

Disease Notes

First Report of *Sweet potato sunken vein virus* Occurring in *Lisianthus*

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During a survey of *Lisianthus* (*Eustoma grandiflorum*) plots in the Northern Negev in Israel, plants infected with *Iris yellow spot virus* (IYSV) (Genus *Tospovirus*; 1) were identified. In addition, during electron microscope observations of ultrathin sections through parenchyma phloem cells from some of the IYSV-infected plants, vesicles and virus particles typical of closteroviruses (850 × 12 nm) were observed. As sweet potatoes grown in this area often are infected with *Sweet potato sunken vein virus* (SPSVV), it was of interest to see if SPSVV also had naturally infected *Lisianthus*. Using immunosorbent electron microscopy (ISEM) with an antiserum developed against SPSVV (2), trapping and decoration of the suspected clostero-like particles were observed in some of the field-collected *Lisianthus* plants. This antiserum did not react with two other closteroviruses, *Citrus tristeza virus* and *Lettuce infectious yellow virus*. Inoculation of non-infected *Lisianthus* plants with SPSVV acquired from sweet potato by whitefly (*Bemisia argentifolii*), resulted in the presence of vesicles and clostero-like particles in ultrathin sections of parenchyma phloem cells 1 month after inoculation. ISEM tests with SPSVV antiserum were positive. Inoculations of sweet potato from SPSVV-infected *Lisianthus* plants by whiteflies were not successful. No leaf symptoms of SPSVV were observed in *Lisianthus* plants, but flower stems were shorter by about one third. These data indicate that *Lisianthus* is a host for SPSVV. To our knowledge, this is the first report of SPSVV infecting *Lisianthus* and any species of the *Genetianaceae*.

References: (1) A. Kritzman, H. Beckelman, S. Alexandrov, J. Cohen, J. Lampel, M. Zeidan, B. Raccach and A. Gera. *Plant. Dis.* 84:1185, 2000. (2) J. Cohen, A. Franck, H. J. Vetten, D. E. Lesemann and G. Loebenstein. *Ann. Appl. Biol.* 121:257, 1992.