

FEDERAL MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

FARM INPUT SUPPORT SERVICE DEPARTMENT

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20th October, 2016

The Chairman
Salad Greenhouse Nigeria Limited
Communal Centre
NNPC Housing Estate
Area 11, Garki, Abuja.

REPORT OF ONFARM TRIAL CONDUCTED ON EFFECTS/PERFORMANCE OF BIO-PLANT AND PRO-PLANT LIQUID ORGANIC FERTILIZER ON PERFORMANCE OF MAIZE IN NIGER STATE

I am directed refer to you to our previous correspondences (Your letter dated 17th September, 2015, and our letter dated 10th December, 2015) as well as our subsequent meetings with the company/decision reached, on the above subject and your earliest compliance to all the outlined/required conditions stated there in as demanded by the ministry's mandate and to inform you that:

1. **Pro-plant liquid Organic Fertilizer** is essentially an organic-nitrogen, phosphorus and potassium based foliar macro nutrients supplement with a 6.58-0.5-0.81 grade, and concentration of the micronutrients determined are adequate to provide good crop nutrition, in addition, the organic matter level and resulting C:N ratio is indicative of the fact that nitrogen in the fertilizer will be released to plants easily.
2. **Bio-plant Liquid Organic Fertilizer** is essentially a microbial liquid bio-fertilizer/conditioner that majorly contains some concentration level of macro/micro nutrients, adequate to provide for good crop nutrition.
3. Based on the above the two products you are promoting/marketing qualify as a good quality nutrients (supplement) source organic/bio fertilizer.
4. On-farm evaluation on the performance of **Bio-plant and Pro-plant liquid organic fertilizers** were conducted using **three (3)** farmers under **five (5)** different experimental treatments in chanchaga location, during the 2015/2016 dry season cropping period in Niger state, to evaluate their impact compared to the traditional farmers practice of using NPK 15-15-15 fertilizer.
5. Result obtained revealed that plots treated with pro-plant in combination with bio-plant recorded significantly higher yield.
6. In all the treatments were pro-plant was used either alone or with NPK 15-15-15 or bio-plant, appreciable yield increase was obtained, thus any treatment that involves the use of **Pro-plant and Bio-plant liquid organic fertilizers** is therefore highly recommended.
7. The result of this experiment therefore recommended **Pro-plant and Bio-plant liquid organic fertilizers** for use/adoption alone by Nigerian farmers over inorganic NPK because of their balanced nutrient content, environmental friendly properties, soil structure/microbial activities improvement, ease of handling as well as broad based crop application.

Accordingly, these products can be used in **combination and or alone** for higher crop yield and as such you are free to market the products in Nigeria, provided you adhere to all the standard regulations/conditions of products sales/handling prevalent in the country. I am to add that the Ministry may periodically track the products in your various, storage, distribution, sales outlets for quality control assurance/compliance.

While assuring you of Federal Government Support and Encouragement in-line with the Ministry's Mandate.

A handwritten signature in blue ink, appearing to read 'Isah Adamu'.

For: Honourable Minister

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Wednesday, August 26, 2015

Field Tests Carried Out in Gombe State, Nigeria

Dear Sirs,

The field tests carried out by the Gombe State Agricultural Development Programme on behalf of the Department of Agriculture of Gombe State shown below were done with Bio-Plant and Pro-Plant.

My warmest regards,



Mr. Peter McAlpine
Marketing Manager
Artemis & Angel Co., Ltd.
For Somkiet Panjanapongchai, President, Artemis & Angel Co. Ltd.

Report On Organic Microbial And Bio – Liquid Fertilizer Trials
Conducted In Gombe State
By Gombe State Agricultural Development Programme In 2011

Introduction:

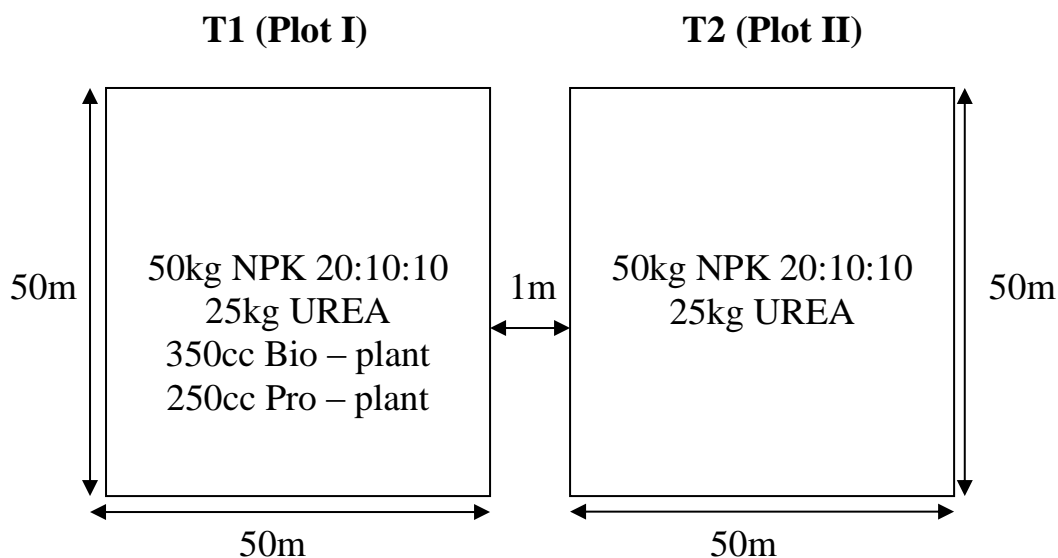
The demonstrations were conducted in two locations Pokata and Posulte in Shongom and Billiri Local Government Areas, the crop demonstrated is maize. The Pokata site has sandy soil, while that of Posulte is clay loam soil. The plots were established behind normal maize planting period in the areas due to late arrival of the products (organic liquid fertilizers). Normal maize planting period in the areas ranges from 15th May to 30th June, while the demonstrations were planted on 11th and 12th June, 2011 respectively.

Details of the demonstrations are as per below

Trial Locations:

S/n.	Name of Farmers	Planting Date	Location	LGA	State
1.	Edwards Amos	11/07/2011	Pokata	Shongom	Gombe
2.	Ambore Fartashi	12/07/2011	Dangor Tal	Billiri	Gombe

Field Layout:



Establishment Processing and performance Details:

The conventional fertilizers (NPK/UREA) were spread on tarpaulin, the liquid organic fertilizer sprinkled on it and mixed together. This was sown in between maize stands. This methods was employed because of the late establishment of the plots. Pokata application date was 11th August 2011, while that of Dongor Tal was 12th August 2011, both are math after seed planting. After 40 days from the first day of application 20cc/20 litres Knapsack of pro - plant liquid fertilizer were applied three times at 10 days intervals.

These trials at the two different locations showed distinctive differences between plot I and II in terms of plant height, stem size and com ear size. Apart from these, plot one in which the organic liquid was applied along side conventional fertilizer has its cobs (com ear) maturity/drying with the stem and leaves still green, while plot two has shorter plants, smaller cobs with the plant and cob drying at the same time.

Below are some pictures taken from the plots.



THE PROGRAMME MANAGER OF THE ADP AND AN EXTENSION STAFF
DURING A SUPERVISION VISIT OF THE DEMONSTRATION PLOT



THE PROGRAMME MANAGER AND THE SASAKAWA GLOBAL 2000 COORDINATOR STANDING
AT THE BORDER OF PLOT I AND II DURING THE FIELD-DAY



A MATURE COB ON PLOT I WITH STEM AND LEAVES STILL GREEN



A PLOT LEVEL ON ONE OF THE DEMONSTRATION PLOT AT POKATA

Farmer Field-day:

A farmer field –day was conducted and attendance was very encouraging with about 56 in attendance.

Field-days or farmer’s days are usually large gathering organized as a means of demonstrating farming practices, results of trials and demonstration or new farming equipments or tools.

Among the dignitaries that attended included Local Government Officials, District and Village Heads, Staff of the Ministry of Agriculture and the ADP, Journalists from Gombe State Television and Radio houses. The programme was aired on Radio and Television. Below are some pictures from the field-day scene.



FARMERS ASKING QUESTIONS DURING THE FIELD-DAY



EXTENSION SUPERVISOR ANSWERING FARMERS QUESTIONS DURING THE FIELD-DAY



PARTICIPANTS AT THE FIELD-DAY GOING ROUND THE DEMONSTRATION PLOT
(AT THE BORDER OF PLOT I AND II)



GROUP PHOTOGRAPH OF PARTICIPANTS DURING THE FIELD-DAY

Yield Result:

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

Farmers Reaction:

All farmers were highly impressed to the extent that they were requesting and enquiring how they are going to procure the organic liquid fertilizer and where to get it. The two benefitting farmers requested that the same trial be carried out in the year 2012 rainy season for them to learn more on the techniques of using these fertilizers. The farmers commended the effort of the ADP in sitting the demonstrations on their farmers. The remarkable difference between his practice and that of the liquid organic fertilizers has made them to appeal for continue supply of the products. The pro-plant had an insecticidal effect on weevils, grasshoppers, and even aphids has impressed them.

Conclusion:

The product seems to be a manna from heaven for farmers in the state. Despite the fact that this trial was lately established, yet the impact was so apparent. In order to spread the good news across the entire state, we are suggesting that the trial be conducted in all the LGAs of the state using different crops according to major crops of different ecologies of the state.

Product for the proposed 2012 trials be made available quite in time (March - April) so that the Bio - Plant soil treatment process can be adhered to strictly for efficient performance. It could be seen as indicated earlier in this write-up that the two products were just mixed with chemical fertilizer and applied due to time constraint.