

Results of Field Test on Maize at the Kizimbani Agricultural Research Institute in Zanzibar



Results and Discussions

Table 2 below shows the results of Bio-Plant and Pro-Plant liquid fertilizers on growth and yield of maize crop in an exploratory test conducted at Kizimbani Agricultural Center of Zanzibar Agricultural Research Institute.

The results show a high percent increase of plant height and culm width at vegetative stage due to application of bio-plant and pro-plant when compared to non-application. This has an implication that the liquid fertilizers influenced the maize plant to grow more quickly at vegetative stage. However, at maturity the results show that overall the liquid fertilizers influenced plant height by 27% and culm width by 40%.

On cob width and cob length the liquid fertilizers managed to improve these parameters by 25.6% and 23% respectively. The two yield components and possibly to others which have not been measured have contributed to the performance of cob weight to 94.5% compared to the yield of the control plot.

Parameter	Stage of Data Collection	Treatment		Improvement Due to Bio-Plant and Pro-Plant Bio-fertilizers
		Control	Bio-fertilizer	
Plant height (cm)	Vegetative	132.8	218.5	85.7 (64.5%)
Culm width (cm)		2.6	4	1.4 (87.5%)
Plant height (cm)	Maturity	214.8	272.9	58.1 (27%)
Culm width (cm)		2.01	2.82	0.81 (40.3%)
Cob width (cm)		3.95	4.96	1.01 (25.6%)
Cob length (cm)		24.15	29.7	5.55 (23%)
Cob weight (g)		150.04	291.8	141.76 (94.5%)

Conclusions and Recommendations

The test conducted to evaluate the effect of bio-plant and pro-plant liquid fertilizers on maize has shown that the fertilizers have the ability to improve crop productivity to a great extent and therefore indicated the possibility to replace or supplement chemical fertilizers in crop production.