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VIROLOGIA

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Serological detection of seven virus species in hot peppers during the period of 2009-2012.

(Detecção sorológica de sete espécies de vírus em pimentas no período de 2009-2012.)

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Viruses are among the major constraints to hot pepper production in Brazil, affecting yield and fruit quality. Considering the importance of these pathogens to hot pepper production, this study aimed to investigate the occurrence and incidence of seven viruses infecting hot pepper (*Tomato spotted wilt virus* – TSWV; *Groundnut ringspot virus* – GRSV; *Tomato chlorotic spot virus* – TCSV; *Potato virus Y* – PVY; *Pepper yellow mosaic virus* – PepYMV; *Pepper mild mottle virus* – PMMoV; *Cucumber mosaic virus* - CMV), during 2009-2012. Leaf samples (Goiás: 383; Minas Gerais: 35; Distrito Federal: 1,012) were collected from hot pepper fields and analyzed for virus presence by DAS-ELISA (*Double antibody sandwich - Enzyme-linked immunosorbent assay*), and dot-ELISA using polyclonal antibodies. Serological tests results indicated the prevalence of potyviruses (incidence from 1.9% - PepYMV, to 100% - PVY and PepYMV) over the tospoviruses (incidence from 0.3% - TSWV to 80% - GRSV). PepYMV and PVY were detected in plants from 15 and 11 hot pepper fields, respectively, while the tospovíruses occurred in six (TSWV), eight (TCSV) and 13 (GRSV) plantings, during that period of time. GRSV (1.8%-66.7%) occurred more often than TSWV (0.3%-18.8%) and TCSV (0.1%-51.4%). CMV (2.7%-19.4%) was less frequently found, occurring in five fields. PMMoV (1.9%-65.1%) was identified in samples from nine areas. These data indicate the importance of viral diseases to hot pepper and the need of the employment of efficient control management strategies for their control.

Apoio: Embrapa, CNPq.