EFFECT OF DIFFERENT WATERING FREQUENCIES ON *Neolamarckia cadamba*SEEDLINGS AT NURSERY

NAME: EVIANNA ALAI

SUPERVISOR: EN. JULIUS KODOH

PROGRAMME: FOREST PLANTATION AND AGROFORESTRY

2017

ABSTRACT

Neolamarckia cadamba is one of those plants that have not been studied which primarily grown in South Asia and Southeast Asia. It is a fast-growing timber species and is recommended for planting in the plantation Laran. In line with the Malaysian government's plan to encourage the development of forest plantations on a large scale. The frequency of watering levels affects the rate of growth of seedlings. This research is important to know the suitable frequency of watering for the growth of seedlings. In this study, there were 6 treatments used, namely the control (without watering), watering every day, 2-day interval, an interval of 4 days, 6 days and the modified hydroponic. Media used was 70% + 30% coco peat topsoil. This research is to identify the growth performance of seedling with different frequency of watering based on height, diameter and no of leaves. Besides, to study the ratio of shoot: root of Laran seedling. There are several perimeters taken into account in this study to investigate the growth of seedlings of height, diameter, leaf area and number of leaves of seedlings. The study found that treatment of the reservoir provides the best growth rates. Laran seedling with reservoir's treatment show the highest value of increment of height, leaf area and collar diameter which is 5.58 cm, 2771 mm² and 2.28 mm respectively while the value of increment of number of leaves is 1. The percentage of life of Laran seedling is 100% for all treatment except control treatment (without watering). ANOVA test results showed that the difference in rates is significant with watering (p < 0.05). Correlation analysis shown that there is a positive relationship between the shoot and root development (r=0.979).