

Title The effect of homogenates of different tulip organs on the mycelium growth of some formae speciales of *Fusarium oxysporum*

Author A.J. Boncela, A. Saniewska, M. Saniewski and S. Kanlayanarat

Citation Book of Abstracts. International Conference on Quality Management in Supply Chains of Ornamentals. 21-24 February, 2012. Golden Tulip Sovereign Hotel, Bangkok, Thailand.

Keywords *Fusarium oxysporum*; mycelium growth; tulip

Abstract

In our study the effect of homogenates of different tulip organs cv. Apeldoorn, bulb scales, leaves, stem, perianth, pistils, stamens and roots was evaluated on the mycelium growth of *Fusarium oxysporum* f. sp. *tulipae* (*Fot*), *Fusarium oxysporum* f. sp. *narcissi* (*Fon*), and *F. oxysporum* f. sp. *callistephi* (*Foc*) on mineral Czapek Dox - Dox-Agar (CzDA) medium. Tulip organs were collected on the beginning of May from field cultivation. Addition of homogenates of bulb scales, leaves, stem, perianth, pistils and stamens to CzDA medium evidently stimulated the mycelium growth of all these pathogens (*Fot*, *Fon* and *Foc*). However, the homogenate of tulip roots at a concentration of 1.0% greatly inhibited the mycelium growth of all these pathogens. Also lower concentrations of tulip roots homogenate (0.1, 0.25, 0.5%) substantially limited the mycelium growth of all pathogens proportionally to used concentration. The metabolic significance of these findings will be discussed in relation to chemical constituents of different tulip organs.