

DISEASE NOTE

FIRST REPORTED OCCURRENCE OF *COLEUS BLUMEI* VIROID 3 FROM *COLEUS BLUMEI* IN CHINA

D.M. Jiang^{1,2}, S.F. Li¹, F.H. Fu¹, Z.J. Wu² and L.H. Xie²

¹ State Key Laboratory for Biology of Plant Diseases and Insect Pests, Institute of Plant Protection, Chinese Academy of Agricultural Sciences, Beijing 100193, China

² Institute of Plant Virology, Fujian Agriculture and Forestry University, Fuzhou 350002, Fujian Province, China

Coleus (*Coleus blumei*) is an ornamental plant hosting several species of the genus *Coleviroid* [type member *Coleus blumei viroid 1* (CbVd-1)], family *Pospiviroidae*. CbVd-3, a recognized member of the family, has only been reported from Germany in 1996 (Spieker *et al.*, 1996). According to their proposed rod-like secondary structure, the left portion of CbVd-3 is also preserved in CbVd-2 and CbVd-6, which are viroid chimeras (Spieker, 1996; Hou *et al.*, 2009). Fifty leaf samples of *coleus*, including 30 from Beijing and five each from Tianjin, Nanjing, Fujian and Hainan (China), were collected from 2009 to 2010. Low molecular weight RNAs were extracted as previously reported (Li *et al.*, 1995). RNA extraction from viroid-free *coleus* was used as negative control. Results of dot-blot hybridization using DIG-labeled CbVd-3 cRNA probe and RT-PCR using CbVd-3 specific primers (PF: 5'-CGGGTACCCAGCAACCT-GCT-3'; PR: 5'-TGGGTACCCGCGAAGAGC-3') showed that one sample from Beijing and one from Hainan were positive for CbVd-3. Products of the expected size were amplified only from the hybridization-positive samples. After cloning, sequence analysis of five selected clones revealed that the similarities between the sequences we obtained and the CbVd-3 sequence reported previously (GenBank accession No. X57294) varied from 99.72% to 100%. The dominant sequence has been submitted to GenBank (accession No. HQ727548). These results provide experimental evidence that the two tested plants were infected by CbVd-3. To our knowledge, this is the first report of CbVd-3 from China and the only report of this viroid outside Germany.

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Corresponding author: S.F. Li

Fax: +86.62890875

E-mail: sfli@ippcaas.cn, lishifang2003@yahoo.com.cn

Received April 25, 2011

Accepted May 24, 2011

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FIRST REPORT OF *ALFALFA* MOSAIC VIRUS IN EGGPLANT IN TURKEY

S. Ozdemir¹, S. Erilmez¹ and I.C. Paylan²

¹ Bornova Plant Protection Research Institute, 35040 Izmir, Turkey

² Ege University, Faculty of Agriculture, Department of Plant Protection, 35100 Izmir, Turkey

In May 2010, samples of field-grown eggplants (*Solanum melongena*) exhibiting virus-like symptoms were received from Manisa (western Turkey). Symptoms including distinct bright yellow to white mosaic or mottling (calico) appeared first on the oldest leaves and fruits were reduced in number and size. Leaf tissues from 10 symptomless and 35 symptomatic plants were sampled and analyzed by DAS-ELISA using commercial kits (Bioreba, Switzerland) to *Alfalfa mosaic virus* (AMV), *Cucumber mosaic virus* (CMV), *Tobacco mosaic virus* (TMV), *Tomato spotted wilt virus* (TSWV), *Tomato black ring virus* (TBRV), *Tobacco ringspot virus* (TRSV) and *Pepino mosaic virus* (PepMV). All symptomatic plants were AMV-positive, and showed no reaction with the antisera to CMV, TMV, TSWV, TBRV, TRSV and PepMV. The presence of AMV was confirmed by RT-PCR using as template total RNA extracted by a silica capture method from fresh, symptomatic eggplant leaves (Foissac *et al.*, 2001) and specific primers designed to amplify a fragment of the coat protein gene (AMVcoat-F: GTGGTGGGAAAGCTGGTAAA and AMVcoat-R: CACCCAGTGGAGGTCAGCATT; Martinez *et al.*, 2004). A PCR product of the expected size (700 bp) was obtained from plants that were AMV-positive in ELISA. No amplification was observed from symptomless eggplant samples. RT-PCR and ELISA results were consistent with AMV being the causal agent of the field symptomatology. To our knowledge, this is the first report of natural AMV infection of eggplant in Turkey.

Foissac X., Svanella-Dumas L., Gentit P., Dulucq M.J., Candresse T., 2001. Polyvalent detection of fruit tree Trichovirus, Capillo- and Foveaviruses by nested RT-PCR using degenerated and inosine-containing primers (PDO RT-PCR). *Acta Horticulturae* **550**: 37-44.

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Corresponding author: S. Ozdemir

Fax: +90.232.3741653

E-mail: sabozdemir@yahoo.com

Received May 4, 2011

Accepted May 9, 2011