

**THE EFFECT OF DIFFERENT WATERING FREQUENCY ON THE GROWTH
PERFORMANCE OF *Octomeles sumatrana* AT NURSERY**

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PROGRAMME: FOREST PLANTATION AND AGROFORESTRY

2017

ABSTRACT

Octomeles sumatrana is a fast-growing forest tree species that have a potential to be planted commercially. The growth performance of Binuang can be affected by the watering frequency as water is one of the main requirements for the growth of seedlings. The objectives of this research are to identify the survival rate of Binuang seedlings, to identify the growth performances of Binuang seedlings and to determine the most suitable watering frequency also to identify the root and shoot ratio for the growth of Binuang seedlings in nursery. There are six (6) types of watering frequency that have been used in which are without watering, watering every day, watering every 2 days, watering every 4 days, watering every 6 days and modified hydroponic method. There are four (4) parameters in this research which are height, diameter, number of leaves and area of leaves that are used as an indicator for the growth performance of Binuang seedlings for 60 days. The research shows that Binuang seedlings of every watering frequency have the same survival rate which is 100% except for the seedlings with no watering which is 0%. Based on graph, Binuang seedlings with the watering frequency of watering every 4 days showed the highest average increase in growth in terms of height, diameter, number of leaves and area of leaves. Correlation test showed a low or weak positive relationship between the growth of shoot and root of Binuang seedling ($r=0.287$: $p<0.01$). As a conclusion, watering every 4 days showed the best performance in the growth performance of Binuang seedlings.