

Philippines - Costs and Returns Survey of Garlic Production 2006

Bureau of Agricultural Statistics

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Overview

Identification

ID NUMBER
PHL-BAS-CRSGP-2006-v3.0

Version

VERSION DESCRIPTION
v3.0 - Raw data edited at the Central Office, anonymized dataset for public distribution.

PRODUCTION DATE
2007-07

Overview

ABSTRACT

The profitability of garlic is one of the primary concerns among planners and policy makers in setting-up goals and strategies as they prepare the sector for global competition. Likewise, this is the concern of agribusiness players who are interested to venture in garlic farming. Thus, the need to generate updated information on the costs and returns of producing garlic which can guide concerned stakeholders in their decision making.

Information on costs and returns in garlic production is a critical input for the improvement of the supply/volume chain and enhancing the food security situation in the country.

The survey aimed to generate updated data on levels and structure of production costs and returns. Specifically, it was conducted to determine the indicators of profitability such as gross and net returns, returns above cash costs, net profit - cost ratio, etc.; average use of materials and labor inputs; and other related socio-economic variables including information on new production technologies.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Garlic farmers and garlic farms with harvests during the reference period as the units of analysis.

Scope

NOTES
The survey focused on generating costs and returns structure of garlic production.

The scope of the survey included the following:

CHARACTERISTICS OF THE FARMERS/OPERATORS such as age, sex, main occupation, experience in garlic production and highest educational attainment.

FARM CHARACTERISTICS such as total farm area, number of parcels operated by the farmer, area planted and harvested to garlic and other crops, number of croppings per year, variety of garlic planted, tenurial status, month of planting and harvesting garlic.

FARM INVESTMENTS such as inventory of farm investments used, year and cost of acquisition, repairs and improvement cost and estimated life and usage in the focus garlic farm.

MATERIAL INPUTS such as usage and cost of planting materials, fertilizers, mulching materials, insecticides, herbicides/weedicides, fungicides and other chemicals.

LABOR INPUTS such as labor utilization (in terms of mandays) 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, animals and tools, fuel and oil, transport costs of inputs, irrigation fee, electricity, interest payment on crop loans, storage cost and other production costs.

PRODUCTION AND DISPOSITION such as volume of garlic 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 for seeds, wastage and other purposes.

BUYER INFORMATION such as major buyer of garlic and the percentage of garlic sold to each buyer and the perceived right price of garlic.

PROBLEMS ENCOUNTERED such as problems affecting production and marketing of garlic.

ACCESS TO CREDIT such as amount and source of crop loan, interest rate per annum and percentage of loan used in garlic production.

OTHER INFORMATION such as membership in garlic-related association and benefits derived, access to extension services, future plans of garlic farmers and their recommendations to improve garlic production

Coverage

GEOGRAPHIC COVERAGE

The survey covered the top 3 garlic producing provinces namely: Ilocos Norte, Ilocos Sur and Nueva Ecija.

GEOGRAPHIC UNIT

Province was the lowest level of geographic aggregation covered by the data.

UNIVERSE

The survey covered all garlic farms with harvest during the last completed cropping in 2006 as the reference period.

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
Maria Carol Duran	CGD	Bureau of Agricultural Statistics (BAS)	Documenter of the study
Ana M. Eusebio	AME	Bureau of Agricultural Statistics (BAS)	Reviewer of the study
Maura S. Lizarondo	MSL	Bureau of Agricultural Statistics (BAS)	Reviewer of the study

DATE OF METADATA PRODUCTION
2010-02-16

DDI DOCUMENT VERSION
Version 1.0 (February 2010)

DDI DOCUMENT ID
DDI-PHL-BAS-CRSGP-2006-v1.0

Sampling

Sampling Procedure

The domain of the study was the province, with the last completed production cycle in 2006 as reference period. The lists of garlic producing barangays by province prepared by the concerned BAS Provincial Operations Centers (POCs) served as the sampling frame for this study. The lists contained data on the area devoted to garlic production and number of garlic farmers by barangay as of 2006. These data were obtained from the Municipal Agriculturist Offices, Agricultural Technicians, barangay officials and other key informants in the barangay and updated results of the Barangay Screening Survey (BSS).

A two-stage sampling design was employed with the barangays as the primary sampling unit, and the garlic farmers as the secondary and ultimate sampling unit. The barangays were drawn using systematic sampling from an ordered list of barangays with at least five (5) garlic farmers. Systematic sampling was used in the selection of sample barangays so that both large and small barangays in terms of area would be represented in the sample. For Nueva Ecija, all garlic producing barangays were taken as samples. Sample farmers were identified using snowball approach during data collection. During the search for sample operators, a set of screening questions was applied to see to it that the samples satisfied the following criteria: 1) must be engaged in garlic farming, and 2) must have harvested garlic in 2006.

The sample size was 100 garlic farmers each in Ilocos Norte and Ilocos Sur, equally allocated to 20 sample barangays. In Nueva Ecija, the sample size was 80 garlic farmers.

Response Rate

Response rate of 100 percent

Weighting

Weighting is not applicable

Questionnaires

Overview

The questionnaire was a structured questionnaire written in English. It was designed in tabular form and some in question type format. The data items/variables in the questionnaire were based on the previous questionnaires with some modifications and additions.

The questionnaire was pre-tested and reviewed before its implementation.

The questionnaire consisted of 10 pages covering 13 blocks as follows:

A. GEOGRAPHIC INFORMATION includes the location of the farm such as the name of the region, province, city/municipality and barangay.

B. SAMPLE IDENTIFICATION such as the name, age, sex, highest educational attainment, main occupation and farming experience of the sample farmer/operator in garlic production and the name of the respondent.

C. FARM CHARACTERISTICS such as total farm area, number of parcels operated by the farmer, area planted and harvested to garlic and other crops, number of croppings per year, variety of garlic planted, tenurial status, month of planting and harvesting garlic.

D. FARM INVESTMENTS such as inventory of farm investments used, year and cost of acquisition, repairs and improvement cost and estimated life and usage in the focus garlic farm.

E. MATERIAL INPUTS contain the usage and cost of planting materials, fertilizers, mulching materials, insecticides, herbicides/weedicides, fungicides and other chemicals.

F. LABOR INPUTS such as labor utilization (in terms of mandays) and labor cost by type of farming activity, by source of labor and by sex and food cost incurred.

G. OTHER PRODUCTION COSTS cover cash and non-cash payments for land tax, land lease/rental, rental value of owned land, rentals of machine, animals and tools, fuel and oil, transport costs of inputs, irrigation fee, electricity, interest payment on crop loans, storage cost and other production costs.

H. PRODUCTION AND DISPOSITION such as volume of garlic 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 for seeds, wastage and other purposes.

I. BUYER INFORMATION includes the major buyer of garlic and the percentage of garlic sold to each buyer and the perceived right price of garlic.

J. PROBLEMS ENCOUNTERED such as problems affecting production and marketing of garlic.

K. ACCESS TO CREDIT such as the amount and source of crop loan, interest rate per annum and percentage of loan used in garlic production.

L. OTHER INFORMATION such as membership in garlic-related association and benefits derived, access to extension services, future plans of garlic farmers and their recommendations to improve garlic production

M. INTERVIEW/SURVEY PARTICULARS contain the name and signature of data collector, field supervisor/editor and PASO and date accomplished.

The questionnaire is provided as External Resources

Data Collection

Data Collection Dates

Start	End	Cycle
2006-12-06	2006-12-18	N/A

Time Periods

Start	End	Cycle
2006-01-01		last completed cropping

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

The pre-test of the questionnaire on CRS of garlic production took place from October 10-12, 2006 in Nueva Ecija. A draft manual of operations was prepared together with the questionnaire. After the pre-test, the questionnaire and the manual of operations were reviewed and finalized. Prior to the field data collection, training was undertaken to ensure that the concepts and procedures were correctly understood. The first level training was participated by selected BAS Central Office (CO) staff who became trainers of the next level training which involved the BAS- Provincial Operations Center (POC) staffs and hired data collectors. The field training also included the conduct of mock interview, dry-run exercises, discussion of problems and issues and editing procedures. The BAS CO Staff who acted as the trainers supervised the initial data collection activity of the data collectors together with the POC staff. Upon return to the BAS Central Office, the BAS CO trainers prepared and submitted a travel report containing the activities done in the field (province) as well as the issues/problems encountered and their recommendations.

The field data collection was undertaken by the hired data collectors through personal interview of the sample farmers who passed the requirements of the survey using the set of screening questions. The interview was conducted in the local dialect of the province. Before the data collection, courtesy call to the barangay officials was done to get permission for the conduct of the survey in the barangay and explain the purpose of such activity.

Problems and issues encountered during field data collection were relayed to the BAS CO Staff or management for their information and action. The POC also submitted to the Central Office a narrative report regarding the conduct of the survey.

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Data Collectors

Name	Abbreviation	Affiliation
Bureau of Agricultural Statistics	BAS	Department of Agriculture

Supervision

Close supervision of field enumerators was done by the POC regular staff during data collection. As immediate supervisors, they saw to it that the survey operation ran smoothly and within the target schedule. Spot checking of the data collectors and back checking of their work were also part of the field supervision to ensure that errors or incompleteness committed in the survey operation were checked and corrected immediately.

The regular POC staff were also responsible for reviewing and editing the accomplished questionnaires. These were done to check the acceptability, consistency and completeness of the information recorded in the questionnaire.

The Provincial Agricultural Statistics Officers (PASOs) and Assistant Provincial Agricultural Statistics Officers (APASOs) acted as overall supervisors in the provinces. They also conducted spot checking and backchecking, review of completed and edited questionnaires before submitting to the Central Office. A report on field data collection was prepared and sent by the POC to the Central Office.

The Regional Agricultural Statistics Officers (RASOs) were responsible for the monitoring and supervision of the survey operations in all the provinces within the region. The Statistical Operations Coordination Division (SOCD) at the Central Office monitored and coordinated the field operations.

Data Processing

Data Editing

Manual editing was initially done at the Provincial Operations Center during and after data collection using the CRS editing guidelines prepared by the Central Office. The edited questionnaires were again checked at the Central Office. Coding and encoding were likewise done at the Central Office.

The document on Editing Guidelines is provided in the Technical Documents.

Other Processing

Data entry, processing and generation of data tables were done at the BAS Central Office using the MS Excel Application. The file contains spreadsheets/worksheets with built-in formulas capable of performing complicated mathematical calculations such as totals, averages and percentages and other information. Data tables were generated by this software using the hyperlink which creates a shortcut or jump that opens a document stored on a network server, an intranet or the internet. By using hyperlinks, you can explore objects, documents, pages, and other destinations on the intranet. When you click the cell that contains the HYPERLINK function, Microsoft Excel opens the file stored at link location. The link location is the path and file name to the document to be opened as text.

Data Appraisal

Estimates of Sampling Error

Not applicable.

Other forms of Data Appraisal

Series of reviews were done to assess the quality of the data in terms of reliability and acceptability. A comparison with the results of past surveys on input usage, labor utilization, production cost and return structure of garlic was made.