



**“Gheorghe Asachi” Technical University of Iasi, Romania**



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## **MONITORING OF FUNGAL AEROSOLS IN SOME EDUCATIONAL BUILDINGS FROM IAȘI, ROMANIA**

**Florin Daniel Lipșa\*, Eugen Ulea, Irina Paraschiva Chiriac**

*Department of Plant Sciences, University of Agricultural Sciences and Veterinary Medicine Iași,  
3 Mihail Sadoveanu Alley, 700490 Iași, 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 different boroughs in Iași. Air samples from all locations were collected monthly over a period of 3 months (March-May 2011), 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 6196 microfungal colonies were counted on 936 plates. During the sampling period 15 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 *Penicillium*, *Cladosporium*, *Aspergillus* and *Alternaria* with 41.7, 19.2, 13.7 and 11.2% of the total, respectively.

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

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