



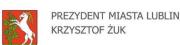
# **BOOK OF ABSTRACTS**

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### Neofabraea (syn. Pezicula) as a biological factor causing storage disease of apples

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Key words: Neofabraea, storage disease, apple, Trichoderma

*Neofabraea* sp. representatives are fungal pathogens that causes bull's eye rot (BER), which is a storage disease that affects apple quality. This disease symptoms are characteristic, and they are showing up by the development of small, circular indentations and brown lesions on the fruit surface.

The fungus infects apples during the growing season, and symptoms may not appear until the fruit is in storage. The source of infection are fungal spores that are transferred to the fruit with raindrops or by insect bites. The management of BER mainly involves the use of fungicides.

However, the use of biological control agents has been recognized as a sustainable and effective strategy. For example, *Trichoderma* sp. representatives are widely distributed in soil and has been shown to have antagonistic effects against various plant pathogens. *Trichoderma* sp. is also a prospect antagonist of phytopathogens of *Neofabraea* genus.

Recent studies have shown that *Trichoderma* sp. can not only better prevent plant diseases, but can also promote crop growth. It produces secondary metabolites and peptides that inhibit the growth of pathogens. Also, the application of *Trichoderma* sp. to apple orchards can reduce the occurrence of BER. *Trichoderma* sp. works among others by colonizing the apple surface and producing antibiotics that inhibit the growth of fungi belonging to *Neofabraea* genus.

In conclusion, *Neofabraea* sp. is a significant storage disease of apples, which can cause up to 50% of crop losses in the case of some orchards. The use of biological control agents such as *Trichoderma* sp. may provide a sustainable and effective strategy for future managing apples bull's eye rot.

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