

SUMMARY

Identification of phytopathogenic fungi of orchids in production units at the central zone of the state of Veracruz

The orchids belong to the Orchidaceae family, one of the most diverse families in Mexico that has approximately 1,260 species and 170 genera. In the state of Veracruz, the main genera of cultivable orchids belongs to Phalaenopsis, Cattleya and Dendrobium, these genera present an important value that can be exploited for commercialization. Although the incidence of diseases in production units is less than 3%, there are few studies aimed to identify the causal agents of these diseases. Even less, there are available records regarding to the study of phytopathogenic fungi, which generate conditions that affect the marketing capacity of orchids. This could jeopardize the investment due to an extension in production, since there are not enough records to identify orchid pathogens in the state of Veracruz. Therefore, the objective of this work was to identify the presence of phytopathogenic fungi of orchids in Veracruz's production units. Samples of leaves and stems of orchids of Phalaenopsis, Cattleya and Dendrobium with symptoms of disease were collected in six production centers in the central zone of Veracruz. The fungi were isolated on potato dextrose agar culture media from symptomatic plant tissue. The pathogenicity of fungal isolates was confirmed using the Koch postulates. Using morphological description and analysis of the ribosomal nuclear sequence corresponding to the internal transcribed spacers (ITS4-ITS1) it was found that the seven fungal isolates were aligned with *Fusarium verticilloides*, *F. proliferatum* Peniophora sp., *Bartalinia* sp., *Leptosphaeria* sp. This work provides evidence of the presence of phytopathogenic fungi of orchids in Mexico; of them, only the species *F. proliferatum* had been reported to affect orchids.

Key words: Orchids, STIs, phytopathogenic fungi