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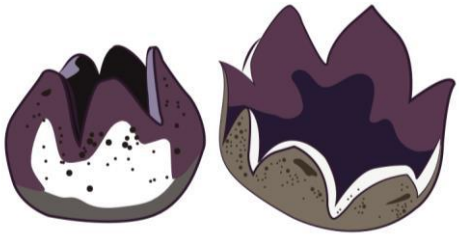

Book of Abstracts

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Talaromyces spp. - the postharvest fruit pathogens in Serbia

Stefan Stošić[1], Svetlana Živković[1]

Institute for Plant Protection and Environment, Teodora Drajzera 9, 11000 Belgrade, Serbia, stefan.stosic@gmail.com;

The genus *Talaromyces* encompasses a wide range of species that are ubiquitous in nature, thriving in diverse habitats such as soil, plant debris, and indoor environments. They inhabit different climatic zones across the globe and play crucial roles in natural ecosystems, through participation in organic matter decomposition and nutrient cycling. Members of this genus are also important enzyme, pigment and mycotoxin producers, biocontrol agents, human pathogens and food contaminants (1). *Talaromyces* spp. can be plant pathogens and few studies pointed that out (2-5). A polyphasic approach was employed to identify isolates of *Talaromyces* originating from diseased stored fruits in our country and subsequently determine their plant pathogenicity. Following protocols recommended by Yilmaz et al. (1), morphological examinations were carried out on Czapek yeast autolysate agar (CYA), Malt extract agar (MEA) and Creatine sucrose agar (CREA). Mycelial growth was also tested at three incubation temperatures (5, 25 and 37°C) while micromorphological features were inspected from MEA-grown cultures. Internal transcribed spacer (ITS) and beta-tubulin (*BenA*) regions were used for multilocus sequence typing (1). Molecular sequences from our isolates were combined with the reference and verified sequences to construct a combined (ITS+*BenA*) maximum likelihood phylogenetic tree. A pathogenicity test was conducted on originating hosts. After combining the results from the identification procedures, two species of *Talaromyces* were isolated in this study - *Talaromyces minioluteus* from pear, quince, tomato and orange fruits, and *T. rugulosus* from pear and lemon fruits. Phenotypic characteristics were similar to the previous descriptions in the literature (1, 6, 7). In pathogenicity assays, all isolates were pathogenic on the originating hosts. The symptoms in artificial inoculations resembled those found in naturally infected fruits and the reisolates exhibited the same morphological traits as the original isolates. These are the first detections of *T. minioluteus* and *T. rugulosus* and the first confirmations of their pathogenicity on the beforementioned plant hosts. The research presented here sheds light on the previously known fungi that can also act as plant pathogens/food spoilage agents. Their presence on the fruit diminishes its quality and leads to economic damage. Since different fruit and vegetables are sometimes kept in the same storage facilities, these plant pathogens residing on them can also contribute to inoculum build-up and cross-contamination phenomena.

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