

THE POTENTIAL OF *Acacia mangium* (Willd.) AND
Gliricidia sepium (Jacq.) AS BOTANICAL
PESTICIDES AGAINST SOOTY MOLD ON
MANGO (*Mangifera indica* L.)

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ABSTRACT

THE POTENTIAL OF *Acacia mangium* (Willd.) AND *Gliricidia sepium* (Jacq.) AS BOTANICAL PESTICIDES AGAINST THE SOOTY MOLD ON MANGO (*Mangifera indica* L.)

Sooty molds is the black spot structure that caused by fungus which usually develop on plant structure. This black spot structure caused many problems to farmer especially the post-harvest problems which decrease their profits. The objective of this study is to determine the fungicide activity of *Acacia mangium* (Willd.) and *Gliricidia sepium* (Jacq.) against the sooty mold that develop on Mango (*Mangifera indica* L.) fruits. Disc Diffusion Method was used in order to determine the fungicide activity of crude extract of *Acacia mangium* (Willd.) and *Gliricidia sepium* (Jacq.). The diameter of Zone of Inhibition indicates the efficiency of the plant crude extract against the fungus. Phytochemical screening of *Acacia mangium* (Willd.) and *Gliricidia sepium* (Jacq.) reveals the present of compound saponin, tannin, alkaloid, terpenoid, triterpene, diterpene and glycoside. Even though, with the present of this compound, crude extract of *Acacia mangium* (Willd.) and *Gliricidia sepium* (Jacq.) did not shows any fungicide activity against the fungus that caused the sooty mold.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Sooty mold is the black spot that develop on the plant structure surface. This black spot can be easily recognized and it is one of the most common problems faced by plant species. This sooty mold is not pathogenic as it is develop from the interaction of sap-feeding insects and the non-parasitic fungi. Although it not caused much harmed, it can indirectly give negative impacts to plants. This black coating fungus usually appeared on the surface of leaves, fruits, twigs and branches of plants. Besides that, sometimes it may harden and sticks tightly to the plant structure.

Some of the people might already know that the sooty mold can be eliminated by washing or used the artificial fungicides. But the results are not purely satisfactory unless the causal funguses are controlled. Furthermore, artificial fungicides cannot be considered as long term solutions due to exposure of risks, health and environmental hazards, residue persistence and development of tolerance (Lingk, 1991).