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SUPPLEMENT 1

Resumos

encapsidation (CP), whereas the DNA-B encodes two proteins (NS and MP) required for cell-to-cell and systemic movement of the virus. Pseudorecombination is phenomenon which occurs between begomoviruses with a bipartite genome, where the replication proteins encoded by DNA-A can replicate the heterologous DNA-B and the movement proteins encoded by DNA-B can move the heterologous DNA-A. The occurrence of mixed infections involving more than one species of begomovirus is common in the field, and the coexistence of more than one species of begomovirus in the same cell can facilitate the occurrence of pseudorecombination. This is an important evolutionary tool that leads to the frequent emergence of new begomovirus species. Infectious clones of DNA-A and -B of *Tomato chlorotic mottle virus* (TCMV), *Tomato rugose mosaic virus* (TRMV), *Tomato golden mosaic virus* (TGMV), DNA-A of *Sida mottle virus* (SMoV) and *Sida yellow mosaic virus* (SYMV), and DNA-B of *Tomato yellow mottle virus* (TYMoV) were used in a pseudorecombination assay. Different combinations of DNA-A and -B were bombarded into *N. benthamiana* plants, and the formation of viable pseudorecombinants was detected by visual observation of disease symptoms and PCR. Several combinations yielded viable pseudorecombinants, including combinations between tomato and *Sida* viruses. The symptoms observed included mosaic, mottling, interveinal chlorosis and leaf curling. These results indicate that begomoviruses from weeds and commercial crops are related and can replicate each other, and reinforce the hypothesis that weeds such as *Sida* sp. function as a natural reservoir of begomoviruses in the field.

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PL 21 - *PUERARIA* SP. NATURALLY INFECTED BY *COWPEA SEVERE MOSAIC VIRUS* SEROTYPE I, IN THE STATE OF PARÁ.

Nogueira, M.S.R.[1]; Cunha Júnior, J.O.[1]; Trindade, D.R.[2], Poltronieri, L.S.[2] and Brioso, P.S.T.[1*] ([1]Laboratório de Virologia Vegetal e Viróides/DEnF/UFRRJ, Seropédica, RJ; [2]EMBRAPA Amazônia Oriental, Belém, PA). E-mail: brioso@whouse.com.br

Pueraria sp. is a legume crop, used for soil conservation in the Northern region of Brazil. The objective of this work comprised the detection of the virus agent, inducing mosaic in *Pueraria* sp., growing in the county of Igararé-Açu, Pará state. Leaf samples were collected from infected plants, and mechanically inoculated, in the primary leaves of 6-day-old cowpea (cv. Costelão). The inoculum was diluted 1:10 , and the inoculated plants were kept in the greenhouse. Symptomatic leaves of 'Costelão' were serologically tested in double-difusion agar gel, without SDS, using specific antiserum against serotype I and II of *Cowpea severe mosaic virus* (CPSMV). The tested samples reacted with CPSMV-serotype I antiserum. The results obtained in this work demonstrate that *Pueraria* sp. is a natural host of the CPSMV-serotype I and, it can be implicated as a potential source of CPSMV inoculum for infection of cowpea cultivars, in the state of Pará.

PL 22 - REACTION OF THE NEW HOSTS *GOMPHRENA GLOBOSA* AND *ALTHERNANTHERA TENELLA* TO ISOLATES OF *COFFEE RINGSPOT VIRUS* (CoRSV).

Boari, A.J.[1*]; Figueira, A.R.[1]; Neder, D.G.[1]; Nogueira, N.L.[2]; & Rossi, M.L.[2] ([1]DFP/UFLA Lavras-MG; [2]CENA/USP, Piracicaba-SP). *E-mail: ajb@ufla.br

The increasing dissemination of CoRSV has led researches to consider the possibility of mutation of the virus genome, besides the also increasing population of the vector virus *Brevipalpus phoenicis*. Some evidence of that was first shown by Figueira and Carvalho (Phytopathology 88: 13-14, 1998). The authors showed that CoRSV was able to systemically infect *Chenopodium quinoa*, which wasn't shown before. Recently, isolates from leaves of coffee trees, that had ringspot symptoms, caused 10 to 20% leaf-rib chlorosis in mechanically inoculated plants of *C. quinoa*. The symptoms were observed only on part of the leaves, showing low translocation of the virus. In order to find some other host, the isolate was inoculated in some other species, such as *Capsicum annuum* L., *Gomphrena globosa*, *Nicotiana tabacum* 'TNN', *N. benthamiana*, *Lactucae sativa*, *Brassica oleraceae* var. acephala, *Capsicum annuum*, *N. glutinosa*, *Physalis floridana*, *Phaseolus vulgaris*, *Bidens pilosa*, *Alternanthera tenella*, and *Datura stramonium*. Among these species, *G. globosa* showed some localized oily ringspot on the lower face of the leaves, and chlorotic rihgspots on the upper face, which turned into necrosis. When inoculated back into the *C. quinoa*, the virus caused the same leaf-rib chlorosis as shown before. On *A tenella*, the virus caused yellow stains by the leaf ribs, which looked like those ones on the coffee leaves. By the end of the cycle, those stains turned into necrotic spots with greenish halos. These symptoms were different of those shown by Carvalho (1999). The virus recovered from the leaves of *A. tenella* caused chlorosis of leaf-ribs of *C. quinoa*. Typical particles of *Rhabdovirus* were found by the edges of those lesions. As a conclusion, there is clear variety of these isolates that were collected from different coffee-growing regions.

Financial support: CBP&D-Café, CNPq and FAPEMIG

PL 23 - RESISTANCE OF TRANSGENIC PASSIONFRUIT PLANTS (*PASSIFLORA EDULIS F. FLAVICARPA*) TRANSFORMED WITH A CONSTRUCT DERIVED FROM THE GENOME OF PWV (*PASSIONFRUIT WOODINESS VIRUS*) TO TWO ISOLATES OF THE PATHOGEN.

Alfenas, P.A.[1]; Torres, L.B.[1]; Braz, A.S.K.[1]; Otoni, W.C.[2] e Zerbini, F.M.[1*] ([1]Dep. de Fitopatologia and [2]Dep. de Biologia Vegetal, BIOAGRO/UFV, Viçosa, MG). *E-mail: zerbini@ufv.br