



Assessment of septoria leaf blotch on wheat

Method/protocol submitted by:

Surname: Trottet, Rolland
First name: Maxime, Bernard
Organisation: INRA Rennes – UMR APBV
Email: Maxime.Trottet@rennes.inra.fr, Bernard.Rolland@inra.rennes.fr

Author(s) of the document:

Maxime Trottet, Yvette Saint-Ouen, Jean-Yves Morlais

Objectives of the method/protocol:

To estimate the attacks of septoria leaf blotch on wheat at the field scale.

Brief description of the method/protocol:

This protocol presents a scoring method to assess septoria leaf blotch development in field experiments on wheat.

Pathogens causing the disease

Teleomorph pathogen: *Septoria tritici*
Anamorph pathogen: *Mycosphaerella graminicola*

Possible uses of this method/protocol:

Breeding of wheat varieties.

Method/protocol:

- Observation unit

The observation, aimed at screening a great number of breeding lines, is carried out in micro-plots designed for varietal selection (distance between the centres of the plots: minimum 50 cm). The seeds are sown in hill plots (15-20 seeds/plot).

For more precise observations, larger plots are used (three or six 1,5 m long rows spaced by 20 cm).

- Observation period and frequency

Disease assessment is realised twice: 400 and 500 degree-days after inoculation.

- Disease assessment

In the hill-plots, the average percentage of necrosis on the last leaf or on a leaf with visible symptoms, are evaluated on a 0-100 scale.

The height of the plants (ears included) at maturity are also assigned.

In the larger plots, for a precise estimation of resistance, the highest leaf level with symptoms and the level just below are assessed separately with a 0 - 100 scale. The mean of the two recorded stages can be used as a synthetic note. In these larger plots, it is necessary to observe several places in the plot.

Advantages/disadvantages of the method/protocol:

The method is easy and quick to carry out.

If there is important differences of heading date between the earliest and the latest genotypes, it may be necessary to adjust the scoring for differences in heading dates.