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SPORADIC OCCURRENCE OF THE GRAPEVINE TRUNK DISEASE PATHOGEN DIPLODIA MUTILA IN THE TOKAJ WINE REGION, HUNGARY

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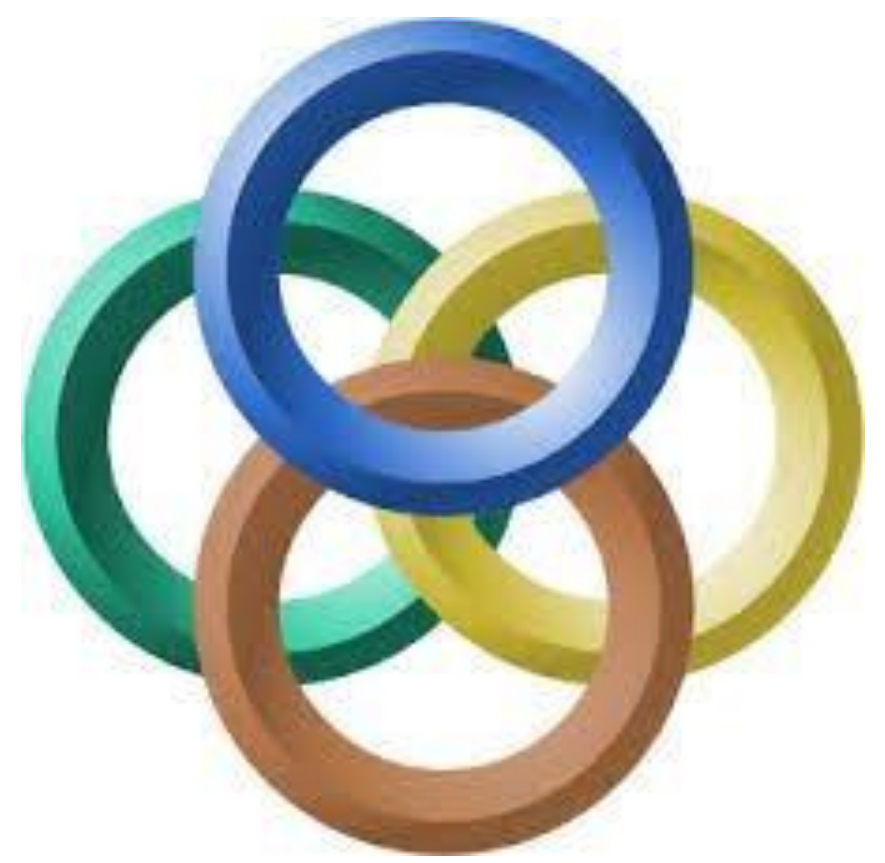
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INTRODUCTION

Black dead arm (currently known as *Botryosphaeria dieback*, BD) was first described by Lehoczky (1974) in mature Hungarian vineyards. The disease was characterised with sporadic occurrence in several grapevine-growing districts, including the Tokaj Wine Region.



MATERIALS AND METHODS

- Fungi were isolated from woody parts of the seven sampled Furmint grapevines expressing BD symptoms in the Tokaj Wine Region, Hungary.
- BD was detected only one year (2013) in the Tokaj Wine Region with less than 1% occurrence in the monitored vineyards.
- Dead parts of the plants with BD symptoms were removed and used for laboratory analysis to identify the pathogens.
- Taxonomical identification: based on their ITS1 and ITS2 marker sequences.
- The sequences of the amplified rDNA region were deposited in GenBank.

RESULTS

Taxonomical identification of *Diplodia mutila*

- Seven isolates were identified as *Diplodia mutila* species based on ITS1,2 sequences (Fig. 2.).
- The Accession numbers of the deponated isolates were KU377231, -32, 377242, 377245, 377250, 377263, KU377212)

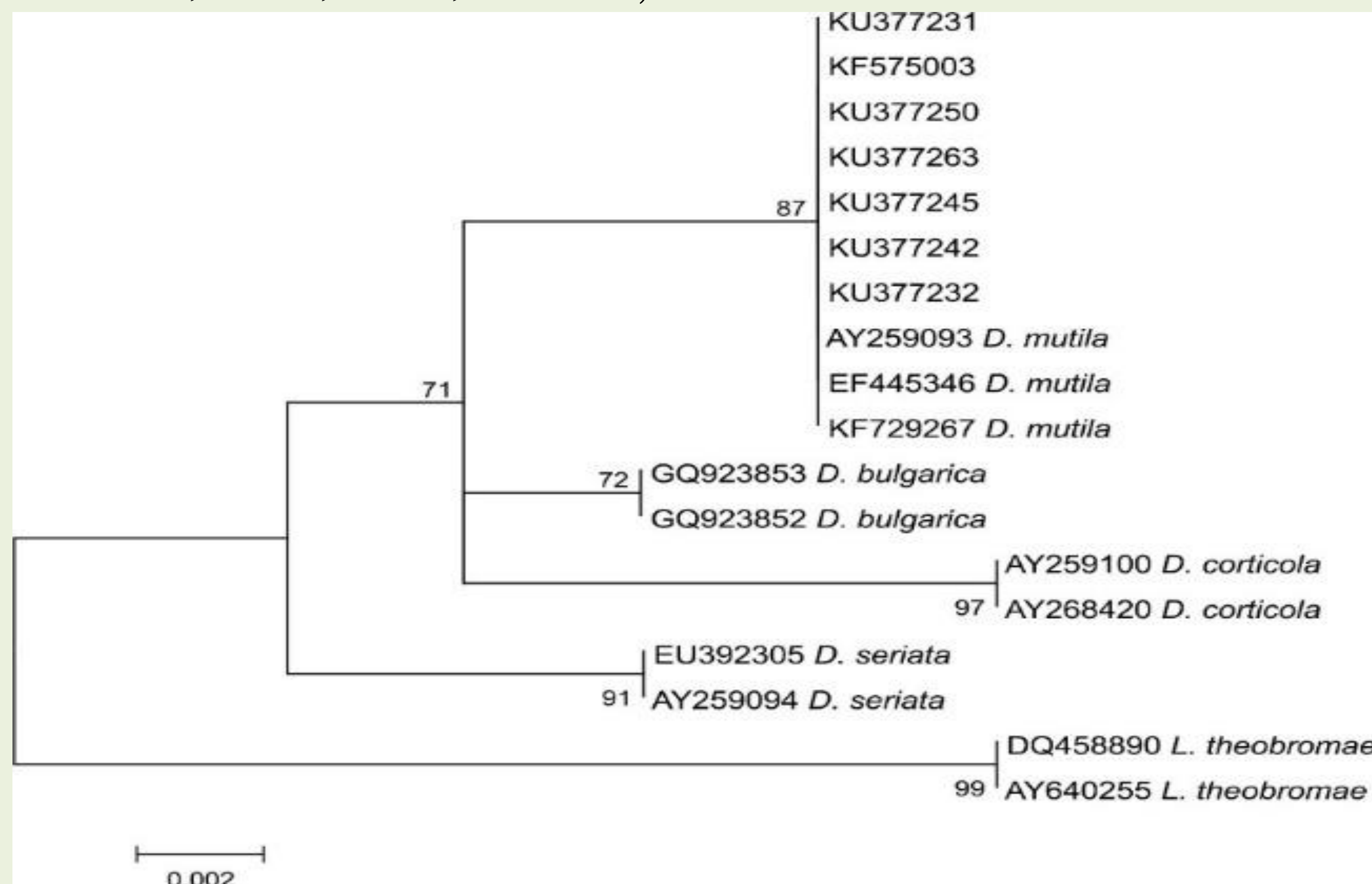


Fig. 2.: Phylogenetic tree ITS sequence of *Diplodia mutila*

Morphological identification of *Diplodia mutila*

- The morphological characters of *D. mutila* was identified from all grapevines in 2013.
- Pure fungal cultures were grown on PDA agar medium.
- The colony formation, the pigment production and the shape of spore were studied during for morphological identification.

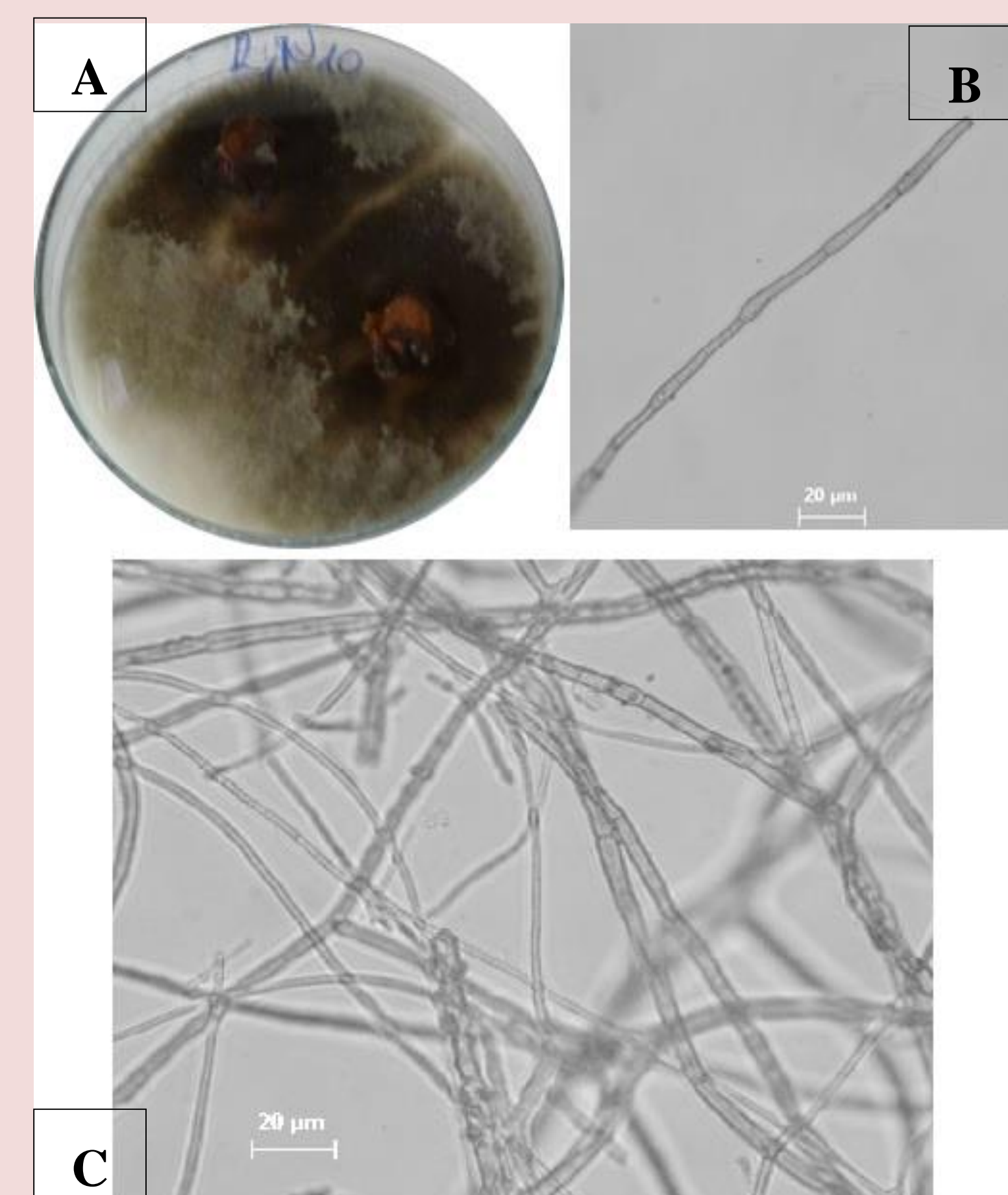


Fig. 1.: Morphological characters of *D. mutila* (A): colony on PDA; (B, C): septate hyphae

SUMMARY

Interestingly, the expression of BD was not detected visually following the removal of the dead plant parts and *D. mutila* was not isolated from the cordon of the seven plants with BD symptoms in 2013.

ACKNOWLEDGEMENT

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