

# GENETIC VARIABILITY OF MAIZE GENOTYPES FOR GROWTH, YIELD, AND YIELD COMPONENTS

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Global changing crop growth conditions dictate selection of well adapted crops. Therefore, a study of selected maize genotypes (*Zea mays* L.) at demonstration farm of College of Agricultural Studies, Sudan university of science and technology shambat in 2010 was carried out to determine of genetic variability for growth, yield and yield components using a randomized complete block design with three replications.

The parameters assessed included investigate the phenotypic and genotypic variances, genetic coefficient of variation (GCV%), heritability( $h^2$ ) and genetic advance (GA). The results showed high significant differences in days to 50% tasselling and silking, leaf area, stem diameter. Non-significant differences were observed for, plant height, Number of leaves per plant, length of cob, weight of grains per plant, 100-grain weight, number of grains per cob and grains yield per hectare. The highest genetic coefficient of variation (339.1%) was obtained for leaf area whereas the lowest (0.35%) for the number of leaves per plant The high estimated heritability ( $h^2 > 60\%$ ) were recorded for days to 50% tasselling and silking while the lowest estimated ( $h^2 < 40\%$ ) for leaf area, stem diameter, plant height, length of cob, number of leaves per plant, 100-grain weight, number of grains per cob.