

**EFFECTS OF SOWING DATES AND WHEAT GENETIC RESISTANCE IN FHB CONTROL**

Lima MIPM<sup>1</sup>, Forcelini CA<sup>2</sup>

<sup>1</sup> Embrapa Wheat, Passo Fundo, RS, Brazil; <sup>2</sup>University of Passo Fundo, RS, Brazil

maria-imaculada.lima@embrapa.br

Fusarium head blight (FHB) caused by *Gibberella zeae* (*Fusarium graminearum*) affects wheat cultivation in southern Brazil. The objective of this work was to evaluate the effects of sowing dates and the degree of genetic resistance in controlling FHB. The experiment was conducted at the experimental field of Embrapa Trigo, in Passo Fundo, Rio Grande do Sul state in 2008. Ten wheat cultivars with different degrees of genetic resistance to FHB were sown at three different seasons (17<sup>th</sup> June, 2<sup>nd</sup> and 16<sup>th</sup> July). The experiment was performed in randomized blocks, in split-plot design with three replications with sowing dates (3) in main plots and cultivars (10) in subplots that measured 1.4 m x 6.0 m, with seven rows and 0.20 m space between them. The disease control occurred until booting stage. Wheat grains with mature perithecia of *G. zeae* were spread among replicates, on the soil surface, at the beginning of silking. One hundred spikes were sampled in soft dough grain stage and the severity was assessed using a visual scale (Stack & McMullen, 1995). FHB index (ID) was calculated by  $ID=(I*S)/100$ . The grain crop was done mechanically closing the air entry. The percentage of troublesome grains (TG) was obtained visually in 1,000 grains. The dates were analyzed by Scott Knott test. For ID in the first sowing, BRS Camboim (8,36), BRS Guamirim (5,89) and BRS Umbu (5,00) were grouped with lower values. In the second sowing, BRS 177 (14.17), BRS Camboim (14.39), BRS Guamirim (9.90) and BRS Umbu (12.77) belonged to the smaller ID group. Only BRS Guamirim (4.61) and BRS Tarumã; (2.89) in the third sowing, were part of group with the lower values of ID. For TG in the first sowing, BRS Umbu (3.60%) was statistically different from the others, with the lowest percentage followed by BRS Guamirim (6.70%). In the second sowing, BRS 177 (4.63%) and BRS Umbu (6.37%) belonged to the group of smaller TG. In the third seeding, only two groups were separate, statistically, and BRS Camboim (7.00%), BRS Guabiju (7.57%), BRS Louro (7.87%) and BRS Timbaúva (9.07%) were in the highest TG. Intensity of FHB varied with the sowing date and resistance of cultivar.

Keywords: scab; managment