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Isolation and Identification of Soilborne Fungi in Fields Irrigated by GAP in Harran Plain Using Two Isolation Methods

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 [Keywords](#)
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Abstract: The microfungal flora of field soils irrigated by the South-eastern Anatolia Project (GAP: Güneydoğu Anadolu Projesi) in Harran Plain were investigated in terms of quality and quantity, using the soil dilution plate and soil washing methods. A total of 1690 microfungi were isolated from 105 soil samples. With the identification of these isolates, 109 species plus 16 different sterile fungi were identified. Sixty-two of these taxa were isolated through the soil dilution plate method, seven through the soil washing method, and 40 through both methods. The results indicate that ten of these species belong to Mucorales, four to Sphaeriales, one to Coelomycetes and 94 to Hyphomycetes. The most widespread genera were *Penicillium* Link ex Gray (24 species), *Aspergillus* Mich. ex Fr. (20 species), and *Acremonium* Link ex Fr. with the soil dilution plate method. The most common species were *Aspergillus niger* Tiegh. (284 colonies), *Penicillium lanosum* Westling (238 colonies), *Penicillium canescens* Sopp. (170 colonies), *Penicillium brevicompactum* Dierckx (174 colonies) and *Penicillium clavigerum* Demelius (146 colonies). The results obtained from the soil dilution plate method show that fresh soil bulk equivalent to 1 g of oven-dried soil contains on average 72 487 propagules.

Key Words: Hyphomycetes, Microfungi, Soil

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