



First report of *Pectobacterium brasiliense* causing blackleg disease of potato plants in Belarus

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During the 2020–2021 period, potato fields in the Brest and Minsk regions of Belarus were surveyed for plants with blackleg symptoms. Twenty-seven pectolytic enterobacterial isolates were obtained from 20 symptomatic plants by suspending diseased stem sections in sterile water for 10 min, followed by serial dilutions on crystal violet pectate agar (CVP) (Hélias et al. 2012). Five isolates originating from a single field in the Brest area with disease incidence of ~7% were Gram-negative, rod-shaped, grew at 37 °C, macerated potato and carrot slices in standard tests (Schaad et al. 2001) and were positive in PCR with *Pectobacterium brasiliense* (*Pbr*)-specific primers BR1f and L1r (Duarte et al. 2004). They produced acid from D-galactose, lactose, raffinose, arabinose, xylose, mannitol, mannose, and rhamnose, but not from maltose, sorbitol, dulcitol, α -methyl-D-glucoside.

The complete genome sequence of the representative isolate 130 (NCBI BioProject PRJNA803971) has the closest average nucleotide identity of 96.3% to the type strain Ecbr212 of *Pbr* and almost perfect identity (99.99%) to *Pbr* strains F126 and IPO:4134 isolated in Russia and the Netherlands. We screened our isolate collection with the same primers, but none of the 47 *Pectobacterium* strains isolated in Belarus during 1978–2010 tested positive.

Twenty stems of potato (cv. Vineta) plants were surface sterilised with 70% ethanol and inoculated with 10 μ L of 10^8 CFU ml⁻¹ isolate 130 suspension prepared from cells grown overnight on lysogeny broth agar. Blackleg symptoms developed within three days in all stems inoculated with *Pbr*

while the control stems treated with water remained symptomless. The colonies re-isolated from symptomatic stems caused pitting on CVP and were positive in the PCR assay for *Pbr*. *Pectobacterium atrosepticum* strain SCRI1043 was used in all tests as a blackleg pathogen reference.

To our knowledge, this is the first report of potato blackleg caused by *Pbr* in Belarus.

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