

## DISEASE NOTE

***PENICILLIUM BREVICOMPACTUM*  
CAUSING BULB ROT ON  
*HIPPEASTRUM* × *HYBRIDUM* IN  
ARGENTINA**

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In July 2015, bulbs of *Hippeastrum* × *hybridum* imported for cultivation in Buenos Aires (Argentina) showed loss of firmness, rot and green mold. Small pieces from the edge of the lesions were surface disinfected with 2% sodium hypochlorite for 90 s, rinsed in sterilized distilled water and incubated on potato dextrose agar at 22°C. Isolates of *Penicillium brevicompactum* Dierckx (Samson and Frisvad, 2004) were consistently obtained, and one of them coded INTA-IF-502 was chosen to confirm pathogenicity. Healthy, unwounded and needle-punctured bulbs were immersed for 1 min in suspensions of  $1.4 \times 10^6$  conidia ml<sup>-1</sup>, while those immersed in sterilized water served as controls. The bulbs were individually planted in pots filled with a sterile soil/perlite mixture (80/20), and enclosed in polyethylene bags for the first three days. All the plants from inoculated bulbs showed yellowish foliage and loss of turgidity in 45 days. Ten days after, the plants from inoculated punctured bulbs had died and those from inoculated unwounded bulbs showed an advanced wilt. Rotten bulbs and roots, and green mold were observed on inoculated plants eased out of the pots whereas controls remained healthy. The pathogen was successfully recovered from infected organs and deposited in La Plata Spegazzini Collection as LPSC1146. The morphological identification (Visagie *et al.*, 2014) was confirmed by DNA sequence data of the  $\beta$ -tubulin gene (GenBank accession No. KY216143) showing 99% identity to accession AY674437 (type of *P. brevicompactum* CBS 257.29). This finding represents the first record of *P. brevicompactum* associated with bulb rot of *Hippeastrum* × *hybridum* in Argentina.

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## DISEASE NOTE

**FIRST REPORT OF *PSEUDOMONAS*  
*VIRIDIFLAVA* CAUSING CABBAGE  
BACTERIAL LEAF SPOT IN TURKEY**

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In the autumn of 2016, white head cabbage (*Brassica oleracea* var. *capitata* f. *alba*) showing circular to irregular lesions 2-3 mm in size surrounded by a yellow halo and necrotic areas on the leaves, were observed in the Samsun province of Turkey. Extract from symptomatic tissue macerated in plastic bags (Bioreba AG, Switzerland), plated on King's medium B (King *et al.*, 1954) and incubated at 26°C for 48 h yielded colonies with the same LOPAT profile of *Pseudomonas viridiflava* strain M66 from tomato. They were levan-, oxidase-, arginine-negative, caused hypersensitive reactions on tobacco leaves (*Nicotiana tabacum* cv. Xanthi) and macerated potato slices. Molecular characterization using ERIC-PCR (Rademaker *et al.*, 1998) yielded the same band pattern for strains BT5X and M66. Blastn analysis of a 1400 bp 16S rDNA and a 835 bp *gyrB* gene sequence (GenBank accession Nos. KY769809 - MF314821) showed 99% and 100% similarity to the sequences of the type strain ATCC13223<sup>T</sup>=CFBP2107 (NR\_114482 - HM190239) of *P. viridiflava* deposited in GenBank. Multilocus sequence analysis (MLSA) produced by maximum likelihood method using concatenated sequences of 16S rDNA and *gyrB* allowed clustering of our strain in the same clade together with the type strain ATCC13223<sup>T</sup> and other representative *P. viridiflava* strains retrieved from GenBank. Cabbage plants (cv. Beyaz Bursa) spray-inoculated with a suspension of  $10^8$  CFU ml<sup>-1</sup> of an overnight culture grown in Luria-Bertani broth reacted six days post inoculation with spots similar to those observed in the field. Reisolated colonies were fluorescent under UV light and had the same morphology on King's medium B as the original culture and positive strain M66. To our knowledge, this is the first report of *P. viridiflava* causing a leaf spot disease of head cabbage in Turkey.

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