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KESEARCH STUDY

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Effect of Different Levels of Organic Fertilizer (EM-Compost) on the Growth and Yield of Broccoli (Brassica olea)

A Thesis Presented to the Faculty of the Science High School of Cavite State University Indang, Cavite

In partial fulfillment of the requirements for Graduation



Effect of different levels of organic fertilizer EM-Compost on the growth and 635.35 D38 2005

Jonathan V. de los Reyes Allan Francis P. Llanes Kenneth John Leonard B. Rosales April 2005 ABSTRACT

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This study sought to determine the effect of different levels of EM-Compost on

the growth and yield of broccoli. This study was undertaken from November 2004 to

February 2005 at J.Dimabiling, Barangay IV, Indang, Cavite.

A total of sixty-three square meter land was used in the study, which was divided

into 4 treatments which were subdivided in 3 replications. The treatments were as

follows: T0-no application of EM-Compost, T1-1kg. of EM-Compost, t2-2kg. of EM-

Compost, T3-3kg. of EM-Compost per square meter.

After 3 months of planting, harvesting wass done and the average number of

leaves per treatment, average height of plant per treatment, number of marketable

broccoli curd per treatment, number of non-marketable broccoli curd per treatment,

average weight of marketable broccoli curd per treatment, average weight of non-

marketable broccoli curd per treatment.

The experimental design employed was randomized complete block design,

replicated 3 times.

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On the result of the study, the researcher revealed that T2 (2kg. of EM-Compost per square meter) produced firm and good quality of broccoli curd and it gave the highest number of marketable broccoli curd per treatment. It also produces the highest number of leaves, average increase in height, and yield.

Based on the results of the study, the following recommendations are herewith made: First, 2kgs. of EM-Compost per square meter should be used by farmers to produce firm and good quality of broccoli curd; Second, the use of EM-Compost should be further commercialized in the local market; Third, further study should be conducted using the same organic fertilizer but on other crops; Fourth, further investigation should be done using the same organic fertilizer, on the same crop, but on a different location.

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This research study was presented to the Agriculture Research panel of the Cavite State University-Science High School in Indang, Cavite under the advisership of Mr. Epifanio Feraer.

INTRODUCTION

The vegetable industry in the Philippines plays an important role both on the economy of the country and its populace. Although improved varieties of vegetables which are disease-resistant and high-yielding have been developed in recent years and modern cultural practices have been evolved from traditional methods, data showed that the total area planted to vegetables and total production have only increased slightly. (Mabesa O.K. Vegetable Farming Los Banos Laguna 1980.)

Among the top ten food crops in the local market, the broccoli ranks first in high value but ranks last at production and yield. For the past ten years, there was only 0.15% increase in the production of broccoli. The total land area devoted to broccoli is only 30 hectares of land. It ranks last in total land area devoted to vegetables. (www.vegetable-production-broccoli.com.ph)