



### AEROBIOLOGICAL DYNAMICS OF POTENTIALLY PATHOGENIC FUNGI IN A RICE AGROECOSYSTEM IN LA HABANA, CUBA.

#### ABSTRACT

The aerobiology can play a key role in protecting the rice crop since many fungi can cause serious damage to agricultural areas. In this way, the ideal time to implement different security measures can be identified. To determine the presence of potentially pathogenic fungi in the air of the rice agroecosystem, a weekly monitoring of viable fungi was carried out using a volumetric sampler. Collected fungi were quantified, isolated, and identified based on their morphological characteristics. The results obtained demonstrated that the annual average concentration of filamentous fungi in the atmosphere of rice agroecosystem studied was 1,225 cfu m<sup>-3</sup> levels ranging between 115 cfu m<sup>-3</sup> (April) and 2,865 cfu m<sup>-3</sup> (August). *Pyricularia grisea* was detected in the air for 5 months, since the second week of June until the first week of October, and highest average concentration (25 cfu m<sup>-3</sup>) was observed in August. Of the meteorological factors evaluated, temperature and relative air humidity influence the concentration of propagules of *P. grisea* in the air. Besides, other fungi were detected such as *Curvularia*, *Bipolaris*, *Alternaria*, and *Cercospora*, all with relevance to rice cultivation. This is the first characterization of aeromycological biodiversity in the studied región.

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