

REACTION OF BRAZILIAN WHEAT CULTIVARS TO WHEAT BLAST IN THE CERRADO REGION

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Wheat blast, caused by *Magnaporthe oryzae*, is the main disease of the wheat crop in the Cerrado Region in Brazil. Nowadays, this disease is the main factor that limits the expansion of the wheat crop in that region. Due to the limited efficiency of the fungicides in years of severe occurrence of wheat blast, association of genetic resistance and chemical control has been the best strategy to control the disease and improve the cost-effectiveness for the farmers. In order to evaluate the preliminary reaction of Brazilian wheat cultivars to wheat blast under field conditions, a collection with 69 wheat cultivars was evaluated according to the occurrence of wheat blast on the heads in a field experiment conducted in Santa Juliana, Minas Gerais State, located about 1,000 m of altitude. The experiment was sowed on March 16, 2015, and the evaluation was done on May 27 (64 days after emergence) on the heads that already were reached the heading stage until May 17. Only 49 cultivars were under this condition at that moment. Later cultivars were not evaluated because the weather conditions on their heads were not appropriate for wheat blast development. A scale (1 to 5) of visual notes was used, considering 1= no heads with symptoms of wheat blast, and 5= almost 100% of the heads with severe symptoms, was used. Intermediate values (e.g.: 3/4= 3.3; 4/3= 3.6) also were noted, to try better discriminating the disease reaction. The cultivars were classified in R: Note 1.0 to 1.6; MR: 2.0 and 2.3; MS: 2.6 to 3.3; S: 3.6 to 4.3; AS: 4.6 and 5.0. Groups to heading were used. The reaction of the cultivars were: **Group 1** (34-40 days to heading) **S**: BRS 210 and BRS 394; **AS**: BRS 254, BRS 264, Embrapa 22 and Embrapa 42; **Group 2** (41-45) **MR**: BR 18, BRS 404 and CD 111; **MS**: CD 1550; **S**: BRS 248, BRS Guamirim, CD 123 and Valente; **Group 3** (46-50) **R**: BRS 229 and Fundacep Cristalino; **MR**: BRS 207, BRS 220, BRS Louro, CD 117, CD 118, CD 151, Quartzo, TBIO Itaipu and TBIO Seletto; **MS**: BRS 179, CD 1252, IAC 24, IPR Catuara, Mirante and Topázio; **S**: Ametista, CD 105, CD 108, FPS Nitron and Fundacep Horizonte; **Group 4** (51-55) **R**: CD 116 and IPR 128; **MR**: Fundacep Raízes, IPR 85, IPR 130, IPR 136 and TBIO Sinuelo; **MS**: BRS 208, BRS Gralha Azul, MGS Brilhante and Supera; **S**: BRS 327 and CD 150. The most resistant cultivars were BRS 229, BR 18, BRS 404 and CD 111. The high resistance of CD 116, IPR 128 and Fundacep Cristalino is questioned. Because of the weather conditions after heading (low rainfall), caution is necessary to consider the reaction for other cultivars of the groups 3 and 4.

Keywords: *Magnaporthe oryzae*; genetic resistance; BRS 229