Serological and molecular detection of Groundnut bud necrosis virus (GBNV) causing bud blight disease in tomato

B. BALOL GURUPAD* AND M.S. PATIL

Department of Plant Pathology, University of Agricultural Sciences, Dharwad (Karnataka) India

ABSTRACT

Tomato bud blight disease caused by Groundnut bud necrosis virus (GBNV) is a distinct member in the genus Tospovirus of the Bunyaviridae, and is the most economically important disease affecting tomato crop. Diagnosis of virus was done using two different methods, i.e., Direct antigen coated-enzyme linked immunosorbent assay (DAC-ELISA) and reverse transcription-polymerase chain reaction (RT-PCR). Bud blight affected samples collected from Dharwad, Belgaum, Haveri, Bengaluru-rural and Kolar showed positive reaction with polyclonal antibodies of GBNV in DAC-ELISA and amplification of 831 bp GBNV-coat protein by RT-PCR with degenerate primers.