Genetic diversity analysis of isolates of the fungal bean pathogen *Pseudocercospora griseola* from central and southern Brazil

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**ABSTRACT.** Planting resistant varieties is the most effective control measure against the angular leaf spot of dry beans, a fungal disease caused by *Pseudocercospora griseola*. However, dry bean varieties with durable resistance are not easily obtained. Knowledge about the genetic variability of the pathogen population is key for the success of dry bean breeding programs aimed at developing resistant materials, but finding suitable operationally simple and genetically accurate markers is not an easy task. The aim of this study was to assess the suitability of the ISSR-PCR technique to quantify the genetic variability of *P. griseola* isolates. Total
DNA of 27 *P. griseola* isolates from Goiás, Minas Gerais, Espírito Santo, and Paraná States was extracted and amplified using specific primers for ISSR. Using cluster analysis, 27 genotypes were identified. The ISSR-PCR technique was suitable for assessing intraspecific variability of *P. griseola*. The ISSR-PCR marker was found to be highly sensitive to genetic variation and can aid in elucidating the genetic structure of the population of this plant pathogen as a support tool for the dry bean breeding programs.

**Key words:** Genetic diversity; Angular leaf spot; Beans; *Phaseolus vulgaris*