DIVERSITY OF MICROBIAL COMMUNITIES IN THE PHYLLOSPHERE OF ORNAMENTAL PLANTS

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Abstract

Researches were carried out on three species of ornamental plants, *Chrysanthemum indicum* L. (commonly known as Indian chrysanthemum), *Alstroemeria aurantiaca* L. (commonly known as Peruvian lily or lily of the Incas) and *Pelargonium peltatum* L. (common names include ivy-leaf geranium or cascading geranium) cultivated in the greenhouse and also, on the experimental fields of USAMV Iasi. Anatomical and physiological characters of leaf surface and their physic-chemical environments substantially influence the density and diversity of phyllosphere-inhabiting microorganisms, which may include natural antagonists of important pathogens. The main objectives of this investigation were to study the phyllosphere microbial diversity from both environment (inside and outside) and to quantify the phyllosphere (i.e. leaf surface) microbial population from the ornamental plants. Also, fungal genera were identified for a better understanding of the influence of UV radiation, fluctuating temperature, nutrient resources and relative humidity on fungal diversity from both, inside and outside cultivated species.

Key words: phyllosphere, microbiota, ornamental plants