

The Effect of Nitrogenous fertilizers on growth in seedlings of *Ziziphus spinachristi* (Linn) *Ziziphus mauritiana* (Lam)

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Abstract

The paper reports the effect of nitrogenous fertilizers (NPK, Urea, Cowdung) and their quantities (10g, 20g, 30g/plant) on growth and development of seedlings of *Zizyphus spinachristii* (Linn) and *Z. mauritania* (Lam). In both species, morphological parameters were significantly influenced by type of fertilizer. Cowdung manure produced high quality seedlings. Highest values of leaf dry weights for *Z. spinachristii* (34cm² 5.5 g/pl ant) and *Zmauritania* (86cm² , 13g/plant) respectively were obtained when raised using 20g of cowdung. In *Z. spinachristii*, maximum leaf area values from NPK and Urea (28cm², 29cm²) amounted to 82% of values obtained from cowdung. In *Z. mauritania*, highest foliar concentrations of nitrogen, calcium and potassium were recorded in seedlings supplied with 10g of NPK fertilizer. A similar trend was obtained in seedlings of *Z. spinachristii* supplied with 30g of NPK fertilizer. Irrespective of type of fertilizer, better morphological responses were recorded in seedlings of *Z. mauritania*.

Keywords

Nitrogenous fertilizers, Growth, Seedling