

2008 WINTER WHEAT SURVEY

<http://pestsurvey.wi.gov/>

DATCP Pest Survey specialists conducted a disease survey of winter wheat fields in the state between May 8, 2008 and June 19, 2008. Specialists sampled 106 fields in 11 counties, comprising 50% of the wheat acreage in the state. Locations of sampled fields are shown in **Figure 1**. Wheat fields ranged in maturity from Feekes Stage 8.0 (flag leaf visible) to Feekes Stage 10.5.3 (flowering complete to base of spike). Leaf samples were collected for laboratory confirmation of diagnosis (**Figure 2**).

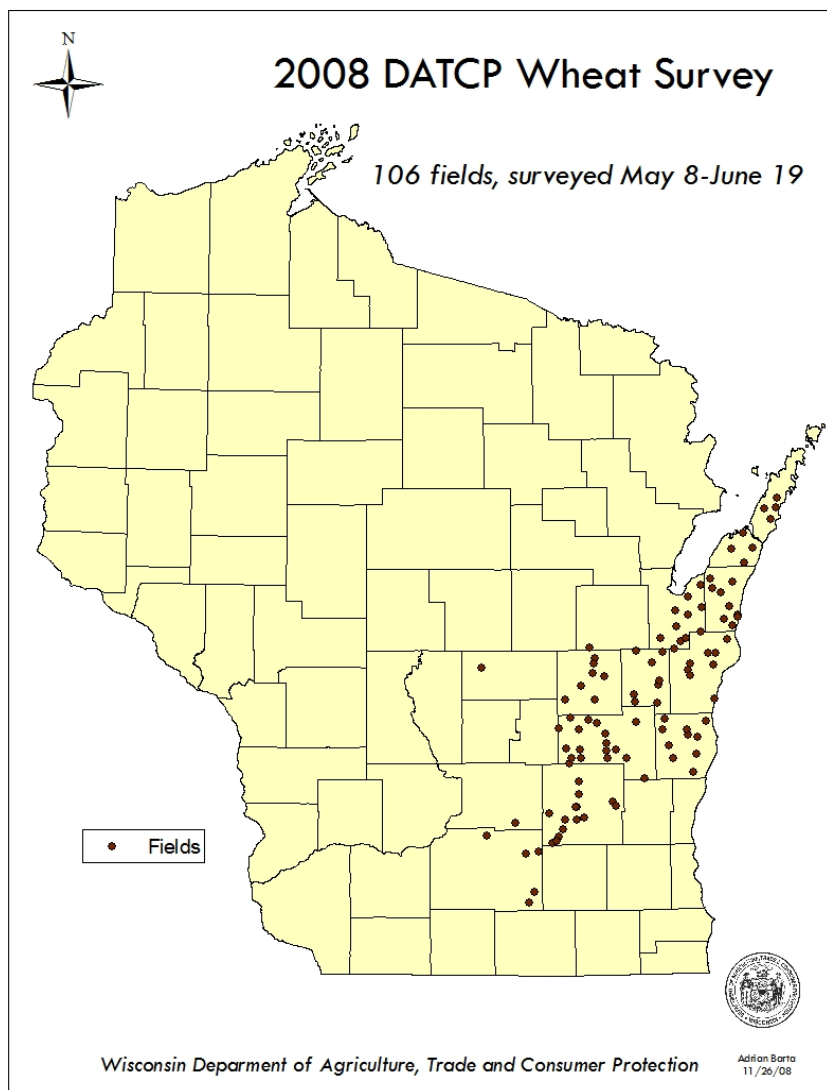


Figure 1. Field locations of winter wheat disease survey in 2008.

Powdery mildew (*Blumeria graminis*) was the most widespread disease encountered, occurring in 79 of the 106 fields surveyed, or 75%. Incidence (the percentage of plants with symptoms in a field) ranged from 1 -100 percent. Severity (the average percentage of leaf area affected) ranged from trace to 20%. Generally, severity was low.

Sooty molds, caused by a range of mostly-saprophytic fungi, were widespread throughout the sampled fields, always confined to the lowest leaves buried in the canopy. Sooty molds are rarely a problem for wheat in Wisconsin, unless harvest is delayed and the infections move to the heads. Twenty-six percent of all fields checked tested positive for Septoria leaf blotch (*Septoria tritici* and *S. nodorum*). Incidence and severity are difficult

to estimate in the field because of the similarity of field symptoms with other foliar diseases.

Septoria leaf blotch can be troublesome during wet growing seasons. Fond du Lac (6 fields) and Door (5 fields) had the highest number of infected fields.

Ascochyta leaf spot (*Ascochyta tritici*) was laboratory-confirmed in 12% of fields. No control measures are generally required for this minor disease. Wheat leaves from 10% of fields tested positive for *Pseudomonas* leaf blight (*Pseudomonas syringae*) in the laboratory. Seven percent of fields displayed the bleached-head symptoms of scab or head blight, caused by *Fusarium* spp. The incidence in fields was low.

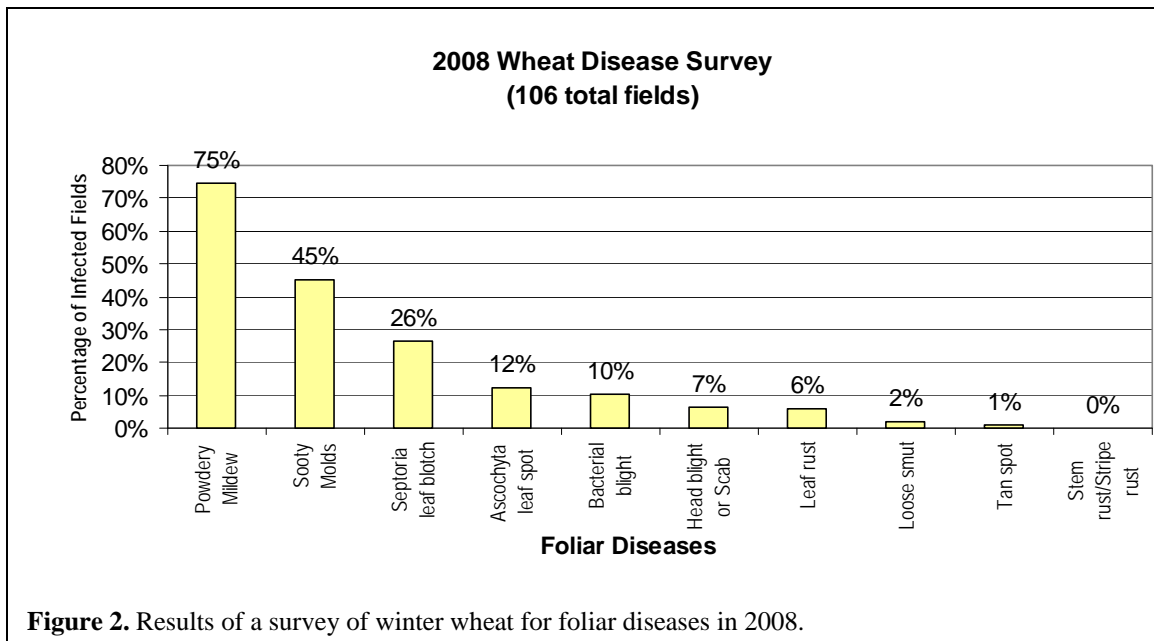


Figure 2. Results of a survey of winter wheat for foliar diseases in 2008.

Leaf rust (*Puccinia triticina*) was found in 6% of fields at trace levels. Loose smut (*Ustilago tritici*) was found in 2% of fields, which was less than expected in most Wisconsin wheat seasons. The incidence within fields was far below 1%. No stem rust or stripe rust was detected by DATCP personnel. One sample from a field in Dodge County was determined to have tan spot, caused by *Pyrenophora tritici-repentis*. The severity was below 2%, with infection limited to the lowest leaves.

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