

## VIII SUMMARY

The present investigation Matilde Esther carried out in the areas of Lic. William Jácome Cevallos Ms(+), located in the Km 4.5 of the route Febres Cordero, Enclosure " El Placer ", Parish Febres Cordero, Babahoyo city, Province of Los Rios, in the variety of rice ' F - 21 ', proving the organic grow roots products Razormin, Raykat, Radi Plus and Roots; with the purpose of: to determine the agronomic behavior of the variety ' F - 21 ' in presence of the organic grow roots products ; to identify the most appropriate dose of the grow roots, to maximize the performance of grain; to evaluate the efficiency of the grow roots in comparison to the witness; and, to analyze economically the performance of grain in function to the cost of the treatments.

The treatments were constituted you for the different grow roots like that: Razormin 1.0; 1.5 and 2.0 L/ha; Raykat 0.6; 1.2 and 1.8 L/ha; Radi Plus 1.0; 1.5 and 2.0 L/ha; Roots 0.5; 1.0 and 1.5 Kg/ha; in addition witness lacking in the grow roots included a treatment, giving a total of 13 treatments.

The experimental design was in use "complete Blocks at random" in four repetitions. The experimental plot was constituted for 12 rows of 6m of length, distanced 0.25 m, giving an area of 18 m<sup>2</sup>; whereas the useful area of the experimental plot was of 12 m<sup>2</sup>, two rows being eliminated to every side by effect of edge.

The variables were evaluated: bunch and panicles/m<sup>2</sup> to the crop; bunch workforce; days to the flowering; height of plant; length of panicles; grains for panicles; sterility of panicles; relation grain - straw; area to foliate of the leaf flag; weight of 1000 grains; physiological maturity; length and weight of roots and performance of grain. Tukey's test was used to 95 % of probability to determine the statistical difference between the averages of the treatments.

With base to the analysis and statistical interpretation of the experimental results, he concluded:

1. Razormin 1.5 L/ha increased 15.14 % and 17.06 % and Raykat in 12.79 % and 14.25 % in comparison to the lacking witness of grow root, for the characters bunch and panicles/m<sup>2</sup>, respectively.

2. The treatment (C) Razormin 1.5L/ha, originated panicles of major length 26.12 cm and with 137.5 grains, whereas the witness lacking in the grow root presented panicles of 21.9 cm and 115.25 grains, differing statistically.
3. The length and weight of roots evaluated to the 10; 20 and 30 days after the application of the grow roots Razormin 1.5 L/ha and Raykat 1.8 L/ha, presented significant increases.
4. The major performances of grain reached with the treatments (C) Razormin 1.5 L/ha and (F) Raykat 1.8 L/ha, with 8.287 and 8.195 Ton/ha, being different statistically with other treatments.
5. The treatments (C) Razormin 1.5 L/ha and (F) Raykat 1.8 L/ha, presented increases of 24.05 % and 22.05 % in comparison to the witness without grow root, for the character performance of grain and in turn the major economic usefulness for hectare.
6. The characters bunch workforce, flowering, height of plant, sterility of panicles, relation grain - straw, area to foliate of the

leaf flag and physiological maturity were influenced significantly by the products grow roots.