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**ANTIFUNGAL ACTIVITY OF *Persicaria odorata* EXTRACT AGAINST ANTHRACNOSE
CAUSED BY *Colletotrichum capsici* AND
*Colletotrichum gloeosporioides***

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ABSTRACT

Anthracnose is the most serious problem in the degradation of fruit quality. Natural plant products are currently the alternative source of fungicides.

Persicaria odorata

, which is commonly found in Southeast Asia, exhibits antioxidant and antibacterial activity as well as being a source of phenolic compounds. The activity of

Persicaria odorata

extract against anthracnose caused by

Colletotrichum capsici

and

Colletotrichum. gloeosporioides

was investigated in this study. The chemical compounds were tested by employing the TLC technique.

Bioautography and microdilution bioassay were also employed for spore germination and mycelium growth, respectively. The results from the TLC technique showed that the chemical constituents of

P. odorata

were terpenoids, steroids, and other unidentified organic compounds but not alkaloids. The antifungal test of lipophilic extract showed clear zones on the TLC plate of

C. gloeosporioides

whereas there were no clear zones with

C. capsici.

With the result of microdilution bioassay, the lipophilic extract concentration inhibited the germination of

C. capsici

at a minimum inhibitory concentration (MIC) of 625 μ g/ml, and 20,000 μ g/ml at 24 and 72 hours, respectively. Whereas the minimum concentrations that inhibited the germination of

C. gloeosporioides

were 2,500 μ g/ml

, 10,000 μ g/ml, 20,000 μ g/ml and 20,000 μ g/ml at 24, 72, 120, and 168 hours, respectively.

Key words: Antifungal activity, *Persicaria odorata*, *Colletotrichum capsici*, *Colletotrichum gloeosporioides*