ISBN 978-85-66836-16-5

EGGPLANT: A NATURAL HOST OF *TOMATO SEVERE RUGOSE VIRUS* (ToSRV) IN BRAZIL. FECURY-MOURA, M.[1]; RUSCHEL, R.G. [1]; WATANABE, L.F.M. [1]; GOTARDI, G.A.[1]; PAVAN, M.A.[1]; INOUE-NAGATA, A.K.[2]; REZENDE, J.A.M.[3]; KRAUSE-SAKATE, R.[1].Email: agromonika@yahoo.com.br.[1]Universidade Estadual Paulista "Júlio de Mesquita Filho" – Faculdade de Ciências Agronômicas, UNESP-FCA.[2] Embrapa Hortaliças, 70359-970, Brasília-DF, Brasil.[3] Departamento de Entomologia, Fitopatologia e Zoologia Agrícola-ESALQ, Piracicaba-SP.

The begomoviruses are important plant pathogens, transmitted by the whitefly *Bemisia tabaci* (Hemiptera: Aleyrodidae), involved in important diseases on solanaceous crops. During 2014-2016, eggplants (*Solanum melongena*) exhibiting chlorosis and mild mottle were found in fields in Itápolis and Lins Counties, São Paulo State, Brazil. Total DNA was extracted from 70 leaf samples randomly collected from symptomatic and non-symptomatic eggplants. Total DNA were used to perform the rolling circle amplification (TempliPhi DNA Amplification kit), followed by PCR using the universal begomovirus primers PAR1c496/PAL1v1978. 41 symptomatic eggplant were positive for begomovirus by RCA-PCR. Eight randomly chosen amplicons were sequenced using the universal primers and withefly transmitted to health eggplant. ToSRV infection was also confirmed in the whiteflies found colonizing an eggplant isolate from the field and the whitefly was identified as MEAM1 species (Biotype B) using the primer pair C1-J-2195-FW/C1-J-2195-RV, which amplifies the mtCOI gene. The nucleotide sequences of ~1.200bp of theses amplicons were 95-99% identical to the corresponding sequence of the begomovirus *Tomato severe rugose virus* (ToSRV). The complete nucleotide sequence of the DNA-A component of one isolate was determined by primer walking (2.595bp), deposited in GenBank (Accession No: KY781196), shared 97% identical nucleotide sequence with a ToSRV isolate from pepper. Partial DNA-B component from the same eggplant isolate was also amplified by PCR with one primer pair PCRc1/PBL1v2040 and nucleotide sequence of ~550bp showed 95% identity with the DNA-B component sequence of ToSRV. These results demonstrate that ToSRV in eggplant is probably correlated with the population of whitefly in pepper infected crops, since these two hosts are cultivated close in the field. To our knowledge this is the first report of eggplant infection by ToSRV in Brazil.

Key-Words: Begomovirus, whitlefly, solanaceae