Passionfruit woodiness virus (PWV) is a member of the family *Potyviridae*, genus *Potyvirus*. In Brazil the disease is present in the main passionfruit-producing states. Plants of the yellow passionfruit (*Passiflora edulis* f. *flavicarpa*) were transformed with an unstranslatable construct corresponding to the 3' 2/3 of the nib (replicase) gene and the 5' 1/3 of the cp (capsid protein) gene of a PWV isolate from Minas Gerais (PWV-MG1). Transgenic plants were vegetatively propagated by stem cuttings and challenged by sap inoculation with isolates PWV-MG1 and PWV-PE1 (an isolate from Pernambuco). One of the transgenic lines (T10) was resistant to PWV-MG1, but not to PWV-PE1. Absence of viral replication in T10 plants challenged with PWV-MG1 was confirmed by indirect ELISA. All the remaining transgenic lines were susceptible to both viral isolates. Northern blot analysis indicated that non-inoculated plants of the T10 line did not accumulate transgenic mRNA. After inoculation, viral RNA was detected only in T10 plants challenged with PWV-PE1. These results indicate that the transgenic line T10 is resistant to PWV-MG1, and suggest that the resistance mechanism involves posttranscriptional gene silencing, which is already active in the plants before viral inoculation. The transgenic line T10 will continue to be vegetatively propagated and tested for resistance to PWV under natural conditions.

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PL 24 - SEROLOGICAL DETECTION AND CHARACTERIZATION OF *GARLIC VIRUS B* (GarV-B) (*ALLEXIVIRUS*) ASSOCIATED TO GARLIC PLANTS IN MINAS GERAIS AND GOIÁS.

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Nine garlic samples from cultivar "Caçador" collected in São Gonçalo – MG - and six samples from cultivar "Amarante" collected in Água Fria – GO - were analyzed by Dot-Blot using antiserum against *Garlic virus B* (GarV-B). One kernel of each sample was planted in a plastic pot in a greenhouse. The plants were sprayed to eliminate mites avoiding any allexivirus transmission in the Greenhouse. Thirty days after germination the upper leaves of each plant were collected and tested for virus infection using a monoclonal antibody to GarV-B obtained from Japan. All plants showed virus symptoms and no mites feeding marks were observed. Only one out of nine samples isolated in São Gonçalo was infected while two collected in Água Fria, showed positive reaction. These isolates were biologically purified by four sequential mechanical passages on *Chenopodium quinoa* (a local lesion host) before back inoculation on garlic. The coat protein of these isolates were amplified by RT-PCR using primers designed from GarV-B sequences available in the GenBank. A 650 pb long fragment was obtained and it is currently being cloned and sequenced for molecular characterization of the Brazilian isolate of GarV-B.

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PL 25 - SURVEY OF BEGOMOVIRUSES ASSOCIATED WITH SOYBEAN AND IDENTIFICATION OF *SIDA MOTTLE VIRUS* (SiMoV) INFECTING THIS CROP IN BRAZIL.

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In a previous study (Mello *et al.*, Fitopat. Bras. 25:444, 2000), five begomoviruses (BGMV, LeMV and three new viruses, "virus A", "virus B" and "virus C") were found infecting soybean and associated weeds in the field. To better evaluate the incidence of soybean-infecting begomoviruses in the field, general and specific probes were prepared for the detection of these five viruses. A general probe consisting of a mixture of a 1.100 nucleotide (nt) fragment of the DNA-A from BGMV, LeMV, and "virus B", plus the *Tomato rugose mosaic virus* (TRMV) full length DNA-A, was used as a tool to detect BGMV, LeMV, "virus A", "virus B "and "virus C" in 380 soybean, other *Fabaceae* and associated weed samples collected from February to April 2001 in the states of Paraná, Minas Gerais, Goiás and São Paulo. Thirty-two out of 147 symptomatic soybean samples, 37 out 83 weed samples, and one out four bean samples were found to be infected. No infection was found in six *Crotalaria* sp. samples with virus-like symptoms, or in 140 symptomless soybean samples. Five specific probes, each made of a 500 nt fragment of the DNA-B from BGMV, LeMV, "virus A", "virus B" or "virus C", were used to identify each of these viruses in the 70 samples that tested positive with the general probe. "Virus A" was found in nine soybean samples from Goiás and in three *Sida* sp. samples from Paraná. LeMV was found in seven *L. sibiricus* samples from Paraná. BGMV, "virus B" and "virus C" were not found. Fifteen soybean samples that tested positive with the general probe but negative with all five specific probes were analysed by PCR using universal primers for the DNA-A, and direct sequencing of PCR products. Sequence comparisons indicated that *Sida mottle virus* was present in all of the 15 samples. This virus was described infecting *Sida* sp. in Minas Gerais (Fernandes *et al.*, Virus Rev. Res. 4:148, 1999) and a cognate DNA-B was not found. We are currently looking for a DNA-B in these samples.

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