

WHEAT (*Triticum aestivum*)
Powdery mildew; *Erysiphe graminis* f.sp. *tritici*

R.P. Mulrooney
Plant and Soil Sciences Dept.
University of Delaware
Newark, DE 19717-1303

Wheat variety trial evaluations for resistance to powdery mildew, 2001.

Disease occurrence and severity was evaluated at all three small grain variety trial locations near Georgetown, Felton and Middletown, DE. Powdery mildew caused by *Erysiphe graminis* was the predominant disease. Septoria leafspot complex caused by *Septoria tritici* and *Septoria nodorum* and rust were also present this year but in very low amounts.

Disease severity varied at each site with the least amount of powdery mildew at the Georgetown location. In general, disease incidence and severity was moderate to light. Lack of rainfall from April 15 to May 15 reduced disease incidence and severity. The data are summarized in the following table. Varieties with a rating of 6 or higher would be considered susceptible. Roane has been very resistant in the past but is now becoming infected.

This season it was noted that some varieties had no to very little mildew on the lower leaves but would have mildew on the leaf below the flag leaf (F-1), or very low amounts of mildew in the upper canopy. These varieties were given a rating of 5.

The ratings were made on June 11 at Georgetown and Felton (dough stage), and June 6 at Middletown (soft-dough stage). The rating scale used was 0 to 9 (0 = none observed; 1 to 4 = severity on the lower leaves, no infection on the flag leaf or L-1; 5 = no mildew on the lower leaves, but some present on L-2 or upper canopy, but not on the flag leaf; and 6 to 9 = severity on L-1 and flag leaf, lower leaves infected).