

## **ABSTRACT**

### **EFFECT VARIOUS LEVELS OF FRACTION NONI LEAF EXTRACT (*Morinda citrifolia* L) AGAINST GROWTH *Colletotrichum capsici* CAUSE OF ANTHRACNOSE DISEASE ON CHILI PEPPER (*Capsicum annum* L) BY *IN VITRO***

**By**

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Anthracnose caused by *Colletotrichum capsici* was a major disease to chili pepper plant (*Capsicum annum* L) in Indonesia. Generally is anthracnose was a serious problem in chili pepper growy area because it could destroy the entire of crop. Much higher losses occur in endemic areas, especially in the wet areas during the rainy season. One of alternative controls used is noni leaf extract which has a potential as biofungicide that effective to control plant pathogens. Chemical substances of noni had the effect of antifungal and antibiotics, namely scopoletin as an anti-fungal and antraquinon that against bacterial and fungal infections.

The objective of this research was to determine the effect of various levels of fraction extract of leaf *Morinda citrifolia* L to the in vitro growth of *C. capsici*.

The result showed that noni leaf extract which dissolved in concentration alcohol 10%, 30%, 50%, 60%, 70%, 90% and noni leaf extract which dissolved in aquades gave the best effect to inhibitory diameter of colony. Aside from inhibit the growth of vegetative, nonni leaft extract also inhibits spore formation (sporulation) colonies *C. capsici* which is dissolved in alcohol concentration 10% and 30%.

Keyword: *Colletotrichum capsici*, *Morinda citrifolia* L, Nonni leaf extract.