

ABSTRACT

THE EFFECT OF ALLELOPATHY FROM THE TREES OF EARPOD WATTLE, BLACK WATTLE, AND TEAK TO THE GROWTH OF THE SEEDLINGS OF EARPOD WATTLE, BLACK WATTLE, AND TEAK

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Allelopathy is the compound released by the plants to the environment where actually another plants is living in. The purpose of this research were to find out the effect of *allelopathy* which came from earpod wattle (*Acacia auriculiformis*), black wattle (*Acacia mangium*), and teak (*Tectona grandis*) to the seedlings plants of earpod wattle, black wattle, and teak, and also to find out the effect of *allelopathy* above mentioned that had the weakest effect. This research was designed based on factorial in a complete random design. Factor I was the seedlings which consist of earpod wattle, black wattle, and teak, while factor II was the *allelopathy* which consists of non *allelopathy* was used, the use of *allelopathy* from the extraction of earpod wattle leaves, the extraction of black wattle leaves, and the extraction of teak leaves. The variable that was observed were seedlings height increasing, seedlings stem diameter increasing, number of leaves increasing, and living percentage of the seedlings. This observation data was tested by Bartlett test to know the homogeneity of variance. Then it was analyzed by analysis of variance, then it is continually tested by least significant

difference test. All the counting were done at 5% significant level. The result of this research showed that *allelopathy* which came from earpod wattle, black wattle, and teak were not different effect for seedlings from *allelopathy* source in the same species. The giving of black wattle *allelopathy* had significant different effect in height of earpod wattle seedlings. That also the giving of teak *allelopathy* had significant different effect in height black wattle seedlings. The earpod wattle *allelopathy* had significant different effect in diameter of stem earpod wattle, black wattle, and teak seedlings.

Key words : *allelopathy*, extraction of earpod wattle, black wattle, and teak, seedlings growth