

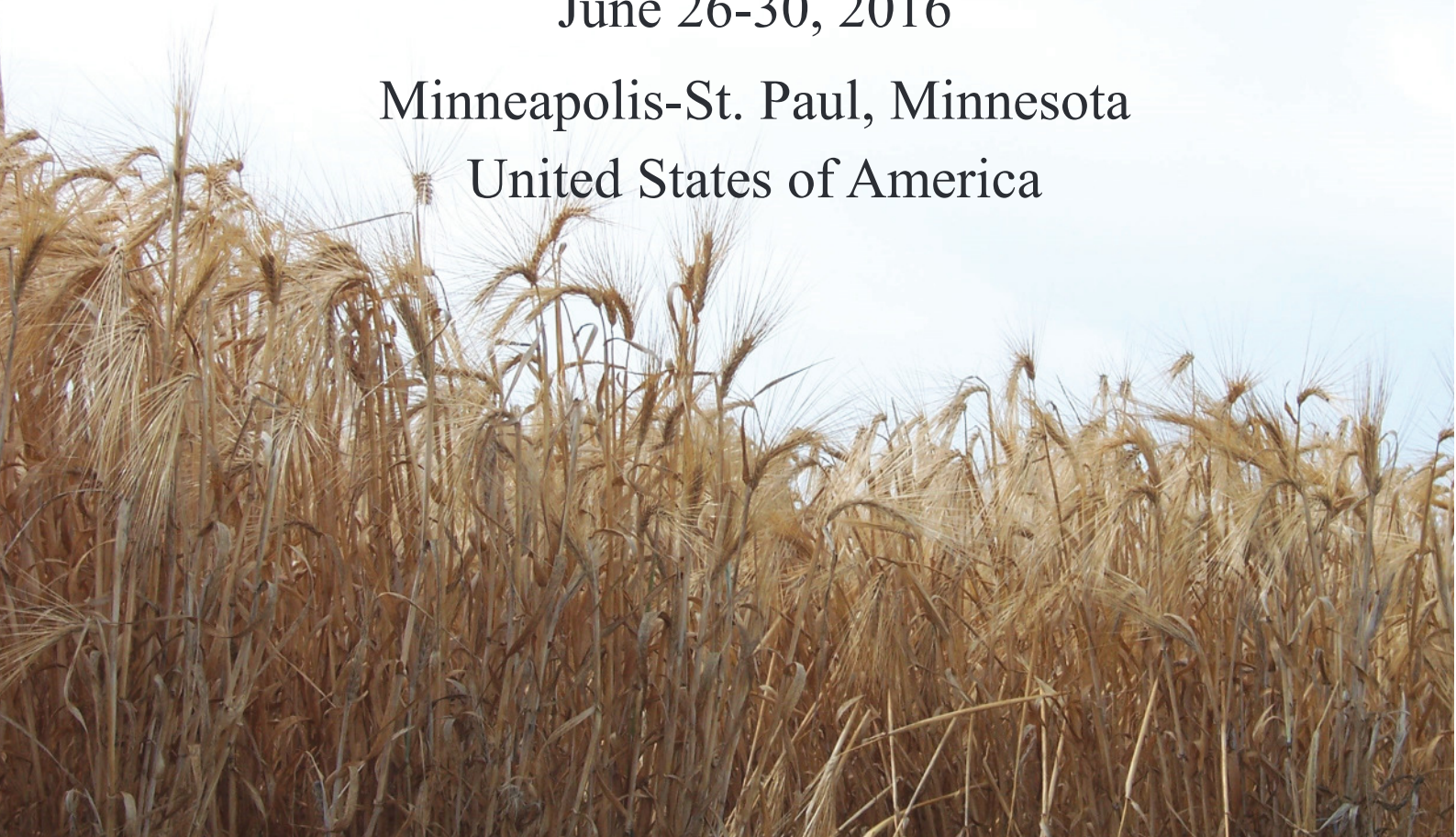
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Occurrence and damage of head blast in barley in Brazil

Maria Imaculada Pontes Moreira Lima

Embrapa Wheat; maria-imaculada.lima@embrapa.br

Co-authors: E. Minella

ABSTRACT

The fungus *Pyricularia grisea* (*Magnaporthe grisea*) was first reported infecting barley in Brazil in 2000 on leaves and in 2003 on spikes. The characteristic symptoms in spikes, the main organ affected, are premature discoloration above the point of infection by the pathogen, which occurs in the rachis. The grains formed above the infection point are usually smaller, due to the interruption of the translocation of water and nutrients. In this study we measured the damage of the blast in barley spikes, cultivar BR 2, under natural infection in the field of Embrapa Wheat, Passo Fundo, RS, in 2002.

Twenty-two spikes with symptoms of blast and 22 spikes without symptoms were marked. At maturity they were harvested separately and threshed by hand. The weight of a thousand kernels (TKW) and the kernel plumpness (KP) were determined

The TKW of the affected spikes weighed 13.7 g less than those of healthy spikes, with a reduction of around 30%. The KP of healthy ears was 35.1% higher for grains Class 1 (> 2,5 mm) and 22.6 and 12.5, lower for classes 2 and 3, (<2.5 > 2.2 and < 2.2 mm) respectively, than the diseased spikes. The results show that the blast in barley spikes can significantly reduce grain size and weight suggesting that, in case of widespread epidemics, the disease may treat barley yield and production in Brazil.

SECTION:

Biotic stresses