ABSTRACT

THE EFFECT OF ALLOLEPATHY FROM BLADY GRASS TO THREE
SPECIES OF ACACIA SEEDLINGS GROWTH

By

MELDA YANTI

Allelopathy is the compound released by the plants (example: blady grass) to the

environtment and where another plants is living and could obstruct or extinguish

to another plants. The purpose of research were to figure out the effect of

allelopathy from the blady grass toward the species of acacia seedlings, to figure

out the weakest affected seedling species by blady grass allelopathy, and to figure

out interaction between concentration of extracted blady grass and seedling tree

species. The research was designed based on factorial in a complete random

design. Factor I was the seedlings, consisted of acacia, mangium, and acacia alba,

while factor II was concentration of extracted blady grass allelopathy, consisted of

non extracted allelopathy, extracted allelopathy 25%, extracted allelopathy 50%,

extracted allelopathy 75%, and extracted allelopathy 100%. Every treatment was

repeated 5 times. The number of the seedlings for each experimental unit was 2

seedings. The observed variables were height, diameter of the stem, number of

leaves, and living percentage of the seedlings. This observation data was tested

by Bartlett test to find the variance homogenity. Then it was analyzed by using

variance analysis, and tested by least significant difference (LSD). The

calculation were done at 5% significant level. The result of this research showed that allelopathy of blady grass were significant to the growth of acacia, mangium and acacia alba seedlings. Based on the LSD at 5% was known that the concentrate of blady grass allelopathy had strongest negative effect to the growth seedlings was 100%. Seedling that was the most resistant to the allelopathy of blady grass is mangium seedling. It was known from the analysis of variance test there was an interaction between the seedling and the concentration of blady grass allelopathy that effect the height, leaves number, living percentage of seedlings.