

Aeromycometric investigation of vellore corporation, Tamilnadu .

Udaya Prakash NK¹, Aishwariya S², Kotteshwari J2, Priya Tharshini P², Saraswathi NC², Bhuvaneshwari Udaya Prakash S³.

¹Research and Development, Veltech Dr. RR Dr. SR Technical University Avadi, India.

²Department of Biotechnology, Veltech Hightech Dr. RR Dr. SR Engineering College, Avadi Alamathy Road, Chennai, India.

³R & D, MARINA LABS, 40, Anna Nedum Pathai, Choolaimedu, Chennai, India.

Corresponding author email: nkudayaprakash@gmail.com

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ABSTRACT

The air we inhale is heavily infested with a wide variety of biological particles in addition to organic substances such as gases, dust and smoke. Airborne fungal spores are one among the biological particles known to be responsible for causing respiratory disorders, in addition to pathogenesis and toxigenesis. This study focus on the presence of Aeromycoflora in the atmosphere over Vellore Corporation, TN. The study on the presence of atmospheric fungi of Chennai, Salem, Madurai, Trichy and Tiruvannamalai belonging to state of Tamil Nadu was previously studied by earlier workers. However, Vellore being a corporation of Tamil Nadu is not studied for its atmospheric presence of fungi so far. Hence, to know the nature of fungi, their no. of presence and their frequency of occurrence the aeromycometric investigation on Vellore Corporation of Tamil Nadu is probed. The study was conducted using the exposure of Petridishes containing Potato Dextrose Agar (PDA). The petridishes were exposed using Andersen Single Stage Sampler (Aerotech Samplers, Inc. Phoenix, AZ, USA). Altogether a total of 19 samples were taken within the limit of Vellore Corporation. The Sampler was operated at the sucking rate of 20 LPM of Air for 5 minutes. The exposed petridish were incubated at room temperature and growing colonies were identified. A total of 28 species belonging to 13 genera were recorded from the atmosphere of Vellore. Among the genera, the genus, *Aspergillus* was represented by maximum no. of species (10) followed by *Penicillium* (3 species). The following genera, *Cladosporium*, *Curvularia*, *Fusarium* and *Trichoderma* were represented by couple of species and all other genera recorded single species each. The details on the colony forming units (CFU) recorded per cubic meter, the percentage contribution, their frequency occurrence and the diversity of fungi will be discussed.