First report of sesame curly top virus infecting vegetables and ornamental plants in Iran

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Sesame curly top virus (SeCTV) is a new proposed species of the genus *Turncurtovirus* in the family *Geminiviridae* and was reported for the first time in sesame in Iran (Hasanvand et al. 2018). To determine the host range of SeCTV, 66 symptomatic plant samples showing yellowing, leaf curling, vein swelling and/or dwarfing were collected between 2017 and 2019 from vegetable and ornamental plants in Kerman province, south-eastern Iran. Total DNA was extracted using the CTAB method as described by Zhang et al. (1998) and subjected to PCR using primer pair LHEcoRV-F: 5'-GATATCACTTTGGTAATTGAAGAGAGGGCC-3' / LHEcoRV-R: 5'-GATATCGAAGCCGAAGAGGAT-3' and Platinum Pfx DNA polymerase (Thermo Fisher Scientific, USA). SeCTV infection was confirmed by PCR in alfalfa (5 of 13 plants), bean (5 of 7 plants), eggplant (2 of 6 plants), blanket flower (*Gaillardia aristata* Pursh, Asteraceae) (3 of 4 plants), faba bean (2 of 12 plants), radish (6 of 14 plants) and watermelon (10 of 10 plants) samples. The full-length genome of seven SeCTV isolates (one representative for each plant species) was amplified using a combination of rolling circle amplification kit (TempliPhi, GE Healthcare, USA), as described by Haible et al. (2006), and PCR. PCR amplicons with the expected size of ~3 kb were resolved by electrophoresis on 0.7% agarose gels, cloned and sequenced (GenBank accession numbers MT041691-MT041697). The full-length genome of all SeCTV isolates from the seven natural hosts was 2972 nts in size and shared 96.9–99.3% nucleotide identity among themselves and 97.7–99.7% with a sesame isolate (MH595443). This finding indicated that SeCTV is

widespread in vegetables crops in Kerman province of Iran. To the best of our knowledge, this is the first report of SeCTV infecting faba bean, radish, alfalfa, bean, eggplant, watermelon and blanket flower.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

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