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Effect of BIOZYME (*a commercial plant growth promoter*) on the productivity of *Lycopersicon esculentum* (Tomato)

A filed experiment was conducted to study the effect of different dosages of Biozyme (a commercial plant growth promoter) on the productivity of tomato (Lycopersicon esculentum). Three dosages of "Biozyme Crop+" were used as treatments, in addition to

the recommended rates of soil fertilizers by the Dept. of Agriculture (DOA). Only the recommended rates of solid fertilizers were used as the control.

A completely randomized design was used with three replicates. Key reproductive/ yield parameters such as number of flowers per plant (NOF), percentage fruit-set (PES), total fruit yield (TFY), average fruit diameter (AFD) and total solid content (TSC) of fruits were recorded to estimate the effect of Biozyme Crop+. The NOF continuously increased up to 8 weeks after transplanting. The maximum number of flowers was produced by the plants, which were treated with the normal rate of Biozyme, where the effect was significantly higher than with the other treatments.

The PFS was gradually increasing with time from the 6ht week after transplanting irrespective of treatments. Although the normal rate of Biozyme has resulted in producing the highest PFS through out, it was significant only at the 6th week after transplanting. When the TFY is considered, the application of Biozyme has resulted in 14.26%, 35.61% and 66.59% yield increases, compared to the control. The AFD was highest at 17 weeks after transplanting, but the influence of treatments on AFD was not significant. A consistent pattern could not be observed among treatment effects on percentage dry weight of fruits, even though the differences between treatments were significant at certain sampling times.

These results show that there is a significant effect of Biozyme Crop+ on tomato yield, which lie in the range of 14.26-66.59% and the NOF. However, No prominent effect of Biozyme on fruit quality was evident from the study.