Disease Note

FIRST REPORT OF BACTERIAL LEAF SPOT CAUSED BY *PSEUDOMONAS SYRINGAE* pv. *PORRI* ON ONION IN IRAN

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In October 2016, bacterial leaf spots on onion (*Allium cepa* L.) were observed in fields with rainy irrigation of Eghlid, Fars province in Iran with the rate of occurrence varying from 90 to 100% of the plants. Symptoms on leaves comprised leaf blight and water soaked, irregular, white and brown spots on the leaf surface. Bacterial isolates were obtained on nutrient agar (NA) from leaf spot and blight lesions that were surface disinfected in 70% ethanol for 45 s. The isolates were fluorescent on King's B agar, gram-negative and strictly aerobic. All isolates belonged to *P. syringae* (LOPAT) group Ia (+, –, –, –, +) (Lelliott *et al.,* 1996). Isolates were deposited in the Culture Collection of the Bu-Ali Sina University of Iran. DNA was extracted from the representative isolate (YMAO17) by the alkali lysis method and the 16S rRNA, *gyrB* and *rpoD* regions were partially sequenced using fD1/rP2 (Weisburg *et al*., 1991), gyrB-Fpsc/gyrB-Rpsc, and rpoD-Fpc/rpoD-Rpsc (Sarkar and Guttman, 2004) primers, respectively. PCR product were sequenced and their sequences were aligned and compared with those deposited in GenBank. Sequences of the 16S rRNA (Accession No. KY684039), *gyrB* (KY684037) and *rpoD* (KY684038) of a representative isolate showed 100% identity with those of *Pseudomonas syringae* pv. *porri*. To confirm Koch's postulates, leaf spot symptoms were reproduced on onion leaves inoculated with bacterial suspensions (1×10^6 CFU/ml) and the same bacterial isolate was reisolated from artificially infected leaves as confirmed by LOPAT. To our knowledge, this is the first report of bacterial leaf spot of onion caused by *P. syringae* pv. *porri* in Iran.

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Disease Note

FIRST REPORT OF *RASPBERRY BUSHY DWARF VIRUS* INFECTING RASPBERRY IN ARGENTINA

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In 2014-2015, raspberry (*Rubus idaeus*) cv. Autum bliss plants with dwarfism and foliar chlorosis were observed in commercial fields in parallel 42° in the Patagonia region of Argentina. Symptoms were similar to those observed in raspberry infected by *Raspberry bushy dwarf virus* (RBDV) in the USA (Ellis *et al*., 2005; Martin *et al*., 2013). A survey was conducted to determine if RBDV was also present in Argentinian raspberry fields. Transmission electron microscope observations of leaf dip preparations revealed the presence of spherical particles of 30 nm, resembling those of virus members of the genus *Ideaovirus*. RBDV was detected in 88 of the 130 plants (68%) tested using double-antibody sandwich ELISA with a specific polyclonal antiserum (Bioreba AG, Switzerland). RNA was extracted with Spectrum™ Plant Total RNA Kit (Sigma-Aldrich, USA) and tested by RT-PCR using a pair of specific primers to the capsid protein gene (Wang *et al.,* 2008). Expected fragments of 825 bp were obtained and custom-sequenced in both directions (Macrogen, Korea). Nucleotide BLAST analysis of the complete sequence obtained (GenBank accession No. KY308191) showed 97% identity at the nucleotide level with virus isolates from Slovenia, Belarus, Switzerland and Japan (EU796088, FR687356, FR687358, AB948216, respectively). To our knowledge, this is the first report of RBDV infecting raspberry in Argentina. Further research is needed to determine the distribution of this virus in the country and its effects on raspberry plant production.

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