Effect On Germination and Growing Of Rice Seed

Germination: Did not show differences in the measured variables of percentage of germination, seedling height and germinated seedling root length.

Fertilization/Watering: The response of rice to three additional treatments as an adjunct application to fertilization used in rice irrigation.

Results: In positive effect of the products is reflected in improved plant height, increased production of stems and better initial force, this is a good indicator of plant development when treatments 1 and 2 were applied.

KEY POINTS:

1. Panícula:(a loose, branching cluster of flowers, as in oats or rice) Samples results-T0: many stems with very short panicles. Verses: T1: Minor number stems with panicles longer. & T2: All stems produced long panicles. (is good)
2. *The Rice with the use of T2 (Eco-Cat™) : Increased production of grains per plant by 64%*
3. *% Sterility: Lowered % of vain grain, not full of rice grain from 13.5% (Baseline) to 3.9% with use of T2 (Eco-Cat™)*
4. There is no statistical differences, the weight of the seed (of beads) was similar. This character is more given the variety.
5. *Weight of root /grs increased by 104% with the use of T2 (Eco-Cat™).*

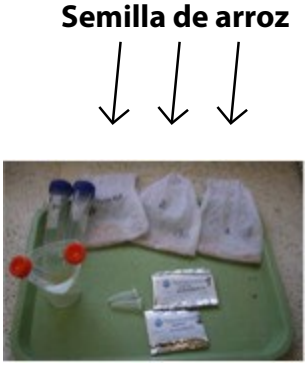
Essay No. 1: Effect Of Treatment With Two Products Of The Company Industrial Chemical Treatments On The Germination Of Rice Seed.

Introduction: This test aims to observe the effect of two chemical treatments on germination, seedling height and length of the root of rice seed.

Materials and method: For the germination test took seed of the variety Oryzica 1 and three solutions or treatments were used to then immerse the seed before putting it to pregerminar, products for the preparation of solutions were:

1. Ecosystem Plus®,
2. Eco-Cat™
3. Witness (distilled water).

For germination testing rice was sown in sterilized sand, said grower test were 4 replicates of 100 seeds each. The seeds were treated for 2 minutes with their respective solution.



Treatments:
T1: the 2% solution of the product Ecosystem Plus®
T2: 2% of product EcoCatalyst®
T0 solution: solution of distilled water (control).

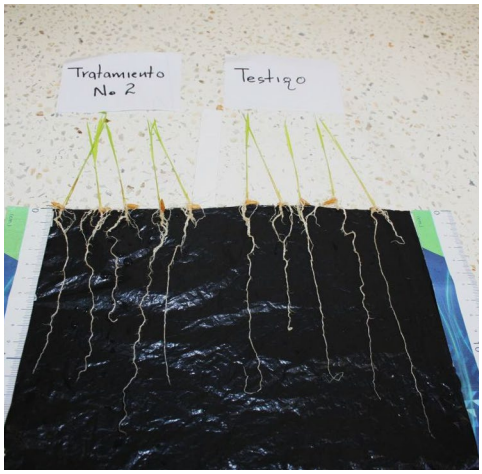
A bag containing 100 rice seeds per replication was immersed for 2 minutes in each of the treatments, one time completely moistened seed, proceeded to sow it in sterilized sand grower, trays were placed in an area protected and kept with the moisture required for germination, rice seed germinates between 7 - 10 days after sowing.

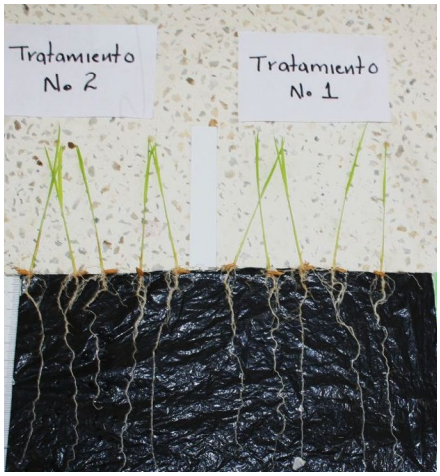
To assess the effects of treatments in rice seed, took the data on percentage of germination, height or development of the germinated seedlings and the length of the root.

Taken observations indicated that treated seed showed a percentage of germination, seedling length and root length, similar to untreated seed or control treatment.

Final Considerations: The treatments used to treat the seed of rice variety Oryzica 1, did not show differences in the measured variables: percentage of germination, seedling height and germinated seedling root length.

Products used in this test were an industrial presentation, we recommend testing with the product (Phyto-Cat™), agricultural use at different doses to see its effects both in seed and plants.





Essay No.2: Effect Of Treatment With Two Products Of The Company Industrial Chemical Treatments, On The Rice Plant.

Introduction: This test is intended to determine the response of rice to three additional treatments as an adjunct application to fertilization used in rice irrigation.

Materials and methods: For this test are planted seed of the variety Oryzica 1 and the seedlings were transplanted to 20 days to planters with previously sterilized soil fertilized properly to meet the nutritional requirements of a good development of the rice plant.

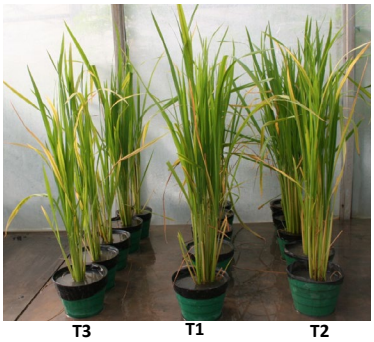
The complementary fertilization treatments used were:
Treatments:
T1: the 2% solution of the product Ecosystem Plus®
T2: 2% of product Eco-Cat™
T0 solution: solution of distilled water (control)

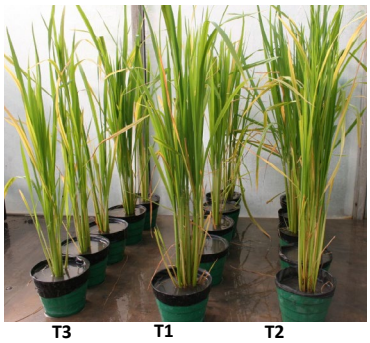
Each treatment was represented by 5 planters with a plant by matero, and apply 2 ml of solution to the ground each day's through until the time of flowering. At the end of the cycle of grain yield data will be taken per plant to check the effect of treatments.

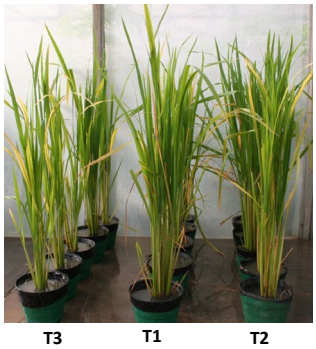
With regard to the observations made so far, it appears that in the tillering stage of rice a better outcome with treatment 1 and 2, compared with the control treatment is obtained.

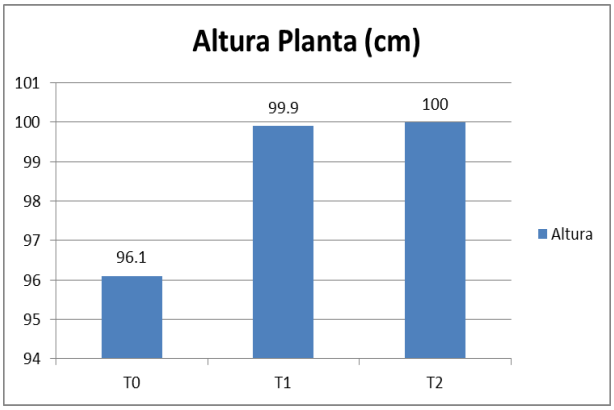
The positive effect of the products is reflected in improved plant height, increased production of stems and better initial force, this is a good indicator of plant development when treatments 1 and 2 were applied. The plants will take to harvest, allowing us to obtain results of the effect of treatments on grain yield. Either way, the application of the products to the soil solution, with the doses used show a favorable effect on the tillering stage of rice plants.

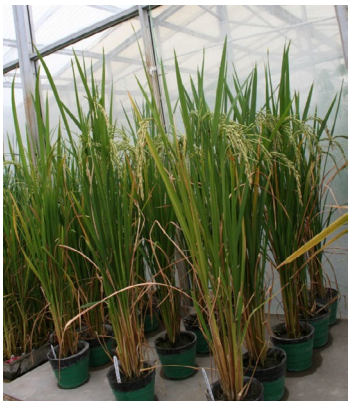
This is a preliminary test with relatively low doses, where you can observe the impact of products on the development of plants under greenhouse conditions, we recommend testing the agricultural product of the same trading house (PhytoZyme), not only greenhouse but also in the field to see its impact on biotic and abiotic factors, and view favorably the contribution of the product in the field.



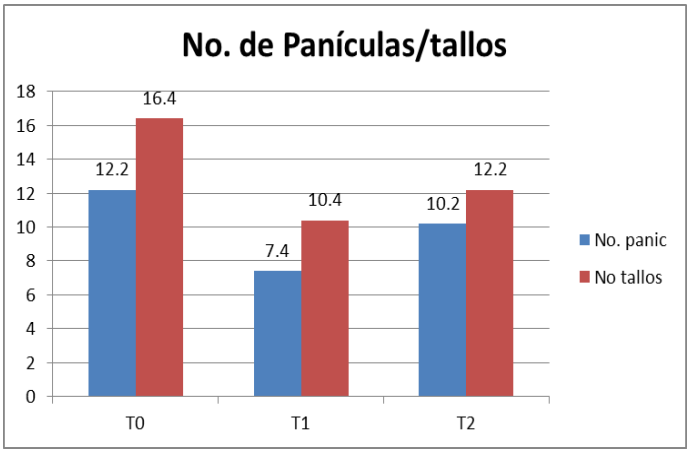




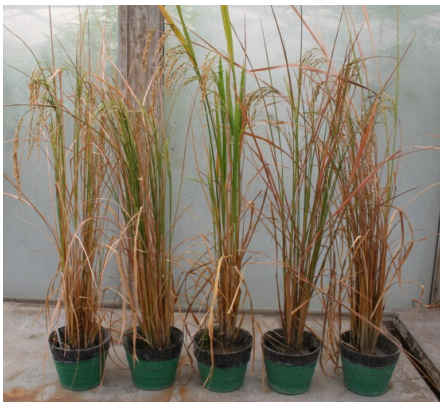




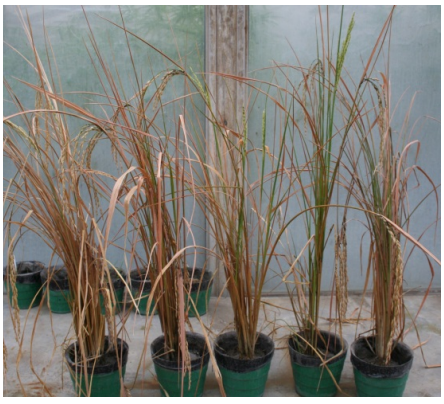
Results: No statistical differences, the products do not affect the height of the rice plant.



Results:
T0: greater stalk/panicle relationship, long stem without panicle (less grain).
T1: Minor number stems and panicles.
T2: The stem/panicle relationship is more efficient. (is good).

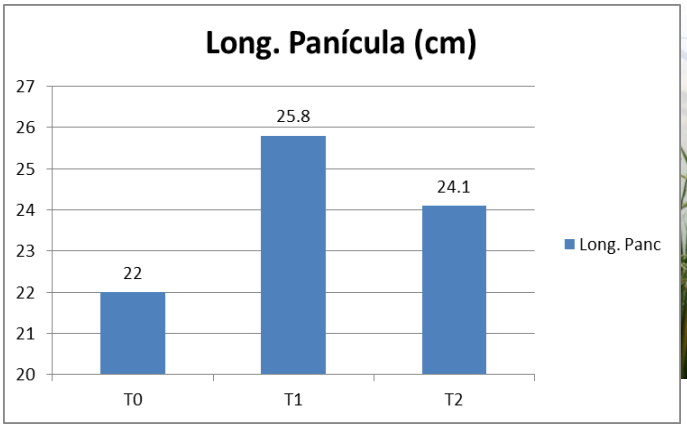


T0

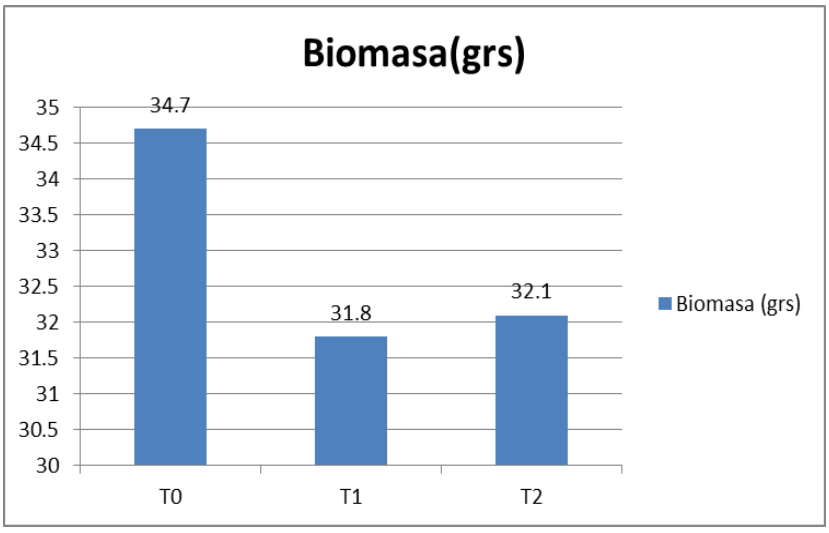


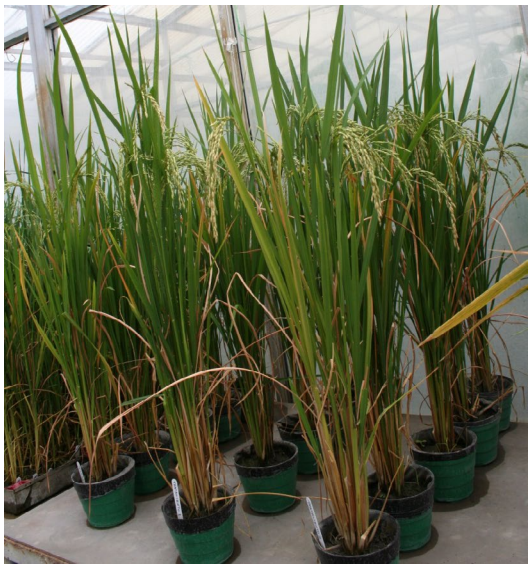
T1

T3

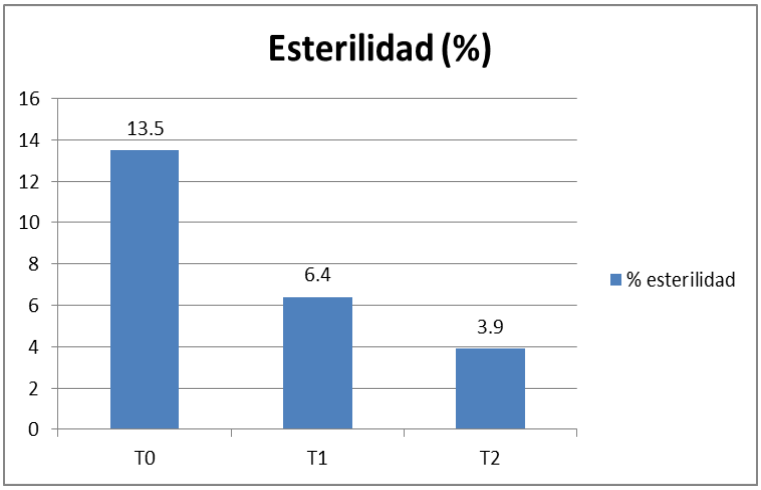


Result:
T0: many stems with very short panicles.
T1: Minor number stems with panicles longer.
T2: All stems produced long panicles. (is good).

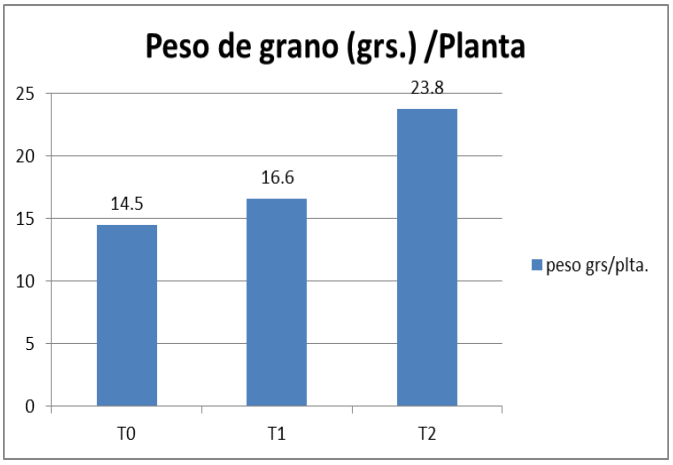


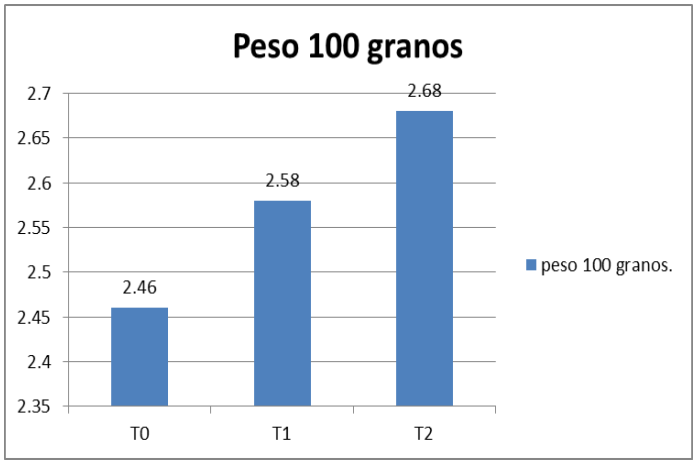


Result: T0: inefficient lot plant biomass
T1 and T2: less biomass.



Result:
T0: increased % of vain grain, not full of rice grain.
T1: % sterility intermediate.
T2: low % of sterility (good)





Result:
T0: lower production of grain - yield (g/plant).
T1: intermediate.
T2: increased production of grains per plant (good).

Result:
There is no statistical differences, the weight of the seed (of beads) was similar. This character is more given the variety.

Weight of root /grs

T0

T1

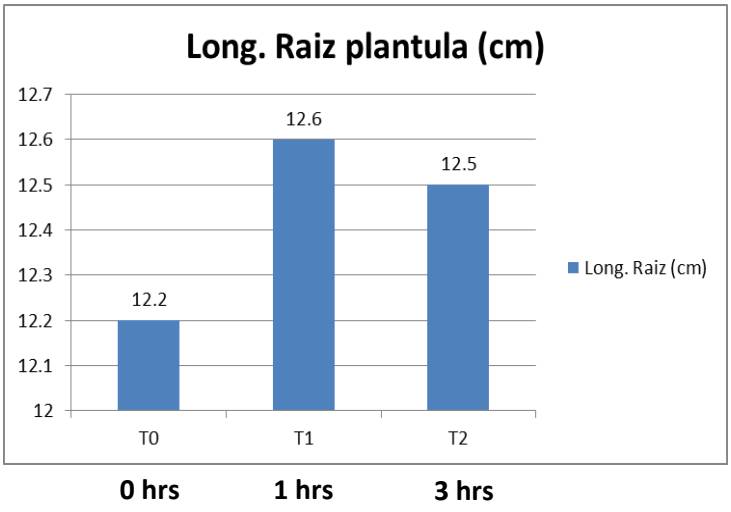
T2

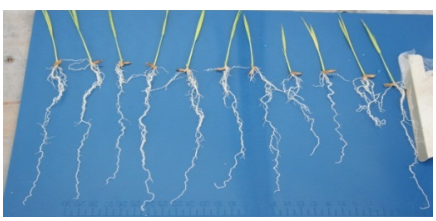
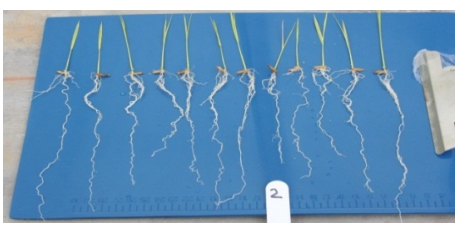
10.96 grs.	**17.0 grs**	**22.4 grs.**

Result:
T2: increased production of root, plant (good)

Fase II = Phyto-Cat™ / Dic-2014

Essay No. 1: Effect Of The Treatment With Phyto-Cat™ On The Germination Of Rice Seed.



0 hrs **1 hrs** **3 hrs**

Result:
There is no statistical differences in the length of the root by soaking the seed in the Phyto-Cat™ product