

DISEASE NOTE

**A NEW CHINESE ISOLATE
OF STRAWBERRY MILD YELLOW
EDGE VIRUS FROM
FRAGARIA PENTAPHYLLA**

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Strawberry mild yellow edge virus (SMYEV), an aphid-transmitted potyvirus, is one of the most economically important viral pathogens of strawberries worldwide. SMYEV was first reported from China more than 20 years ago (Wang, 1988). In surveys conducted from 2005 to 2009, 53 out of 93 samples collected from different Chinese regions proved to be SMYEV-positive when tested by RT-PCR using the specific primer set [SMYEV(+): 5'-CCG CTG CAG TTG TAG GGT A-3' and SMYEV(-): 5'-CAT GGC ACT CAT TGG AGC TGG G-3'] (Lamprecht and Jelkmann, 1997). Some samples were also indexed on the sensitive indicator clones EMC, UC5, and UC10. A wild strawberry (*F. pentaphylla*) from Gansu, was also positive by RT-PCR and biological indexing. A 930 bp sequence (GenBank accession No. EU107084) of the 3' terminal region of the SMYEV genome of the isolate from *F. pentaphylla* was obtained by 3' rapid amplification of cDNA ends (RACE). Comparisons revealed that this sequence shared 79.5 to 86.6% identity at the nucleotide level with published SMYEV sequences. Phylogenetic analysis showed that all Chinese SMYEV isolates fell into four clades which, to some extent, were related with the geographical origin of the isolates. However, the viral isolate from *F. pentaphylla* was comprised in a distinct clade. To our knowledge, this is the first characterization of a Chinese isolate of SMYEV from a wild strawberry source. Additional and more extensive surveys should be carried out to ascertain whether additional and more diversified SMYEV strains occur in China.

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**FIRST RECORD OF CITRUS EXOCORTIS
VIROID INFECTING SOLANUM
JASMINOIDES IN ITALY**

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Solanum jasminoides is a symptomless host of *Potato spindle tuber viroid* (PSTVd) and other members of the genus *Pospiviroid*, including *Citrus exocortis viroid* (CEVd). Like PSTVd, which is a quarantine pest in the European Union, most pospiviroids are pathogenic to tomato and potato. Thus, their occurrence in symptomless ornamentals in several EU countries induced generalized alarm. During a survey in Apulia (southern Italy), 12 plants were randomly chosen from a lot of 4,000 symptomless greenhouse-grown *S. jasminoides* and tested by RT-PCR using primers for the generic detection of pospiviroids infecting ornamentals (Bostan *et al.*, 2004). Amplicons of 220-230 bp were obtained from all tested samples, whose sequence was almost identical to that of the CEVd reference variant (NC_001464). Four of the twelve *S. jasminoides* plants tested positive also to Northern-blot hybridization with a specific CEVd digoxigenin-labelled riboprobe. To confirm the nature of the infecting viroid, RT-PCR was repeated with adjacent primers, complementary and identical to positions 77-98 and 99-120 of the reference CEVd variant, respectively. Amplicons of the expected size, corresponding to the full-length viroid genome, were generated and cloned. Sequencing of five clones yielded identical nucleotide sequences (373 nt) indistinguishable from that of a CEVd variant previously recovered from *S. jasminoides* (AM920649). To our knowledge, this is the first report of CEVd in *S. jasminoides* in Italy. Negative results were obtained when the CEVd-positive plants were tested for PSTVd by tissue printing hybridization and RT-PCR. PSTVd transfer from *S. jasminoides* to tomato has recently been documented (Navarro *et al.*, 2009), and the fact that the same may occur with other pospiviroids, including CEVd, should be considered in view of establishing adequate control measures.

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