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Disease Note.

Detection of Tomato Spotted Wilt Tospovirus in Lentil. M. E.N. Fonseca, CENARGEN/EMBRAPA; C. P. 02372, 70849-970; Universidade de Brasilia, 70919-970 Brasilia (DF), Brazil.. L. S. Boi-teux and A. C. de Avila, CNPH/EMBRAPA C. P. 0218, 70359-970; and M. I. Lima and E. W. Kitajima, Universidade de Brasilia, 70919-970 Brasilia (DF), Brazil. Plant Dis. 79:320. Accepted for publication 14 November 1994. DOI: 10.1094/PD-79-0320C.

In July 1992, about 5% of field-grown lentil *(Lens culinaris* Medik.) plants in Brasilia-DF, central Brazil, were found to show symptoms of chlorosis and malformation of the apical leaves, ringspot lesions on pods, and stunting. Tomato spotted wilt tospovirus (TSWV) was detected in lentil by enzyme linked immunosorbent assay with antiserum specific for TSWV (serogroup I) isolates (2) The tospovirus from lentil was mechanically transmitted to lentil cv. Precoz, tomato cv. Rutgers, and *Nicotiana rustica,* inducing in all three host plants necrosis of the new growth, necrotic (usually concentric) lesions on leaves, and an overall plant stunting. In *Capsicum chinense* Jacq. 'PI 152225' and 'PI 159236' lines, the tospovirus from lentil induced only a local lesion response that has previously been found to be a specific reaction against isolates of the serogroup 1 (1). Leaf samples were analyzed by transmission electron microscopy in leaf dip preparations and thin section of leaf tissues. Typical TSWV particles were found only in the infected plants. TSWV infection was also confirmed by the reverse transcriptase-polymerase chain reaction using a total nucleic acid extract preparation. Two primers (5'-TCAAGCAAGTTCTGCGAGTT-3') and (5'-ATGTCTAAGGTTAAGCTCAC-3') were designed to flank a 700 base pair sequence in the nucleoprotein gene region of TSWV genome (2). These 20-mer primers were used for cDNA synthesis and amplification. The authenticity of the amplified fragment observed in gel electrophoresis was confirmed after sequencing of these cloned fragments. The nucleotide sequences of these cDNAs presented a very high identity with the formerly published sequence of the TSWV nucleoprotein gene (1). This is the first report of a disense of til tentil caused by natural infection of TSWV This new disease may be an important constraint for lentil in central Brazil because this crop is cultivated during the dry season (April- September), which corresponds to the highest infestation of viruliferous thrips in the region.

References: (1) L. S. Boiteux and A. C de Avila. Euphytica 75:139, 1994 (2) A. C. de Avila et al. J. Gen. Virol. 74:153, 1993.