Title Efficacy of plant extracts on growth reduction of *Colletotrichum musae* and *Fusarium*

proliferatum, causal agents of crown rot of bananas

Author G. Umaña-Rojas and J. García

Citation ISHS Acta Horticulturae 906:205-210.2011.

Keywords crown rot; banana; aqueous plant extracts; Colletotrichum musae; Fusarium

proliferatum; eucalyptus

Abstract

Aqueous extracts from plants commonly used in medicine, food, or that traditionally have been associated with some antifungal effect, were tested against *Colletotrichum musae* and *Fusarium proliferatum*, two of the main fungi causing banana crown rot (PCB). Extracts of *Gliricidia sepium* and *Eucalyptus globulus* were the most effective to reduce colony growth and lesion depth in banana fingers inoculated with *C. musae*. Extracts of *Thymus vulgaris* and *Allium sativum* reduced colony growth of *F. proliferatum*. The most effective extracts for reducing lesion development were *E. globulus, Neurolaena lobata* and *T. vulgaris*. *E. globulus* was active in vivo for both *C. musae* and *F. proliferatum*. There were less extracts with inhibitory activity in vitro for *F. proliferatum* and the results obtained in vitro and in vivo differed. For *C. musae* the results obtained in vitro and in vivo were similar.