



Trial Summary - Maize



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| Trial date: | 2012 |
| Report: | The effect of two microbial amendments, Eco-T and eNrich on the yield of maize |
| Trial type: | 2 x 2 x 2 factorial experiment in a randomized complete block design with 4 replications (Plot size 3m x 5m). |
| Product: | C active foliar (Branded eNrich) |
| Country: | Ghana |
| Institution: | CSIR-Savanna Agricultural Research Institute, |
| Location: | Tamale |
| Crop: | Maize |
| Variety: | |
| Previous crop: | Maize |
| Soil type: | Sandy loam |
| Irrigation: | Rain fed |
| Fertiliser: | 100% - NPK 250 kg/Ha + Sulphate of ammonia 125 kg/Ha 65% - NPK 162.5 kg/Ha + Sulphate of ammonia 81.3 kg/Ha (NPK = 23:10:5) (Sulphate of ammonia – 21% nitrogen) |
| C active | |
| Application: | Foliar applied at knee height at 5.00pm |
| Influence of Conditions: | The area experiences a unimodal rainfall pattern with the main rains falling from May to October with a peak occurring in September and an average annual rainfall of 1022mm. On this occasion the trial experienced high rainfall and waterlogging. |

Results:

Table 1: Effect of treatments on maize greenness score

| Fertiliser | Eco-T | eNrich | Greenness score |
|------------|-------|--------|-----------------|
| 100% | 0 | 0 | 0.625 |
| 100% | 1 | 0 | 0.625 |
| 100% | 0 | 1 | 0.750 |
| 100% | 1 | 1 | 1.000 |
| 65% | 0 | 0 | 0.125 |
| 65% | 1 | 0 | 0.750 |
| 65% | 0 | 1 | 0.500 |
| 65% | 1 | 1 | 0.750 |



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Table 2: Effect of treatments on maize plant height

| Fertiliser rates | Eco-T | eNrich | Seedling height at 25 DAE | Seedling height at 40 DAE | Seedling height at 55 DAE |
|------------------|-------|--------|---------------------------|---------------------------|---------------------------|
| 100% | 0 | 0 | 13.29 | 22.81 | 102.33 |
| 100% | 1 | 0 | 16.85 | 32.72 | 130.27 |
| 100% | 0 | 1 | 17.54 | 33.08 | 122.59 |
| 100% | 1 | 1 | 18.70 | 32.01 | 130.27 |
| 65% | 0 | 0 | 5.79 | 16.57 | 80.65 |
| 65% | 1 | 0 | 11.84 | 28.35 | 96.47 |
| 65% | 0 | 1 | 12.16 | 26.32 | 92.68 |
| 65% | 1 | 1 | 12.73 | 28.17 | 97.29 |

Table 3: Effect of Treatment on yield of Maize

| Fertiliser rates | Eco-T | eNrich | Yield kg per/Ha |
|------------------|-------|--------|-----------------|
| 100% | 0 | 0 | 758 |
| 100% | 1 | 0 | 1137 |
| 100% | 0 | 1 | 1458 |
| 100% | 1 | 1 | 2508 |
| 65% | 0 | 0 | 834 |
| 65% | 1 | 0 | 962 |
| 65% | 0 | 1 | 1196 |
| 65% | 1 | 1 | 2409 |



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Yield: At 100% fertiliser rate eNrich increased yield by 700 Kg/Ha
At 60% fertiliser rate eNrich increased seed cotton by 362 Kg/Ha
Maize yields were significantly increased in comparison to the control.

Economics: Estimated maize price - \$250 per tonne
At 100% fertiliser rate eNrich increased maize yield value by \$176.05/Ha
At 60% fertiliser rate eNrich increased maize yield value by \$92.59/Ha

Conclusion: There were significant differences between treatments with regard to greenness scores. The highest greenness score was recorded in plants that received eNrich with or without Eco-T.

Treatment with Eco-T and eNrich improved plant growth as indicated by plant height measurements.

Full trial reports can be supplied on request.

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