EY OF VILLAGE LEVEL POST HARVEST PROCESSING TIVITIES IN THE MUNICIPALITIES OF ALFONSO, AMADEO, GENERAL EMILIO AGUINALDO AND INDANG, CAVITE

THESIS

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SURVEY OF VILLAGE LEVEL POST HARVEST PROCESSING ACTIVITIES IN THE MUNICIPALITIES OF ALFONSO, AMADEO, GENERAL EMILIO AGUINALDO AND INDANG, CAVITE

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ABSTRACT

PAPA, ERVIN FERNANDEZ. Survey of Village Level Post Harvest Processing Activities in the Municipalities of Alfonso, Amadeo, General Aguinaldo and Indang, Cavite. Undergraduate Thesis. Bachelor of Science in Agricultural Engineering. Cavite State University, Indang, Cavite. June 2007. Adviser: Dr. Marilyn M. Escobar.

The study was conducted with three major crops, namely: coffee, banana and coconut in four upland municipalities of Cavite to describe the demographic and economic profile of the respondents; to outline the series of processing operation; to document the actual post harvest processing activities practiced by the respondents; to describe the specification of the processing equipment and facilities; to ascertain the relationship between age, gender, civil status, and educational attainment of the respondents and their annual gross expenses and annual income; and to document the problems encountered by the owners and operators of the micro enterprises.

Analysis showed that most of the coffee farmer-processor respondents were from Amadeo (64 percent); followed by banana farmer respondents from General Aguinaldo and Alfonso registering 34 percent and 28 percent, respectively; and coconut farmer-processor respondents were from Indang with 44 percent.

Respondents for the three major commodities showed almost the same patterns in their characteristics. The age of the respondents ranged from 25-74 years old; majority of them were male, married and attained secondary and tertiary education. Likewise, majority of the respondents were either owners, operators or owners/operators.

The series of unit operations for coffee practiced by the respondents include: a) sun-drying, packaging, storing and transporting/distribution/marketing of dried berries; b) sun-drying, pulping, cleaning, mechanical drying, packaging, storing and transporting/distribution/marketing of green beans; and, c) sun-drying, pulping, cleaning, mechanical drying, roasting, grinding, packaging, storing and transporting/distribution/marketing of roasted ground beans.

For banana, the series of unit operation practiced by the respondents were: cleaning, sorting or grading of the fruits, then transporting and marketing of good quality fruits and rejecting the overripe and injured fruits.

Meanwhile, the series of unit operations for coconut practiced by the respondents were: a) transporting/marketing of young coconuts; b) dehusking, storing and transporting/marketing of mature coconuts; and, c) dehusking, nut splitting, drying, scraping, storing and transporting/marketing of copra meat.

The study revealed that the educational attainment and civil status of the coffee farmer-processor respondents had an affect on their annual gross income but their demographic characteristics had no affect on their annual gross expenses. For banana farmer respondents, their educational attainment affected both their gross income and annual income. Meanwhile, their age also had an effect on annual income. With regard to coconut farmer-processor respondents, their educational attainment and age had an effect on their annual income.

The study also noted the problems encountered by the respondents. The coffee processors revealed the following problems on repair and maintenance of the machines, seed capital, and laziness of the laborers. The banana farmers listed the breakage of

"bolo" during harvest, bananas were affected by storms, banana fruits eaten by birds, and poor quality banana fruits while for coconut farmer-processor respondents, they have the nuisance to neighbors due to smoke emission of copra dryers and its odor, and laziness of their laborers.

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INTRODUCTION

Post harvest handling, according to Wikipedia (2006), is the stage of crop production immediately following harvest, including cooling, cleaning, sorting and packing. The instant a crop is separated from its parent plant it begins to deteriorate. Post harvest treatment largely determines final quality, whether a crop is sold for fresh consumption, or used as an ingredient in a processed food product.

The most important goals of post harvest handling are keeping the product cool to avoid moisture loss and slow down undesirable chemical changes, and avoiding physical damage to delay spoilage. Sanitation is also an important factor, to reduce the possibility of pathogens that could be carried by fresh produce.

Initial post harvest storage conditions are critical to maintaining quality. Each crop has an optimum range for storage temperature and humidity. Various methods of