Abstrak

Hopea odorata Roxb. is a member of the Dipterocarpaceae family. This species has much potential, for example as an ornamental plant, as a medicinal plant, and the timber can be used for industry. However, H. odorata is listed as vulnerable on the IUCN Red List. Moreover, H. odorata has epigeal type germination. Therefore, it is necessary to research the effect of seed orientation at planting to determine germination success, the process of germination, and growth rate to improve conservation effort. For this research, seed were planted in three different orientations, pointing up, pointing down, and on their side. All treatments were planted in sand media. Each treatment was observed the process of germination, viability of germination to determine the percentage of germination and observed the height of germination to determine the power of growth. The process of germination was observed for each treatment. Germination success was determined by the percentage of seed which germinated and the height of seedling measured determine growth rate. The results of this research showed that seed orientation affected the germination process. Germination success was highest for seed planted pointing down (96.67 persen), followed by pointing up (93.33 persen) and those planted on their side (90 persen), but not significantly different at 5 persen level. The highest growth rate was found in seed planted pointing up (7.55 cm), followed by those on their side (7.35 cm) and pointing down (6.92 cm), but not significantly different at 5 persen level. Overall, germination success and growth rate were not significantly different at 5 persen level, however, seed orientation affected the germination process.