



First report of *Septotinia populiperda* on potato tubers in Russia

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In April 2018, seed potato tubers (cultivar Fantasia) with necrotic lesions were collected for analysis from the storage unit in the Moscow region of Russia, after appropriate permissions were obtained. Three tubers from a lot of 200 tubers with a cavity covered with black sclerotia were found. Axenic fungal culture was isolated from a sclerotium placed on 1.5% PDA amended with benzylpenicillin sodium (1000 U/ml). After 4 days at 25 °C in a 16/8 light/dark cycle the fungus formed a white–gray mycelium; after 14 days it formed abundant black sclerotia.

Absence of sporulation and other specific fungal structures disqualified the morphological criteria for initial identification. DNA was isolated and sequenced as described in Kutuzova et al. (2017). The ITS1-5.8S-ITS2 rDNA region with primers ITS4/5, the 28S LSU rRNA with primers NL1/NL4, and the TEF1 α gene with primers EF1-728F / EF1-986R were amplified and sequenced. The ITS1-5,8S-ITS2 rDNA and 28S LSU rRNA sequences (GenBank accession Nos. MT672566, MT672567) had 97.95–100% similarity to *Septotinia populiperda* Waterman & E.K. Cash ex B. Sutton (= *Septotia populiperda* (Moesz & Smarods) B. Sutton) (CBS 374.64, CBS 339.53, CBS 338.53, MH857234, MH101504, MH857235, MH101506, MH101507). Our sequence of the *S. populiperda* TEF1 α (MT675287) is the first submitted to GenBank NCBI. This fungus is known as a pathogen of *Populus* and *Salix* leaves (Sutton 1980; Zhu et al. 2019).

For pathogenicity testing, 5 mm agar discs with 7-day-old *S. populiperda* culture were used to inoculate 7 potato tuber slices and 7 whole intact tubers, which were then

incubated in wet chambers (closed plastic boxes with wet filter paper at the bottom) at 25 °C in a 16/8 light/dark cycle. As a control, 7 tuber slices and 7 whole tubers were inoculated with sterile agar discs. Five days after inoculation, lesions 10–15 mm in diameter appeared on the inoculated tuber slices. The controls were symptomless. *S. populiperda* was re-isolated from the inoculated tuber slices. Whole intact potato tubers were not infected. The fungus is apparently a wound parasite. To our knowledge, this is the first report of *S. populiperda* on potato tubers.

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Declarations

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors.

Conflict of Interest Authors declare that they have no conflict of interest.

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