

ABSTRACT

EFFECT OF *Tagetes erecta* L. AND *Lantana camara* L. EXTRACT CONCENTRATION LEVEL FOR THE GROWTH AND SPORULATION OF *Colletotrichum capsici* (Syd.) Butl. et Bisby THAT CAUSED ANTHRACNOSE IN CHILI BY IN VITRO

By

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Anthracnose on chili is caused by *Colletotrichum capsici* (Syd.). Generally, it can be controlled by using synthetic fungicides which can cause negative impacts. Natural fungicide could be one of alternative way to control anthracnose. Leaf extract of *Tagetes erecta* and *Lantana camara* potentially control anthracnose as natural fungicide. This research was aimed to learn the ability of *T. erecta* and *L. camara* leaf extract fraction, effect of their concentration level, and determine their optimum concentration levels for pressing growth and sporulation of *C. capsici* by in vitro. The treatment was designed by completely randomized design (CRD) nested with 5 treatment (0,00 g/100 ml; 0,05 g/100 ml; 0,10 g/100 ml; 0,15 g/100 ml; and 0,20 g/100 ml) and 5 replications. Differences in median tested used orthogonal polynomials at level 5%. The result showed that *L. camara* leaf extract fraction was better than *T. erecta* leaf extract fraction in pressing growth and sporulation of *C. capsici*. Level 0,00 to 0,20 g/100 ml of

T. erecta and *L. camara* leaf extract fraction give a different effect in pressing growth and sporulation of *C. capsici*. Level of inhibition did not depend on the concentration level of *T. erecta* and *L. camara* leaf extract fraction.

Keywords: *Colletotrichum capsici*, *Lantana camara*, natural fungicide, *Tagetes erecta*.