

**MOLECULAR EVIDENCE FOR THE PRESENCE OF *BEMISIA TABACI* BELONGING TO THE MIDDLE EAST-ASIA MINOR 1 AND NEW WORLD SPECIES IN BRAZIL**

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*Bemisia tabaci* is one of the most important insect pests, being vector of the plant virus begomoviruses and causes serious problems in many countries, including Brazil. Based on the mitochondrial cytochrome oxidase I (mtCOI) sequence, the phylogenetic relationships from populations of *B. tabaci* collected from different hosts and locations in São Paulo and Mato Grosso State, Brazil were analyzed. According to the recent classification of *B. tabaci*, the most part of the specimens collected in Brazil belongs to the Middle East- Asia Minor 1 specie, which includes biotypes B and B2. But three specimens collected from *Euphorbia heterophylla*, *Xanthium cavanillesii* and *Glycine max* (soya) respectively, were classified in the New World group/specie and showed higher nucleotide identity with *B. tabaci* from Colombia (accession number AJ550167 and AJ550168, A biotype). The different species could be found colonizing the same soya plant in commercial area of Mato Grosso, indicating the co-existence of them in Brazil. By RFLP, these species could be easy differentiated using *Thru I* and *Taq I* enzymes. Mediterranean specimens could not be found in Brazil. As far as we know this is the first molecular evidence for the presence of the New World specie in Brazil.

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