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## Morpho-physiological Responses of Cowpea Genotypes (*Vigna unguiculata* (L.) Walp.) to Drought Stress

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Despite the socio-economic and agricultural importance of cowpea, drought remains a major challenge to the production of the crop in the dry savannah agroecological zones in Ghana. The study assessed the responses of 126 cowpea genotypes to drought using the wooden box screening method. One group (experimental) of 10-day-old seedlings was subjected to drought stress by withholding water for 23 days based on the completely randomized design in two replications, while the other group

(control) was watered regularly at 4-day intervals. Morpho-physiological data was subjected to analysis of variance. Plant height, stem girth, number of branches, number of leaves, leaf size, and yield of photosynthesis differed significantly ( $P < 0.05$ ) at 17 days after exposure to drought. In all, 64.3 % (81 cowpea genotypes) were identified to be drought tolerant and the remaining 45 representing 35.7 % were drought susceptible.

### Biography

Rosemond Ewurama Puobi is a Lecturer by profession who teaches at the University of Cape Coast, Cape Coast, Ghana. She holds an MPhil in Molecular Biology and a PhD in Molecular Biology and Biotechnology from the School of Biological Sciences, University of Cape Coast, Cape Coast, Ghana. She has also been involved in morphological and genetic characterization and drought screening of soybean in Ghana. Rosemond grew up in the Central region of Ghana and is keen on maintaining food security through climate-smart agriculture.