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DESIGN OF SPECIFIC PRIMERS TO DETECT THE *Bursaphelenchus cocophilus* / Desenho de primers específicos para detecção de *Bursaphelenchus cocophilus*. A.P. Silva[1]; V.P. Campos[1]; S.S. Costa[1]; E.S. Freire[4]; C.S.L. Vicente[3]; L.G. Ferreira[2]; R.M. Souza[2]; M. Mota[3]. [1]Department of Phytopathology/UFLA, 37200 000, Brazil / [2]Lab. of Nematology, 28013 602, Brazil / [3]NemaLab/ICAAM – Department of Biology, Évora University, 7002 554, Portugal / [4]University of Rio Verde, 75909 477, Brazil. E-mail: esfreire@unirv.edu.br.

The genus *Bursaphelenchus* (Fuchs, 1937) includes more than 100 species worldwide, from which three were detected already in Brazil: *B. cocophilus*, *B. mucronatus* and *B. fungivorus*. *B. cocophilus* is the causal agent of red ring disease (RRD) in coconut (*Cocos nucifera* L.) and oil palm (*Elaeis guineensis* Jacq.). Morphological markers such as the presence of preanal papillae, morphology of male bursa and vulva flap described previously in *B. cocophilus*, are also present in *B. xylophilus*, *B. seasi* and *B. kevini*. To overcome the difficulty in the precise identification, there is a need to design species specific primers for the detection of *B. cocophilus*. The aim of present study was to design and assess the specificity of primer pairs for rapid identification of *B. cocophilus*. Specific primer sets were designed carefully using ITS 1/2 (internal transcribed spaces) alignments with other *Bursaphelenchus* species. The specificity of the primer pair was tested in seven isolates of *B. cocophilus*, one isolate of *B. xylophilus*, and one isolate *B. fungivorus*. The primers were specific, amplifying only *B. cocophilus* populations. This study has contributed significantly for the development of a specific and rapid detection procedure for the RRD plant parasitic nematode.

Keywords: *Bursaphelenchus cocophilus*; Internal transcribed space; Detection; Red ring disease.