

DISEASE NOTE

FIRST REPORT OF ZUCCHINI YELLOW MOSAIC VIRUS ON CUCURBITA MOSCHATA IN INDIA

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Zucchini yellow mosaic virus (ZYMV), genus *Potyvirus*, infects and causes severe yield losses to cucurbits, including *Cucurbita moschata*, which is widely grown and consumed in the Indian subcontinent. During 2012-2014, while conducting survey for virus diseases of cucurbits in Tamil Nadu, plants exhibiting mosaic and malformation of leaves and fruits recalling symptoms induced by ZYMV were observed in pumpkin crops at Udumalpet (Tiruppur, isolate TN UDU PUM1) and Anamalai (Coimbatore, isolate TN ANA PUM1) with incidence ranging from 40 to 70%. Ten symptomatic samples (five each from Udumalpet and Anamalai) selected randomly were tested by DAS-ELISA for the presence of ZYMV using a commercial kit (DSMZ, Germany) and ZYMV-specific immunostrips (Agdia, USA). ZYMV was detected only in symptomatic plants. Likewise, RT-PCR using the primer pair (GK ZYMV F/R2) constructed on the coat protein sequence of the virus (Nagendran *et al.*, 2015) amplified a product of *ca.* 1,000 bp only from symptomatic samples, which was cloned and sequenced in both orientations. Multiple alignment of the nucleotide sequences of both viral isolates (KJ866937 and KJ729043) with comparable sequences from GenBank revealed 98-99% identity with ZYMV isolates from India (HQ529776, KJ866939, KJ729041, KJ729044, JF797206), Iran (JN183062), Israel (EF062582), Syria (KF056805) and Germany (AJ420019) confirming the presence of this virus in symptomatic pumpkin plants. The occurrence of ZYMV in pumpkin has been reported from Germany, Serbia, Korea and Australia (Vučurović *et al.* 2012), and in cucumber, gherkins, snake gourd, bottle gourd, zucchini and *Amaranthus viridis* in India (Nagendran *et al.*, 2015). This is then the first report of ZYMV occurrence in pumpkin in India.

We thank Dr. R.A. Naidu (WSU, USA) for his valuable guidance and Dr. S. Winter (DSMZ, Germany) for providing the antiserum used in this study.

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Received October 18, 2015

Accepted December 16, 2015