

Evaluation of microsporogenesis in an interspecific *Brachiaria* hybrid (Poaceae) collected in distinct years

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ABSTRACT. Microsporogenesis in an interspecific *Brachiaria* hybrid, grown in the field under natural environmental conditions in Brazilian savannas, was analyzed in three distinct years of collection. Several types of meiotic abnormalities were recorded during those three years, but varied in type and frequency depending on the year. The average temperature and rainfall 15 days before collection was unusually high in those years. The percentage of abnormal meiocytes recorded was 62% in 2001, 73% in 2004, and 77% in 2005. The abnormalities observed during microsporogenesis compromised pollen viability by generating unbalanced gametes or affecting nucleolus organization. The environmental conditions under which the hybrid was growing could have affected the genetic control of meiosis. More detailed studies, under controlled conditions, are necessary to better understand the effects of environmental factors on *Brachiaria* microsporogenesis hybrids.

Key words: *Brachiaria*; Interspecific hybrid; Microsporogenesis; Environment