Variability for Seedling Vigour in Maize

M. A. B. Fakoredea1 and D. K. Ojoa1

a1 Department of Plant Science, University of Ife, Ile-Ife, Nigeria

Considerable variation in seedling vigour was observed among 36 maize populations; genotypic variances were generally high for emergence percentage (E%), emergence index (EI), dry-matter accumulation and relative growth rate (RGR). Broadsense heritability values and environmental variances indicated that E% and EI would be more reliable indices for seedling vigour than emergence rate index (ERI). The expression of growth rate (GR) was influenced more by the environment than the genetic constitution of seedlings; GR was not therefore an effective indicator for seedling vigour, and RGR would be preferred because it was more heritable and less influenced by the environment.