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**BOOK OF ABSTRACTS**

## New biotechnological solutions in biocontrol and molecular diagnostics of *Neofabraea* spp. in apples – a review

Oszust K.<sup>1</sup>, Szpilska K.<sup>1</sup>, Gryta A.<sup>1</sup>, Panek J.<sup>1</sup>, Pylak M.<sup>1</sup>, Lipa T.<sup>2</sup>, Frąc M.<sup>1</sup>

<sup>1</sup> Institute of Agrophysics, Polish Academy of Sciences, Doświadczalna 4, 20-290 Lublin, Poland


<sup>2</sup> Institute of Horticulture Production, University of Life Sciences in Lublin, Głęboka 28, 20-612 Lublin, Poland

The most important requirement for apple producers is to ensure the best possible apple quality after storage. Growers must comply with several regulations in the field of food and environmental safety. In the production of apples, it has been observed that financial losses are related to the occurrence of latent storage diseases caused by phytopathogenic fungi of the genus *Neofabraea* (bull's eye rot). Therefore, investors in this sector require new solutions supporting rational apple management, with a particular focus on pro-ecological methods of controlling *Neofabraea* sp. pathogenic representatives and methods for the early detection of these pathogens, especially when there are no symptoms of disease in the apple. This review summarizes the activities being undertaken to increase sustainable production in horticulture. What is more, the up-to-date significance of apple production and the various ways of counteracting bull's eye rot were also described. Next, biopreparations based on microorganisms in horticulture applications are characterized, with special attention being paid to the preparations preventing the development of *Neofabraea* spp. The various methods used to detect fungal phytopathogens are explored towards *Neofabraea* spp. detection using genetic markers. Finally, expectations and future directions in the quest for new biotechnological solutions in the area of the biocontrol and molecular diagnostics of *Neofabraea* spp. in apples were presented. In particular, the need for targeted biocontrol biopreparations and an early detection method of *Neofabraea* spp. in apples to evaluate the risk of the occurrence of apple bull's eye rot was highlighted.

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