**ABSTRACT**

Changing rainfall patterns consequent upon climate change will affect natural and artificial regeneration of many tropical tree species. Moreover, there is still lacuna of information on the silvicultural requirements of some indigenous tree species in the tropics. This study therefore investigated response of sown seeds and seedlings of *Blighia sapida* commonly called Ackee to different watering frequencies. Mature fruits of Ackee were obtained from Itapa-Ekiti (Latitude 7o49ꞌ0ꞌꞌN and longitude 5o23ꞌ0ꞌꞌE) in Nigeria. Four watering frequencies were adopted being Daily watering, Every two days watering, Every three days watering and Every five days watering represented as T1, T2, T3, and T4 respectively. T4 germinated 8 days after sowing (DAS) resulting in a percentage of 80% , T3 on the 15DAS with a percentage of 86.7%, T2 on the 22DAS with a percentage of 6.7% while T1 germinated on the 14DAS with a percentage of 66.7%. Uniformly growing seedlings were later used for seedling growth assessment. Seedlings were assessed fortnightly for collar diameter (cm), height (cm), Numbers of leaves and branches for twelve weeks. Mean collar diameter values were not significantly different from one another throughout the assessment period at 5% probability level. However, highest diameter value of 0.62cm was obtained at 12weeks under T4 while T1 gave the least value of 0.33 at 2weeks. ANOVA revealed significant differences in seedling height under watering frequencies across assessment period. Nevertheless, highest height value of 28.39cm was obtained under T4 at 12weeks while T3 produced the least value of 11.44cm at 2weeks. Highest mean leaf number of 13.11 was obtained under T4 at 12weeks while T1 gave least value of 4.22 at 2weeks. Highest mean branch number of 5.56 was recorded at 12weeks under T4 while T1 gave least value of 2.22 at 2weeks. It was also observed that leaves of seedlings under T1 were predisposed to insect infestation. Germination of *B. Sapida* seeds can occur with water shortage and its seedlings can adapt to drought stress considering their good performance under watering at longer intervals.