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IMPROVEMENT AND EVALUATION OF
GUYABANO SEED REMOVER

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SCHOOL OF ENGINEERING

DON SEVERINO AGRICULTURAL COLLEGE

Turkey, Pinar

April 1996

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**IMPROVEMENT AND EVALUATION OF
GUYABANO SEED REMOVER**

An Undergraduate Thesis
Presented to the Faculty of the
DON SEVERINO AGRICULTURAL COLLEGE
Indang, Cavite

In Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science in Agricultural Engineering
(Major in Farm Power and Machinery)



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seed remover
631.3 V23 1996
T-1677*

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April 1996

ABSTRACT

Valenzuela, Elma Talinting, Don Severino Agricultural College, Indang, Cavite, April 1996. Improvement and Evaluation of Guyabano Seed Remover. Adviser: Engr. Cesar C. Carriaga.

A seed remover was improved and evaluated at the School of Engineering, Don Severino Agricultural College, Indang, Cavite. It was designed to be pedal operated by one person. The machine has a height of 1.2 m for ease of operation. The hand drill, container and all moving parts are removable for easy dismantling.

The designed seed remover can remove seeds from a 2-kg of ripe guyabano in 3 minutes while the traditional method ranges from 20-40 minutes. The relative advantage of the machine over the traditional method of seed removal was found to be 666.67%.

The initial cost of the machine is P3,550 which can be recovered within 104 days of operation. The break even point was computed to 714 hrs/year. The total operating cost incurred by the machine annually was P18,078.75.

In addition, the quality of pure guyabano juice extracted was found to be comparable with the commercial one.

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by

ELMA T. VALENZUELA

^{1/}An undergraduate thesis presented to the Faculty of the School of Engineering in partial fulfillment of the requirements for the degree of Bachelor of Science in Agricultural Engineering Major in Farm Power and Machinery. Contribution No. AE - 95-034-029. Prepared at the School of Engineering under the supervision of Engr. Cesar C. Carriaga, adviser.

INTRODUCTION

Guyabano (*Annona muricata* Linn) is a native fruit of tropical America. This was introduced by the Spaniards in the Philippines at an early date. Through then rapid production of the fruit started.

Guyabano, as it is locally known, is broadly ovoid or ellipsoid, dark green with soft spines. Its flesh is creamy, white, soft, juicy, rather fibrous and subacid. The numerous seeds embedded in the pulp are compressed, shiny, dark brown and about 2 cm. long. The guyabano fruit is used as vegetable and for making sweet meats. The juice is used in flavoring sherbets and ice cream. It can also be processed into preserve, candies, jam and jelly.