The Results of Some Tests on Maize Using Bio-Plant and Pro-Plant

Introduction

- Farmers in Thailand and Vietnam have been growing maize with Bio-Plant and Pro-Plant for many years with excellent results. Here are a few of the many tests carried out in West Africa at the request of national and state governments and farmer associations.
- Usually, the tests were not carried out properly according to the guidelines; however, the results were still very good, attesting to the effects of using the bio-fertilisers.

Maize Tests in Nigeria

Bio-chemical Farming Maize Field Test in Karfe Town, Suleja, Niger State, Nigeria

- The maize seeds were soaked in Bio-Plant and water for 12 hours before planting.
- The soil, which was in poor condition owing to years of chemical farming, was prepared with a bio-chemical mixture of Urea and Bio-Plant.
- Bio-Plant was mixed with NPK and this bio-chemical mixture was sprinkled around the maize plants during the crop. Pro-Plant was sprayed regularly on the maize.
- The farmers almost doubled their yield. Normally, they only produced 30-40 bags of maize per hectare, but this test produced 60 bags per hectare.
- Normally, the farmers have problems with insects during their maize crops, but this time there were no problems with insect pests at all. No chemical sprays were used.

Bio-chemical Farming Maize Field Test in Karfe Town, Suleja, Niger State, Nigeria

Maize Test in Chanchaga Village, Niger State, Dry Season, 2015/2016

- Bio-Plant and Pro-Plant were tested on maize using different farmers to evaluate their impact compared to inorganic NPK fertilizer.
- Results obtained revealed that plots treated with Pro-Plant combined with Bio-Plant had significantly higher yields.
- In all the treatments where Pro-Plant was used either alone or combined with NPK or Bio-Plant, an appreciable yield increase was obtained.

Conclusion of the Maize Test in Chanchaga Village, Niger State

"Any treatment that involves Pro-Plant is therefore highly recommended to maize farmers."

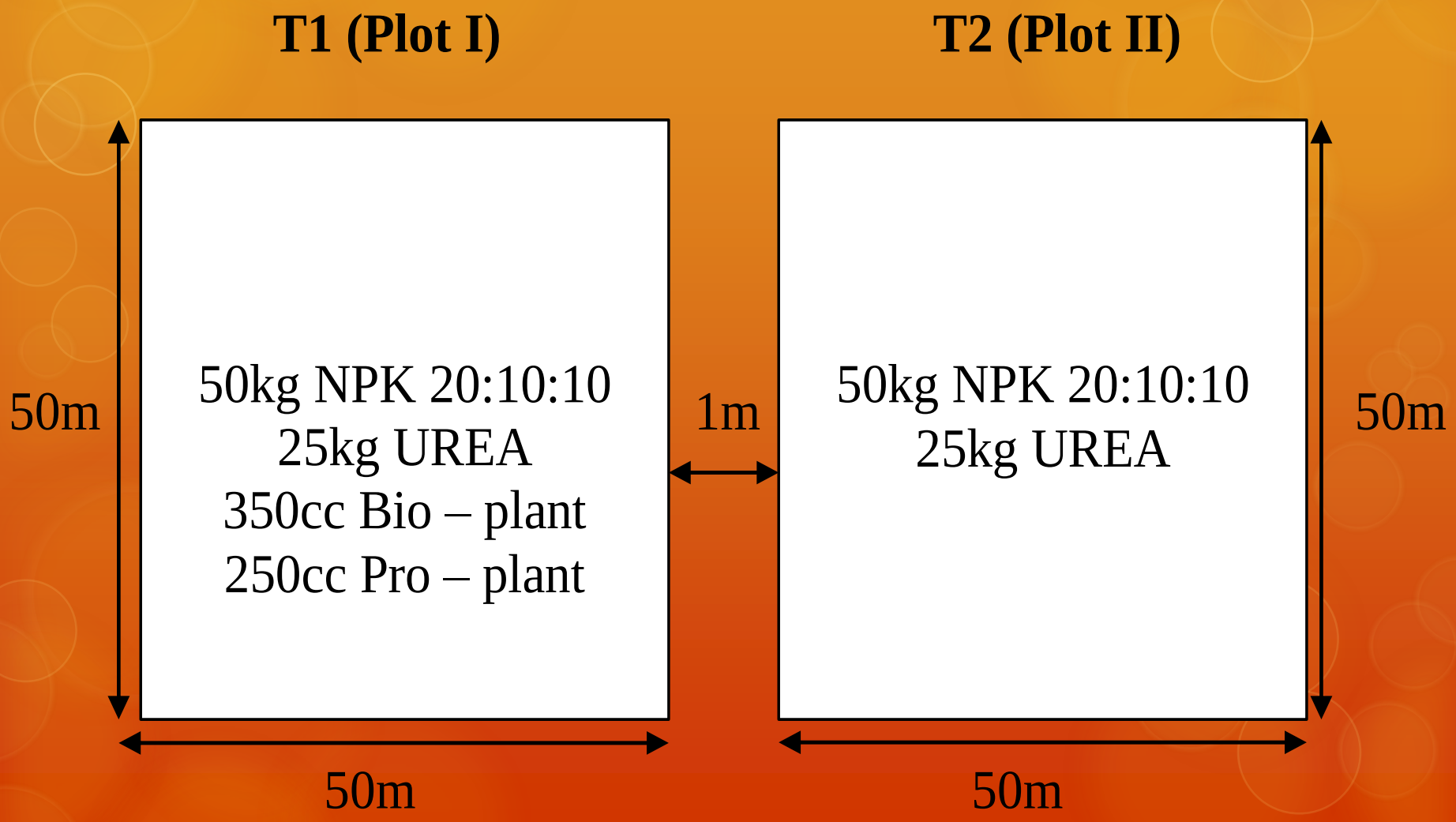
The Director

Farm Input Support Services Department.

Federal Ministry of Agriculture and Rural Development.

Maize Tests in Gombe State, Nigeria

Maize Field Tests Conducted in 2011 in Gombe State, Nigeria



Summary of the Results

- The trials were held at the two different locations. Each test showed distinctive differences between Plot I and Plot 2 in terms of plant height, stem size and maize ear size.
- Apart from these, Plot 1 in which the organic liquid was applied mixed with conventional fertilizer, had cobs (com ear) maturing/drying with the stem and leaves still green, while Plot 2 had shorter plants, smaller cobs with the plant and cob drying at the same time.


Chemical Maize
Bio-chemical Maize with Bio-Plant, and Pro-Plant sprayed on the leaves.


A Mature Cob in Plot I With the Stem and
Leaves Still Green

Field Test Yield Results

Location	Treatment	Yield/Plot (Kg)	Yield/Hectare (Kg)
Pokata	T1 (Bio-chemical)	750	3,000
	T2 (Chemical)	325	1,300
Posulte	T1 (Bio-chemical)	500	2,000
	T2 (Chemical)	350	1,400

Group Photograph of the Farmers After Observing the Very Good Results

Comments

- The yield increased 2X and 3X above the chemical Control areas.
- The farmers were very happy with the results.
- These very good results were achieved in bio-chemical farming without any soil preparation as the tests started late in the maize season. In spite of this, the impact was so apparent.
- Pro-Plant also had an insecticidal effect on weevils, grasshoppers, and even aphids, which impressed the farmers in the area.

Maize Tests in Sierra Leone

Maize Tests in Sierra Leone

Grown With Bio-fertilizers	Grown Without Bio-fertilizers

Results in Sierra Leone

Crop	Test A 100% Bio-Fertilizer		Test B Bio-Chemical Farming		Test C Normal Farming Untreated	
	Amount Planted in Kilos	Amount Harvested in Kilos	Amount Planted in Kilos	Amount Harvested in Kilos	Amount Planted	Amount Harvested
Maize	6	120	6	50	6	35

- These results were obtained even without the guidelines for soil preparation with compost made with Bio-Plant, and the frequency of spraying Pro-Plant being followed properly.

Maize Tests in Guinea

Maize Test in Guinea

- 4-6 cobs per plant were the norm with the bio-fertilisers.
- But the chemical control crop produced only 1-2 cobs per plant.

Maize Test in Guinea

A Maize Plant with 6 Cobs

Maize Test in Guinea

Another Maize Plant with 6 Cobs

Maize Test in Guinea

- **The maize tasted much sweeter than the chemical Control maize.**

Maize Tests in Zanzibar

Result of Maize Test in Zanzibar

Table 2: Effect of bio-plant and pro-plant on growth and yield parameters of maize, Kizimbani-Zanzibar, 2016

Parameter	Stage of data collection	Treatment		Improvement due to bio-plant and pro-plant 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%)

Maize Test in Zanzibar