

Abstract

Hariyanti, Lucky. 2013. **Effect of Concentration and Long Immersion in Sulfuric Acid on Seed Germination of Jati Belanda (*Guazuma ulmifolia* Lamk.)**. Thesis, Department of Biology, Faculty of Science and Technology of the State Islamic University (UIN) Maulana Malik Ibrahim Malang. Supervisor: Dr. H.EkoBudi Minarno, M.Pd. Supervisor Religion: Dr. H.Ahmad Barizi, M.A.

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Jati Belanda (*Guazuma ulmifolia* Lamk.) is one species of medicinal plants. Jati Belanda can be used for medicinal ingredients are the leaves, bark, stem and seeds. Teak needs Jati Belanda is increasing, but breeding is still experiencing problems, namely the seed coat dormancy is impermeable to water and gases that need pretreatment to break the dormancy. This study aimed to determine the effect of chemical scarification using sulfuric acid on seed germination Jati Belanda (*Guazuma ulmifolia* Lamk.).

The research design used in this study is completely randomized design (CRD) with 2 factors. The first factor is the concentration of sulfuric acid 0%, 75%, 85% and 95%. While the second factor is the long immersion in sulfuric acid at 30 minutes, 40 minutes, 50 minutes, and 60 minutes. Data obtained from this study were analyzed by analysis of variance (ANOVA) and if there are further differences tested by Duncan Multiple Range Test (DMRT).

Results of the study showed that the concentration and immersion time in sulfuric acid affect the germination rate, germination percentage and seedling length. Concentration and immersion time in sulfuric acid is most effective for germination percentage was 85% for 50 min resulted in germination percentage of 93.33%. As for the rate of germination and seedling length was 95% for 50 minutes resulted in an average time required is 3 days to germinate and sprout the average length is 7.03cm.