

Antagonistic activity of fungi of *Olea europaea* L. against *Colletotrichum acutatum*

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Abstract

Fungi naturally present in olive trees were identified and tested for their antagonistic potential against *Colletotrichum acutatum*. A total of 14 isolates were identified, 12 belonged to genera *Alternaria*, *Epicoccum*, *Fusarium*, *Aspergillus*, *Anthrinxium*, *Chaetomium*, *Diaporthe*, *Nigrospora*, one to family Xylariaceae and one was unclassified. All fungal isolates showed some inhibitory action over the growth of *C. acutatum* during dual culture growth, however, when agar-diffusibility tests were performed only five fungal isolates caused *C. acutatum* growth inhibition: *Alternaria* sp. isolate 2 (26.8%), the fungus from Xylariaceae family (14.3%), *Alternaria* sp. isolate 1 (10.7%); *Diaporthe* sp. (10.7%), *Nigrospora oryzae* (3.5%). Volatile substances produced by these isolates were identified through gas-chromatography techniques, as phenylethyl alcohol, 4-methylquinazoline, benzothiazole, benzyl alcohol, linal, galaxolide, among others. These inhibitory volatiles could play a significant role in reduction of *C. acutatum* expansion in olive and their study as potential biocontrol agents should be further explored.