

3-O19-2

## Isolation of different rhizosphere-associated fungi with biological control activities from Korea

A Yeong Heo, Young Mo Koo, Ho Seob Lee, Mi Jung Jo, Dasan Lee, Jeong Hyun Lee, Hyong Woo Choi

Andong National University, Korea

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**Purpose:** We aimed to isolate rhizosphere-associated fungi with biological control activities against different plant pathogenic fungi.

**Methods:** In 2019, soil-born fungi were randomly isolated from Andong area, and screened for their antifungal activities against different plant pathogens, including *Colletotrichum* spp., *Alternaria* spp., *Botrytis* spp. and *Phytophthora* spp, using *in vitro* dual culture assay.

**Results and conclusions:** From the screening of 300 unknown rhizosphere-associated fungi grown on PDA, some of them showed significant antifungal activity *in vitro*. To identify the selected fungi, the internal transcribed spacer (ITS) regions were amplified by PCR and sequenced. ITS sequence of each fungi was compared with reference ITS sequences of GenBank at NCBI using the basic local alignment search tool, and identified *Trichoderma* spp., *Mortierella* spp., *Cupriavidus* spp., *Aspergillus* spp., *Byssochlamys* spp. and etc. Our rhizosphere-associated fungi with *in vitro* antifungal activity awaits further studies for the *in vivo* plant protection activity and the development of novel biological control agents which can be useful for sustainable agriculture.