

Phenotypic variations among newly selected roselle (*Hibiscus sabdariffa* Linn.) genotypes in Nigeria.

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Abstract

*Phenotypic investigation was conducted on twenty newly selected genotypes of Nigerian Roselle (*Hibiscus sabdariffa* L) using visual character markers. These markers include: stem colours, stem hairiness, leaf colour, leaf hairiness, leaf shape, petiole colour, petiole hairiness, calyx colour, calyx hairiness and epicalyx colour. The experiment was conducted in the 2013 and 2014 growing seasons to ascertain the consistencies of the traits. Distinct variations were obtained among the new Roselle genotypes in terms of the parameters studied. Consistencies were observed in all the visual markers used except the flower colour; these consistencies indicate that the variations are not caused by environmental factors, such variations are good for selection and improvement. Whereas, the inconsistency in the flower morphology might be due to environmental influences. It is therefore concluded that Nigerian Roselle genotypes differ in some of their phenotypic (visual) characters which could be used for the improvement of the crop. Therefore, a scientific agro-metrical and molecular characterization is necessary to ascertain the genetic diversity that exists among these new selected Roselle genotypes in Nigeria. This will enhance the selection for improvement of the crop in the future.*

Keywords: Visual Characters, Leaf shape, Calyx Colour, Selection, Improvement

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