Two trials were conducted between November 1993 and August 1994 at the Kenya Agricultural Research Station, Thika, to investigate effect of the different staking methods; wire fence, wattle dead stakes, live Dracaena fragrans staking at 7 cm and 15 cm spacing on performance of tomato (Lycopersicon esculentum Mill). Var. 'Money Maker'). Effects of Dracaena fragrans and grass (Pennisetum clandestinum) mulch on the tomato performance were also investigated. A randomized complete block design (RCBD) with 7 replications was used. Assessment of tomato plant performance was based on weight of total marketable and unmarketable yields, number of fruits per cluster per plant and number of pedicel on a truss.

Staking very highly significantly (P<0.001) increased total and marketable yields. Wire fence supported tomato plants gave the highest total yield of 170196 kg/ha and marketable yield of up to 169845 kg/ha. The highest total and marketable yields at 15 cm were 167917 kg/ha and 167741 kg/ha, respectively. The highest yield from wattle staked plots were 168733 kg/ha. The lowest yield of 165326 kg/ha was obtained from tomato plants grown in plots with Dracaena stakes, spaced at 7 cm apart.

Staking also very highly significant (P<0.001) increased the number of tomatoes and flower trusses. Tomatoes plants grown in plots with Dracaena stakes placed at 7 cm apart had the highest yield of 3570 per/ha. The highest number of flower trusses was 661 per/ha from plots with Dracaena spaced at 15 cm. The lowest number of tomatoes and flower trusses were 2203 and 448 kg/ha from dead staked plots, respectively.

Mulching very highly significantly (P<0.001) increased total and marketable tomato yields. The highest and lowest total and marketable yield; from Dracaena mulched plots were 172131 kg/ha and 170979 kg/ha, respectively. The highest yield from grass-mulched plots was 149362 kg/ha and the lowest marketable yield was 139995 kg/ha/ Mulching significantly (P<0.05) increased number of tomatoes and also the number of flower trusses. The highest numbers of tomatoes and flower trusses were 3033 per/ha and 529 per/ha from Dracaena mulched plots, respectively. The lowest numbers of tomatoes and flower trusses were 2745 per/ha and 504 per/ha, respectively. There was very highly significant (P<0.001) difference in performance of plant Dracaena staked at 15 cm plus Dracaena mulch. The plots did better than Dracaena staked, non-mulched or grass mulched plots, in total and marketable yield in trial two. The plots had 170385 kg/ha and 167729 kg/ha, respectively.