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PRELIMINARY STUDY ON WHEAT GRAINS WITH BLAST DISEASE SYMPTOMS AND ITS EFFECTS ON WHEAT TECHNOLOGICAL QUALITY

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Wheat fields in Central Brazil (Brazil's Cerrado region or Brazilian savanna) from 2009 season were characterized by a high incidence of wheat blast (*Pyricularia grisea*) due to frequent rain and high temperatures during grain filling stages. Local millers claim that blast disease hampers the bread making quality. However, little information has been found in the literature about this subject. The objective of this study was to investigate if wheat blast has any effect on flour and bread produced with grains from infected fields. The study was performed on wheat grain samples from two cultivars (BRS 254 and Brillhante), supplied by a cooperative grower COOPADAP (Brasília, DF), containing variable proportion of grains exhibiting wheat blast symptoms. Wheat/flour samples were analyzed for physicochemical (moisture, test weight, thousand kernel weight, hardness, falling number, experimental milling, gluten and flour color) and rheological (alveography and farinography) parameters. Except for flour color that turned more yellowish (higher b^* value, in Minolta colorimeter), no other trait was affected by the disease.

Bread samples analyzed by the bread making test showed that the presence of wheat blast symptoms did not affect bread specific volume and internal characteristics. Bread external characteristics as aroma and taste were more intensely affected, when compared to control samples produced with flour from grains without wheat blast occurrence. Further studies will be carried out in order to investigate the effects of blast disease in different wheat cultivars from other seasons. ■

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