Agro-morphological Studies of Soybean Genotypes in Badeggi, Southern Guinea Savanna of Nigeria

A. I. Khalil[1,*], K. D. Tolorunse[2] and A. S. Gana[2].
[1] National Cereals Research Institute, Badeggi, Niger State, Nigeria.
[2] Department of Crop Production, Federal University of Technology, Minna, Niger State, Nigeria.
*Corresponding Author: brema2calyl@gmail.com

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ABSTRACT

The presence of genetic variability is important in cultivar development as it provides material for effective selection. The aim of the study was to estimate genetic variability for grain yield and its component traits, and to assess morphological diversity among elite soybean lines. Sixteen genotypes were evaluated in the trial field of National Cereal Research Institute (NCRI), Badeggi, Niger State of Nigeria during the 2019 season using a 4 x 4 alpha lattice design with three replications. Data were collected on number of days to 50% flowering, first pod height, plant height at maturity, days to maturity, pod number per plant, hundred seed weight and grain yield. Means for both individual and combine years were obtained and separated using the Tukeys's Honest Significant Difference (HSD) Test. The result indicated that, yield correlation was derived from the analyzed data where correlation coefficient of yield was significant and positive with number of days to maturity, plant height at maturity, number of pods per plants and fodder weight. Selection and improvement of these traits will result to an increase in yield.

Keywords: fodder weight, improvement, seed weight, selection