

Growth and physiological response of selected clones of rubber grown under different water frequencies

ABSTRACT

Effects of water frequencies on growth and physiological response of different clones of rubber were investigated. Different clones of rubber were screened with different watering frequencies as everyday watering (EW), every 2 days (E2D), every 3 days (E3D), every 5 days (E5D), and every 7 days (E7D). The treatments EW and E2D were found to be suitable for all the five clones for increasing as shown in plant height. A similar result was also found for plant biomass after 4 and 8 months of treatments. Noticeably, watering had a pronounced positive effect on clone RRIM 3001 and greatly increased vigorous growth as shown in its highest height, largest girth circumference and relative growth rate after 8 months of different watering frequencies. This clone equally showed superior performance with a significantly higher total plant biomass after 4 and 8 months of watering frequencies compared to the other four clones. The result could be used in water management and the clone RRIM 3001 could be suitable for rubber production at the nursery stage and replanting exercise in rubber plantations.

Keyword: *Hevea brasiliensis*; Latex timber clones; Watering frequencies; Growth; Physiological responses