

VIROLOGIA

772

Tomato chlorosis virus on the weed *Physalis angulata* within tomato fields in São Paulo State, Brazil.

(Infecção da planta daninha *Physalis angulata* por *Tomato chlorosis virus* em lavouras de tomateiro no Estado de São Paulo, Brasil.)

Abreu H.¹; Fonseca, M.E.N.²; Nogueira I.¹; Pereira-Carvalho, R.C.¹; Boiteux, L.S.²

¹Universidade de Brasília – UnB; ²Embrapa Hortaliças – CNPH. E-mail: i.nogueiraa@gmail.com.

During surveys in Capão Bonito, São Paulo State, Brazil (May, 2011) a high incidence (above 20%) of plants of the weed species *Physalis angulata* L. (Solanaceae) displaying interveinal chlorosis were found around and within tomato (cv. Alambra) fields heavily attacked by *Tomato chlorosis virus* (ToCV). Plants of *P. angulata* also showed an abundant whitefly (*Bemisia tabaci*) colonization. Ten leaf samples were collected in order to confirm if this weed species plays a role as an alternative crinivirus reservoir. Total nucleic acids were extracted from symptomatic and healthy leaf tissues of both *P. angulata* and tomato. Purified RNA samples were used as template in reverse transcription-polymerase chain reaction (RT-PCR) using specific primers targeting conserved regions of the ToCV genome. Only ToCV-specific amplicons were detected in all *P. angulata* plants and also in samples of symptomatic tomato plants. This cDNA amplicon was sequenced and it showed 96% identity with a segment of the RNA-1 genome from a ToCV isolate from Greece, confirming the initial indication of crinivirus infection. This weed is often present in the tomato fields in this geographic region due to its tolerance to the herbicides currently employed in this vegetable crop in Brazil. These ToCV-infected plants might serve as alternative sources of inoculum to the tomato crop.