

DISEASE NOTE

FIRST REPORT OF *PESTALOTIOPSIS GUEPINII* ON *VACCINIUM CORYMBOSUM* IN TURKEY

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Highbush blueberry (*Vaccinium corymbosum* L.) is an important fruit crop in the Blacksea Region of Turkey where it was introduced in 2003 (Celik, 2009). In spring 2011, symptoms of blight and drying of young shoots were observed in an orchard in the Rize province. Isolations on potato dextrose agar from symptomatic pieces of shoots yielded a fungus with a white mycelium producing numerous acervuli with black droplets of spore masses. Conidia were 21.9-28.41×6.4-7.7 µm, with dark median cells, The apical and basal cells were hyaline, cylindrical to conic, with four transverse septa, 2 or more (usually 3) apical appendages 17.8-29.3 µm long and a basal appendage 3.9-7.7 µm long. Based on these morphological and cultural features, the fungus was identified as *Pestalotiopsis guepinii* (Desm.) Stey. (Sutton, 1980). For pathogenicity tests, 3-year-old potted highbush blueberry plants cv. Bluecrop were inoculated by spraying conidial suspensions from 3-week-old culture diluted in sterile distilled water plus 0.1% polysorbate 20 to a concentration of 1×10⁶ conidia per ml. Controls were sprayed with sterile distilled water. Inoculated and control plants were placed in a chamber at 22-24°C in darkness with continuous mist for 48 h, then moved to a greenhouse. After 10-14 days, browning of young shoot tips followed by blighting was observed in all inoculated plants but not in the controls. *P. guepinii* was reisolated from symptomatic inoculated plants, fulfilling Koch's postulates. This fungus had previously been isolated from hazelnut and walnut trees in the Black Sea region (Karaca and Erper 2001) but, to our knowledge, this is the first report as a pathogen of highbush blueberry in Turkey.

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RICE SHEATH AND GRAIN ROT CAUSED BY *BURKHOLDERIA GLADIOLI* IN KOREA

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In 2010, symptoms of stem and sheath rot were observed in rice fields in the Republic of Korea. Using a simple and rapid diagnostic method for isolating *Burkholderia* species pathogenic to rice (Kim *et al.*, 2010), two bacterial isolates were recovered from rice plants showing grain or sheath rot collected in the Suwon area. The 16S rDNA sequence alignment for other *Burkholderia* spp., obtained using the Multi-align program and PCR-based detection comparing the amplified *gyrB* gene size (Maeda *et al.*, 2006), showed that both isolates belong in the *B. Burkholderia gladioli* group. A BLASTN search revealed that both isolates (GenBank accession Nos. JF431409 and JF431410) had 99% identity with the 16S rDNA sequences of the *B. gladioli* type strain available in database. The carbon source utilization profiles of the two isolates was examined using Biolog GN2 plates, which confirmed their identification as *B. gladioli*. Following inoculation to rice panicles and sheaths, discolorations and rot symptoms appeared after a 10-day incubation, matching the symptoms observed in the field. The bacterium was successfully re-isolated from the lesions, thus fulfilling Koch's postulates. Both isolates induced a hypersensitive response in tobacco plants and produced the phytotoxin toxoflavin. Based on symptoms, pathogenicity, and molecular analysis, we conclude that the bacterium isolated from diseased rice is *B. gladioli*. This is the first report of rice sheath rot caused by *B. gladioli* in Korea.

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