RESPONSE OF CACAO CUTTINGS TO DIFFERENT ALPHA-NAPTHALENE ACETIC ACID CONCENTRATIONS AND SOIL MEDIA

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A B S T R A C T

Veluz, Fernando S., Applied Research IV (Agricultural Science Curriculum), Don Severino Agricultural College, Indang, Cavite, April 1989, Response of Cacao Cuttings to Different Alpha-Napthalene Acetic Acid Concentrations and Soil Media. Adviser: Mrs. Edna A. Vida

The study was conducted to: 1) determine the response of cacao cuttings to different alpha-napthalene acetic acid concentrations and soil media 2) find out which of the different alpha-napthalene acetic acid concentrations and soil media is best suited for cacao cuttings and 3) find out if there is an interaction between the napthalene acetic acid concentrations and soil media

A total of 600 cacao cuttings were used in a Split Plot Design experiment with three (3) replications; four (4) main plot factor (A); and five (5) subplot factor (B). The different factors used were: Main plot Factor (A) - C_1 (Control), C_2 (50 ppm ANAA), C_3 (100 ppm ANAA), C_4(150 ppm ANAA) while the Subplot Factor (B) - M_1 (1 part chicken dung and3 parts sand), M_2 (1 part compost and 3 parts sand), M_3 (1 part compost and 1 part garden soil), M_4 (1 part garden soil and 1 part sand), M_5 (mixture of equal proportion of sand, garden soil and compost).

This study revealed that 150 ppm ANAA (C_4) and soil media having a mixture of equal proportion of sand, garden soil and compost (M_5) are the best treatment for cacao cuttings since it gave the shortest number of days from planting to rooting, longest roots, highest number of roots and leaves and highest percentage survival. Furthermore, there were significant effects of the concentration of ANAA and soil media on the average length of roots and average number of roots.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDIX TABLES

LIST OF FIGURES

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by

FERNANDO SABINO VELUZ

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I N T R O D U C T I O N

Cacao, scientifically known as Theobroma cacao Linn. under the family Sterculiarceas was originated from tropical America. It was introduced here in the Philippines by the Spaniards in 1860. From that time, cacao has become popular in most part of the country.

Cacao can be grown in many areas of the Philippines. It thrives best in lower surface of the lowland forest especially when the condition is warm, shady and humid. It can be raised as a main plantation crop, or planted simply between major crop trees such as coconut.