

**RESPONSE OF SOME UROGRANDIS HYBRID CLONE
(*Eucalyptus urophylla* X *E. grandis*) UNTIL 1 YEAR ON FERTILIZATION
AT WANAGAMA I YOGYAKARTA**

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Abstract

Eucalyptus is one of the species usually selected in the industrial forest plantations. It is known as a fast growing species with short rotation period and high resistance towards pests and diseases. Urograndis hybrid clone was yielded from tree improvement program by hybridization between *Eucalyptus urophylla* and *E. grandis*. The hybrid seems to have better characteristics than both the parent. However, as a new species, the information on silvicultural treatment of urograndis hybrid is very limited. In order to set more information on the hybrid, the study was aimed to :1) Analyze the response of urograndis hybrid growth on each kind and dosage of fertilizer ; 2) Observe the optimum of fertilizer's kind and dosages on urograndis hybrid; 3) Observe the effect of interaction between fertilization treatment and clone number on urograndis hybrid growth.

The study (started from July 1998 to July 1999) was done using split plot with factorial design of 4 x 10 . Four levels of dosage and kind of fertilizer used were : 1) no fertilizer; 2) urea 150 g; 3) urea 300 g; 4) urea 300, g TSP 150 g and KCl 100 g. Ten urograndis hybrid's clonal number planted in teh study were 18.08, 18.11, 18.14, 18.18, 18.20, 18.40, 18.41, 18.48, 29.07, 382,01. Fertilizer kinds and dosages were used as mainplot while clonal number was used as subplot. There were 4 block established, and 4 treeplot was used as experiment unit, giving the total number of 640 seedlings to be observed with height and diameter of seedlings as parameter assessed. The data will be analyzed using Analysis of Variance and continued by Duncan's Multiple Range Test (DMRT) to identify any significance.

The result showed there were significant differences on the height and diameter due to fertilization and clonal number's treatment. The interaction between 2 treatments had given significant differences on the height but not to the diameter. Urograndis hybrid clonal number 382.01 showed the best response on both height (112.66 cm) and the diameter (1.42 cm). The fertilization of urea 300 g TSP 150 g KCl 100 g gave the best height and diameter growth (108.646 cm and 1.66 cm). The best height resulted from the interaction of two treatments was showed by urograndis hybrid with the clonal number of 382.01 and urea 150 g dosage.

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