

**Selection of an Essential Oil from Traditional Plant to  
Inhibit the *Didymella bryoniae*, Causal Agent of Gummy Stem  
Blight of Watermelon**

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**ABSTRACT:** The objective of this study was conducted to select an essential oil from traditional plant to inhibit the *Didymella bryoniae* causal agent of gummy stem blight of watermelon. The essential oils from 9 species of test plants were extracted by using water distillation method in the laboratory. And followed by mixed an essential oils to PDA medium at 0.6% final concentration for fungal inhibition test. The result showed that an essential oil from 7 species consisted of *Boesenbergia pandurata* Holtr., *Zingiber officinale* Roscoe, *Alpinia galanga* (L.) Willd., *Cymbopogon citratus* Stapf., *Citrus hystrix* DC., *Ocimum americanum* L. and *O. basilicum* Linn. were completely to inhibit the *D. bryoniae* on PDA medium. And these result were identical to the inhibit efficiency from benomyl fungicidal. Whereas an essential oil from *Curcuma longa* Linn. showed partial inhibit the *D. bryoniae* growth on PDA, but *Citrus reticulata* Blanco. was not effectively to control this fungal.

**KEY WORDS:** *Didymella bryoniae*, essential oil, traditional plant, watermelon