DISEASE NOTE

DETECTION OF *CITRUS EXOCORTIS VIROID* IN *SOLANUM JASMINOIDES* IN SLOVENIA

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At the end of May 2010, during a survey of ornamental plants to investigate the presence of *Potato spindle tuber viroid* (PSTVd), shoots were collected from five symptomless *Solanum jasminoides* potted plants. Total RNA was extracted twice from leaf tissue with an RNeasy Plant Mini Kit (Qiagen, Germany) and used as template for RT-PCR assays, employing the semi-universal pospiviroid primers Pospi1-RE/FW and Vid-RE/FW (Verhoeven *et al*., 2004). Vid-RE/FW primers that amplify *Tomato chlorotic dwarf viroid* (TCDVd), *Potato spindle tuber viroid* (PSTVd) and *Columnea latent viroid* (CLVd) did not give any DNA product. By contrast, Pospi1-RE/FW primers yielded amplicons from both samples, which were sequenced (Macrogen, Korea). BLAST sequence analysis disclosed a high identity with *Citrus exocortis viroid* (CEVd), whose whole sequence (373 nts, accession No. HQ423166) was obtained using primer pairs CEVd-AS/S (Elleuch *et al.,* 2003) and CEVd-FW2/RE2 (Verhoeven *et al*., 2008). Identity levels with other CEVd sequences from *S. jasminoides* were 99% (accession No. AM920649), 98% (AM774356, AM774357 and GU300810) and 94% (EU094207 and EU094208), respectively. To our knowledge this is the first finding of CEVd in *S. jasminoides* in Slovenia. CEVd-infected *S. jasminoides* plants were recently found in neighbouring Austria (Gottesberger and Suárez-Mahecha, 2010). These plants originated from Germany, whereas those infected by CEVd in Slovenia came from the Netherlands, therefore the differences between Austrian (GU300810; 374 nts) and Slovenian CEVd sequences from *S. jasminoides* are not surprising. The infected *S. jasminoides* plants detected in Slovenia were not destroyed, since CEVd is not a quarantine organism in the EU. CEVd-infected *S. jasminoides* plants, however, may be a source of infection for other hosts of major agronomical importance.

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DISEASE NOTE

FIRST REPORT OF *NEOCOSMOSPORA VASINFECTA* CAUSING ROOT ROT OF CHICKPEA IN PAKISTAN

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Chickpea (*Cicer arietinum*), a legume grown on more than a million ha in Pakistan (Anonymous, 2009), has *Fusarium* wilt and *Ascochyta* blight as major constraints limiting its production. In January 2011, during a survey conducted in a major rain-fed chickpea-growing area of Punjab (Pakistan) known as Thal, plants with yellowing and wilt-like symptoms and rotted root tips with orange coloration were observed. Isolations made by plating root pieces on chickpea seed meal agar (CSMA) yielded, within 7-10 days at 25°C, white cottony colonies with hyaline and septate mycelium and numerous superficial globose to obpyriform perithecia, first bright orange then brown. Asci were unitunicate, cylindrical or more rarely clavate, short-stalked, and contained eight aseptate, monostichous, globose and brown ascospores, with a distinct wrinkled epispore. Based on the above characteristics, the fungus was identified as *Neocosmospora vasinfecta*. For pathogenicity tests, sterile distilled water (10 ml) was added to fungal cultures, ascospores were scratched from the colonies, collected in a test tube and their concentration was adjusted to 1×10^6/ml. Roots of chickpea seedlings of three cultivars at the 3-4 leaf stage were pruned, dipped in spore suspensions for 5 min and re-planted in 1:1 mix of sand and clay. Disease symptoms appeared 2 weeks post inoculation and *N. vasinfecta* was isolated form symptomatic roots. In the area surveyed disease incidence was 25-30% in March 2011, showing that *N. vasinfecta* represents a new threat to chickpea production in Pakistan. Chickpea root rot caused by *N. vasinfecta* has been reported from Hungary (Simay, 1989), Ethopia and India (Southern Andra Pradesh, Hyderabad) (Nene *et al*., 1996). To the best of our knowledge this is the first report from Pakistan of *N. vasinfecta* causing chickpea root rot.

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