

DISEASE NOTE

FIRST REPORT OF *LILY MOTTLE VIRUS* INFECTING *NARCISSUS PSEUDONARCISSUS* IN CHINA

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Lily mottle virus (LMoV) (family *Potyviridae*) has been reported in lily crops in the USA, Asia, Europe, Australia (Asjes, 1972) and Taiwan as well as Fujian and Zhejiang provinces of China. Plants are frequently stunted and flowers may be malformed with color break, brown rings and necrotic spots on the bulb scales (Lawson *et al.*, 1996). In August 2007, total RNA was extracted from bulb tissue of symptomatic plants of two varieties of *Narcissus pseudonarcissus* and tested for LMoV by using a reverse transcription-polymerase chain reaction (RT-PCR) with primers L1 (5'-TGGGCACCTTGTAATTACA-3') and L2 (5'-ACACGGAGAGGCATACAGCA-3'). Primer sequences were based on published sequences of LMoV coat protein gene (GenBank accession Nos. AJ748256; AJ748257). The predicted 553 bp amplicon was obtained from a sample of cv. Pink-charm that had brown spots on the bulbs and grew poorly in tissue culture. The nucleotide sequence of the amplicon (GenBank accession No. EU167936) showed more than 98% identity with sequences of other isolates of LMoV (AJ748256, AJ564636, AB053256, AF531458, AJ564637, AJ748257) and encoded an amino acid sequence (ABW16938) identical to that in the database for LMoV (NP-945145). This is the first report of infection of *Narcissus pseudonarcissus* by LMoV.

Asjes C.J., de Vos N.P., Slogteren D.H.M., 1972. Brown ring formation and streak mottle, two distinct symptoms in lilies associated with complex infection of lily symptomless virus and tulip breaking virus. *Netherlands Journal of Plant Pathology* **79**: 23-35.

Lawson R.H., Hsu H.T., 1996. Lily diseases and their control. *Acta Horticulturae* **414**: 175-185.

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NEW HOSTS FOR *SCLEROTINIA* STEM ROT OF CANOLA

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Sclerotinia sclerotiorum is an important plant pathogen that causes stem rot of different plants (Anonymous, 2005). During spring 2006 and 2007, in an epidemiological study of sclerotinia stem rot of canola (*Brassica napus*) in the Golestan province (northern Iran), symptoms of leaf, pod and stem rotting were observed on the following weeds growing in canola fields: sweet sagewort (*Artemisia annua*), wild oat (*Avena sterilis* ssp. *ludoviciana*), shepherd's purse (*Capsella bursa-pastoris*), peacock poppy (*Papaver pavoninum*), annual bluegrass (*Poa annua*), clustered dock (*Rumex conglomeratus*), blessed milkthistle (*Silybium marianum*), charlock mustard (*Sinapis arvensis*), stinging nettle (*Urtica dioica*) and volunteer wheat (*Triticum aestivum*). From all symptomatic plants a fungus identified as *S. sclerotiorum* was consistently isolated on potato dextrose agar (PDA). Pathogenicity of representative isolates was assessed by placing 8-mm disks taken from the margins of an actively growing colony on the stems and leaves of potted host plants which were then placed in a greenhouse at 25°C and more than 90% relative humidity for 3-7 days (Hollowell *et al.*, 2003). Symptoms like those observed in the field developed on all inoculated plants and the fungus was reisolated from rotten tissues. According to literature records (Anonymous, 2007), all ten species are new hosts of *S. sclerotiorum* for Iran and six of them (*A. annua*, *A. sterilis ludoviciana*, *P. pavoninum*, *P. annua*, *R. conglomeratus* and *U. dioica*) are new in the world.

Anonymous, 2005. *Sclerotinia sclerotiorum*. CAB International Crop Protection Compendium. Kew, Surrey, UK.

Anonymous, 2007. *Sclerotinia sclerotiorum*. Fungus-host distribution. USDA, USA. Online: <http://nt.ars-grin.gov/fungal-databases/fungushost/fungushost.cfm>.

Hollowell J.E., Shew B.B., Cubeta M.A. and Wilcut J.W., 2003. Weed species as hosts of *Sclerotinia minor* in peanut fields. *Plant Disease* **87**: 197-199.

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