

## **Abstract**

This study aimed to analyze the effect of inundation height with and without empty fruit bunches of palm oil (EFBPO) and dolomite lime on the growth of seedlings of swamp jelutung (*Dyera polyphylla*). The factors studied were factor A (inundation height) which consisted of the height of the polybag, the middle height between the tip of the polybag and the seedling shoot, and the height of the seedling shoot. Factor B consisted of peat swamp water without EFBPO and dolomite lime, peat swamp water with EFBPO, and peat swamp water with dolomite lime. The analytical method used was the Mann-Whitney U test to see the effect between each treatment. The results showed that the treatment of giving dolomite lime to peat swamp water could increase the height increment of jelutung seedlings at all levels of inundation, but the effect was not significant. This treatment could also significantly increase the survival percentage of jelutung seedlings, especially at deeper inundation heights, namely in inundation as high as the polybag height and as high as shoots of seedlings. The treatment of inundation height had a very significant effect on the increase in seedling height, where the higher the inundation, the higher the increase in the height of jelutung seedlings, but the survival percentage was decreasing. However, the decrease in the survival percentage could be reduced by applying dolomite lime to peat swamp water. In the present study, it is recommended to apply dolomite lime to the peat swamp water, while the use of EFBPO is not recommended unless there is an innovation to add oxygen to peat swamp water.

**Keywords:** Growth increment, Jelutung, Inundation, Empty fruit bunches of palm oil, Dolomite lime