

# Philippines - Costs and Returns Survey of Palay Production by Seed Type and Class 2005

**Bureau of Agricultural Statistics**

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## Overview

### Identification

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#### ID NUMBER

PHL\_2005\_CRSPSTC\_v01\_EN\_M\_v01\_A\_OCS

### Overview

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#### ABSTRACT

There has been an increasing demand for data on the costs and returns of palay production by seed classification. This information will help not only the farmers but also other agribusiness players who are interested to venture in palay production. Moreover, it guides planners and policy makers in the agriculture sector in the design and implementation of development programs and projects related to palay production.

The survey aimed to generate data on production costs and returns for palay by seed type and class, determine indicators of profitability such as gross and net returns, returns above cash costs, returns above variable costs etc, and determine the average usage of material and labor inputs and other socio-economic variables related to palay production.

#### KIND OF DATA

Sample survey data [ssd]

#### UNITS OF ANALYSIS

Agricultural holdings

### Scope

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#### NOTES

The survey focused on generating costs and returns structure of palay production by farm type and by seed type and class. The scope of the survey included the following:

- Characteristics of the farmers such as age, palay farming experience and highest educational attainment.
- Farm characteristics such as total farm area and palay area, number of cropping's per year, type, class and variety of palay seeds planted, source of seeds, type of palay farm, tenurial status, major source of irrigation, month and area planted and harvested.
- Farm investments such as inventory of farm investments used, year and cost of acquisition, repairs and improvement cost and estimated life and usage in palay farm
- Material inputs such as usage and cost of seeds, fertilizers, soil ameliorants, insecticides, herbicides/weedicides, fungicides, rodenticides and molluscicides.
- Labor inputs such as labor utilization (in terms of man days) and labor cost by type of farming activity, by source of labor and by sex and food cost incurred
- Other production costs such as cash and non-cash payments for land tax, land lease/rental, rental value of owned land, rentals of machine and animals, fuel and oil, transport costs of inputs, irrigation fee, interest payment on crop loans and other production costs.
- Production and disposition such as volume of palay production and its disposition in terms of sold, harvesters' share, threshers' share, other laborers' share, landowners' share, lease/rental, for home consumption, given away, used/to be used for seeds and feeds, irrigation fee, wastage and other purposes.
- Problems encountered such as problems affecting production and production losses

- Recommendations for the improvement of palay production

- Other information on hybrid and inbred seeds usage such as years of planting hybrid seeds, variety used, area harvested, volume of production, reasons for shift from hybrid to inbred seeds

## Coverage

### GEOGRAPHIC COVERAGE

National Coverage

### UNIVERSE

The survey covered all palay farms with harvest during the reference period July 2004 to June 2005

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

| Name                              | Affiliation               |
|-----------------------------------|---------------------------|
| Bureau of Agricultural Statistics | Department of Agriculture |

### FUNDING

| Name                      | Abbreviation | Role           |
|---------------------------|--------------|----------------|
| Department of Agriculture | DA           | Funding Source |

### OTHER ACKNOWLEDGEMENTS

| Name                                    | Affiliation | Role             |
|---|-------------|------------------|
| National Statistical Coordination Board |             | Survey Clearance |

## Metadata Production

### METADATA PRODUCED BY

| Name                         | Abbreviation | Affiliation                             | Role                     |
|------------------------------|--------------|---|--------------------------|
| Office of Chief Statistician | OCS          | Food and Agriculture Organization       | Metadata adapted for FAM |
| Maria Carol Duran            | CGD          | Bureau of Agricultural Statistics (BAS) | Documentation of study   |
| Ana M. Eusebio               | AME          | Bureau of Agricultural Statistics (BAS) | Reviewer                 |
| Maura S. Lizarondo           | MSL          | Bureau of Agricultural Statistics (BAS) | Reviewer                 |

### DDI DOCUMENT VERSION

PHL\_2005\_CRSPSTC\_v01\_EN\_M\_v01\_A\_OCS\_v01

### DDI DOCUMENT ID

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## Sampling

### Sampling Procedure

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The survey covered 630 sample palay farmers broken down as follows: Nueva Ecija - 240; Leyte - 270; Davao del Norte - 120. The domain of the study was the province, with the last completed normal cropping within July 2004 to June 2005 as the reference period. Farmers who harvested palay during the reference period were the target samples for the survey.

A three-stage sampling design was employed with the municipality as the primary sampling unit, barangay as the secondary sampling unit and the palay farmer as the ultimate sampling unit. The procedures used in the sample selection were as follows:

1. In each province, information on palay physical area, total number of palay farmers, and coverage in the GMA-Rice Program by municipality were gathered from the concerned provincial operations centers (POC) with Office of the Provincial Agriculturist (OPAG), Municipal Agricultural Office (MAO) and the 1999 Barangay Screening Survey (BSS) as data sources.
2. The sample municipalities were drawn using probability proportional to size (PPS) based on physical area.
3. In the selected municipalities, barangay-level information was obtained using the key informant approach. These information included physical area of palay farms, coverage or non-coverage of the barangay in the GMA-Rice Program, number of beneficiaries of the GMA-Rice Program, percentage adoption by seed type/class, availability of irrigation facilities, anticipated field operational problems and indication whether the barangay was affected by any calamity during the reference period. Four seed classes/types were considered, namely: Hybrid, Inbred Modern Certified, Inbred Modern Farmer's Produce and Inbred Traditional
4. Based on the information obtained in (3), area used per seed type/class was derived. The barangays were arranged in descending order of area devoted to the seed type and class, then the sample barangays per seed group were identified. Sample sizes were determined such that the number of sampled palay farmers per barangay was 10 and the number of sample barangays was equally allocated to the different seed groups in the province. This allocation was used since there was no sound basis on the true distribution of usage of each seed type and class in the province. However, adjustment in the distribution of samples was made depending on the actual situation in the province as verified during the data collection.
5. Independent sets of sample barangays were selected from each seed group based on the following criteria:
  - having higher palay physical area devoted to the seed type and class;
  - with minimal field operation problems; and
  - not damaged by any calamity throughout the reference period.

This procedure implied that a barangay can be identified as sample in at least one seed group.

6. Selection of sample farmers was done during data collection using the snowball approach. This procedure entailed looking for the first potential sample farmer then searching for the rest based on referrals of the previous samples. This was done by first obtaining the names and addresses of palay farmers living in the barangay from the office of the barangay captain or any barangay key informant during the conduct of the survey. From this list, the enumerator selected any palay farmer as the first potential sample, or, if no list was available, information on one palay farmer as a potential sample will do. A set of screening questions was used by the enumerator for this purpose. Qualified sample farmers were interviewed using the CRS questionnaire and his name and address were written in the CRS List of Sample Palay Farmers.

### Deviations from Sample Design

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The targetted number of sample farmers for each province was followed. However, the distribution of farmers to be covered per seed class/type was not met since no sample farmer using traditional seeds was enumerated. Only the three (3) seed classes /types such as hybrid, inbred modern certified and inbred modern farmers' produce were covered. Adjustment in the distribution of samples was made depending on the actual situation in the province as verified during the data collection.

### Response Rate

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Response rate of 100 percent

## Weighting

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No information provided

## Questionnaires

No content available

## Data Collection

### Data Collection Dates

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| <b>Start</b> | <b>End</b> | <b>Cycle</b> |
|--------------|------------|--------------|
| 2005-09-07   | 2005-09-18 | N/A          |

### Data Collection Mode

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Face-to-face paper [f2f]

## Data Processing

### Data Editing

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During and after data collection, the data collectors checked the completeness, consistency and acceptability of the information collected. The questionnaires were edited manually at the Provincial Operations Center (POC) based on the established CRS field office editing guidelines prepared by the Central Office.

The edited questionnaires were again checked at the Central Office. Further editing and coding were done using the CRS central office editing and coding guidelines. A training on this aspect was conducted. After data encoding at the Central Office, these passed through computerized editing program which checked the consistencies of the encoded data and validation of entries. The criteria used was the same with that in the manual editing. An error list was produced to capture errors overlooked during manual editing. This was undertaken to ensure the accuracy of data entry. Unreasonable answers were reviewed and verified against the questionnaire.

The Field Office Editing Guidelines contained in the Manual of Operation and Central Office Editing and Coding Guidelines are provided as External Resources.

## Data Appraisal

### **Other forms of Data Appraisal**

A project team was organized to review and analyze the result of the survey. The acceptability of data was assessed, compared and validated with the result of the 2002 Costs and Returns of Palay Production and other related studies on input usage, labor utilization, production cost and return structure of palay by seed class and by farm type.