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EARLY GROWTH RESPONSE OF INDIGENOUS SUDAN SAVANA SPECIES TO CARRYING MEDIA AND MOISTURE REGIMES

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ABSTRACT

The continued search for maximum utility of raw material in a depressed economy cannot be overemphasized. There is the need to further enrich quantitative information on the potentials of abundant local material in-use; especially in nursery operation in semi-arid sudan savanna.

The factors namely, moisture and local nutrient sources were employed in assessing early morphological and physiological variability of three savanna grown species prior to field planting Cow dung and poultry manure in various combination with top soil were subjected to three moisture regimes of $0.0 \times 10^5\text{Pa}$, $-0.3 \times 10^5\text{Pa}$ and $-0.8 \times 10^5\text{Pa}$.

The best potting mixture for *Piliostigma reticulata* was P2 (1 of cow dung to 5 of top soil), while *Prosopis Africana* and *Acacia nilotica* grow best in potting mixture P1 (1 of cowdung to 2 of top soil). *Piliostigma Africana* required none of soil water compared to *Prosopis Africana* and *Acacia nilotica*.

Keyword