Effect of FYM and Fe-Zn-S supplementation on yield and quality of multicut forage sorghum (cv. SSG-3)


ABSTRACT
Eighteen treatments comprising of combination of three levels of FYM (0, (F<sub>0</sub>), 10 (F<sub>1</sub>) and 20 (F<sub>2</sub>) t ha<sup>-1</sup>) and six nutrient management treatments [control (M<sub>0</sub>), Fe (M<sub>1</sub>), Zn (M<sub>2</sub>), S (M<sub>3</sub>), Fe + Zn (M<sub>4</sub>) and Fe + Zn + S (M<sub>5</sub>)] were tested in factorial randomized block design with three replications in field experiments conducted during Kharif and summer seasons of 2003 and 2004. Fe, Zn and S were applied @ 10, 5 and 40 kg ha<sup>-1</sup> as FeSO<sub>4</sub>, ZnSO<sub>4</sub> and gypsum, respectively. Initial available S, Fe and Zn contents in the soil were low. Yield of green forage and dry forage were increased by the treatments F<sub>2</sub> and F<sub>1</sub> (8.5 and 5.3 %, respectively) over treatment F<sub>0</sub>. The treatments M<sub>5</sub> and M<sub>4</sub> significantly increased the green fodder yield by 13.0 and 8.5 per cent, respectively, over that of M<sub>0</sub> (731.5 q ha<sup>-1</sup>). The study of quality parameters viz., crude protein content, neutral detergent fiber and sugar content revealed that application of FYM at F<sub>1</sub> and F<sub>2</sub> as well as Fe-Zn-S treatments favourably influenced the quality parameters in comparison to their respective control.

Key words: Green forage yield, Dry forage yield, quality parameter like crude protein content, neutral detergent fiber and sugar content.