Notes

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Mountains of southeastern Bulgaria, native populations of A. laub. & Spach were found on the edge of a road in an xe village of Gramatikova (42°13'38"N; 27°36'49"E) at about 125 m. C. montbretii, a perennial species, is the p. native to Bulgaria. At the time of collection, necrotic rved on the stems, leaflets, and pods of several plants, were reminiscent of those induced by Ascochyta rabiei. The teleomorph (sexual stage) of A. rabiei, Didymella (v. Arx (syn. Mycosphaerella rabiei Kovachevski), 1936 on overwintered chickpea residue in southern ngus is heterothallic and requires the pairing of two g types for development of fertile pseudothecia. Both infested from all foliar tissues of the plant, including seeds. Therefore, in Bulgaria, both cultivated and wild types have been reported. Isolates of A. rabiei from C. montbretii compatible mating type tester isolates of A. rabiei, (6501) and MAT 1-2 (ATCC 76502), following the proand Kusmenoglu (2). Both mating types were found A. rabiei, and the teleomorph, Didymella rabiei Arx, developed on naturally infested chickpea debris in the greenhouse on seedlings. The fungus was identified as a pathogen of cultivated peas in Bulgaria by Kovachevsky and Hristov (1) in 1949. This is the first report of A. rabiei in Bulgaria and other countries where P. sativum subsp. elatius is a native plant species.


Although tomato golden mosaic virus (TGMV) was reported in Brazil more than 20 years ago (3), tomato-infesting geminiviruses have not been of economic significance in the country until recently. However, a sharp increase in the incidence of geminivirus-like symptoms in tomatoes has been reported in several areas of Brazil since 1994. This has coincided with the appearance of the B biotype of Bemisia tabaci, which, as opposed to the A biotype, readily colonizes solanaceous plants (2). We have isolated geminiviruses from symptomatic tomato plants in the Federal District, in two different areas of the state of Minas Gerais, and in the state of Pernambuco. Tomato plants in these areas showed a variety of symptoms, including yellow mosaic, severe leaf distortion, downcupping, and epinasty. Whitefly infestation was high in all fields sampled, and in some fields, particularly in Pernambuco, incidence of virus-like symptoms was close to 100%, and no tomatoes of commercial value were harvested (1). Using primer pairs PAL1v1978/PAR1c496 and PCR1c-PBL1v2040 (4), DNA-A and -B fragments were polymerase chain reaction (PCR)-amplified from total DNA extracted from diseased plants, cloned, and sequenced. Sequence comparisons of the PCR fragments indicated the existence of at least six different geminiviruses. The nucleotide sequence homologies for DNA-A fragments ranged from 67 to 80% for the 5' end of the cp gene, and from 44 to 80% for the 5' end of the rep gene. Data base comparisons indicated the viruses are most closely related to TGMV, bean golden mosaic virus from Brazil (BGMV-Br), and tomato yellow vein streak virus (ToYVSV), although homologies were less than 80% for the fragments compared. A similar lack of a close relationship with each other and other geminiviruses was obtained with two DNA-B component PCR products compared, corresponding to the 5' end of the BCI open reading frame. Infectious, full-length genomic clones from the tomato viruses are being generated for biological and molecular characterization.