

Original article

***In vitro* application of selected essential oils and their major components in controlling fungal pathogens of crown rot in Embul banana (*Musa acuminata* – AAB)**

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Summary The necessity for pesticide-free fresh produce have prompted investigating the effect of selected essential oils and their major components on inhibition of conidial germination, appressoria formation and membrane permeability changes of the pathogens responsible for crown rot of banana. Eugenol, which is the major component of the essential oil of *Ocimum basilicum*, was the most effective chemical component in inhibiting conidial germination of *Colletotrichum musae* and *Fusarium proliferatum in vitro* while *Cymbopogon citratus* oil was the least effective. Both *O. basilicum* and *C. citratus* oils and their major components (Eugenol, citral a + b) inhibited appressoria formation by *C. musae* and changed the selective permeability of conidial membranes. *Ocimum basilicum* oil, eugenol and citral a + b could be satisfactorily used for inhibition of conidial germination and disruption of conidial activity of banana pathogens.

Keywords Banana pathogens, citral, crown rot, *Cymbopogon citratus*, eugenol, *Ocimum basilicum*.