053 | 0.3 abc | 2.1 a |
| SS 520 | 0.7 ab | 2.1 a |

Means within a column followed by the same letter are not significantly different, alpha=0.05, Tukey's LSD.