EFFECT OF DIFFERENT LEVELS OF GA 3 ON RICE GRAIN DEVELOPEMENT AND QUALITY

THESIS

ROSALINDA P DIQUIT

Department of Plant Science

DON SEVERING AGRICULTURAL COLLEGE

Indang, Cavits

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THE EFFECT OF DIFFERENT LEVELS OF GA3 ON RICE GRAIN DEVELOPMENT AND QUALITY

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ABSTRACT

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The study, "Effect of Different Levels of GA3 on Rice Grain Development and Quality" was conducted from September to December 1990 at Bucal 1, Maragondon, Cavite. The study aimed to find out the best level of GA3 to be applied to IR 72 and to determine the effect of GA3 on grain development and quality of rice.

A Completely Randomized Design with four treatments and three replications was used in this study. The treatments used were as follows: T_1 - (Control), T_2 - 10 ppm GA_3 , T_3 - 15 ppm GA_3 , and T_4 - 30 ppm GA_3 .

Based from the results of the studies, plants sprayed with GA₃ solution gave a better performance as compared to the untreated one of the control. GA₃ at the 30 ppm (Treatment 4) proved to be best concentration as regards the height of the plants, number of tillers, weight of 100 grains and total dry matter yield, although it was not significantly different with Treatment 3 (15 ppm GA₃). The other treatments, T₂ = 10 ppm GA₃, however, produced better results as compared to Treatment 1 (control).

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ROSALINDA P. DIQUIT

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INTRODUCTION

Rice (Oryza sativa, Linn.) is one of the leading cereal crops in the world and is the principal food of about more than half of the world population. It is the basic food of the inhabitants of the tropical regions with humid climate.

Rice is also a major item in the budget of most consumers and changes in price have immediate effect on wages and cost of production. Since rice is the staple food of the Filipino, there is a need of having continuous study on the improvement of its production (Mears, 1974). Many researchers showed that plant