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Fusarium solani species complex ASSOCIATED WITH CROP PLANTS IN BRAZIL: AN STILL UNDEREXPLORED DIVERSITY / *Fusarium solani* species complex em plantas cultivadas no Brasil: diversidade ainda inexplorada. A.M.S. CARDOSO¹; L.M. ABREU²; S.S. COSTA¹, L.H. PFENNING¹. ¹Plant Pathology Department, Universidade Federal de Lavras, Lavras MG, Brazil / ²Plant Pathology Department, Universidade Federal de Viçosa, Viçosa MG, Brazil. E-mail: acleidecardoso@gmail.com

Brazil has a highly diversified and always expanding tropical and subtropical agriculture. Diseases caused by *Fusarium* species are known from virtually all crop plants. Nevertheless, knowledge based on modern species concepts and specificity to host plants is still quite scarce in the tropics. In this contribution, we report part of results obtained during the characterization of isolates belonging to the *Fusarium solani* species complex FSSC associated with three important crops, using molecular phylogeny, the biological species concept, morphology and pathogenicity tests. Several distinct phylogenetic lineages of FSSC cause disease on black pepper, passionfruit and soybean. Out of ten distinct lineages associated with black pepper identified by TEF and RPB2 sequences, only one supposedly specific lineage caused fusariosis on this host plant (lineage FSSC 31, "*F. piperis*"). In association with *Passiflora*, nine distinct lineages were identified. Pathogenicity tests revealed that isolates from seven of these lineages caused collar rot on passionfruit plants. Two of these lineages were formed by self-fertile isolates, FSSC 21, known as *F. striatum*, and a new lineage, not yet reported in the literature, preliminarily numbered FSSC 40. The other five pathogenic lineages were FSSC 3+4 ("*F. falciforme*"), FSSC 5, FSSC 20, only reported from nosocomial habitats, FSSC 25, and FSSC 41, another new lineage not yet reported in the literature. On soybean, the main pathogen causing root rot in Brazil was identified as a distinct phylogenetic lineage and mating population, recently described as *F. paranaense*. It is expected that investigations on plant associated FSSC in Brazil may significantly increase knowledge about species diversity and phylogeography of the genus. These findings will contribute to a more reliable diagnosis of the etiological agents of diseases caused by members of the FSSC. Apoio: FAPEMIG

Key words: *Piper nigrum*; *Passiflora*; *Glycine max*.