

MONITORING OF FUNGAL AEROSOLS IN URBAN AND RURAL SCHOOLS FROM IAȘI COUNTY, ROMANIA

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Abstract

The densities and distributions of airborne fungal spores known to cause respiratory tract disorders were monitored in three educational buildings located in urban and rural areas from Iași, Romania. Air samples from all locations were collected monthly over a period of 3 months (April-June 2016), using the Petri plate gravitational settling (passive) method. Petri plates containing nutrient media were exposed to room air for a 15-minute period, face upwards, to collect particles settling by gravity. A total of 4358 microfungus colonies were counted on 628 plates. During the sampling period 11 fungal genera were isolated and identified. Fungal spores density in the educational institution's air was within the sanitary level accepted for public buildings, with the exception of one high school classroom, which has the potential to put the occupants at risk of developing adverse health effects. Indoor results show differences for fungal genera distribution between the educational buildings. The dominant genera were represented by *Aspergillus*, *Penicillium* and *Fusarium* with 40.4, 26.3 and 9.8% of the total, respectively

Key words: air sampling, educational buildings, fungal aerosols, health effects
