

DISEASE NOTE

FIRST REPORT OF *DICKEYA SOLANI* ASSOCIATED WITH POTATO BLACKLEG AND SOFT ROT IN TURKEY

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In 2016 season, Samsun, Amasya, Tokat, Ordu and Cozum provinces in the Black Sea region of Turkey were surveyed for potato plants with wilting on the foliage, blackleg on the stem base and soft rotting. Incidence varied from 4%-60%. Infected tissue was macerated in plastic bags (Bioreba AG, Switzerland) and extract was plated on Crystal violet pectate (CVP) media incubated at 28°C. Three cavity forming strains from cv. Marabel planted in different fields of Amasya province showed the same biochemical characteristics with reference strains IFB0458, Poland (Potrykus *et al.*, 2016) and 2187 (G-87), Israel (Tsrer *et al.*, 2009). A 420-bp PCR product typical for *Dickeya* sp. was amplified with ADE1/ADE2 primers (Nassar *et al.*, 1996). Blastn analysis of obtained partial 16S rDNA gene sequences (1382 and 1392 bp) of strains A27G3 and A37G9 (GenBank accession Nos. KY114490 and KY114491) had 100% similarity to the type strain IPO 2222^T=NCPBP4479 (CP015137), isolated from potato grown in the Netherlands. Maximum likelihood phylogenetic tree clustered both strains in the same clade together with other *D. solani* strains derived from GenBank. Pathogenicity assays were performed on potato plants (cv. Marabel) by injecting 20 µl bacterial suspension (10⁸ cfu/ml) into stems. Typical disease symptoms were observed within 5 days. Re-isolated colonies caused pitting on CVP and had the same biochemical profile with the inoculated strains. To the best of our knowledge, this study describes the first occurrence of *D. solani* in Turkey.

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FIRST REPORT OF PEPPER CRYPTIC VIRUS 2 INFECTING PEPPER IN CHINA

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Pepper cryptic virus 2 (PCV-2) is a double-stranded RNA virus which belongs to the genus *Deltapartitivirus* in the family *Partitiviridae* (Nibert *et al.*, 2014; Sabanadzovic and Valverde, 2011). PCV-2 was previously reported infecting pepper in the USA and India (Saritha *et al.*, 2016). In 2015, twenty pepper (*Capsicum annuum* L.) plants showing mosaic, crinkle and stunting symptoms were collected in Chongqing and used to detect potential viruses by high throughput sequencing using the Illumina HiSeq 2000 platform. Small RNA sequences between 18 and 26 nt in size were assembled and aligned. Five and three contigs were mapped to the double-stranded RNA1 and RNA2 of PCV-2 respectively. The primers PCV2-R1F (5'-AGAATTTTCCAAGC-CGTTTACTT-3')/PCV2-R1R (5'-GATTAAGCTTCAATTCATGTT-3') and PCV2-R2F (5'-AGAGCGGTGTGTTGGCAG-3')/PCV2-R2R (5'-TAGTGCCTTATGCCCAAT-3'), designed in RNA-1 and RNA-2 of PCV-2 were used to confirm the presence of PCV-2 in pepper samples by RT-PCR. The partial nucleotide sequence of RNA1 (KX905077) and RNA2 (KX905078) obtained from PCV-2 isolate BB13 consisted of 1245 nt and 1487 nt, and shared highest identity of 97.1% and 99.8% with isolate HW-01 (JN117278) and ChS1 (KR676354), respectively. Nine out of the 20 samples that were tested by RT-PCR with specific primers HW-1/HW-1R (Sabanadzovic and Valverde, 2011) were positive for PCV-2. The high throughput sequencing data showed the occurrence of additional putative viruses such as *Cucumber mosaic virus* (CMV) in pepper. Therefore, symptoms could not be attributed only to PCV-2. To our knowledge, this is the first report of PCV-2 infecting pepper in China.

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