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**RESPONSE OF SCURSORP (*Ammonia Muriceta*)
TO ETHYLENE**

**RESEARCH STUDY
APPLIED RESEARCH**

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RESPONSE OF SOURSOP (*Annona muricata*) TO BIOETHYLENE

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ABSTRACT

DIMERO, DICKSON N.; FERAER, REXIVAL M.; NUESTRO RIEMEL R., General Science Curriculum, Cavite State University, Indang, Cavite. March 2000. **RESPONSE OF SOURSOP (*Annona muricata*) TO BIOETHYLENE.**

Adviser: Prof. Fe N. Dimero and Prof. Dulce L Ramos.

The study was conducted to determine the effect of bioethylene on the ripening of soursop; to evaluate color, texture, acidity and sweetness of soursop exposed to bioethylene and to compare the rate of ripening of soursop fruits exposed to bioethylene from different sources.

Different sources of bioethylene were used: acacia leaves (T_1), madre de cacao leaves (T_2), butterfly leaves (T_3), and tiessa leaves (T_4). The effects of such treatments and the control (T_0), no bioethylene, were evaluated and compared.

Results of the study revealed that soursop fruits treated with acacia leaves, madre de cacao leaves, butterfly leaves and tiessa leaves ripened two days earlier than the untreated sample. Soursop samples exposed to bioethylene were evaluated to be sweeter and more sour than the untreated sample. Such properties contributed to better acceptability of bioethylene-treated soursop.

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A research study presented to the faculty of the Laboratory School, College of Education, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation under the Advisory Committee headed by Prof. Fe N. Dimero and Prof. Dulce L. Ramos.

INTRODUCTION

Development in postharvest technology for agricultural crops has generated ways and methods of regulating ripening, specifically, in fruits. Ripening can either be delayed or enhanced by regulating the amount of ethylene in fruits. Studies have shown that increase in the amount of ethylene enhances ripening of climacteric fruits while removal or withdrawal of ethylene delays or slows down the ripening process.

The use of bioethylene, ethylene gas produced naturally by leaves and fruits, has been considered as one of the safest and cheapest ways of enhancing ripening of fruits. Bioethylene was proven to significantly speed up ripening of climacteric fruits like bananas, tomatoes and mangoes (Bautista, 1986).