FIRST REPORT OF Bipolaris micropus, Curvularia geniculata, Epicoccum sorghinum, AND Fusarium incarnatum ON Paspalum guenoarum SEEDS IN RIO GRANDE DO SUL, BRAZIL / Primeiro relato de Bipolaris micropus, Curvularia geniculata, Epicoccum sorghinum e Fusarium incarnatum em sementes de Paspalum guenoarum no Rio Grande do Sul, Brasil. B.F. GASPARETTO¹; L.B. FRANKE¹; C.C.L. ANDRADE²; M. DALBOSCO²; V. DUARTE²; S.I. MOREIRA³; E. ALVES³. ¹Department of Forage Plants and Agrometeorology, UFRGS, Porto Alegre, RS, 91540-000, Brazil / ²Agrômica - Laboratório de Diagnóstico Fitossanitário e Consultoria, Porto Alegre, RS, 91530-000, Brazil / ³Department of Plant Pathology, UFLA, Lavras, MG, 37200000, Brazil. E-mail: camila.andrade@agronomicabr.com.br

Paspalum guenoarum Arechav. is a tropical forage species that occurs naturally in the South America. In field conditions, seeds from plants showed a high incidence of various fungi. Subsamples of 100 seeds were submitted to the blotter test at 20 °C with 12-h photoperiod for 7 days. After isolation on potato-dextrose-agar medium, structures of the following fungi were observed under the microscope: conidia (32-57×16-21 μm) of Bipolaris sp., conidia (17-25×12-19 μm) of Curvularia sp.; in carnation-leaf-agar medium, canoe-shaped or banana-shaped mesoconidia (9-16×2-3 μm) of Fusarium sp., and pycnidia (100-250×105-240 μm) and conidia (8-12×5-7 μm) of Phoma sp. The internal transcribed spacer (ITS) region was amplified using primer pairs ITS1/ITS4. The RNA polymerase II (RPB2) gene (primers 5F2/7cR) was used to identify Fusarium sp. The ITS region showed 99% identity to the isolate CML 3600 of Bipolaris micropus. CML 3602 was 99% identical to Cochliobolus geniculatus, which is the obsolete teleomorph name of Curvularia geniculata. Isolate CML 3599 was 100% identical to Epicoccum sorghinum. Using the RPB2 gene, CML 3601 was found to be 99% identical to Fusarium incarnatum. Sixty seedlings were inoculated by a spore suspension (1 × 10⁵ CFU/mL) with each of the isolates both leaf surfaces. Sixty plants were sprayed with water (control). The plants were incubated at 22 °C with 12-h photoperiod. After 10 days, all inoculated seedlings developed necrotic lesions. The pathogens were recovered from the infected tissues, fulfilling the Koch’s postulates. This is the first report of incidence of B. micropus, C. geniculata, E. sorghinum, and F. incarnatum associated with P. guenoarum seeds in Brazil.

Keywords: Seed-borne fungi; ITS; RNA polymerase II gene; Phoma sp.