

DISEASE REPORTS

Reservoir weed host for Zucchini yellow mosaic virus in Iran

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During the summer of 2006, samples of the weed *Alhagi camelorum* were collected from cucurbit fields in the Markazi province of Iran. Using the double-antibody sandwich enzyme-linked immunosorbent assay (DAS-ELISA) with specific polyclonal antibodies, the samples were tested for *Zucchini yellow mosaic virus* (ZYMV), *Watermelon mosaic virus* (WMV), *Cucumber mosaic virus* (CMV), *Melon necrotic spot virus* (MNSV), and *Zucchini yellow fleck virus* (ZYFV) (Loewe Biochemica GMBH, Sauerlach, Germany). Leaf extracts were inoculated mechanically and they produced chlorotic local lesions on *Chenopodium amaranticolor*; systemic vein netting, yellowing, mosaic, and leaf deformation on *Cucurbita pepo*; and chlorotic local lesions, systemic vein clearing, yellowing, mosaic and leaf deformation on *Cucumis melo*. These symptoms were similar to those described previously for ZYMV (Desbiez and Lecoq, 1997). The ELISA results showed that the original leaf samples and inoculated indicator plants reacted positively with ZYMV antibodies, but not with antibodies from any of the other viruses listed above. Also, the reverse transcription-polymerase chain reaction of total RNA extracted from the leaf samples using specific primers for ZYMV (Lecoq *et al.*, 2004) resulted in amplification of one frag-

ment of the expected size, approximately 600 bp. ZYMV, a member of the genus *Potyvirus* in the family *Potyviridae*, is transmitted by aphids in a nonpersistent manner (Desbiez and Lecoq, 1997). The virus is geographically widespread with a wide host range comprising 11 plant families including Amarantaceae, Papilionaceae, Ranunculaceae, Scrophulariaceae, Asteraceae, Cucurbitaceae, Solanaceae and Umbelliferae (Desbiez and Lecoq, 1997). *A. camelorum*, a perennial plant in the Papilionaceae family, was common and widely distributed in the fields surveyed. The occurrence of ZYMV-infected weed hosts in cucurbit fields may impact disease management strategies. ZYMV was first observed on *Cucumis melo* in Iran (Ghorbani, 1988). This is the first report of its natural occurrence on weed hosts in Iran.

Literature cited

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