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Reactions of Some Maize Hybrids to Different Nitrogen Rates

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Abstract: In this pot experiment, reaction of five different maize genotypes grown in Çukurova Region to different rates of nitrogen were measured. Responses of the genotypes employed to different rates of nitrogen were measured using uptake of nitrogen, root and top dry matter yield, number of leaves, plant height and other nutrient contents of the plant and the intetactions among the plant characterictics were examined and interpreted. Total top dry matter yield, number of leaves, plant height, root development and percent calcium contents of the all genotypes increased as the rates of nitrogen increased. P and Mn contents and levels of percent K, Mg, Zn, Fe and Cu in the genotypes were found to be different among the genotypes at 5 % and 1 % leaves as the rates of nitrogen increased, respectively. There was no significant differences in terms of nitrogen contents of the plant among the genotypes as the application rates of nitrogen increased. However, it was observed that the genotype XL.72.AA used the applied nitrogen effectively. On the other hand, nitrogen uptake was found highest when the rate of applied nitrogen was the lowest and the nitrogen absorption rate with genotype XL.72.AA was highest at the lowest nitrogen rate.

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