



2017 Survey on Costs and Returns of Tomato Production



MANUAL OF OPERATIONS



May 2017



REPUBLIC OF THE PHILIPPINES

PHILIPPINE STATISTICS AUTHORITY

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1. INTRODUCTION

Tomato (*Lycopersicon esculentum* Miller) otherwise known as “*Kamatis*”, is an important and popular fruit vegetable grown in the Philippines. It can be eaten raw or as an ingredient in many dishes, sauces, drinks, and mostly in salads. Tomatoes are rich sources of vitamins A and C and folic acid and contain a wide array of beneficial nutrients and antioxidants including alpha-lipoic acid, lycopene, choline, folic acid, beta-carotene and lutein.

The country’s production of tomato for the past 10 years (2007 to 2016) was growing by an average of 1.23 percent per year. In 2016, production was 210,724 metric tons covering a total area of 16,165 hectares.

1.1 Rationale

The Philippine Statistics Authority (PSA) recognizes the importance of generating data on costs and returns of tomato production. Costs of production (CoP) data are among the highly requested information from major users such as policy analysts, national accounts compilers, farmers and other entrepreneurs in the agricultural sector. For tomato farmers, CoP data can serve as basis for the improvement of their efficiency and profitability. For both government and non-government planners and policy makers, CoP data can be used in designing appropriate programs and projects to boost the growth and development of the tomato industry.

Other important applications of CoP data are in the financial and insurance markets. In particular, financial institutions require feasibility studies in every investment portfolio. Doing a feasibility study needs CoP data. On the other hand, CoP data can serve as solid basis in determining appropriate insurance premium rates.

The last Survey on Costs and Returns of Tomato Production was done in 1998. The production costs and returns data generated from the 1998 survey were rather old and may no longer be reflective of the current situation. To address this concern, the PSA will conduct the 2017 Survey on Costs and Returns of Tomato Production.

1.2 Objectives

The general objective of the survey is to generate data on costs and returns of producing **tomato**. *Specifically, the survey aims to:*

- *establish an up-to-date production costs structure;*
- *determine indicators of profitability such as gross and net returns, returns above cash cost, returns above variable cost, etc.;*
- *come up with updated data sets on average use of material and labor inputs; and,*
- *generate other related socio-economic variables.*

2. SURVEY METHODOLOGY

2.1 Coverage

The domain of the study is the province. The survey will cover six (6) top tomato producing provinces: two (2) from each island group. Sample farmers who had the last completed cropping cycle of tomato within the reference period and knowledgeable on the details of tomato farming particularly investments, inputs usage, farming expenses and disposition of produce will be the target respondents of the survey. The provinces to be covered are enumerated below:

LUZON	VISAYAS	MINDANAO
Ilocos Norte	Iloilo	Bukidnon
Ilocos Sur	Cebu	Misamis Oriental

2.2 Reference Period

The reference period for Luzon and Visayas is the ***last completed cropping cycle*** within **September 2016 to May 2017**. For Mindanao, the reference period is the ***last completed cropping cycle*** within **January 2017 to September 2017**.

The reference periods are based on the seasonality of the crop or on the peak harvest months per province. In Ilocos Norte and Ilocos Sur, the peak harvest months are from April to May. In Iloilo and Cebu, May to June is considered peak harvest months while September to October in Bukidnon and Misamis Oriental.

Cropping Cycle - refers to the cycle of activities related to the growth and harvest of a crop. These activities include land preparation, sowing/planting, fertilizer application, watering/irrigation and harvesting.

2.3 Scope

The data to be collected are the following:

- Basic characteristics of the sample farmer, the farm and farmer's household;
- Farm investments;
- Material inputs;
- Labor inputs;
- Other production costs;
- Production and disposition;
- Basic marketing and credit information;
- Access to support services;
- Problems related to production and marketing;
- Basic information on effects of climate change; and
- Recommendations and future plans

2.4 Sampling Frame

The top fifteen (15) tomato producing barangays in the province will serve as the sampling frame. These are identified by the Provincial Statistics Offices (PSOs) using the available information on tomato production. The ranking of barangays will be based on

the volume of tomato production, total area cultivated for tomato and number of tomato farms/farmers during the year 2016-2017. The list will be updated through interview of key informants such as Municipal Agricultural Officers (MAOs), Agricultural Technicians (ATs) and Barangay Officials.

2.5 Sampling Design, Sample Size and Sample Selection Procedure

A two-stage sampling design is employed with the barangay as the primary sampling unit (PSU) and the sample farmer as the secondary sampling unit (SSU). Sample farmers will be drawn by means of simple random sampling, a standard probability-based sample design, which is described in the *Handbook on Agricultural Cost of Production Statistics, Global Strategy of the United Nations Statistical Commission, February 2016*.

During data collection, *snowball* approach will be applied to identify the sample farmers.

Snowball sampling - is a “special” non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances. Thus, the sample group is said to grow like a rolling snowball. As the sample builds up, enough data are gathered to be useful for research. This method is used when the survey’s objective is after very specific characteristics.¹

The budget is the main factor for setting the sample size which is set at seventy-five (75) equally allocated to each sample barangay i.e., five (5) sample farmers for each sample barangay. Since the survey intends to generate average estimates of costs of production and returns and not total estimates, the target number of samples per province is a good indicator to get the said information.

During data collection, sample farmers will be located using snowball sampling. The names and addresses of tomato farmers residing in the sample barangay will be obtained from the Office of the Barangay Captain or any other Key Informants (KIs) in the barangay. This will serve as the SRs starting point in searching for potential sample farmers.

A set of screening questions will be applied to confirm if those listed actually harvested tomato during the reference period and satisfied the set of criteria for the enumeration.

Whether the interviewed farmer is qualified or not, he/she will be asked to identify other tomato farmers in the barangay to be added in the initial list. The search continues, and the farmer who meets the criteria specified in the screening questions qualifies as sample for the survey and will be interviewed using the questionnaire for 2017 SCR of Tomato Production. If the interview is successfully carried out (meaning all the needed information have been supplied), the SR will write the household number, full name and residential address of the sample farmer in the List of Sample Farmers.

Again, the SR can select any farmer from the list as the next potential sample for the survey. The process will continue until the required number of samples in the barangay is covered.

¹ Agricultural Costs of Production Country Field Test and Desk-Study Reports, Global Strategy to Improve Agricultural and Rural Statistics, FAO, June 2016

3. SURVEY OPERATIONS

3.1 Pre-survey Training

Two (2) levels of training will be conducted. This activity aims to have uniform understanding of the survey concepts and procedures to be used during the survey operations.

The first level training involves selected staff from Central Office (C.O.), four (4) Regional Statistical Service Office staff and six (6) Provincial Statistics Office (PSO) head or representative. They will serve as trainers in the next level of training. The five-day training will cover the following:

- Rationale and Objectives of the Survey
- Survey Concepts and Procedures
- Filling-out the Questionnaire
- Editing of Accomplished Survey Returns
- Mock Interview
- Administrative Matters

The second level training is intended for other PSO staff and the hired Statistical Researchers (SRs). The first day of the training will focus on the discussion of rationale, objectives, survey methodology, filling out the questionnaires, editing procedures and administrative matters. Dry-run survey in the non-sample barangay will be done in the morning of the second day while clearing of issues will follow in the afternoon. The dry-run activity is intended to provide the PSO staff and SRs with hands-on experience on data collection. The Training Evaluation Sheet-SQC Form 1 should be accomplished (See Annex IV).

3.2 Data Collection

The data collection will be done in July 2017 for Luzon and Visayas provinces and in October 2017 for Mindanao provinces. The data collection will be carried out by Statistical Researcher (SRs) through personal (face-to-face) interview of the sample farmer in sample barangays using the structured questionnaire and prescribed survey procedures. The Data Collection Feedback Sheet-SQC Form 2 should be prepared by the supervisors for the issues/concerns and problems reported by statistical researchers and actions taken (See Annex V).

3.3 Supervision of Survey Operations

The PSO and Regional staff will be responsible for the supervision of the survey operations. Selected CO trainers may also assist in the supervision during the duration of their travel to the province. Moreover, selected CO staff will also assist in editing the accomplished questionnaires.

Among the tasks of the field supervisors are the conduct of spot checking during data collection to monitor the data collectors' work, ground validation and back-checking the work of SRs after data collection and the preparation of field supervision report or SQC Form 3 - Narrative Report (See Annex VI).

4. DATA PROCESSING, DATA REVIEW AND ANALYSIS

A customized data processing system will be developed for the survey. The specifications of data capture, flat file or raw data file, electronic data editing, and data tabulation will be prepared. These specifications are the bases for the development of computer data processing programs.

Prior to the encoding of survey returns, there will be training on data processing, data review and validation. This activity will ensure the correct processing of information following the completeness, consistency and accuracy checks of the various data items.

Generation of summary tables will be done during the said training. The provincial data review of the output tables will follow. The soft copy of the cleaned provincial data files will be submitted to the Central Office for consolidation.

At the Central Office, the provincial data files and the output tables will be subjected for another round of review. The output of the data review will be the final version of the data files and will be used for the final tabulations.

The data analysis will be done by technical staff of the Agricultural Accounts Division (AAD) using two (2) approaches, namely: temporal and spatial analyses. For the temporal analysis, the results of the current survey will be compared from the results of previous surveys. For spatial analysis, on the other hand, the survey results will be compared across the provinces covered. Other auxiliary information related to the data items will be used to validate the results of the survey.

5. ESTIMATION PROCEDURES

The estimation and analysis of costs and returns data make use of simple accounting procedures. This approach is simple, but needs to be broken down in detail by accounts. Estimates of costs and returns of production are presented and analyzed on a **per hectare** of farm basis (*farm used in the production of the subject commodity*) and on **per kilogram** of output basis.

Averages, ratios and proportions are used to characterize the farmers' operations, including allocation behavior in terms of cost distribution. Farm performance is analyzed based on the following indicators:

- Returns above cash costs;
- Returns above cash and non-cash costs;
- Gross and net returns;
- Net profit-cost ratio; and
- Cost per kilogram.

The average costs and returns of tomato production are computed as follows:

$$\text{Per Hectare} = \frac{\text{Total value of input (output)}}{\text{Total Harvest Area}}$$
$$\text{Per Kilogram} = \frac{\text{Total value of input (output)}}{\text{Total Production in Kilogram}}$$

Additionally, the indicators of profitability are derived using the following computational procedures:

Gross Returns = Production X Farmgate Price
Returns Above Cash Costs = Gross Returns – Cash Costs
Returns Above Cash and Non-Cash Costs = Gross Returns – (Cash Costs + Non-Cash Costs)
Net Returns = Gross Returns – Total Costs
Net Profit-Cost Ratio = Net Return ÷ Total Costs
Cost per kilogram = Total Costs ÷ Total production

General Guidelines in Conducting the Field Data Collection

- a. Observe the usual protocol of making a courtesy call to the Barangay Captain or any other barangay official in his/her absence. The SRs should introduce himself/herself as the data collector for the 2017 Survey on Costs and Returns of Tomato Production, the agency he/she is working for, and the importance of the survey. Remember to always underscore the confidentiality of the information to be gathered from the respondents.
- b. Seek the Official's permission to undertake the survey in the barangay. Further, request assistance in identifying the names and addresses of tomato farmers residing in the barangay. Plan with him/her the best possible route in reaching for the residences of these farmers.
- c. Locate the residences of the identified tomato farmers. Once in the potential sample farmer's residence, make the proper introduction, and administer the following screening questions:

Screening Question	Instruction
1. Are you engaged in tomato farming?	<ul style="list-style-type: none"> • If "yes", continue asking the next screening questions. • If "no" end the interview and go to the next potential sample farmer.
2. Is the tomato farm group-operated?	<ul style="list-style-type: none"> • If "yes", end the interview and go to the next potential sample farmer. • If "no", continue asking the next screening questions.
3. Did you plant and harvest tomato at any time within September 2016 – May 2017 for Luzon and Visayas Provinces January 2017 to September 2017 for Mindanao Provinces?	<ul style="list-style-type: none"> • If "yes", continue asking the next screening questions. • If "no", end the interview and go to the next potential sample farmer.

- g.** If the desired sample size for the barangay is not met, resort to the following courses of action:
- i. Take the additional samples from among the barangays within the SR's assigned areas. Immediately inform the field supervisor of the action taken.
 - ii. If the required sample size for the barangay is still not met despite the attempt, immediately inform the field supervisor of the problem. The field supervisor will coordinate with other SRs/field supervisors to decide in which barangays to get the additional sample farmers to cover. In this case, there will be a corresponding change in the workload distribution among the SRs.

6. SURVEY QUESTIONNAIRE

6.1 General Instructions

1. Fill-out the questionnaire during the interview using a soft lead pencil. Use the margins and back pages for notes and computations.
2. Write entries legibly in big letters or numbers. Wrong entries must be erased neatly and not crossed out.
3. Enter answers to questions in the corresponding answer space(s) and/or box(es) on the questionnaire. Be careful in recording numeric answers. Strictly observe the unit of measure and number of decimal places required.
4. For pre-coded answers, encircle or indicate the code(s) corresponding to the answer given by the respondent. For open-ended questions, write the verbatim answer(s) in the appropriate answer space(s). If necessary, probe to get the desired information.
5. Do not leave blank any answer space. A blank may otherwise mean that the corresponding question was not asked. If the answer to a question is none or the answer is not applicable, enter a dash (-) in the corresponding answer space(s) or place a horizontal line along the particular question item to show that there is no entry for such item.

6.2 Components of the Questionnaire

The questionnaire for the **2017 Survey on Costs and Returns of Tomato Production** (See Annex 2) consists of fourteen (14) pages and has fifteen (15) blocks namely:

- Block A. Farm Location
- Block B. Sample Identification
- Block C. Basic Characteristics of the Farm
- Block D. Farm Investments (owned and used in focus parcel during...)
 - SEPTEMBER 2016 to MAY 2017 (Luzon and Visayas provinces)
 - JANUARY 2017 TO SEPTEMBER 2017 (Mindanao provinces)
- Block E. Material Inputs (used in focus parcel during...)
- Block F. Labor Inputs (in focus parcel during ...)
- Block G. Other Production Costs (in focus parcel during...)
- Block H. Production and Disposition (in focus parcel during...)
- Block I. Production Related Information (in focus parcel)
- Block J. Marketing Related Information (in focus parcel)
- Block K. Access to Credit (in focus parcel)
- Block L. Farmer's Participation in Tomato Programs/Projects
- Block M. Other Information
- Block N. Plans and Recommendations
- Block O. Interview / Survey Particulars

6.3 Specification and Instructions in Filling-out the Questionnaire

CONFIDENTIALITY AND LETTER OF COOPERATION

This is located on the upper part of the first page of the questionnaire. This states the confidentiality clause under **Section 26 of RA 10625** and should be emphasized to the respondent during data collection. On the other hand, the letter of cooperation introduces the survey background and its primary purpose. Likewise, it serves as an invitation for the respondent to participate in the survey. This is signed by the National Statistician and Civil Registrar General.

At the upper right portion is the Approval Number PSA-1722 and the expiration date of the clearance granted for the conduct of 2017 SCR for Tomato Production.

Illustration 1

	REPUBLIC OF THE PHILIPPINES PHILIPPINE STATISTICS AUTHORITY SOLID • RESPONSIVE • WORLD-CLASS	Approval No. PSA - 1722 Expires on 31 May 2018
<p>CONFIDENTIALITY:</p> <p>Section 26 of RA 10625, stipulates that individual data furnished by a respondent to statistical inquiries, surveys, and censuses of the PSA shall be considered privileged information and such shall be inadmissible as evidence in any proceeding.</p> <p>Likewise, Section 27 of RA No. 10625 states that a person, including parties within the PSA Board and the PSA, who breach the confidentiality of information, whether by carelessness, improper behavior, behavior with malicious intent, and use of confidential information for profit shall be liable to a fine of five thousand pesos (5,000) to not more than ten thousand pesos (10,000) and or imprisonment of three months but not exceeding one year, subject to the degree of breach of information.</p>	<p style="text-align: center;">2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION</p> <p>Dear Sir / Madam,</p> <p>The Philippine Statistics Authority is undertaking a Survey on Costs and Returns of Tomato Production to generate an up-to-date production cost structure and determine the returns in tomato farming. The activity involves the gathering of data on the expenses and revenues in producing tomato. Data on the usage of material and labor inputs and other socio-economic variables will be collected.</p> <p>Your household has been selected to be one of the sample respondents. With your cooperation, this survey will yield accurate and updated data needed for effective planning and policy-decision making.</p> <p>Please be assured that the data you supply us will be held STRICTLY CONFIDENTIAL and your report cannot be used for purposes of taxation, investigation or law enforcement procedure, nor will it be published except in the form of statistical summaries in which no reference to any individual person shall appear.</p> <p>Your cooperation is earnestly solicited.</p> <p style="text-align: right;">Very truly yours,</p> <p style="text-align: right;">LISA GRACE S. BERSALES, Ph.D. National Statistician and Civil Registrar General</p>	

SCREENING QUESTIONS

This is located on the lower part of the first page of the questionnaire. The SRs should ask each potential respondent to qualify for the survey before proceeding to the different blocks of the questionnaire.

Illustration 2

SCREENING QUESTIONS >> Go to instructions	
<p>1. Are you engaged in tomato farming?</p> <p style="text-align: center;"><input type="checkbox"/> YES (continue next question) <input type="checkbox"/> NO (end the interview)</p> <p>2. Is the tomato farm group-operated?</p> <p style="text-align: center;"><input type="checkbox"/> YES (end the interview) <input type="checkbox"/> NO (continue next question)</p> <p>3. Did you plant and harvest tomato at any time within SEPTEMBER 2016 to MAY 2017?</p> <p style="text-align: center;"><input type="checkbox"/> YES (continue next question) <input type="checkbox"/> NO (end the interview)</p> <p>4. Was your harvest / produce intended for sale?</p> <p style="text-align: center;"><input type="checkbox"/> YES (continue next question) <input type="checkbox"/> NO (end the interview)</p> <p>5. Was your harvest intercropped with other temporary crops?</p> <p style="text-align: center;"><input type="checkbox"/> YES (end the interview) <input type="checkbox"/> NO (continue next question)</p>	<p>6. Was 20% or more of your harvest damaged by flood, drought, pests and diseases, etc.?</p> <p style="text-align: center;"><input type="checkbox"/> YES (end the interview) <input type="checkbox"/> NO (continue next question)</p> <p>7. Are you a contract grower?</p> <p style="text-align: center;"><input type="checkbox"/> YES (continue next question) <input type="checkbox"/> NO (proceed to the next page)</p> <p style="text-align: center;"><input type="checkbox"/> YES, but with Self-Financed Tomato Farm (proceed to the next page)</p> <p>7.1 What was the mode of financing? (check box and proceed to the next page)</p> <p style="text-align: center;"><input type="checkbox"/> - in cash</p> <p style="text-align: center;"><input type="checkbox"/> - in kind</p> <p style="text-align: center;"><input type="checkbox"/> - both in cash and in kind</p>

QUESTIONNAIRE CONTROL NUMBER (QC No.)

This is located at the upper right portion of the second page of the questionnaire.

This portion must be filled up after completing the enumeration of all sample farmers in the province. First, questionnaires should be arranged in chronological order by municipality and barangay. Then numbering should start from 01 up to the number of the nth sample household.

Illustration 3

2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION Last Completed Cropping Cycle Within SEPTEMBER 2016 TO MAY 2017	Page 2 of 14 QC No. <input type="text"/>
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BLOCK A. FARM LOCATION

This block collects information on the geographic location where the sample tomato farm is located.

Items 1 - 4. Region, Province, City/Municipality and Barangay - Write legibly on the spaces provided the name of region, province, city/municipality and barangay. Fill-out the boxes with the corresponding code(s) from the SCR Masterlist of Sample Barangays.

Illustration 4

Filling-out of Block A

A. FARM LOCATION			
1. Region : <u>Western Visayas</u> <input type="text"/>	2. Province : <u>Iloilo</u> <input type="text"/>	3. City/Municipality : <u>Leon</u> <input type="text"/>	4. Barangay : <u>Barasan</u> <input type="text"/>

BLOCK B. SAMPLE IDENTIFICATION

This block aims to gather the demographic characteristics of the sample farmer.

Item 1. Name of sample farmer/operator - Write the complete name of the sample farmer/operator in capital letters (LAST NAME and FIRST NAME then MIDDLE INITIAL).

***Sample farmer/operator** - refers to the person who operates the **tomato** farm and takes the managerial responsibility for the day-to-day operation of the farm.*

Item 2. Residential address of the sample farmer/operator - Write the complete address of the sample farmer/operator in capital letters (STREET No./PUROK/SITIO, BARANGAY and MUNICIPALITY).

Item 3. Age (as of last birthday) - Ask the age (in years) of the sample farmer/operator as of his/her last birthday.

Item 4. Sex (encircle code) - Encircle the appropriate code “1” if sample farmer/operator is Male and “2” if Female.

Item 5. Level of education completed - Ask the highest grade or level of education completed by the sample farmer/operator.

Highest educational attainment - refers to the highest grade/or educational level completed by the sample farmer/operator. Example: No schooling; Pre-school/Day Care; Elementary Level such as Grade I, Grade II, Grade III, Grade IV and Grade V; Elementary Graduate; High School Level such as First Year High School, Second Year High School, Third Year High School and K-12 equivalent to Grade 7 to Grade 11; High School Graduate such as Fourth Year High School and K-12 equivalent to Grade 12; College Level such as First Year College, Second Year College, Third Year College; College Graduate; Vocational (2-year course); and Post-Graduate.

Fill-out the boxes with the corresponding code. Following are the corresponding codes for each level of education:

Code	Level of Education	Code	Level of Education
01	Elementary level	06	College graduate
02	Elementary graduate	07	Post-graduate
03	High school level	08	Vocational
04	High school graduate	09	Pre-school
05	College level	10	No-schooling

Item 6. Main occupation - Ask the specific occupation of the sample farmer. Write the verbatim answer and corresponding code in the space provided. The codes are based on the Philippine Standard Occupational Classification (PSOC).

Main Occupation - refers to the gainful work or activity that provides the major source of income during the reference period (last annual income) e.g., teacher, farmer, sari-sari store operator, tricycle driver, etc. If the main occupation of the farmer/operator is farmer or livestock or poultry raiser, specify the name of the crop/commodity (tomato farmer, swine raiser, etc.).

Main Occupation			
Code	Item	Code	Item
100	Managers	600	Skilled Agricultural, Forestry and Fishery Workers
200	Professionals	700	Craft and Related Trades Workers
300	Technicians and Associate Professionals	800	Plant and Machine Operators and Assemblers
400	Clerical Support Workers	900	Elementary Occupations: Unskilled Workers
500	Service and Sales Workers	000	Armed Forces Occupations

Item 7. Number of years engaged in Tomato farming (as operator) - Ask the number of years the sample farmer has been engaged in **tomato** farming. Record the number of years (in whole number) in the space provided.

Item 8. Name of respondent - Write the complete name of the respondent in capital letters (LAST NAME and FIRST NAME then MIDDLE INITIAL). It refers to the person being interviewed preferably the sample farmer. In case the sample farmer is not available, write the complete name of the interviewee who should be knowledgeable about the sample farmer's farm operation.

Item 9. Respondent's relationship to the sample farmer/operator - Ask the relationship of the respondent to the sample farmer/operator and write in the space provided. If the respondent is the sample farmer/operator himself, simply write SELF (FARM OPERATOR). Other relationships may be spouse, son/daughter, brother/sister, parent, etc.

Item 10. Respondent's contact number/s - Ask the cell phone number or the telephone number of the sample farmer/respondent and write in the space provided. In case the sample farmer has no contact number, ask for the nearest contact number available where sample farmer can be easily reached.

Illustration 5

Filling-out of Block B

B. SAMPLE IDENTIFICATION	
1. Name of sample farmer/operator :	<u>CABUNDOC, JOHN RICHIE C.</u> <small>(LAST NAME) (FIRST NAME) (M.I.)</small>
2. Residential address of the sample farmer/operator :	<u>PUROK 2, BARASAN, LEON</u> <small>(STREET NO./PUROK/SITIO) (BARANGAY) (MUNICIPALITY)</small>
3. Age (as of last birthday) :	<u>25</u> years old
4. Sex (encircle code) :	<input checked="" type="radio"/> 1 - Male 2 - Female
5. Level of education completed :	<input type="text" value="0"/> <input type="text" value="3"/> <u>2ND YEAR HIGH SCHOOL</u>
6. Main occupation :	<u>TOMATO FARMER</u> <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="0"/> <small>(gainful work or activity that provides the major source of income)</small>
7. Number of years engaged in Tomato farming (as operator) :	<u>2</u>
8. Name of respondent :	<u>CABUNDOC, JOHN RICHIE C.</u>
9. Respondent's relationship to the sample farmer/operator :	<u>SELF (FARM OPERATOR)</u>
10. Respondent's contact number/s :	<u>09305245348</u>

BLOCK C. BASIC CHARACTERISTICS OF THE FARM

This block collects basic information about the farm(s) operated by the sample farmer.

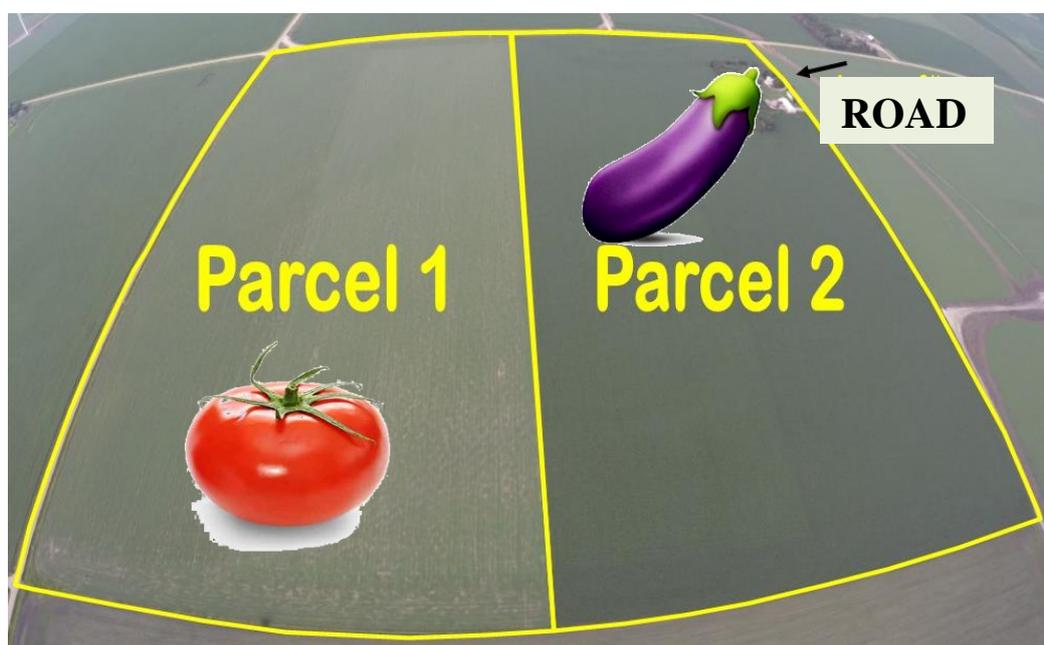
Item 1. Using the matrix below, define the characteristics of each farm parcel operated during the reference period.

Item 1.1 Parcel - This is the breakdown of all farms by parcel that was operated during reference period.

Parcel - *is one contiguous piece of land under one farm of tenure without regard to land use. Both the contiguity and one form of tenure conditions should be met for a piece of land to be classified as one parcel. Contiguous means that the piece of land is not separated by natural or man-made boundaries such as river, dike and road that are not part of the holding.*

A parcel may be surrounded by others lands, water, road, forest or other features that are not part of the holding or part of the holding under different land tenure. A parcel may consist of one or more fields or plots adjacent to each other.

Illustration 6



In this illustration, there are two (2) numbered parcels. One parcel is planted to tomato and one parcel to eggplant.

Item 1.2 Total Physical Area of the Parcel (indicate the physical area in hectare) - Ask the area of each farm parcel operated during reference period starting with parcel 1 down to the last parcel. Record the area in hectare and in four (4) decimal places.

Physical area of the parcel - *refers to the size or actual measurement of the parcel.*

Item 1.3 Area Planted to Tomato (indicate the physical area in hectare) - Ask the area planted **only to tomato** during the reference period. Record the area in hectare and in four (4) decimal places.

Item 1.4 Area Planted to Other Crops (if any, indicate the physical area in hectare) - Ask the area planted to other crops during the reference period. Record the area in hectare and in four (4) decimal places.

Item 1.5 Area of Other Structure (if any, indicate the physical area in hectare) - Ask the area of other structure (ex. Farm house, livestock and poultry house, etc.) during the reference period. Record the area in hectare and in four (4) decimal places.

Item 2. Among the areas planted to tomato, what is the focus parcel? (indicate the parcel number) - Select one (1) focus parcel only with the latest completed harvest during the reference period.

***Focus parcel** - is the particular farm parcel where the last harvest is completed within the reference period and where all relevant information for this study will be collected.*

The criteria for selecting the focus parcel are as follows:

1. The farm parcel with the latest completed harvest.

In case of more than one **tomato** parcel operated during the reference period, the following illustrations will serve as a guide in determining the focus parcel.

Illustration 7

There are three (3) parcels planted to **tomato** but they have different months of planting and harvesting. Consider only the parcel with the latest completed harvest as the focus parcel. In this case, parcel number 3 was the focus parcel.

1.1 Parcel	1.2 Total Physical Area of the Parcel <i>(indicate the physical area in hectare)</i>	1.3 Area Planted to Tomato <i>(indicate the physical area in hectare)</i>	1.4 Area Planted to Other Crops <i>(if any, indicate the physical area in hectare)</i>	1.5 Area of Other Structure <i>(if any, indicate the physical area in hectare)</i>	
1	1.0000	0.2500	0.5000	0.2500	→ Oct. 2016 - Mar. 2017
2	0.7500	0.7500			→ Sept. 2016 - Apr. 2017
3	1.5000	0.5000	1.0000		→ Nov. 2016 - May 2017
4					
5					
6					
7					
8					
9					
10					
Total Area	3.2500	1.5000	1.5000	0.2500	

2. Among the areas planted to tomato, what is the focus parcel?
 (indicate the parcel number) **3**
(focus parcel is the farm parcel where the last harvest is completed within reference period)

Illustration 8

There are three (3) parcels planted to **tomato**. Months of planting and harvesting were the same for all parcels and have the same status of tenure. Consider only the parcel with the largest physical area planted to tomato. In this case, parcel number 2 was the focus parcel.

1.1 Parcel	1.2 Total Physical Area of the Parcel (indicate the physical area in hectare)	1.3 Area Planted to Tomato (indicate the physical area in hectare)	1.4 Area Planted to Other Crops (if any, indicate the physical area in hectare)	1.5 Area of Other Structure (if any, indicate the physical area in hectare)
1	1.0000	0.2500	0.5000	0.2500
2	0.7500	0.7500	.	.
3	1.5000	0.5000	1.0000	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
Total Area	3.2500	1.5000	1.5000	0.2500

 Sept. 2016 - May 2017
 Sept. 2016 - May 2017
 Sept. 2016 - May 2017

2. Among the areas planted to tomato, what is the focus parcel?
 (indicate the parcel number) 2
(focus parcel is the farm parcel where the last harvest is completed within reference period)

Illustration 9

There are three (3) parcels planted to **tomato**. They have the same month of planting but only one parcel had completed harvest. Other parcels are not able to complete the cropping cycle for reasons like at least 20% of the crop were stricken or damaged by insects, pests and diseases. Consider only the parcel with completed harvest. In this case, parcel number 3 was the focus parcel.

1.1 Parcel	1.2 Total Physical Area of the Parcel (indicate the physical area in hectare)	1.3 Area Planted to Tomato (indicate the physical area in hectare)	1.4 Area Planted to Other Crops (if any, indicate the physical area in hectare)	1.5 Area of Other Structure (if any, indicate the physical area in hectare)
1	1.0000	0.2500	0.5000	0.2500
2	0.7500	0.7500	.	.
3	1.5000	0.5000	1.0000	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
Total Area	3.2500	1.5000	1.5000	0.2500

 Sept. 2016 - (20% damaged)
 Sept. 2016 - (30% damaged)
 Sept. 2016 - May 2017

2. Among the areas planted to tomato, what is the focus parcel?
 (indicate the parcel number) 3
(focus parcel is the farm parcel where the last harvest is completed within reference period)

Illustration 10

Two (2) parcels planted to **tomato** qualify as the focus parcel, for they have the same physical area and month harvested. Ask the sample farmer to select one (1) parcel which he/she can give all the desired information needed in the survey. In this example, the farmer selected parcel number 2 as the focus parcel.

1.1 Parcel	1.2 Total Physical Area of the Parcel <i>(indicate the physical area in hectare)</i>	1.3 Area Planted to Tomato <i>(indicate the physical area in hectare)</i>	1.4 Area Planted to Other Crops <i>(if any, indicate the physical area in hectare)</i>	1.5 Area of Other Structure <i>(if any, indicate the physical area in hectare)</i>
1	1.0000	0.2500	0.5000	0.2500
2	1.5000	0.2500	1.2500	.
3	.	.	.	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
Total Area	3.2500	1.5000	1.5000	0.2500

→ Sept. 2016 - May 2017
→ Sept. 2016 - May 2017

2. Among the areas planted to tomato, what is the focus parcel?
(indicate the parcel number) 2
(focus parcel is the farm parcel where the last harvest is completed within reference period)

2. In case the farm parcels have different tenurial status, select the farm parcel with the latest completed harvest.

Illustration 11

More than one parcel is planted to **tomato**. Each parcel has different tenurial status and month of planting and harvesting. Consider only the parcel with the latest completed harvest. In this case, parcel number 3 was the focus parcel.

1.1 Parcel	1.2 Total Physical Area of the Parcel <i>(indicate the physical area in hectare)</i>	1.3 Area Planted to Tomato <i>(indicate the physical area in hectare)</i>	1.4 Area Planted to Other Crops <i>(if any, indicate the physical area in hectare)</i>	1.5 Area of Other Structure <i>(if any, indicate the physical area in hectare)</i>
1	1.0000	0.2500	0.5000	0.2500
2	0.7500	0.7500	.	.
3	1.5000	0.5000	1.0000	.
4	.	.	.	.
5	.	.	.	.
6	.	.	.	.
7	.	.	.	.
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
Total Area	3.2500	1.5000	1.5000	0.2500

→ Oct. 2016 - Mar. 2017 → Owned
→ Sept. 2016 - Apr. 2017 → Tenanted
→ Nov. 2016 - May 2017 → Leased/Rented

2. Among the areas planted to tomato, what is the focus parcel?
(indicate the parcel number) 3
(focus parcel is the farm parcel where the last harvest is completed within reference period)

For focus parcel only:

For Item 3 to Item 13, the required information for tomato should be for focus parcel only.

Item 3. What is the tenurial status? (Specify code) - Ask the tenurial status of the focus farm parcel cultivated and indicate the appropriate code in the box or specify if necessary.

Tenure status of the parcel - refers to the right under which a parcel is held or operated.

CODE	TENURIAL STATUS	DESCRIPTION
1	Fully Owned	Refers to the land operated with a title of ownership and consequently the right to determine the nature and extent of use of the land. It includes lands whose absolute ownership is vested in the holder thru sale, inheritance, etc. A parcel is also considered fully owned if the holder has an absolute deed to the sale of the land, and also those lands of the tillers with Emancipation Patent.
2	Leased/Rented	Refers to the parcel of land cultivated by a lessee, that belong to or legally possessed by another, the lessor. The rental payment is in the form of a fixed amount of money and/or produced or both.
3	Tenanted	Refers to the tenure of land wherein the arrangement between the landlord (owner of the land) and the tenant (who cultivate the land) is in the form of share of produce or harvest.
4	Amortized	Refers to the parcel of land wherein a sample farmer does not have full legal title over the land being cultivated, but he still pays amortization.
5	Rent Free	Refers to an area operated without title of ownership and without paying rent but with the consent or permission of the landowner.
6	Owner-like Possession other than CLT or CLOA	Refers to the area of the land under conditions that enable a person to operate it as he/she is the owner although he/she does not possess title of ownership. Included are inherited lands without title of ownership and one who is a holder of a land for a period of 30 years or more, or even without the permission of the owner.

CODE	TENURIAL STATUS	DESCRIPTION
7	Held under Certificate of Land Transfer (CLT) or Certificate of Land Ownership Award (CLOA)	Refers to lands granted under the Agrarian reform program known as the Comprehensive Agrarian Reform Law
8	Others, (specify) <i>Example: Mortgage</i>	Includes land held as mortgage and all other forms of tenurial status not categorized above. <i>Mortgage</i> - convey of a real property to a creditor as a security on a loan.

Item 4. How many times did you plant tomato in a year? - Ask and record the number of times the sample farmer planted tomato in the focus farm parcel in a year.

Item 5. What is the usual cropping pattern? - Ask and indicate the usual cropping pattern. Examples: tomato-corn; tomato-okra, etc. Indicate in the box the number of crops planted in a given cropping pattern in a year. This will serve as a guide in determining the percent of use of farm investments and computation of depreciation.

Cropping pattern - is the sequence and spatial arrangement of crops on a given area in a year.

Illustration 12

A farmer usually plants corn and sweet potato after planting tomato in the focus parcel. During the reference period, the farmer planted tomato once. The proper recording of data is as follows:

For focus parcel only:

4. How many times did you plant tomato in a year? **1**

5. What is the usual cropping pattern? **3**

TOMATO-CORN-SWEET POTATO

No. of crops planted

Item 6. What was the area planted? - Inquire on the area of the focus farm parcel planted to **tomato** and record the response in hectare and in four (4) decimal places on the space provided.

Item 7. What was the area harvested? - Refers to the total area of the focus farm parcel where the actual harvesting has been done during the reference period. Inquire and indicate the area harvested in hectare and in four (4) decimal places on the space provided.

In many cases, the area harvested is exactly the same as the area planted. If the portion of the area planted to **tomato** was damaged by flood, drought, pest and diseases, etc., the area harvested should be less than the area planted.

Thus, the entry in Block C, Item 7 (area harvested) maybe equal or less than the entry in Block C Item 6 (area planted).

Item 8. What month & year was it last planted? - Ask the specific month and year of planting.

Item 9. What month & year was it last harvested? - Ask the specific month and year of harvest of the **tomato**. If harvesting was done in **staggered manner**, record the **specific month when the focus parcel was totally harvested**.

Item 10. How many times did you harvest in the focus parcel? - Ask the number of times the farmer harvested tomato in the focus parcel during the reference period.

Item 11. What was the type of tomato planted? (Encircle code/s) - Ask the type of tomato being cultivated.

1 - Bush

2 - Vine

Item 12. What was the variety of seeds planted? (Encircle code/s) - Encircle the appropriate code(s) or specify other variety of the seeds planted on the space provided.

Code	Variety of Seeds	Code	Variety of Seeds
01	Diamante	06	Apollo
02	Diamante Max	07	Semenes
03	Harabas	08	Rose Pink
04	Ilocos Red	09	Native (kimmarabasa)
05	Maharlika	10	Others (specify) : _____

Item 13. Who/What was/were the source/s of planting materials? (Encircle code/s) - Ask the agency/entity/organization where the planting materials were obtained and encircle appropriate code(s). Specify other source(s) of planting materials on the space provided.

CODE	SOURCE OF PLANTING MATERIALS
1	Agri Supply Store
2	DA/LGU
3	Cooperative
4	Co-Farmer
5	Own Produced
6	Others (specify) : _____

BLOCK D. FARM INVESTMENTS (owned and used in the focus parcel during SEPTEMBER 2016 to MAY 2017 / JANUARY 2017 TO SEPTEMBER 2017)

This block contains information on all investment items **owned** and **used/utilized** by the sample farmer in tomato production during the last completed cropping cycle within September 2016 to May 2017 for Luzon and Visayas provinces / January 2017 to September 2017 for Mindanao provinces. **Investment items with less than one (1) year of estimated useful life should be reflected in Block G, Other Production Costs.**

Note: To facilitate the interview, accomplish this block in horizontal manner. If there are two or more units of similar items acquired on **different years/occasions, different useful/serviceable years** and **different percent of use**, separate answers by a slash (/).

Farm investments - refer to items that the farmer acquired/owned and used/utilized for the enhancement of farm production.

Column 1. Item - Investment items are enumerated in this column such as farm land, work animals, farm buildings and other structures, farm machinery and transport facilities and farm tools and implements.

1. Farm land owned (hectare) - refers to the focus farm parcel owned and tilled/operated by the sample farmer/operator during the reference cropping.

2. Work animals - animals used in tomato farming during reference period. Examples are carabao, cattle and horse.

2.01 Carabao - popularly known as water buffalo that originated from India, used as draft animal and also suitable for milk production.

2.02 Cattle - general term for the members of the *Bovidae family*, wild (*Bibos spp.*) or domestic (*Bos spp.*). Domestic cattle have two species: *Bos taurus* or European breeds and *Bos indicus* or Zebu breeds or oriental domestic cattle.

2.03 Horse - hoofed animals belonging to the family *Equidae*.

3. Farm buildings and other structures - structures with one or more rooms covered by roof and built for agricultural purposes that were used in tomato farming during the reference period.

3.01 Farm house - a structure which serves as farmer's resting place or shed and serves as storage for his farm inputs, outputs and implements. This is usually made of bamboo, wood and nipa.

3.02 Warehouse/storage - a concrete structure mainly used for storage of farm inputs, farm products and other farm equipment.

3.03 Others (specify) - any other structure present in the farm which provides major purposes for the focus parcel not previously mentioned.

4. Farm machinery and transport facilities - refers to machinery and transport facilities which were mainly used for the preparation, maintenance, irrigation, harvesting and other farm activities used in tomato farming during the reference period.

In some cases, the sample farmer buys an engine separately intended for his/her tractor and irrigation pump. During the recording, itemize the machinery. Examples are: two-wheel tractor with engine, two-wheel tractor without engine, four-wheel tractor with engine, irrigation pump with engine and irrigation pump without engine.

4.01 Two-wheel tractor (Hand tractor) - an apparatus controlled through the handle bars by a walking operator.

4.02 Four-wheel tractor - an engine-powered vehicle used to draw other vehicles or equipment as plow or harrow.

4.03 Water pump - a mechanical device that moves water by pressure or suction from water wells, water tanks, lakes, streams and rivers towards farm lands and animal shelters.

4.04 Farm vehicles - are mechanized transport facilities used in the farm operation.

4.05 Trailer - a vehicle with two or four wheels used for carrying loads in the farm operation.

4.06 Others (specify) - other farm machinery and transport facilities used in the farm not previously mentioned.

5. Farm tools and implements - farm tools and implements being used/ utilized by the sample farmer in the tomato farming during the reference period.

5.01 Plow (araro) - an animal drawn implement with a blade used to cut, lift and turn over soil.

5.02 Harrow (suyod) - a cultivating implement set with spikes spring teeth or disks and used primarily for pulverizing the soil.

5.03 Shovel/spade (pala) - a broad blade/heavy flat-bladed long-handled tool used for digging.

5.04 Hoe (asarol) - a tool with a thin blade set across the end of a long handle, used for weeding, loosening soil, etc.

5.05 Spading fork (tinidor) - a hand tool with flat tines for turning soil.

5.06 Post hole digger (panghukay) - a tool made of flat or round bars with sharp end for digging.

5.07 Yoke (singkaw) - a wooden frame or bar by which two work animals (as oxen) are harnessed at the heads or necks for drawing a plow or load.

5.08 Rake (kalaykay) - a long-handled tool with teeth or prongs at one end used for gathering loose grass, hay, leaves, etc., for smoothing broken grounds.

5.09 Seedling tray/Seedbox - a flat container used for growing seeds until they are ready to be transplanted.

5.10 Hose - a flexible hollow tube designed to carry fluids from one location to another.

5.11 Watering can - a portable water container with a long spout and a detachable perforated cap, used for watering plants.

5.12 Water sprinkler - a device perforated with small holes that is attached to a garden hose or watering can and used to spray plants.

5.13 Sprayer (pambomba) - a device that is used to apply herbicides, pesticides, and fertilizers on agricultural crops.

5.14 Bolo (itak) - a large single-edged knife used for cutting.

5.15 Sickle/scythe (karet) - a short-handled farming tool with a semi-circular blade, used for cutting grain, lopping, or trimming.

5.16 Pruning shears/scissors - a type of scissors used for cutting branches of trees and shrubs.

5.17 Cart/sled (paragos) - a type of rural transport equipment with wooden runners.

5.18 Pail (timba) - a usually cylindrical container with a handle.

5.19 Basket/kaing - a container used to hold or carry things, typically made from interwoven strips of cane or wire.

5.20 Crates - a container such as a slatted wooden case or plastic case used for storing or shipping harvested produce.

5.21 Drum - a cylindrical container.

5.22 Weighing scale (timbangan) - a device for measuring the weight of an object.

5.23 Wood stakes - a pointed piece of wood used to be driven into the ground as a marker or support.

5.24 Plastic/nylon twine - a string used for strapping things together.

5.25 Sorting table - a piece of furniture with a flat top providing a level surface on which agricultural crops may be placed, and that can be used for sorting.

5.26 Others (specify) - refer to other farm tools and implements used in the farm not previously mentioned.

Column 2. How many units were used? (Area/Number) - refers to the number of investment items owned and used/utilized by the sample farmer in the focus parcel. Area refers to the size in hectare(s) of tomato farm land owned by the farmer. **This should be equal to the area planted (Block C, Item 6).** Indicate area in four (4) decimal places.

Column 3. What year was it acquired/constructed? - refers to the year a unit was acquired/constructed. Year should be four-digit number **e.g. 1985, 1995, 2003, 2015**, etc.

Column 4. How much was the cost of acquisition/construction? (Pesos) - refers to the value of investment items at the time it was acquired/constructed. Value of investment item should be in two (2) decimal places.

Note: If inherited/ given/ transfer of ownership, ask the market value of the investment at the time it was acquired (inherited).

Column 5. How much was spent for minor repair/maintenance/improvement? (Pesos) - refers to the expenses incurred for maintenance and **minor repairs and improvements** made on the reported farm investments during the last completed cropping period.

Column 6. How many years will it be useful/serviceable? (from the date of interview) - refers to the estimated number of years (in whole number) the investment item is found to be useful/serviceable.

Column 7. Was the item used in another parcel? (indicate code) - write **code 1 (YES)** if the item was used in another parcel and **code 2 (NO)** if the item was not used in another parcel.

Column 8. Was the item used for other crops or activities in the focus parcel? (indicate code) - write **code 1 (YES)** if the item was used for other crops or activities in the focus parcel and **code 2 (NO)** if the item was not used for other crops or activities in the focus parcel.

Column 9. Was the item rented or lent to other farmers? (indicate code) - write **code 1 (YES)** if the item was rented or lent to other farmers and **code 2 (NO)** if the item was not rented or lent to other farmers.

Note: Answers in Columns 7 to 9 can be used to validate the response in Column 10. These are guides to support proper allocation of percent of use of the investment item in the focus parcel which is part of the computation of depreciation.

Column 10. What was its percentage of use in the focus parcel? - Indicate the usage of the reported farm investment for farm operations **during the reference period in percent (%) and record in two (2) decimal places.** If there are more than one unit of any single item, get the percent of use **of each item and separate answers by a slash (/).**

Explain to the respondent what it means and what is the intention of the question item. An investment item may be used for many purposes or different production processes on different crops. In order to reflect a closer estimate of depreciation and repairs/improvements, there is a need to get some estimation as to the extent of use of such investment item in tomato farming which is the subject of the survey questionnaire.

Illustration 13

Filling-out of Block D

D. FARM INVESTMENTS (owned and used in the focus parcel during JANUARY 2017 to SEPTEMBER 2017)									
Item	How many units were used? (Area / Number)	What year was it acquired / constructed?	How much was the cost of acquisition / construction? (Pesos)	How much was spent for minor repair / maintenance/ improvement? (Pesos)	How many years will it be useful / serviceable? (from the date of interview)	Was the item used in another parcel? (indicate code) 1 - YES 2 - NO	Was the item used for other crops or activities in the focus parcel? (indicate code) 1 - YES 2 - NO	Was the item rented or lent to other farmers? (indicate code) 1 - YES 2 - NO	What was its percentage of use in the focus parcel?
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Farm land owned (hectare)	-	-	-	-	-	-	-	-	-
2. Work animals									
2.01 Carabao	1 / 1	2000 / 2014	12,000.00 / 20,000.00	-	-	1 / 1	1 / 1	2 / 2	20.00 / 20.00
2.02 Cattle			-	-	-				-
2.03 Horse			-	-	-				-
3. Farm buildings and other structures									
3.01 Farm house			-	-	-				-
3.02 Warehouse / Storage	1	2015	80,000.00	2,000.00	10	2	1	2	50.00

SAMPLE ILLUSTRATIONS IN DETERMINING THE PERCENT OF USE OF AN INVESTMENT ITEM

Illustration14

A farmer has only one (1) parcel planted to **tomato**. That parcel is qualified as focus parcel. What is the percent of use of farm machinery and/or equipment owned by the farmer that was/were used in the parcel?

- The quick response of the farmer is **100.00 percent**.



Illustration 14.1

A farmer operates three (3) parcels of equal sizes. Two (2) parcels were planted to other crops and the other parcel planted to tomato. However, the hand tractor was used in all parcels. What is the percent of use of the hand tractor in the focus parcel that qualifies to our survey?

- The quick response of the farmer may be $1/3$ or **33.33 percent**.

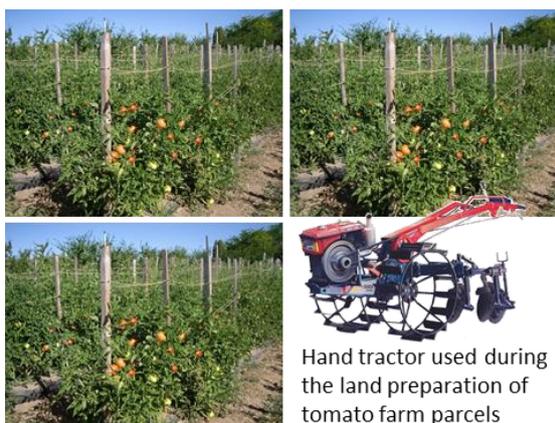


Illustration 14.2

A farmer operated three (3) parcels of different farm size and crops planted. What is the percent of use of the hand tractor in the focus parcel?

The possible response of the farmer should be closer to $3/4.75 = 0.6316$ or **63.16 percent**.

Focus Parcel	Parcel 1	3.0000 hectares	Planted to tomato (Sept. 2016 to May 2017)
	Parcel 2	1.5000 hectares	Planted to sweet potato (Nov. 2016 to Mar. 2017)
	Parcel 3	0.2500 hectare	Planted to corn (Jan. 2016 to May. 2017)
		4.7500 hectares	

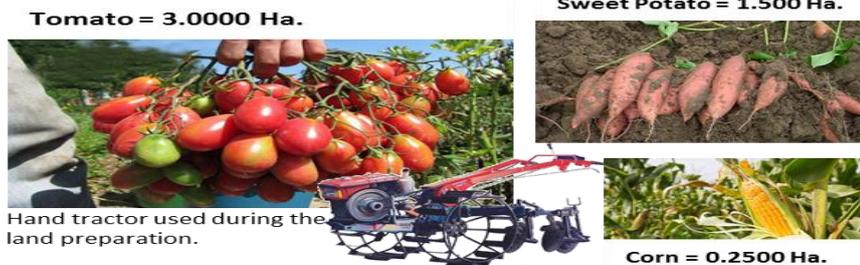


Illustration 15

A farmer has 2 parcels, both planted with tomato. If the sizes of parcels are as follows:

Focus Parcel	Parcel 1	3.0000 hectares
	Parcel 2	1.5000 hectares
		4.5000 hectares

Parcel 1 is the focus parcel qualified for the survey. If the hand tractor is used in both parcel. "What is the percent of use in the focus parcel?" the response of the farmer should be closer to $3/4.5 = 0.6667$ or **66.67 percent**.

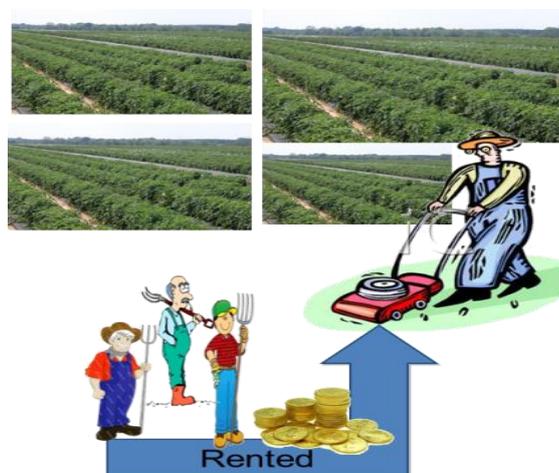


Illustration 16

The sample farmer owned a two-wheel tractor. He used the tractor in his four (4) parcels planted to **tomato** and it was also rented by his co-farmers with an absolute area of 3.2500 hectares.

	Parcel 1	0.2500 hectare
	Parcel 2	1.5000 hectares
Focus Parcel	Parcel 3	0.7500 hectare
	Parcel 4	2.0000 hectares
Co-farmers parcels		3.2500 hectares
		7.7500 hectares

Parcel 3 is the focus parcel qualified for the survey. If the two-wheel tractor is used in all of the parcels cited above, apportion the use of the tractor considering the area of each parcel. The percentage of use of the two-wheel tractor in the focus parcel 3, should be = $0.75 / 7.75 = 0.0967$ or **9.68 percent**



BLOCK E. MATERIAL INPUTS (used in the focus parcel during SEPTEMBER 2016 to MAY 2017 / JANUARY 2017 TO SEPTEMBER 2017)

This block aims to gather information on the usage and costs of material inputs of the sample farmer in his/her **tomato** production during the last completed cropping period. Gather all the required information for each applicable item one by one.

Note: To facilitate the interview, accomplish this block in horizontal manner. If there are two or more units of similar item acquired from different sources or different mode of acquisitions, separate answers by a slash (/).

Column 1. Item - listed under this column are the material inputs used in **tomato** production.

1. Seeds/ Planting Materials - refer to the type of planting material used. Ask the farmer on the type of planting material planted in the focus parcel during the reference period.

1.01 Seeds - the grains or ripened ovules of plants used for sowing.

1.02 Seedlings - a young plant, especially one that rose from seed.

2. Fertilizers - refer to any material of natural or synthetic origin that is applied to soils or to plant tissues (usually leaves) to supply one or more plant nutrients essential to the growth of plants. Ask the farmer on the types of fertilizers used in the focus parcel during the reference period.

Enumerated in the questionnaire are the following types of fertilizers:

2.01 Urea (45-0-0)

2.02 Urea (46-0-0)

2.03 Ammonium Sulfate (21-0-0)

2.04 Ammonium Phosphate (16-20-0)

2.05 Complete (12-12-12)

2.06 Complete (14-14-14)

2.07 Complete (16-16-16)

2.08 Zinc Sulfate (Zinc 21%)

2.09 Muriate of Potash (0-0-60)

2.10 Crop Giant

2.11 Compost

2.12 Vermicast

2.13 Others (specify) - refer to other types of fertilizers used by the farmer not previously mentioned.

3. Soil Ameliorants - refer to certain elements placed or mixed into the soil to replenish depleted soil nutrients for better plant growth. Ask the farmer if he applied soil ameliorants in the focus parcel during the reference period.

3.01 Lime (apog) - a soil additive made from pulverized limestone or chalk.

3.02 Others (specify) - refer to other soil ameliorants used by the farmer not previously mentioned.

4. Mulching Materials - refer to the layer of material applied to the surface of an area of soil to conserve moisture, improve the fertility and health of the soil and reduce weed growth. Ask the farmer if he applied mulching materials in the focus parcel during the reference period.

4.01 Rice Hay (dayami) - is the vegetative part of the rice plant cut at grain harvest or after that can be used as mulching materials.

4.02 Others (specify) - refer to other mulching materials used by the farmer not previously mentioned.

5. Pesticides (specify product name) - refer to chemicals used to control/eradicate insects, pests and weeds. **Pesticides of original form maybe in solid or liquid.** Record the **product name** of the pesticides used in the focus parcel during the reference period.

5.01 Herbicides/ Weedicides - refer to a compound used to control weeds or unwanted plants. In terms of timing of application, herbicides are broadly classified as pre-emergence and post-emergence herbicides, referring to the stage of growth of weeds. Ask if the farmer applied herbicides/ weedicides and if so, specify the product name and write down in the space provided. The following examples are product names and the formulation types are emulsifiable concentrate (EC), soluble concentrate (SC) and wettable powder (WP). Examples are: *2,4-d Amne, 40 EC; Access Atrazine WP, and Activo 22 SC.*

5.02 Insecticides - refer to a compound used to control insect pests. Ask if the farmer applied insecticides and if so, specify the name and write down in the space provided. Examples are: *ABATE SG; 5-STAR GENERAL EC; ACETAM 75 SP and AGRI-MEK 1.8 EC.*

5.03 Fungicides - refer to a compound used to control fungus or fungal organisms. Ask if the farmer applied fungicides. If so, specify and write down in the space provided. Examples are: *AGROMYL 50 WP; ALIETTE 80 WP; and AMISTAR 25 SC*

5.04 Other Pesticides - refer to other pesticides used by the farmer not previously mentioned.

Columns 2 to 9 - these are to be accomplished according to the type of material inputs listed in Column 1. All entries should refer to the last completed cropping cycle of tomato within September 2016 to May 2017 for Luzon and Visayas provinces and January 2017 to September 2017 for Mindanao provinces.

Column 2. How many units were used/ applied? - ask the exact number of units of planting materials, fertilizers, soil ameliorants, mulching materials and pesticides used/ applied during the last completed cropping of tomato. Write in three (3) decimal places.

Column 3. What was the name of local unit? - for fertilizer, soil ameliorants and pesticides, write down the unit of measure (**in its original form**) of the material input used (e.g. bottle, pack, sack, ganta, bundle etc.).

Column 4. If solid input, what was the weight of one local unit in kilogram? - determine the equivalent weight in kilogram per solid material input reported in Column 3. Write in three (3) decimal places.

Column 5. If liquid input, what was the volume of one local unit in liter? - determine the equivalent volume in liter per liquid material input reported in Column 3. Write in three (3) decimal places.

Column 6. What was the mode of acquisition? (enter code/s) - refers to the manner by which the material inputs used in the focus parcel were acquired. Indicate the code of the item whether purchased, own produced or received. The following are the coded sources of inputs.

CODE	ITEM
	Purchased
11	Self-financed (paid in cash)
12	Self-financed (paid in kind)
13	Discounted
21	Own produced
	Received
31	From government (DA, LGU, etc.)
32	From private individual/organization (Trader, Co-Farmer, Cooperative, etc.)

Column 7. If purchased and discounted, what was the discount rate? - if the entry in Column 6 is **purchased** and the code is 13, ask for the discount rate of the material input used. Write the **discount rate in percent** and in two (2) decimal places.

Example:

The market price of one (1) bag of fertilizer is P1,000. A farmer has a discount coupon. He paid only P800 for one (1) bag of fertilizer. Hence, the **discount rate (r)** would be:

$$r = \left[1 - \left(\frac{800}{1,000} \right) \right] \times 100$$

→ Discounted price

→ Market price

$r = 20.00\%$

Column 8. If purchased, what was the price of one local unit? (Pesos) - ask the price of one local unit (Column 3) in Pesos and record in two (2) decimal places. **If discounted, ask and record the prevailing market price.** From the preceding example, the **market price is the price that should be paid by the farmer without discount.**

Column 9. If not purchased, what was the prevailing price in the locality? (Pesos) - ask for the prevailing price in Pesos of one local unit in the locality and record in two (2) decimal places.

Illustration 17

Filling-out of Block E – Item 2: Fertilizers

Quantity purchased	= 1 bag of Ammonium Sulfate (21-0-0)							
	at 50 kilograms per bag							
Quantity used	= 1 bag							
Price per bag	= P1,000.00							
Discount rate	= 20 %							
E. MATERIAL INPUTS (used in focus parcel during SEPTEMBER 2016 to MAY 2017)								
Item	How many units were used / applied?	What was the name of local unit?	If solid input, what was the weight of one local unit in kilogram?	If liquid input, what was the volume of one local unit in liter?	What was the mode of acquisition? (enter code/s)	If purchased and discounted, what was the discount rate?	If purchased, what was the price of one local unit? (Pesos)	If not purchased, what was the prevailing price in the locality? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. Fertilizers								
2.03 Ammonium Sulfate (21-0-0)	1.000	BAG	50.000	. . . .	13	20	1,000.00	. . . .

FARM ACTIVITIES IN TOMATO PRODUCTION:

Column 1. Farm activity - Listed in this column are the different activities involved in **tomato** production. The major activities include seedling preparation, land preparation, planting, care of crops, harvesting, hauling of produce, sorting, etc. Ask the farmer on the different types of farm activities applied in the focus parcel during the reference period.

1. Seedling preparation - refers to the process of preparing the environment where the seeds will grow as young plants.

Plowing - refers to breaking the soil surface using a plow. During this stage, plowing is usually done using man and animal and/or man and machine (two-wheel tractor/hand tractor).

1.01 Plowing of seedbed (man-animal)

1.02 Plowing of seedbed (man-machine, 2-wheel)

1.03 Seedbed preparation - refers to the preparation of a seedbed.

Seedbed - or seedling bed is the local soil environment in which seeds are sowed. Often it comprises not only the soil but also a specially prepared cold frame, hotbed or raised bed used to grow the seedlings in a controlled environment into larger young plants before transplanting them into a garden or field.

1.04 Sowing of seeds - refers to the process of casting handfuls of seed over prepared ground.

1.05 Fertilizer application (basal) - fertilizer is broadcast/spread uniformly over the entire area followed by cultivation to mix the fertilizer with the soil. Shallow plowing and harrowing are done two or three times to ensure even distribution of fertilizer applied.

1.06 Chemical application - application of chemicals to treat the soil from various agents that may harm the seeds/seedlings.

1.07 Mulching - a practice of farmers to use plant residues or other suitable materials on the soil surface primarily to prevent loss of moisture and to control weeds.

2. Land Preparation - refers to the process of preparing the soil through primary, secondary or general tilling.

Plowing - refers to breaking the soil surface using a plow. During this stage, plowing of the fields can be done by man and animal and/or man and machine (2-wheel or 4-wheel).

2.01 Plowing (man-animal)

2.02 Plowing (man-machine, 2-wheel)

2.03 Plowing (man-machine, 4-wheel)

Rotavating - refers to breaking the soil surface using a rotavator (machine with rotating blades that break up soil).

2.04 Rotavating (man-machine, 2-wheel)

2.05 Rotavating (man-machine, 4-wheel)

Harrowing - refers to breaking up clods and lumps of soil to provide a finer finish and a good tilt of soil structure that is suitable for seeding and planting operations.

2.06 Harrowing (man-animal)

2.07 Harrowing (man-machine, 2-wheel)

2.08 Harrowing (man-machine, 4-wheel)

Furrowing - refers to turning the bottom of the soil and throwing a ribbon of soil into one side leaving a trench on the soil using a moldboard plow.

2.09 Furrowing (man-animal)

2.10 Furrowing (man-machine, 2 wheel)

2.11 Furrowing (man-machine, 4 wheel)

2.12 Liming/ Application of soil ameliorants - refers to the application of chemicals that will help improve the condition of the soil. The usual effects of agricultural lime on the soil are: (1) reduces soil acidity; (2) provides source of calcium and magnesium for plants; (3) permits improved water penetration for acidic soil; and (4) improves the uptake of major plant nutrients (nitrogen, phosphorus and potassium).

2.13 Fertilizer application (basal) - refers to the broadcasting/spreading of fertilizers uniformly all over the field. The main objectives of broadcasting the fertilizers at sowing time are to uniformly distribute the fertilizer over the entire field and to mix it with soil.

3. Hauling of planting materials - refers to the transferring or bringing the seedlings to the field where it will be transplanted.

4. Planting/ Transplanting - refers to the direct planting/ transplanting of seeds/ seedlings.

5. Replanting - refers to planting of seeds/ seedlings to serve as replacement for damaged tomato plant.

6. Care of Crops - refers to the process of providing plants the conditions that will help them grow and make them free of weeds, pests and diseases.

6.01 Trellising/ Staking/ Tying - refers to a process of supporting the plants (usually vines) by a trellis to keep them out of pathways and off the ground. This activity makes use of wooden stakes and strings/wires.

***Fertilizer application** - application of soil and plant nutrient to the proper places in the soil like urea, ammonium phosphate, complete fertilizer, etc.*

6.02 Fertilizer application (side dressing) - refers to the spread of fertilizer in between the rows and around the plants. The common methods of side-dressing are: (1) placement of nitrogenous fertilizers by hand in between the rows of crops to apply additional doses of nitrogen to the growing crops and (2) placement of fertilizers around the trees.

6.03 Fertilizer application (top dressing) - refers to the broadcasting of fertilizers particularly nitrogenous fertilizers in closely sown crops, with the objective of supplying nitrogen in readily available form to growing plants. This includes foliar application where fertilizer solutions containing one or more nutrients are sprayed on the foliage (leaves/flowers) of growing plants.

6.04 Weeding (man) - refers to uprooting or removing weeds by hands.

6.05 Chemical application/ Spraying - refers to the application of chemicals to protect the plants from pests and diseases by spraying.

6.06 Off-barring - refers to plowing between rows of plants with furrow slice thrown back-to-back to the center between plant rows.

6.07 Hilling-up - refers to plowing between rows of plants with the furrow slice thrown toward the base of the plant.

6.08 Watering - refers to pouring or sprinkling water over a plant or an area of ground, typically in order to encourage plant growth.

6.09 Mulching - a practice of farmers to use plant residues or other suitable materials on the soil surface primarily to prevent loss of moisture and to control weeds.

6.10 Pruning/ Thinning - refers to the trimming/cutting away dead or overgrown branches or stems to increase fruitfulness and growth of the plant.

6.11 Farm monitoring - refers to the observing and checking of the progress or quality of the farm over a period of time.

7. Others (specify) - refers to other farm activities not specified in the questionnaire.

8. Harvesting - the process of picking tomatoes from the fields usually at the mature green stage or once ripe. Harvesting of tomatoes is usually done in staggered manner.

9. Hauling of produce - refers to bringing of produce to the place where it will be temporarily stocked or where it will be sold by the farmer (from farm to first point of sale).

10. Sorting - refers to the grouping of the produce according to common physical characteristics e.g. quality, class, kind or size.

Note: The survey requires recording of labor inputs for every time of harvesting, hauling and sorting to capture a more accurate estimation of labor costs.

11. Contract labor (specify the farm activities included per contract) - refers to the employment of multiple/combined activities that are paid as one (e.g. Contract 1: plowing, harrowing and planting; Contract 2: harvesting, hauling and sorting).

Columns 2 to 3. Operator labor - This refers to the production activities **performed by the farmer operator** during the reference period.

Column 2. How many days were spent? - Ask the number of days of work per activity and record in whole number.

Column 3. How many hours per day were spent? - Ask the number of hours of work rendered by the operator and record in one (1) decimal place. To determine the average, add the total numbers of hours worked and divide the sum by the number of working days.

Illustration 20

Sample Computation of Average No. of Hours Worked for Operator Labor

Activity is plowing (man-machine) that is completed in 2 days with the following number of hours worked:

Day 1 = 8 hours

Day 2 = 5 hours

Number of Days Worked = 2 days

$$\text{Average hours} = \frac{\left[\begin{array}{c} \text{Number of Hours Worked} \\ \text{Day 1 + Day 2} \end{array} \right]}{\text{Number of Days Worked}}$$

$$\text{Average hours} = (8+5) / 2$$

$$= \mathbf{6.5 \text{ Hours}}$$

Columns 4 to 6. Family Labor - This refers to the production activities **performed by the family members** of the sample farmer-operator.

Column 4. How many persons worked in the farm? - Ask the total number of family members who performed the particular farm operation.

Column 5. On the average, how many days did they work? - Ask the average number of days each person worked and record in whole number on the space provided.

Column 6. On the average, how many hours per day were spent? - Ask the average number of hours spent working per day. To determine the average, add the total number of hours worked per person and divide the sum by the total number of working days and total number of persons worked. Record the number of hours in one (1) decimal place on the space provided.

Illustration 21

Sample Computation of Average No. of Hours Worked for Family Labor

Activity is plowing (man-animal) that is completed in 2 days with the following number of hours worked per family member:

Day 1: Family Member 1 = 3 hours

Family Member 2 = 4 hours

Day 2: Family Member 1 = 3 hours

Family Member 2 = 3 hours

Number of Days Worked = 2 days

$$\text{Average hours} = [(3+4+3+3) \div 2] \div 2 = \mathbf{3.25 \text{ hours}}$$

Columns 7 to 9. Exchange labor ("Bayanihan") - This refers to the production activities **performed by other farmers**. *Bayanihan* is a custom of farmers to help each other in peak periods by working on each other's farm without any payment for the services rendered.

Column 7. How many persons worked in the farm? - Ask the total number of exchange labor who performed the particular farm operation.

Column 8. On the average, how many days did they work? - Ask the average number of days each person worked and record in whole number on the space provided.

Column 9. On the average, how many hours per day were spent? - Ask the average number of hours spent working per day. To determine the average, add the total number of hours worked per person and divide the sum by the total number of working days and total number of persons worked. Record the number of hours in one (1) decimal on the space provided.

Note: Follow the same computation illustrated for Family Labor (Illustration 21) for the Average No. of Hours Worked for Exchange Labor

Column 10. How much was the prevailing wage rate per day in the locality? (Pesos) - Ask the prevailing wage rate per day in Pesos in the locality for (each of the items in Column 1) the activities performed by unpaid workers. This information will be needed in the computation of imputed value of operator, family and exchange labor. Record in two (2) decimal places on the space provided.

Columns 11 to 20. Hired labor/Hired labor by contract - This refers to the production activities performed by the hired laborers including the payment of services rendered.

Columns 11 and 16. How many persons worked in the farm? - Ask the total number of hired labor who performed the particular farm operation.

Columns 12 and 17. On the average, how many days did they work? - Ask the average number of days each person worked and record in whole number on the space provided.

Columns 13 and 18. On the average, how many hours per day were spent? - Indicate the average number of hours spent working per day. To determine the average, add the total number of hours worked per person and divide the sum by the total number of working days and total number of persons worked. Record the number of hours in one (1) decimal place on the space provided.

Note: Follow the same computation illustrated for Family Labor (Illustration 21) for the Average No. of Hours Worked for Hired Labor

Columns 14 and 19. How much was the total paid in cash? (Pesos) - If laborers were paid in cash, ask the total amount paid to laborers per activity performed. Cash payment refers to the actual amount of cash paid according to the agreed basis of payment. Record in two (2) decimal places on the space provided.

To compute the total payment paid in cash.

1. First you need to compute for the total mandays.

$$Md = \frac{Np \times Nd \times Nh}{8}$$

Where:

Md = Total Mandays
 Np = Number of persons (Column 11)
 Nd = Number of days (Column 12)
 Nh = Number of hours worked per day (Column 13)

2. Then compute the total payment in cash

$$TPc = Md \times PWR$$

Where:

TPc = Total Payment in Cash
 Md = Total Mandays
 PWR = Prevailing Wage Rate

Illustration 22

Farm Activity	=	Weeding
Number of persons	=	1
Average number of days	=	10
Average number of hours per day	=	8
Prevailing wage rate	=	P 200.00 per day

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation					
Farm Activity	Hired Labor				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(11)	(12)	(13)	(14)	(15)
6. Care of crops					
6.04 Weeding (man)	1	10	8.0	2,000.00	—

Computations:

$$Md = \frac{Np \times Nd \times Nh}{8}$$

$$= \frac{1 \times 10 \times 8}{8}$$

$$= 10 \text{ mandays}$$

$$TPc = Md \times PWR$$

$$= 10 \times P200$$

$$= P2,000.00$$

Illustration 23

Overseer's wage paid in cash

Some farm activities were performed by the overseer but the payment for performing those farm activities was already inclusive on his monthly salary. The following are the steps in recording the data:

1. Fill-out the portions for Hired Labor in Block F corresponding to the farm activities performed by the overseer.

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation					
Farm Activity	Hired Labor				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(11)	(12)	(13)	(14)	(15)
6. Care of crops					
6.08 Watering	1	6	6.0	675.00	/
6.10 Pruning/Thinning	1	5	8.0	750.00	/
6.11 Farm monitoring	1	15	4.0	1,125.00	/

The total payment received by the overseer for performing the three activities is:

$$(P675.00 + P750.00 + P1,125.00) = \mathbf{P2,550.00}$$

2. Deduct the value of labor spent by overseer in other farm activities on his total salary received. The remaining amount is his/her salary as an overseer.

Assuming that the Overseer's Monthly salary = P2,000.00 / month, then P16,000.00 will be the overseer's total salary for eight (8) months from planting to harvesting.

The difference of P16,000.00 and P2,550.00 is **P13,450.00**. This amount should be recorded in Block G item 2, Caretaker/ Overseer's share/ wages (per cropping) under cash payment.

G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)								
Item	Cash (Pesos)	Imputed (Pesos)	Non-Cash					
			What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?	What was the total quantity in kilogram?	How much was the total value? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. Caretaker/overseer's share/wages (per cropping)	13,450.00							

Illustration 24

Contract Labor

Two (2) farm workers were hired to do the plowing, harrowing and fertilizer application in a one (1) hectare of tomato parcel. The total contract payment in cash for the three (3) activities was **P1,500.00**. The farm operator who hired them owns the hand tractor used in performing the said farm activities:

In this case, the SRs should ask for the average number of days and hours spent in the contracted activities. There is no need to allocate the costs per activity, instead record the corresponding data under Item 11. Contract Labor.

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation					
Farm Activity	Hired Labor by Contract				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(16)	(17)	(18)	(19)	(20)
11. Contract Labor (specify the farm activities included per contract):					
Plowing (man-machine, 2-wheel), Harrowing (man-machine, 2-wheel and Fertilizer Application (basal))	2	4	6.0	1,500.00	—

Illustration 25

Handling of labor inputs involving different scenarios

Scenario	Type of Labor	Level of Prevailing Wage Rate	Action to be Taken
Operator owned animal/ machine and he himself or his family members did the farm activity.	Man - Animal	Man only	<p>Ensure that there is:</p> <ul style="list-style-type: none"> • animal/ machine in farm investments in Block D; • man-animal/ man-machine activity of operator/ family labor in Block F (Labor Inputs) and the prevailing wage must be for man only; • data on rental value of owned animal (Item 6) in Block G (Other Production Cost); • quantity and cost of fuel and oil (Item 7 and 8), if any, in Block G (Other Production Cost). <p>Rental value of the machine will be accounted for depreciation.</p>
	Man - Machine	Man only	
Operator rented animal/ machine but he himself or his family members did the farm activity.	Man - Animal	Man only	<p>Ensure that there is:</p> <ul style="list-style-type: none"> • operator/ family Labor in Block F (Labor Inputs); • animal/ machine rental (Item 4.02/ 4.03) in Block G (Other Production Costs); • quantity and cost of fuel and oil (Item 7 and 8), if any, in Block G (Other Production Costs).
	Man - Machine	Man only	

Operator hired man and animal/ machine under one term payment.	Man - Animal	Man - Animal	Reflect payment for hired labor in Block F (Labor Inputs) and cost of fuel and oil (Item 7 and 8), if any, in Block G (Other Production Costs).
	Man - Machine	Man - Machine	
Operator hired man but owns the animal/ machine.	Man - Animal	Man only	<p>Ensure that there is:</p> <ul style="list-style-type: none"> • animal/ machine in farm investments Block D; • man-animal/ man-machine activity of hired labor in Block F (Labor Inputs) and the prevailing wage must be for man only; • data on rental value of owned animal (Item 6) in Block G (Other Production Cost); • quantity and cost of fuel and oil (Item 7 and 8), if any, in Block G (Other Production Cost). <p>Rental value of the machine will be accounted for depreciation.</p>
	Man - Machine	Man only	
Operator borrowed the animal/ machine at no fee.	Man - Animal	Man only	Reflect the imputed rental value of animal/ machine (Item 4.02/ 4.03, Col. 3) in Block G.
	Man - Machine	Man only	

Illustration 26.1

Farm Labor Economics

Farm parcel : 1.0000 hectare
Farm activity: Plowing

Type of Plowing	No. of Persons	Average No. of Days	Average No. of Hours	Total Mandays	Prevailing wage per day	Total Payment
Man	2	7.0	8.0	14.00	200.00	2,800.00
Man – Animal	1	4.0	8.0	4.00	400.00	1,600.00
Man – Machine	1	1.0	4.0	0.50	2,500.00	1,250.00



Man labor:

- > more days;
- > more hours;
- > cost = relatively cheaper



Man – animal labor:

- > fewer days;
- > may be fewer or same hours;
- > cost = relatively higher / more expensive than man labor



Man – machine labor:

- > fewer days;
- > fewer hours;
- > cost = relatively the most expensive

The illustration shows the different types of labor employed in the farm. The average number of days, hours and total payment varies according to the type of labor.

Illustration 26.2
Farm Labor Economics

Farm parcel : 1.0000 hectare
Family Labor - Plowing

Type of Plowing	No. of Persons	Average No. of Days	Average No. of Hours	Total Mandays	Prevailing wage per day	Total Payment
A. Man	1	1.0	8.0	1.00	200.00	200.00
B. Man	2	1.0	4.0	1.00	200.00	200.00
C. Man	2	1.0	8.0	2.00	200.00	400.00

Technically, as the farmer employs more persons to do a certain farm activity, the average number of days and/or hours will decrease; thereby cutting/maintaining the same cost of labor as in the case of B.

Labor costs become bloated or this becomes an indication of inefficiency as in the case of C.

Columns 15 and 20. How much was paid in kind? - Paid in kind maybe in the form of concerned crop/ commodity (CC) or other commodities (OC). Payment in kind refers to the **peso equivalent of the quantity of produce** paid for a work done. Convert the payment into peso equivalent and record in two (2) decimal places on the space provided.

Illustration 27.1
Hired Labor paid in kind

Farm Activity = 1st Harvest
 Number of persons = 10
 Average number of days = 1
 Average number of hours per day = 8
 Paid in kind = 2.00 kaings of tomato (1/11 of total production)
 Price per Local Unit = P1,500.00 per kaing

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F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation					
Farm Activity	Hired Labor				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(11)	(12)	(13)	(14)	(15)
8. Harvesting					
8.01 1st Harvest	10	1	8.0	—	3,000.00

To convert the payment in kind into its peso value:

Payment in kind (in peso)	=	Total number of units of payment in kind	X	Price per local unit during the time of payment
	=	2	X	P1,500.00
	=	P3,000.00		

Illustration 27.2

Overseer's wage paid in kind

An overseer was hired by the operator. He performed farm activities other than being an overseer. He was paid 10.00 percent of the total harvest (80 kaings at 60 kilogram per kaing) for being an overseer and for the farm activities he performed.

1. Ask the farm activities performed by overseer and the corresponding mandays and prevailing wage to get the value of labor of overseer.

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)					
Farm Activity	Hired Labor				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(11)	(12)	(13)	(14)	(15)
4. Planting / Transplanting	1	8	8	_____	1,200.00
6. Care of crops					
6.02 Fertilizer application (side dressing)	1	5	8	_____	800.00
6.04 Weeding (man)	1	8	6	_____	1,200.00
6.05 Chemical application/Spraying	1	2	8	_____	550.00

Total value of labor paid in kind → (1,200 + 800 + 1,200 + 550 = 3,750)

2. Compute the value of produce paid to overseer and subtract the value of his labor in performing the above farm activities. The difference is the payment for his being overseer.

H. PRODUCTION AND DISPOSITION (in focus parcel during SEPTEMBER 2016 to MAY 2017)	
Item	Total Harvest
	Units
(1)	(2)
2. Disposition (quantity in local unit)	
Price per local unit (required whether the produce was sold or not sold)	1,500.00
2.03 Other laborers' share	8.00

If the value of labor rendered for farm activities other than being overseer is **P3,750.00**, when he received 8 kaings worth P12,000.00, the difference is P8,250.00. This is the total payment rendered as overseer.

3. The difference of P8,250.00 should be recorded in Block G item 2, Caretaker/ Overseer's share/ wages under non-cash payment.

G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)						
Item	Non-Cash					
	What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?	What was the total quantity in kilogram?	How much was the total value? (Pesos)
(1)	(4)	(5)	(6)	(7)	(8)	(9)
2. Caretaker/overseer's share/wages (per cropping)	TOMATO	5.50	KAING	60.00	330.00	8,250.00

Note: see computations in Block G., page 45.

Illustration 27.3

Contract Labor paid in kind

Ten (10) farm workers were hired to do the harvesting, hauling and sorting in a one (1) hectare of tomato parcel. The contract in kind payment for the three (3) activities was 3.00 kaings of tomato worth P4,500.00.

In this case, the SRs should ask for the average days and hours spent in the contract labor activities.

Farm Activity	= 2nd Harvest, Hauling of Produce and Sorting
Number of persons	= 10
Average number of days	= 1
Average number of hours per day	= 8
Paid in kind	= 3.00 kaings of tomato (1/11 of total production)
Price per Local Unit	= P1,500.00 per kaing

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F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation					
Farm Activity	Hired Labor by Contract				
	How many persons worked in the farm?	On the average ...		Total payment	
		how many days did they work?	how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(16)	(17)	(18)	(19)	(20)
11. Contract Labor (specify the farm activities included per contract):					
2nd harvest, hauling of produce and sorting	10	1	8.0	—	4,500.00

$$\begin{aligned}
 \text{Payment in kind (in peso)} &= 3 \times \text{P1,500.00} \\
 &= \text{P4,500.00}
 \end{aligned}$$

BLOCK G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017 / JANUARY 2017 TO SEPTEMBER 2017)

This block gathers other items of production cost **incurred on the focus parcel during the reference period**. Payments may be cash, imputed or non-cash. In case of non-cash payments or payments in kind, convert total value of goods to cash equivalent.

Column 1. Items - Refer to other items of production cost incurred on the focus parcel during the reference period.

1. Land Tax-owned farm (annual) - Ask the annual land tax paid for the focus parcel and enter in the space provided. If the land tax paid is for all parcels then use ratio and proportion based on area to apportion the land tax. **Impute** the land tax to owned farm in column 3 (imputed) if the farm operator did not pay tax during the reference period.

Note: The missing records can be imputed based on the data from other respondents considering similar characteristics (hot-deck imputation) and/or using external data sources (cold-deck imputation) such as administrative records from municipal assessor's office, etc.²

2. Caretaker/overseer's share/wages (per cropping) - Ask the payment for caretaker or overseer in cash or in kind per cropping.

Illustration 28.1

Overseer's wage paid in cash

The sample farmer/operator pays P2,000.00 monthly for the services of the caretaker as overseer for his/her three (3) parcels of land. The three (3) parcels were planted with tomato. The overseer was hired for eight (8) months.

Note that we must compute for the payment of the overseer for the particular tomato focus parcel.

Focus Parcel	Parcel 1	1.5000 hectares	Planted to tomato (Sept. 2016 to May 2017)
	Parcel 2	1.0000 hectare	Planted to tomato (Nov. 2016 to Mar. 2017)
	Parcel 3	0.2500 hectare	Planted to tomato (Dec. 2016 to May. 2017)
	2.7500 hectares		

To compute for the overseer's wages, simply divide the area of focus parcel (**Parcel 1**) to the total area of the three (3) parcels multiplied by monthly wages and number of months worked.

$$\text{Wages} = (1.5000 \text{ hectares} / 2.7500 \text{ hectares}) \times (\text{P}2,000 \times 8 \text{ mos.}) = \text{P } 8,727.27$$

G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)								
Item	Cash (Pesos)	Imputed (Pesos)	Non-Cash					
			What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?	What was the total quantity in kilogram?	How much was the total value? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. Caretaker/overseer's share/wages (per cropping)	8,727.27							

² Agricultural Costs of Production Country Field Test and Desk-Study Reports, Global Strategy to Improve Agricultural and Rural Statistics, FAO, June 2016

Illustration 28.2

Overseer's wage paid in kind

Refer to Illustration 27.2, page 42. If the value of labor rendered for farm activities other than being overseer is P3,750.00, when he received 8 kaings (P1,500.00 per kaing) worth P12,000.00, the difference is P8,250.00.

The difference of P8,250.00 is the payment of hired workers as Caretaker/ Overseer's wages under non-cash payment. Compute the quantity of the commodity received by the caretaker/overseer as payment of labor rendered as being overseer by dividing the price of one local unit of the commodity.

Computations:

$$\begin{aligned} \text{Quantity (in local unit)} &= \text{Total value paid in kind} \div \text{Price per local unit} \\ &= 8,250.00 / 1,500.00 \\ &= \mathbf{5.50} \end{aligned}$$

$$\begin{aligned} \text{Total quantity in Kilogram} &= \text{Quantity (in local unit)} \times \text{Weight of one local unit in Kilogram} \\ &= 5.50 \times 60.00 \\ &= \mathbf{330.00} \end{aligned}$$

G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)						
Item	Non-Cash					
	What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?	What was the total quantity in kilogram?	How much was the total value? (Pesos)
(1)	(4)	(5)	(6)	(7)	(8)	(9)
2. Caretaker/overseer's share/wages (per cropping)	TOMATO	5.50	KAING	60.00	330.00	8250.00

3. Other permanent employee's salary (monthly) - Ask the monthly payment for hired permanent farm workers doing production activities during the reference cropping period. If the payment is not monthly, convert it into monthly.

4. Lease/ Rentals of:

4.01 Land (annual) - refers to fixed payment in cash or in kind for the *use of farm land* during the reference period. Land rental should be per annum. Otherwise convert the payment annually.

Example: If the land rent is paid after every completed harvest, multiply the rent by the number of cropping. For **farm land** with tenurial status "**Rent free**", **impute** for the land rental for the use of land during the reference period in column 3 (Imputed). If lease agreement, divide the total value of agreement to the number of years concerted. Indicate number of years leased in the space provided.

4.02 Machine (per cropping) - refers to fixed payment in cash or in kind for the *use of machine* during the reference period. Rent for *machine* should be per cropping.

4.03 Animals (per cropping) - refers to fixed payment in cash or in kind for the *use of animals* during the reference period. Rent for *animals* should be per cropping.

4.04 Tools and equipment (per cropping) - refers to fixed payment in cash or in kind for the use of *tools and equipment* during the reference period. Rent for *tools and equipment* should be per cropping.

5. Rental value of owned land (annual) - Ask the sample farmer how much would be the annual rental value of the land cultivated for tomato if in case these have been rented. This is an **imputed cost** and record the value on the space provided.

6. Rental value of owned animal/s (per cropping) - Ask the sample farmer how much would be the rental per cropping of the animal/s used for tomato production if in case these have been rented. This is an **imputed cost** and record the value on the space provided.

7. Fuel (per cropping) - Ask the **exact quantity in liters** and **cost of fuel (diesel, gasoline and kerosene)** consumed in the production process of tomato. If **paid in kind, record total value in cash equivalent**.

8. Oil (per cropping) - Ask the **exact quantity in liters** and **cost of oil consumed** in the production process of tomato. If **paid in kind, record total value in cash equivalent**.

9. Transport cost of inputs (per cropping) - Ask the costs incurred in transporting the procured fertilizers, chemicals, and other farm inputs to the farm sites. In case of payment in kind, indicate the quantity paid and total value in cash equivalent.

10. Transport cost of produce from farm to first point of sale (per cropping) - Ask the costs incurred in transporting the tomato produce from farm to first point of sale. In case of payment in kind, indicate the quantity paid and total value in cash equivalent.

11. Interest payment on crop loan (per cropping) - Ask the payment in cash or in kind for the interest on borrowed capital used in the production of tomato. If paid in kind, ask for the quantity paid and total value in cash equivalent. Interest payment for crop loan should be per cropping. Otherwise convert the payment into per cropping.

12. Storage fee (per cropping) - Ask the payment in storing the produce in a suitable place for a period of time before disposition or distribution.

13. Water expense (monthly) - Ask the monthly payment in cash for water consumed in the production process. If the water use is free, it should have an imputed cost.

14. Electricity cost (monthly) - Ask the monthly payment in cash for electricity consumed in the production process.

15. Food expense for hired and exchange labor (per cropping) - Ask the total cost on food expense for hired and exchange labor. It should be per cropping, otherwise convert the payment into per cropping.

16. Landowner's share (per cropping) - Ask the quantity in local unit given to landowner as payment for the use of his/her farm land. Payment should be per cropping. Otherwise convert the payment into per cropping.

17. Financier's share (per cropping) - Ask the quantity in local unit given to financier as payment for the money he/she invested in the tomato production. Payment should be per cropping. Otherwise convert the payment into per cropping.

18. Sack/ Crate/ Box/ Kaing - Ask the total value in cash or in kind of sack/ crate/ box/ kaing used in tomato production. These items were utilized for less than a year. Impute for the cost if not purchased.

19. Seedling bag - Ask the total value in cash or in kind of seedling bags used in tomato production. This item was utilized for less than a year. Impute for the cost if not purchased.

20. Wood stakes - Ask the total value in cash or in kind of wood stakes being utilized for less than a year in the tomato production. Impute for the cost if not purchased.

21. Straw twine – Ask the total value in cash or in kind of straw twine being utilized for less than a year in the tomato production. Impute for the cost if not purchased.

22. Others (specify) - Ask for other items incurred during the reference period other than those mentioned above. It should include investment items utilized for less than a year. Specify on the space provided the cost item and record the value per cropping.

Column 2. Cash (pesos) - This refers to direct cash outlays or cash payment for other production costs incurred during production process.

Column 3. Imputed (pesos) - This refers to expenditures that do not involve actual outlays in cash or in kind; they represent the **opportunity costs of using owned resources** and are given the values of the best alternative uses foregone.

Non-cash - payment in kind may take the form of quantities of the crop being produced in the concerned farm or other crops being produced or other commodities acceptable to the owner of the land, machine, animals and tools and equipment. In such case, determine the quantity paid and the total value in cash equivalent.

Column 4. What was the crop/ commodity paid? - Ask the crop/ commodity paid, it can be either tomato or other agricultural commodity.

Column 5. How many local units? - Ask the number of local units of tomato or other agricultural commodity paid in column 4.

Column 6. What was the name of local unit? - Indicate the name of local unit used in measuring the quantity paid in column 5.

Note: Ask the price per local unit of the other agricultural commodity/ies paid, for reference during editing.

Column 7. What was the weight of one local unit? - Write the equivalent weight of one local unit in kilogram.

Column 8. What was the total quantity in kilogram? - Write the total quantity paid in kilogram by multiplying column 5 and column 7.

Column 9. How much was the total value? (pesos) - Write the total value of the total quantity paid in column 8, it should be **prevailing market price** of the specific commodity.

BLOCK H. PRODUCTION AND DISPOSITION (in focus parcel during SEPTEMBER 2016 to MAY 2017 / JANUARY 2017 TO SEPTEMBER 2017)

This block aims to gather information on the gross volume of tomato harvested in the focus parcel during the last completed cropping within September 2016 to May 2017 for Luzon and Visayas and January 2017 to September 2017 for Mindanao as well as the breakdown of disposition.

Column 1. Item - Listed in this column are the items for production and disposition.

Columns 2 to 13. Harvest - Refers to the production and disposition per harvest of tomato.

Item 1. Production - Refers to the total volume harvested in the focus parcel.

Item 1.01 Quantity in local unit - Ask the gross production in local unit and record in two (2) decimal places on the space provided.

Item 1.02 Name of local unit (LU) - Indicate the name of local unit used in measuring the volume of production, e.g., kilogram, sack, kaing, pieces, can, etc., on the space provided.

Item 1.03 Weight of one LU in kilogram - Ask the sample farmer/ operator the equivalent weight of one local unit in kilogram and write in two (2) decimal places.

Item 2. Disposition (quantity in local unit) - Refers to the manner by which the farmer disposed the produce. It may be immediately after harvesting, and/or sorting. Ask and record the following disposition items in the number of local unit.

Item 2.01 Sold / To be sold to - refers to the quantity in local unit sold or to be marketed out of the total production reported during the reference period.

Item 2.01.1 Trader - the quantity in local unit that was sold to wholesaler, wholesaler-retailer, agent, assembler, etc.

Item 2.01.2 Processor - the quantity in local unit that was sold to processors of tomato.

Item 2.01.3 Direct Consumer – the quantity in local unit that was directly sold to co-farmers or households.

Price per local unit - Ask the price of one local unit. **This is required whether the produce was sold or not sold.** It will be used in the computation of gross value of production.

Illustration 29

In a one hectare of tomato farm, harvesting was done six (6) times.

Number of Harvest	Quantity and Unit	Price per Local Unit
1 st Harvest	250 Kaings at 60 kilograms	P1,800.00
2 nd Harvest	180 Kaings at 60 kilograms	P1,800.00
3 rd Harvest	150 Kaings at 60 kilograms	P1,500.00
4 th Harvest	100 Kaings at 60 kilograms	P1,200.00
5 th Harvest	80 Kaings at 60 kilograms	P900.00
6 th Harvest	50 Kaings at 60 kilograms	P900.00

Follow the illustration below in recording the gross volume and price per local unit of harvests in the focus parcel.

H. PRODUCTION AND DISPOSITION (in focus parcel during SEPTEMBER 2016 to MAY 2017)						
Item	1st Harvest	2nd Harvest	3rd Harvest	4th Harvest	5th Harvest	6th Harvest
	Units	Units	Units	Units	Units	Units
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Production						
1.01 Quantity in local unit	<u>250.00</u>	<u>180.00</u>	<u>150.00</u>	<u>100.00</u>	<u>80.00</u>	<u>50.00</u>
1.02 Name of local unit (LU)	KAING	KAING	KAING	KAING	KAING	KAING
1.03 Weight of one LU in kilogram	<u>60.00</u>	<u>60.00</u>	<u>60.00</u>	<u>60.00</u>	<u>60.00</u>	<u>60.00</u>
2. Disposition (quantity in local unit)						
2.01 Sold / To be sold to:						
2.01.1 Trader	<u>250.00</u>	<u>180.00</u>	<u>150.00</u>	<u>100.00</u>	<u>80.00</u>	<u>50.00</u>
2.01.2 Processor	.__	.__	.__	.__	.__	.__
2.01.3 Direct Consumer	.__	.__	.__	.__	.__	.__
Price per local unit <i>(required whether the produce was sold or not sold)</i>	<u>1,800.00</u>	<u>1,800.00</u>	<u>1,500.00</u>	<u>1,200.00</u>	<u>900.00</u>	<u>900.00</u>

Item 2.02 Harvesters' share - the quantity in local unit given to harvesters as payment for the services rendered.

Item 2.03 Other laborers' share - the quantity in local unit given to other farm laborers as payment to services rendered.

Item 2.04 Landowner's share - the quantity in local unit given to landowner as payment for the use of his farm land.

Item 2.05 Financier's share - the quantity in local unit given to financier as payment for the use of his money to operate tomato farming.

Item 2.06 Land lease/rental - the quantity in local unit paid for the lease/rental of the farm land.

Item 2.07 For home consumption - the quantity in local unit consumed/ to be consumed by the farm household.

Item 2.08 For home-based processing - the quantity in local unit for home-based processing.

Item 2.09 Given away - the quantity in local unit given to other persons, relatives and other households.

Item 2.10 Paid to creditor - the quantity in local unit paid to creditors.

Item 2.11 Used / To be used for planting materials - the quantity in local unit used as planting materials (seeds) reserved by the farmer for future use.

Item 2.12 Wastage - the quantity in local unit of spoilage or losses incurred during harvesting.

Item 2.13 Others (specify) - quantity in local unit used for other purposes which do not belong to the above categories.

Total disposition - Add disposition item 2.01 Sold / To be sold up to 2.13 Others (specify) and write the sum in the space provided. **The total disposition should equal the total production.**

Illustration 30

Filling up of Block H

In a one (1) hectare of tomato farm, the farmer's 1st harvest was 120 kaings of tomato (50 kilograms per kaing). Eight (8) kaings of tomato were disposed as other laborers' share, 107 kaings were sold to trader at P1,200.00 per kaing (50 kilograms), two (2) kaings were given away, another two (2) kaings were estimated as wastage and one (1) kaing was set aside for home-based processing.

H. PRODUCTION AND DISPOSITION (in focus parcel during SEPTEMBER 2016 to MAY 2017)	
Item (1)	1st Harvest Units (2)
1. Production	
1.01 Quantity in local unit	120.0 0
1.02 Name of local unit (LU)	KAING
1.03 Weight of one LU in kilogram	50.0 0
2. Disposition (quantity in local unit)	
2.01 Sold / To be sold to:	
2.01.1 Trader	107.0 0
Price per local unit <i>(required whether the produce was sold or not sold)</i>	1,200.0 0
2.03 Other laborers' share	8.0 0
2.07 For home - based processing	1.0 0
2.09 Given away	2.0 0
2.12 Wastage	2.0 0
Total Disposition	120.0 0

BLOCK I. PRODUCTION RELATED INFORMATION (in focus parcel)

This block aims to gather information on the problems affecting tomato production during the reference period.

1. How would you compare your production in the focus parcel during the reference period with the previous cropping? - Ask the sample farmer/ operator to compare the quantity produce (in focus parcel) during the reference period with the previous cropping (in the same focus parcel). Encircle the appropriate code provided.

Illustration 31

I. PRODUCTION RELATED INFORMATION (in focus parcel)	
1. How would you compare your production in the focus parcel during the reference period with the previous cropping? (encircle code)	
<input checked="" type="radio"/>	1 - Higher
<input type="radio"/>	2 - Lower
<input type="radio"/>	3 - About the same (go to Item 3)
<input type="radio"/>	4 - No point of comparison (go to Item 3)

2. What was/were the reason/s for the change in production? - Ask the sample farmer/operator on the reason/s for the change in production. Encircle the appropriate code/s. For reasons not in the list, specify verbatim answer/s on the space provided.

Illustration 32

I. PRODUCTION RELATED INFORMATION (in focus parcel)	
2. What was/were the reason/s for the change in production? (encircle code/s and/or specify verbatim answer)	
Higher Production	Lower Production
<input checked="" type="radio"/> 1 - Increase in area	<input type="radio"/> 1 - Decrease in area
<input type="radio"/> 2 - Good weather	<input type="radio"/> 2 - Bad weather
<input type="radio"/> 3 - Good quality of seeds	<input type="radio"/> 3 - Low quality of seeds
<input checked="" type="radio"/> 4 - Use of fertilizers	<input type="radio"/> 4 - Poor quality of produce
<input type="radio"/> 5 - Adequate water supply	<input type="radio"/> 5 - Inadequate water supply
<input checked="" type="radio"/> 6 - Others (specify) :	<input type="radio"/> 6 - Pests and Diseases
Good farm management	<input type="radio"/> 7 - Others (specify) :

3. What were the tomato production related problems you have encountered during reference period? - Ask the sample farmer/operator on the problems affecting production of tomato during the reference period and encircle the appropriate code/s provided or specify if necessary.

Illustration 33

I. PRODUCTION RELATED INFORMATION (in focus parcel)	
3. What were the tomato production related problems you have encountered during the reference period? (encircle code/s or specify if necessary)	
<input type="radio"/>	1 - Pests and diseases
<input type="radio"/>	2 - High cost of inputs
<input type="radio"/>	3 - Bad weather / calamities
<input type="radio"/>	4 - Lack of capital
<input type="radio"/>	5 - Rough or poor road / inadequate transport facilities
<input type="radio"/>	6 - Inadequate supply of water
<input checked="" type="radio"/>	7 - Poor soil condition
<input type="radio"/>	8 - Others (specify) : _____

BLOCK J. MARKETING RELATED INFORMATION (in focus parcel)

This block aims to gather information on the problems encountered in marketing tomato produce **during the reference period**.

1. Who was/ were the buyer/s of produce during the reference period? (encircle code/s) - Ask the sample farmer/operator on the buyer/s of his/her produce (in the focus parcel). Encircle the appropriate code/s provided and determine the percentage of tomato that was sold to the identified buyer/s.

1. Agent - a businessman who buys or sells for another in exchange for a commission.

2. Wholesaler - one who buys the produce in relatively large quantities and sells it to other traders.

3. Wholesaler-retailer - one who buys the produce in large quantities either from producers, wholesalers or contract buyers. He sells mainly to retailers on a wholesale basis and retails those that are not sold to retailers. He usually has his own stall in the market area.

4. Assembler - one who buys from producers and contract buyers, and assembles the products in large volume and transfer them to market centers. He sells products also on a wholesale basis.

5. Processor - a business engaged in processing agricultural products and preparing them for market.

6. Cooperative - a duly registered association of at least fifteen (15) persons with a common bond of interest who voluntarily join together to achieve a lawful common social and economic end. It is organized by the members who equitably contribute the required share capital and accept a fair share of risks and benefits of their undertakings in accordance with universally accepted cooperative principles and practices.

7. Consumer - an individual who buys products (in this case, tomato) for personal use and not for manufacture or resale.

8. Others (specify) - refer to other buyers of tomato produced by the farmers not mentioned in the above identified buyers/traders.

Illustration 34

J. MARKETING RELATED INFORMATION (in focus parcel)	
1. Who was / were the buyer/s of produce during the reference period? (encircle code/s)	
<i>Indicate the percent of production sold to the encircled buyer/s.</i>	
Type of Buyer	% Sold
① Agent	90.00%
2 - Wholesaler	_____ %
3 - Wholesaler-retailer	_____ %
4 - Assembler	_____ %
5 - Processor	_____ %
6 - Cooperative	_____ %
⑦ Consumer	10.00%
8 - Others (specify) :	_____ %
	_____ %

2. What were the marketing related problems you have encountered during the reference period? - Ask the sample farmer/operator on the problems affecting marketing of tomato and encircle the appropriate code/s provided or specify if necessary.

Illustration 35

J. MARKETING RELATED INFORMATION (in focus parcel)	
2. What were the marketing related problems you have encountered during the reference period? (encircle code/s or specify if necessary)	
<input checked="" type="radio"/>	1 - Unstable prices
<input type="radio"/>	2 - Rough roads / High transport cost
<input type="radio"/>	3 - Low price of produce
<input type="radio"/>	4 - No buyer / market outlet
<input type="radio"/>	5 - Lack of marketing information
<input type="radio"/>	6 - Others (specify) :

BLOCK K. ACCESS TO CREDIT (in focus parcel)

This block aims to gather information on loans availed by the sample farmer/operator for used in tomato production during the reference period.

1. Have you availed of loan for tomato production during the reference period? (encircle code) - Ask the sample farmer/operator if he/she availed of any loan for tomato production. Encircle the appropriate code “1” for Yes and code “2” for No. If no, go to **Block L**.

2. How much loan did you avail of? - Write the total amount of loan in peso on the space provided. Record in two (2) decimal places.

3. How much was the interest rate? (check box and indicate percent rate) - Ask the interest rate charged by the creditor. Check the box and indicate the answer on the space provided. Write the answer in percent and in two (2) decimal places.

Illustration 36.1

Total amount borrowed: P20,000.00

Total payment after 1 year: P25,000.00

Annual interest rate:

$$= \left[\left(\frac{25,000.00}{20,000.00} \right) - 1 \right] \times 100$$

$$= 25.00\%$$

<input checked="" type="checkbox"/>	per annum	<u>25.00</u> %
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Illustration 36.2

Total amount borrowed: P40,000.00
Total payment after 24 months: P50,000.00

Monthly interest rate:

$$= \left[\left(\frac{50,000.00}{40,000.00} \right) - 1 \right] \times 100$$
$$= \frac{25.00\%}{24 \text{ months}}$$
$$= 1.04\%$$

<input checked="" type="checkbox"/> per month <u>1.04</u> %

4. Who/What was your major source of loan (encircle code or specify if necessary)? - Ask the sample farmer/operator who/what was the major source of loan for tomato production.

Illustration 37

K. ACCESS TO CREDIT (in focus parcel)
<p>4. Who / What was your major source of loan? (encircle code or specify if necessary)</p> <ul style="list-style-type: none">1 - Cooperative2 - Bank3 - Microfinance / Credit Associations4 - Trader5 - Private individual (e.g. family, friends, relatives, store/shop owners)6 - Informal lenders (e.g. "5-6")7 - Others (specify) : <p>_____</p> <p>_____</p>

BLOCK L. FARMER'S PARTICIPATION IN TOMATO PROGRAMS / PROJECTS

This block aims to collect information on the farmer's participation in tomato program and projects during the reference period.

Item 1. Are you aware of any government program/intervention on tomato production? (encircle code) - Ask the sample farmer/operator if he/she is aware of any government programs/intervention on tomato production. Encircle the appropriate code: "1" for Yes and code "2" for No.

Item 2. Have you availed of any benefit from government program/ intervention? (encircle code) - Ask if he/she availed of any benefit from government program/intervention. Encircle the appropriate code "1" for Yes and code "2" for No. If **Code 2 - No, go to Block M.**

Item 3. What benefits have you availed? (encircle code/s) - Ask the type/kind of benefits he/she availed. Encircle the appropriate code/s provided or specify if necessary.

Illustration 38

L. FARMER'S PARTICIPATION IN TOMATO PROGRAMS / PROJECTS
<p>3. What benefits have you availed of? (<i>encircle code/s</i>)</p> <ul style="list-style-type: none"> 1 - Planting materials 2 - Fertilizer and other inputs 3 - Training on farming technology 4 - Post harvest facilities 5 - Marketing support 6 - Farm to market roads 7 - Irrigation Facilities 8 - Others (specify): _____

Item 4. Did you use the benefit/s in your production during the last completed cropping? (encircle code) - Ask the sample farmer/operator if he/she used the benefit/s received in his/her **tomato** production (in the focus parcel) during the last completed cropping. Encircle appropriate code "1" for Yes and code "2" for No. If **code 2 – No, go to Block M.**

Item 5. Did the benefit(s) receive helped increase your farm income from tomato farming? (encircle code) - Ask if the benefit/s received increase his/her farm income. Encircle appropriate code "1" for Yes and code "2" for No.

BLOCK M. OTHER INFORMATION

This block aims to gather information relative to the perceived effect of **climate change** in **tomato** production and the sample farmer/ operator's membership in any farmers' organization and benefits they received from the organization.

***Climate Change** - Climate change may refer to a change in average weather conditions, or in the time variation of weather around longer-term average conditions (i.e., more or fewer extreme weather events). Climate change is caused by factors such as biotic processes, variations in solar radiation received by Earth, plate tectonics, and volcanic eruptions. Certain human activities have also been identified as significant causes of recent climate change, often referred to as global warming.*

1. Has Climate Change affected your farming practices? (encircle code) - Ask the sample farmer/operator if climate change affected his farming practices. Encircle the appropriate code "1" for Yes and code "2" for No. If **code 2 – No, go to Item 2.**

1.01 What was/were the effect/s? (encircle code/s or specify if necessary) - Ask the sample farmer/operator the effects of climate change. Encircle appropriate code/s, or specify if necessary.

Illustration 39

M. OTHER INFORMATION
1. Has <i>Climate Change</i> affected your farming practices? (<i>encircle code</i>) 1 - Yes 2 - No, go to Item 2
1.01 What was/were the effect/s? (<i>encircle code/s or specify if necessary</i>)
1 - Change in cropping pattern
2 - Increase in input usage
3 - Decrease in yield
4 - Decrease in frequency of plowing
5 - Others (specify): _____

2. Are you a member of farmers' organization? (encircle code) - Ask the sample farmer if he/she is a member of farmers' organization. Encircle the appropriate code "1" for Yes and code "2" for No. If **code 2 - No, go to Block N.**

2.01 What is the name of the organization? - Ask the name of the organization he/she belongs and write the answer on the space provided.

2.02 What was/were the benefit/s received from the organization related to tomato production? (encircle code/s or specify if necessary) - Ask the sample farmer/operator on the types of benefits received from the farmers' organization.

Illustration 40

M. OTHER INFORMATION
2. Are you a member of farmers' organization? (<i>encircle code</i>) 1 - Yes 2 - No, go to Block N
2.01 What is the name of the organization? _____
2.02 What was/were the benefit/s received from the organization related to tomato production? (<i>encircle code/s or specify if necessary</i>)
1 - Training / Seminars
2 - Financial / Credit support
3 - Inputs support
4 - Marketing support
5 - None
6 - Others (specify): _____ _____

BLOCK N. PLANS AND RECOMMENDATIONS

This block aims to compile the plans and recommendations of the sample farmer/operator for the improvement of his/her tomato production.

1. What is your plan regarding tomato farm operation? (encircle code or specify if necessary) - Ask the plan of the sample farmer/operator and encircle appropriate code, or specify if necessary.

Illustration 41

N. PLANS AND RECOMMENDATIONS	
1. What is your plan regarding tomato farm operation? <i>(encircle code or specify if necessary)</i>	
1 - Maintain current operation	
2 - Expansion of area	
3 - Reduction of area	
4 - Shift to other crops	
5 - Others (specify): _____	

2. What are your recommendations in order to improve your tomato production? - Ask the sample farmer/operator about their recommendations in order to improve his/her tomato production. Write the answer/s on the space provided.

Illustration 42

N. PLANS AND RECOMMENDATIONS	
2. What are your recommendations in order to improve your tomato production?	

BLOCK O. INTERVIEW / SURVEY PARTICULARS

After a thorough verification of the completeness and consistency of the responses, the Statistical Researcher (SR) should affix his/her name and signature and the date of accomplishing the questionnaire. The Field Supervisor / Editor, and the PSO must also affix their name and signature, and exact dates when the manual editing, data review and validation were done.

Illustration 43

O. INTERVIEW / SURVEY PARTICULARS	
CERTIFICATION	
I hereby certify that the data contained in this questionnaire were obtained/edited/reviewed by me personally and in accordance with the instructions.	
_____	_____
(Name and signature of Statistical Researcher) / Contact No.	(Date Accomplished)
_____	_____
(Name and signature of Field Supervisor / Editor)	(Date Accomplished)
_____	_____
(Name and signature of PSO)	(Date Reviewed)



Republic of the Philippines
Philippine Statistics Authority

TIMETABLE OF OPERATIONS FOR 2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION

Activities	Division Responsible	Luzon and Visayas PSOs		Mindanao PSOs	
		Start	End	Start	End
A. Pre-Survey Operations					
Preparation of data processing system	AAD	May 2017	June 2017	May 2017	July 2017
Presentation, testing and finalization of data processing program	AAD	July 2017	August 2017	July 2017	August 2017
Conduct of first level training - CO staff + PSO staff (Revised)	AAD	12 June 2017	16 June 2017	12 June 2017	16 June 2017
<i>Reproduction and Mailing of Survey and 2nd Level Training Materials</i>	AAD	19 June 2017	23 June 2017	25 September 2017	29 September 2017
B. Field Operations					
Conduct of second level training - statistical researchers (SRs)	AAD/PSO	26 June 2017	30 June 2017	2 October 2017	6 October 2017
Data collection and spot-checking	PSO	3 July 2017	7 July 2017	9 October 2017	13 October 2017
Field editing and back-checking	PSO	10 July 2017	28 July 2017	16 October 2017	3 November 2017
<i>Training on Data Processing: Selected C.O. and PSO staff</i>	AAD/PSO	7 August 2017 - in Manila	11 August 2017 - in Manila	13 November 2017 - in RSSO 10	17 November 2017 - in RSSO 10
Data encoding	PSO	14 August 2017	25 August 2017	20 November 2017	1 December 2017
Running of error list and correction of errors	PSO	28 August 2017	8 September 2017	4 December 2017	15 December 2017
Generation of data tables	PSO	28 August 2017	8 September 2017	4 December 2017	15 December 2017
Provincial Data Review / Regional Data Review	PSO	11 September 2017	21 September 2017	18 December 2017	28 December 2017
Submission to RSSO and Central Office	PSO	22 September 2017	22 September 2017	29 December 2017	29 December 2017
C. Post-Survey Operations					
C.O. counter checking and data review	AAD	25 September 2017	13 October 2017	2 January 2018	19 January 2018
<i>Preliminary Data consolidation</i>	AAD	16 October 2017	20 October 2017	22 January 2018	26 January 2018
<i>Preliminary Generation of data tables</i>	AAD	23 October 2017	27 October 2017	29 January 2018	2 February 2018
Data analysis and validation	AAD	30 October 2017	10 November 2017	5 February 2018	23 February 2018
Preparation of preliminary report - Costs and Returns Tables	AAD	13 November 2017	1 December 2017	26 February 2018	16 March 2018
<i>Final Data consolidation</i>	AAD	19 March 2018	30 March 2018	19 March 2018	30 March 2018
Preparation of consolidated report - 2017 Costs and Returns of Tomato Production	AAD	2 April 2018	30 April 2018	2 April 2018	30 April 2018
Presentation of results - Costs and Returns and Other Statistical Tables	AAD	any day between: 14-18 May 2018			
Finalization of report - 2017 Costs and Returns of Tomato Production	AAD	21 May 2018	15 June 2018	21 May 2018	15 June 2018
Submission of report 2017 Costs and Returns of Tomato Production	AAD	any day between: 18-29 June 2018			
Preparation of PUF and Data Documentation	AAD	2 July 2018	31 August 2018	2 July 2018	31 August 2018
D. Project Monitoring and Evaluation	AAD	July 2016 - August 2018			

Questionnaire for Luzon and Visayas



REPUBLIC OF THE PHILIPPINES
PHILIPPINE STATISTICS AUTHORITY
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Approval No. PSA - 1722
 Expires on 31 May 2018

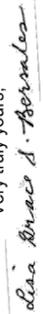
2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION

Dear Sir / Madam,

The **Philippine Statistics Authority** is undertaking a Survey on Costs and Returns of Tomato Production to generate an up-to-date production cost structure and determine the returns in tomato farming. The activity involves the gathering of data on the expenses and revenues in producing tomato. Data on the usage of material and labor inputs and other socio-economic variables will be collected.

Your household has been selected to be one of the sample respondents. With your cooperation, this survey will yield accurate and updated data needed for effective planning and policy-decision making.

Please be assured that the data you supply us will be held **STRICTLY CONFIDENTIAL** and your report cannot be used for purposes of taxation, investigation or law enforcement procedure, nor will it be published except in the form of statistical summaries in which no reference to any individual person shall appear. Your cooperation is earnestly solicited.

Very truly yours,

LISA GRACE S. BERSALES, Ph.D.
 National Statistician and Civil Registrar General

CONFIDENTIALITY:

Section 26 of RA 10625, stipulates that individual data furnished by a respondent to statistical inquiries, surveys, and censuses of the PSA shall be considered privileged information and such shall be inadmissible as evidence in any proceeding.

Likewise, **Section 27 of RA No. 10625** states that a person, including parties within the PSA Board and the PSA, who breach the confidentiality of information, whether by carelessness, improper behavior, behavior with malicious intent, and use of confidential information for profit shall be liable to a fine of five thousand pesos (5,000) to not more than ten thousand pesos (10,000) and or imprisonment of three months but not exceeding one year, subject to the degree of breach of information.

SCREENING QUESTIONS >> Go to instructions

1. Are you engaged in tomato farming?
 YES (continue next question) NO (end the interview)
 2. Is the tomato farm group-operated?
 YES (end the interview) NO (continue next question)
 3. Did you plant and harvest tomato at any time within **SEPTEMBER 2016 to MAY 2017**?
 YES (continue next question) NO (end the interview)
 4. Was your harvest / produce intended for sale?
 YES (continue next question) NO (end the interview)
 5. Was your harvest intercropped with other temporary crops?
 YES (end the interview) NO (continue next question)
-
6. Was 20% or more of your harvest damaged by flood, drought, pests and diseases, etc.?
 YES (end the interview) NO (continue next question)
 7. Are you a contract grower?
 YES (continue next question) NO (proceed to the next page)
 - 7.1 What was the mode of financing? (check box and proceed to the next page)
 - in cash
 - in kind
 - both in cash and in kind

2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION

Last Completed Cropping Cycle Within **SEPTEMBER 2016 TO MAY 2017** for Luzon and Visayas

QC No.

A. FARM LOCATION

1. Region : 2. Province : 3. City/Municipality : 4. Barangay :

B. SAMPLE IDENTIFICATION

1. Name of sample farmer/operator :
 (LAST NAME) (FIRST NAME) (M.I.)
 Residential address of the sample farmer/operator :
 (STREET NO./PUROK/SITIO) (BARANGAY) (MUNICIPALITY)
 3. Age (as of last birthday) : _____ years old
 4. Sex (encircle code) : 1 - Male 2 - Female
 5. Level of education completed :
 6. Main occupation :
 (gainful work or activity that provides the major source of income)
 7. Number of years engaged in Tomato farming
 (as operator) : _____
 8. Name of respondent : _____
 9. Respondent's relationship to the sample farmer/operator : _____
 10. Respondent's contact number/s : _____

C. BASIC CHARACTERISTICS OF THE FARM

1. Using the matrix below, define the characteristics of each farm parcel operated during the reference period.

1.1 Parcel	1.2 Total Physical Area of the Parcel (indicate the physical area in hectare)	1.3 Area Planted to Tomato (indicate the physical area in hectare)	1.4 Area Planted to Other Crops (if any, indicate the physical area in hectare)	1.5 Area of Other Structure (if any, indicate the physical area in hectare)
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____
9	_____	_____	_____	_____
10	_____	_____	_____	_____
Total Area	_____	_____	_____	_____

For focus parcel only:

4. How many times did you plant tomato in a year?
 5. What is the usual cropping pattern? _____
 6. What was the area planted? _____
 7. What was the area harvested? _____
 8. What month and year was it last planted? _____
 9. What month and year was it last harvested? _____
 10. How many times did you harvest in the focus parcel? _____
 11. What was the type of tomato planted? (encircle code/s)
 1 - Bush 2 - Vine
 12. What was the variety of seeds planted? (encircle code/s)
 1 - Diamante 6 - Apollo
 2 - Diamante Max 7 - Semenes
 3 - Harabas 8 - Rose Pink
 4 - Ilocos Red 9 - Native (kimmrabasa)
 5 - Maharlika 10 - Others (specify): _____

13. Who/What was/were the source/s of planting materials?
 (encircle code/s)
 1 - Agri Supply Store 4 - Co-Farmer
 2 - DALGU 5 - Own produced
 3 - Cooperative 6 - Others (specify): _____

For focus parcel only:

2. Among the areas planted to tomato, what is the focus parcel?
 (indicate the parcel number) _____
 (focus parcel is the farm parcel where the last harvest is completed within reference period)

3. What is the tenurial status? (specify code)
 if code 8, specify the tenurial status: _____

Note: For Block B Item 5 and 6, codes are in the Field Operations Manual. Coding should be done after enumeration.

CODES FOR BLOCK C: Tenurial Status (Item 3)

- 1 - Fully owned
- 2 - Leased / Rented
- 3 - Tenanted
- 4 - Amortized
- 5 - Rent Free
- 6 - Owner - like Possession
- 7 - Held under CLT / CLOA
- 8 - Others

D. FARM INVESTMENTS (owned and used in the focus parcel during SEPTEMBER 2016 to MAY 2017)										
Item	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	How many units were used? (Area / Number)	What year was it acquired / constructed?	How much was the cost of acquisition / construction? (Pesos)	How much was spent for minor repair / maintenance / improvement? (Pesos)	How many years will it be useful / serviceable? (from the date of interview)	Was the item used in another parcel? (indicate code) 1 - YES 2 - NO	Was the item used for other crops or activities in the focus parcel? (indicate code) 1 - YES 2 - NO	Was the item rented or lent to other farmers? (indicate code) 1 - YES 2 - NO	What was its percentage of use in the focus parcel?	
1. Farm land owned (hectare)										
2. Work animals										
2.01 Carabao										
2.02 Cattle										
2.03 Horse										
3. Farm buildings and other structures										
3.01 Farm house										
3.02 Warehouse / Storage										
3.03 Others (specify) :										
4. Farm machinery and transport facilities										
4.01 Two-wheel tractor (Hand Tractor)										
4.02 Four-wheel tractor										
4.03 Water pump										
4.04 Farm vehicles										
4.05 Trailer										
4.06 Others (specify) :										

D. FARM INVESTMENTS (owned and used in the focus parcel during SEPTEMBER 2016 to MAY 2017)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Item	How many units were used? (Area / Number)	What year was it acquired / constructed?	How much was the cost of acquisition / construction? (Pesos)	How much was spent for minor repair / maintenance / improvement? (Pesos)	How many years will it be useful / serviceable? (from the date of interview)	Was the item used in another parcel? (indicate code) 1 - YES 2 - NO	Was the item used for other crops or activities in the focus parcel? (indicate code) 1 - YES 2 - NO	Was the item rented or lent to other farmers? (indicate code) 1 - YES 2 - NO	What was its percentage of use in the focus parcel?
5. Farm tools and implements									
5.01 Plow (araro)									
5.02 Harrow (suyod)									
5.03 Shovel / Spade (pala)									
5.04 Hoe (asarol)									
5.05 Spading fork (tinidor)									
5.06 Post-hole digger (panghukay)									
5.07 Yoke (singkaw)									
5.08 Rake (kalaykay)									
5.09 Seeding tray / Seedbox									
5.10 Hose									
5.11 Watering Can									
5.12 Water Sprinkler									
5.13 Sprayer (pambomba)									
5.14 Bolo (itak)									
5.15 Sickle / Scythe (karet)									
5.16 Pruning shears/scissors									
5.17 Cart / Sled (paragos)									
5.18 Pail (timba)									
5.19 Basket / Kaling									
5.20 Crate									
5.21 Drum									
5.22 Weighing Scale (timbang)									
5.23 Wood stakes									
5.24 Plastic/Nylon Twine									
5.25 Sorting Table									
5.26 Others (specify) :									

E. MATERIAL INPUTS (used in focus parcel during SEPTEMBER 2016 to MAY 2017)								
Item	(1) How many units were used / applied?	(2) What was the name of local unit?	(3) If solid input, what was the weight of one local unit in Kilogram?	(4) If liquid input, what was the volume of one local unit in liter?	(5) What was the mode of acquisition? (enter code/s)	(6) If purchased and discounted, what was the discount rate?	(7) If purchased, what was the price of one local unit? (Pesos)	(8) If not purchased, what was the prevailing price in the locality? (Pesos)
1. Seeds / Planting Materials								
1.01 Seeds								
1.02 Seedlings								
2. Fertilizers		PIECES						
2.01 Urea (45-0-0)								
2.02 Urea (46-0-0)								
2.03 Ammonium Sulfate (21-0-0)								
2.04 Ammonium Phosphate (16-20-0)								
2.05 Complete (12-12-12)								
2.06 Complete (14-14-14)								
2.07 Complete (16-16-16)								
2.08 Zinc Sulfate (Zinc 21%)								
2.09 Muriate of Potash (0-0-60)								
2.10 Crop Giant								
2.11 Compost								
2.12 Vermicast								
2.13 Others (specify):								
3. Soil Ameliorants								
3.01 Lime (apog)								
3.02 Others (specify):								
4. Mulching Materials								
4.01 Rice Hay (dayami)								
4.02 Others (specify):								

CODES FOR COLUMN 6:	Purchased	Produced	Received
	11 - self financed (paid in cash)	21 - Own Produced	31 - from government (DA, LGU, etc.)
	12 - self financed (paid in kind)		32 - from private individual/organization (Trader, Co-Farmer, Cooperative, etc.)
	13 - discounted		

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)																
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor			Total payment			
	How many days were spent?	How many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was the prevailing wage rate per day in the locality? (Pesos)	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		
1. Seedling preparation																
1.01 Plowing of seedbed (man-animal)																
1.02 Plowing of seedbed (man-machine, 2-wheel)																
1.03 Seedbed preparation																
1.04 Sowing of seeds																
1.05 Fertilizer application (basal)																
1.06 Chemical application																
1.07 Mulching																
2. Land preparation																
2.01 Plowing (man-animal)																
2.02 Plowing (man-machine, 2-wheel)																
2.03 Plowing (man-machine, 4-wheel)																
2.04 Rotavating (man-machine, 2-wheel)																
2.05 Rotavating (man-machine, 4-wheel)																
2.06 Harrowing (man-animal)																
2.07 Harrowing (man-machine, 2-wheel)																
2.08 Harrowing (man-machine, 4-wheel)																
2.09 Furrowing (man-animal)																
2.10 Furrowing (man-machine, 2-wheel)																
2.11 Furrowing (man-machine, 4-wheel)																
2.12 Liming / Application of soil ameliorants																
2.13 Fertilizer Application (basal)																
3. Hauling of planting materials																
4. Planting / Transplanting																
5. Replanting																

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation														
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor				
	How many days were spent?	How many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was the prevailing wage rate per day in the locality? (Pesos)	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
6. Care of crops														
6.01 Trellising / Staking / Tying														
6.02 Fertilizer application (side dressing)														
6.03 Fertilizer application (top dressing)														
6.04 Weeding (man)														
6.05 Chemical application/Spraying														
6.06 Off-barring														
6.07 Hilling-up														
6.08 Watering														
6.09 Mulching														
6.10 Pruning/Thinning														
6.11 Farm monitoring														
7. Others (specify):														
8. Harvesting														
8.01 1st Harvest														
8.02 2nd Harvest														
8.03 3rd Harvest														
8.04 4th Harvest														
8.05 5th Harvest														
8.06 6th Harvest														
8.07 7th Harvest														
8.08 8th Harvest														
8.09 9th Harvest														
8.10 10th Harvest														
8.11 11th Harvest														
8.12 12th Harvest														

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

F. LABOR INPUTS (in focus parcel during SEPTEMBER 2016 to MAY 2017) - Continuation														
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor				
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	How many days were spent?	How many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was the prevailing wage rate per day in the locality? (Pesos)	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
9. Hauling of produce (man)														
9.01 1st Hauling of produce														
9.02 2nd Hauling of produce														
9.03 3rd Hauling of produce														
9.04 4th Hauling of produce														
9.05 5th Hauling of produce														
9.06 6th Hauling of produce														
9.07 7th Hauling of produce														
9.08 8th Hauling of produce														
9.09 9th Hauling of produce														
9.10 10th Hauling of produce														
9.11 11th Hauling of produce														
9.12 12th Hauling of produce														
10. Sorting														
10.01 1st Sorting														
10.02 2nd Sorting														
10.03 3rd Sorting														
10.04 4th Sorting														
10.05 5th Sorting														
10.06 6th Sorting														
10.07 7th Sorting														
10.08 8th Sorting														
10.09 9th Sorting														
10.10 10th Sorting														
10.11 11th Sorting														
10.12 12th Sorting														

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

G. OTHER PRODUCTION COSTS (in focus parcel during SEPTEMBER 2016 to MAY 2017)								
Item	Cash (Pesos)	Imputed (Pesos)	Non-Cash				How much was the total value? (Pesos)	
			What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?		What was the total quantity in kilogram?
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Land Tax - owned farm (annual)								
2. Caretaker/overseer's share/wages (per cropping)								
3. Other permanent employee's salary (monthly)								
4. Lease / Rentals of:								
4.01 Land (annual) if lease agreement. indicate number of years leased _____								
4.02 Machine (per cropping)								
4.03 Animals (per cropping)								
4.04 Tools and equipment (per cropping)								
5. Rental value of owned land (annual)								
6. Rental value of owned animal/s (per cropping)								
7. Fuel (quantity: _____ liter/s, per cropping)								
8. Oil (quantity: _____ liter/s, per cropping)								
9. Transport cost of inputs (per cropping)								
10. Transport cost of produce from farm to first point of sale (per cropping)								
11. Interest payment on crop loan (per cropping)								
12. Storage fee (per cropping)								
13. Water expense (monthly)								
14. Electricity cost (monthly)								
15. Food expense for hired and exchange labor (per cropping)								
16. Landowner's share (per cropping)								
17. Financier's share (per cropping)								
18. Sack / Crate / Box / Kaing								
19. Seedling bag								
20. Wood stakes								
21. Straw twine								
22. Others (specify):								

H. PRODUCTION AND DISPOSITION (in focus parcel during SEPTEMBER 2016 to MAY 2017)																									
Item	1st Harvest		2nd Harvest		3rd Harvest		4th Harvest		5th Harvest		6th Harvest		7th Harvest		8th Harvest		9th Harvest		10th Harvest		11th Harvest		12th Harvest		
	Units	(2)	Units	(3)	Units	(4)	Units	(5)	Units	(6)	Units	(7)	Units	(8)	Units	(9)	Units	(10)	Units	(11)	Units	(12)	Units	(13)	
1. Production																									
1.01 Quantity in local unit																									
1.02 Name of local unit (LU)																									
1.03 Weight of one LU in kilogram																									
2. Disposition (quantity in local unit)																									
2.01 Sold / To be sold to:																									
2.01.1 Trader																									
2.01.2 Processor																									
2.01.3 Direct Consumer																									
Price per local unit <i>(required whether the produce was sold or not sold)</i>																									
2.02 Harvesters' share																									
2.03 Other laborers' share																									
2.04 Landowner's share																									
2.05 Financier's share																									
2.06 Land lease / Rental																									
2.07 For home consumption																									
2.08 For home - based processing																									
2.09 Given away																									
2.10 Paid to creditor																									
2.11 Used / To be used for planting materials																									
2.12 Wastage																									
2.13 Others (specify) :																									
Total Disposition																									

I. PRODUCTION RELATED INFORMATION (in focus parcel)

1. How would you compare your production in the focus parcel during the reference period with the previous cropping? (encircle code)

- 1 - Higher
- 2 - Lower
- 3 - About the same (go to Item 3)
- 4 - No point of comparison (go to Item 3)

2. What was/were the reason/s for the change in production? (encircle code/s and/or specify verbatim answer)

Higher Production	Lower Production
1 - Increase in area	1 - Decrease in area
2 - Good weather	2 - Bad weather
3 - Good quality of seeds	3 - Low quality of seeds
4 - Use of fertilizers	4 - Poor quality of produce
5 - Adequate water supply	5 - Inadequate water supply
6 - Others (specify) :	6 - Pests and Diseases
	7 - Others (specify) :

3. What were the tomato production related problems you have encountered during the reference period? (encircle code/s or specify if necessary)

- 1 - Pests and diseases
- 2 - High cost of inputs
- 3 - Bad weather / calamities
- 4 - Lack of capital
- 5 - Rough or poor road / inadequate transport facilities
- 6 - Inadequate supply of water
- 7 - Poor soil condition
- 8 - Others (specify) :

J. MARKETING RELATED INFORMATION (in focus parcel)

1. Who was /were the buyer/s of produce during the reference period? (encircle code/s)

Indicate the percent of production sold to the encircled buyer/s:

Type of Buyer	% Sold
1 - Agent	_____ %
2 - Wholesaler	_____ %
3 - Wholesaler-retailer	_____ %
4 - Assembler	_____ %
5 - Processor	_____ %
6 - Cooperative	_____ %
7 - Consumer	_____ %
8 - Others (specify) :	_____ %

2. What were the marketing related problems you have encountered during the reference period? (encircle code/s or specify if necessary)

- 1 - Unstable prices
- 2 - Rough roads / High transport cost
- 3 - Low price of produce
- 4 - No buyer / market outlet
- 5 - Lack of marketing information
- 6 - Others (specify) :

K. ACCESS TO CREDIT (in focus parcel)

1. Have you availed of loan for tomato production during the reference period? (encircle code)

- 1 - Yes
- 2 - No, go to Block L

2. How much loan did you avail of? P _____

3. How much was the interest rate? (check box and indicate percent rate)

- per annum _____ %
- per month _____ %
- per cropping _____ %
- no interest

4. Who / What was your major source of loan? (encircle code or specify if necessary)

- 1 - Cooperative
- 2 - Bank
- 3 - Microfinance / Credit Associations
- 4 - Trader
- 5 - Private individual (e.g. family, friends, relatives, store/shop owners)
- 6 - Informal lenders (e.g. "5-6")
- 7 - Others (specify) :

L. FARMER'S PARTICIPATION IN TOMATO PROGRAMS / PROJECTS	M. OTHER INFORMATION	N. PLANS AND RECOMMENDATIONS
<p>1. Are you aware of any government program / intervention on tomato production? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No</p> <p>2. Have you availed of any benefit from government program / intervention? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No, go to Block M</p> <p>3. What benefits have you availed of? <i>(encircle code/s)</i></p> <p style="margin-left: 20px;">1 - Planting materials</p> <p style="margin-left: 20px;">2 - Fertilizer and other inputs</p> <p style="margin-left: 20px;">3 - Training on farming technology</p> <p style="margin-left: 20px;">4 - Post harvest facilities</p> <p style="margin-left: 20px;">5 - Marketing support</p> <p style="margin-left: 20px;">6 - Farm to market roads</p> <p style="margin-left: 20px;">7 - Irrigation Facilities</p> <p style="margin-left: 20px;">8 - Others (specify): _____</p> <p>4. Did you use the benefits in your production during the last completed cropping? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No, go to Block M</p> <p>5. Did the benefits receive helped increase your income from tomato farming? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No</p>	<p>1. Has <i>Climate Change</i> affected your farming practices? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No, go to Item 2</p> <p>1.01 What was/were the effects? <i>(encircle code/s or specify if necessary)</i></p> <p style="margin-left: 20px;">1 - Change in cropping pattern</p> <p style="margin-left: 20px;">2 - Increase in input usage</p> <p style="margin-left: 20px;">3 - Decrease in yield</p> <p style="margin-left: 20px;">4 - Decrease in frequency of plowing</p> <p style="margin-left: 20px;">5 - Others (specify): _____</p> <p>2. Are you a member of farmers' organization? <i>(encircle code)</i></p> <p style="margin-left: 20px;">1 - Yes 2 - No, go to Block N</p> <p>2.01 What is the name of the organization?</p> <p>_____</p> <p>2.02 What was/were the benefits received from the organization related to tomato production? <i>(encircle code/s or specify if necessary)</i></p> <p style="margin-left: 20px;">1 - Training / Seminars</p> <p style="margin-left: 20px;">2 - Financial / Credit support</p> <p style="margin-left: 20px;">3 - Inputs support</p> <p style="margin-left: 20px;">4 - Marketing support</p> <p style="margin-left: 20px;">5 - None</p> <p style="margin-left: 20px;">6 - Others (specify): _____</p>	<p>1. What is your plan regarding tomato farm operation? <i>(encircle code or specify if necessary)</i></p> <p style="margin-left: 20px;">1 - Maintain current operation</p> <p style="margin-left: 20px;">2 - Expansion of area</p> <p style="margin-left: 20px;">3 - Reduction of area</p> <p style="margin-left: 20px;">4 - Shift to other crops</p> <p style="margin-left: 20px;">5 - Others (specify): _____</p> <p>_____</p> <p>_____</p> <p>2. What are your recommendations in order to improve your tomato production?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

O. INTERVIEW / SURVEY PARTICULARS
<p>CERTIFICATION</p> <p>I hereby certify that the data contained in this questionnaire were obtained/edited/reviewed by me personally and in accordance with the instructions.</p>
<p style="text-align: right;">_____ (Date Accomplished)</p> <p style="text-align: right;">_____ (Date Accomplished)</p> <p style="text-align: right;">_____ (Date Reviewed)</p>
<p>_____ (Name and signature of Statistical Researcher) / Contact No.</p> <p>_____ (Name and signature of Field Supervisor / Editor)</p> <p>_____ (Name and signature of PSO)</p>



REPUBLIC OF THE PHILIPPINES
PHILIPPINE STATISTICS AUTHORITY
 SOLID • RESPONSIVE • WORLD-CLASS

Approval No. PSA - 1722
 Expires on 31 May 2018

2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION

CONFIDENTIALITY:

Section 26 of RA 10625, stipulates that individual data furnished by a respondent to statistical inquiries, surveys, and censuses of the PSA shall be considered privileged information and such shall be inadmissible as evidence in any proceeding.

Likewise, **Section 27 of RA No. 10625** states that a person, including parties within the PSA Board and the PSA, who breach the confidentiality of information, whether by carelessness, improper behavior, behavior with malicious intent, and use of confidential information for profit shall be liable to a fine of five thousand pesos (5,000) to not more than ten thousand pesos (10,000) and or imprisonment of three months but not exceeding one year, subject to the degree of breach of information.

Dear Sir / Madam,

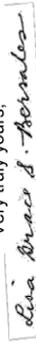
The **Philippine Statistics Authority** is undertaking a Survey on Costs and Returns of Tomato Production to generate an up-to-date production cost structure and determine the returns in tomato farming. The activity involves the gathering of data on the expenses and revenues in producing tomato. Data on the usage of material and labor inputs and other socio-economic variables will be collected.

Your household has been selected to be one of the sample respondents. With your cooperation, this survey will yield accurate and updated data needed for effective planning and policy-decision making.

Please be assured that the data you supply us will be held **STRICTLY CONFIDENTIAL** and your report cannot be used for purposes of taxation, investigation or law enforcement procedure, nor will it be published except in the form of statistical summaries in which no reference to any individual person shall appear.

Your cooperation is earnestly solicited.

Very truly yours,


LISA GRACE S. BERSALES, Ph.D.
 National Statistician and Civil Registrar General

SCREENING QUESTIONS >> Go to instructions

1. Are you engaged in tomato farming?
 YES (continue next question) NO (end the interview)
2. Is the tomato farm group-operated?
 YES (end the interview) NO (continue next question)
3. Did you plant and harvest tomato at any time within **JANUARY 2017 to SEPTEMBER 2017**?
 YES (continue next question) NO (end the interview)
4. Was your harvest / produce intended for sale?
 YES (continue next question) NO (end the interview)
5. Was your harvest intercropped with other temporary crops?
 YES (end the interview) NO (continue next question)

6. Was 20% or more of your harvest damaged by flood, drought, pests and diseases, etc.?
 YES (end the interview) NO (continue next question)
7. Are you a contract grower?
 YES (continue next question) NO (proceed to the next page)
- 7.1 What was the mode of financing? (check box and proceed to the next page)
 - in cash
 - in kind
 - both in cash and in kind

2017 SURVEY ON COSTS AND RETURNS OF TOMATO PRODUCTION

Last Completed Cropping Cycle Within JANUARY to SEPTEMBER 2017 for Mindanao

QC No.

A. FARM LOCATION

1. Region : 2. Province : 3. City/Municipality : 4. Barangay :

B. SAMPLE IDENTIFICATION

- Name of sample farmer/operator :
(LAST NAME) _____ (FIRST NAME) _____ (M.I.) _____
- Residential address of the sample farmer/operator :
(STREET NO./PUROK/SITIO) (BARANGAY) (MUNICIPALITY) _____
- Age (as of last birthday) : _____ years old
- Sex (encircle code) : 1 - Male 2 - Female
- Level of education completed :
- Main occupation : _____
(gainful work or activity that provides the major source of income)
- Number of years engaged in Tomato farming (as operator) : _____
- Name of respondent : _____
- Respondent's relationship to the sample farmer/operator : _____
- Respondent's contact number/s : _____

C. BASIC CHARACTERISTICS OF THE FARM

1. Using the matrix below, define the characteristics of each farm parcel operated during the reference period.

1.1 Parcel	1.2 Total Physical Area of the Parcel (indicate the physical area in hectare)	1.3 Area Planted to Tomato (indicate the physical area in hectare)	1.4 Area Planted to Other Crops (if any, indicate the physical area in hectare)	1.5 Area of Other Structure (if any, indicate the physical area in hectare)
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____
9	_____	_____	_____	_____
10	_____	_____	_____	_____
Total Area	_____	_____	_____	_____

2. Among the areas planted to tomato, what is the focus parcel? (indicate the parcel number) _____

(focus parcel is the farm parcel where the last harvest is completed within reference period)

For focus parcel only:

3. What is the tenurial status? (specify code)

if code 8, specify the tenurial status : _____

For focus parcel only:

- How many times did you plant tomato in a year?
- What is the usual cropping pattern?
- What was the area planted? _____
- What was the area harvested? _____
- What month and year was it last planted? _____
- What month and year was it last harvested? _____
- How many times did you harvest in the focus parcel? _____
- What was the type of tomato planted? (encircle code/s)
1 - Bush 2 - Vine
- What was the variety of seeds planted? (encircle code/s)
1 - Diamante 6 - Apollo
2 - Diamante Max 7 - Semenes
3 - Harabas 8 - Rose Pink
4 - Ilocos Red 9 - Native (kimmarabasa)
5 - Maharlika 10 - Others (specify): _____

13. Who/What was/were the source/s of planting materials? (encircle code/s)

- Agri Supply Store 4 - Co-Farmer
- DA/LGU 5 - Own produced
- Cooperative 6 - Others (specify) : _____

Note: For Block B Item 5 and 6, codes are in the Field Operations Manual. Coding should be done after enumeration.

CODES FOR BLOCK C:

Tenurial Status (Item 3)

- Fully owned
- Leased / Rented
- Tenanted
- Amortized
- Rent Free
- Owner - like Possession
- Held under CLT / CLOA
- Others

D. FARM INVESTMENTS (owned and used in the focus parcel during JANUARY 2017 to SEPTEMBER 2017)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Item	How many units were used? (Area / Number)	What year was it acquired / constructed?	How much was the cost of acquisition / construction? (Pesos)	How much was spent for minor repair / maintenance / improvement? (Pesos)	How many years will it be useful / serviceable? (from the date of interview)	Was the item used in another parcel? (indicate code) 1 - YES 2 - NO	Was the item used for other crops or activities in the focus parcel? (indicate code) 1 - YES 2 - NO	Was the item rented or lent to other farmers? (indicate code) 1 - YES 2 - NO	What was its percentage of use in the focus parcel?
5. Farm tools and implements									
5.01 Plow (araro)									
5.02 Harrow (suyod)									
5.03 Shovel / Spade (pala)									
5.04 Hoe (asarol)									
5.05 Spading fork (tinidor)									
5.06 Post hole digger (panghukay)									
5.07 Yoke (singkaw)									
5.08 Rake (kalaykay)									
5.09 Seeding tray / Seedbox									
5.10 Hose									
5.11 Watering Can									
5.12 Water Sprinkler									
5.13 Sprayer (pambomba)									
5.14 Bolo (itak)									
5.15 Sickle / Soythe (karet)									
5.16 Pruning shears/scissors									
5.17 Cart / Sled (paragos)									
5.18 Pail (timba)									
5.19 Basket / Kaing									
5.20 Crate									
5.21 Drum									
5.22 Weighing Scale (timbang)									
5.23 Wood stakes									
5.24 Plastic/Nylon Twine									
5.25 Sorting Table									
5.26 Others (specify) :									

E. MATERIAL INPUTS (used in focus parcel during JANUARY 2017 to SEPTEMBER 2017)								
(1) Item	(2) How many units were used / applied?	(3) What was the name of local unit?	(4) If solid input, what was the weight of one local unit in kilogram?	(5) If liquid input, what was the volume of one local unit in liter?	(6) What was the mode of acquisition? (enter code/s)	(7) If purchased and discounted, what was the discount rate?	(8) If purchased, what was the price of one local unit? (Pesos)	(9) If not purchased, what was the prevailing price in the locality? (Pesos)
1. Seeds / Planting Materials								
1.01 Seeds								
1.02 Seedlings		PIECES						
2. Fertilizers								
2.01 Urea (45-0-0)								
2.02 Urea (46-0-0)								
2.03 Ammonium Sulfate (21-0-0)								
2.04 Ammonium Phosphate (16-20-0)								
2.05 Complete (12-12-12)								
2.06 Complete (14-14-14)								
2.07 Complete (16-16-16)								
2.08 Zinc Sulfate (Zinc 21%)								
2.09 Muriate of Potash (0-0-60)								
2.10 Crop Giant								
2.11 Compost								
2.12 Vermicast								
2.13 Others (specify):								
3. Soil Ameliorants								
3.01 Lime (apog)								
3.02 Others (specify):								
4. Mulching Materials								
4.01 Rice Hay (dayami)								
4.02 Others (specify):								

CODES FOR COLUMN 6:	Produced		Received	
	21 - Own Produced	31 - from government (DA, LGU, etc.)	32 - from private individual/organization (Trader, Co-Farmer, Cooperative, etc.)	
11 - self financed (paid in cash)				
12 - self financed (paid in kind)				
13 - discounted				

F. LABOR INPUTS (in focus parcel during JANUARY 2017 to SEPTEMBER 2017)														
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor				
	(2) How many days were spent?	(3) How many hours per day were spent?	(4) How many persons worked in the farm?	(5) how many days did they work?	(6) how many hours per day were spent?	(7) How many persons worked in the farm?	(8) how many days did they work?	(9) how many hours per day were spent?	(10) How much was the prevailing wage rate per day in the locality? (Pesos)	(11) How many persons worked in the farm?	(12) how many days did they work?	(13) how many hours per day were spent?	(14) How much was paid in Cash? (Pesos)	(15) How much was paid in Kind? (Pesos)
1. Seeding preparation														
1.01 Plowing of seedbed (man-animal)														
1.02 Plowing of seedbed (man-machine, 2-wheel)														
1.03 Seedbed preparation														
1.04 Sowing of seeds														
1.05 Fertilizer application (basal)														
1.06 Chemical application														
1.07 Mulching														
2. Land preparation														
2.01 Plowing (man-animal)														
2.02 Plowing (man-machine, 2-wheel)														
2.03 Plowing (man-machine, 4-wheel)														
2.04 Rotavating (man-machine, 2-wheel)														
2.05 Rotavating (man-machine, 4-wheel)														
2.06 Harrowing (man-animal)														
2.07 Harrowing (man-machine, 2-wheel)														
2.08 Harrowing (man-machine, 4-wheel)														
2.09 Furrowing (man-animal)														
2.10 Furrowing (man-machine, 2-wheel)														
2.11 Furrowing (man-machine, 4-wheel)														
2.12 Liming / Application of soil ameliorants														
2.13 Fertilizer Application (basal)														
3. Hauling of planting materials														
4. Planting / Transplanting														
5. Replanting														

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

F. LABOR INPUTS (in focus parcel during JANUARY 2017 to SEPTEMBER 2017) - Continuation														
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor			Total payment	
	How many days were spent?	How many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was the prevailing wage rate per day in the locality? (Pesos)	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
6. Care of crops														
6.01 Trellising / Staking / Tying														
6.02 Fertilizer application (side dressing)														
6.03 Fertilizer application (top dressing)														
6.04 Weeding (man)														
6.05 Chemical application/Spraying														
6.06 Off-barring														
6.07 Hilling-up														
6.08 Watering														
6.09 Mulching														
6.10 Pruning/Thinning														
6.11 Farm monitoring														
7. Others (specify):														
8. Harvesting														
8.01 1st Harvest														
8.02 2nd Harvest														
8.03 3rd Harvest														
8.04 4th Harvest														
8.05 5th Harvest														
8.06 6th Harvest														
8.07 7th Harvest														
8.08 8th Harvest														
8.09 9th Harvest														
8.10 10th Harvest														
8.11 11th Harvest														
8.12 12th Harvest														

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

F. LABOR INPUTS (in focus parcel during JANUARY 2017 to SEPTEMBER 2017) - Continuation														
Farm Activity	Operator Labor			Family Labor			Exchange Labor			Hired Labor				
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	How many days were spent?	How many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was the prevailing wage rate per day in the locality? (Pesos)	How many persons worked in the farm?	On the average ... how many days did they work?	On the average ... how many hours per day were spent?	How much was paid in Cash? (Pesos)	How much was paid in Kind? (Pesos)
9. Hauling of produce (man)														
9.01 1st Hauling of produce
9.02 2nd Hauling of produce
9.03 3rd Hauling of produce
9.04 4th Hauling of produce
9.05 5th Hauling of produce
9.06 6th Hauling of produce
9.07 7th Hauling of produce
9.08 8th Hauling of produce
9.09 9th Hauling of produce
9.10 10th Hauling of produce
9.11 11th Hauling of produce
9.12 12th Hauling of produce
10. Sorting														
10.01 1st Sorting
10.02 2nd Sorting
10.03 3rd Sorting
10.04 4th Sorting
10.05 5th Sorting
10.06 6th Sorting
10.07 7th Sorting
10.08 8th Sorting
10.09 9th Sorting
10.10 10th Sorting
10.11 11th Sorting
10.12 12th Sorting

Note: Col. 11 - For all activities performed by unpaid labor (operator, family and exchange), ask for the prevailing wage rate in the locality.

G. OTHER PRODUCTION COSTS (in focus parcel during JANUARY 2017 to SEPTEMBER 2017)								
Item	Cash (Pesos)	Imputed (Pesos)	Non-Cash				How much was the total value? (Pesos)	
			What was the crop / commodity paid?	How many local units?	What was the name of local unit?	What was the weight of one local unit in kilogram?		What was the total quantity in kilogram?
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Land Tax - owned farm (annual)								
2. Caretaker/overseer's share/wages (per cropping)								
3. Other permanent employee's salary (monthly)								
4. Lease / Rentals of:								
4.01 Land (annual) if lease agreement, indicate number of years leased _____								
4.02 Machine (per cropping)								
4.03 Animals (per cropping)								
4.04 Tools and equipment (per cropping)								
5. Rental value of owned land (annual)								
6. Rental value of owned animal/s (per cropping)								
7. Fuel (quantity: _____ liter/s, per cropping)								
8. Oil (quantity: _____ liter/s, per cropping)								
9. Transport cost of inputs (per cropping)								
10. Transport cost of produce from farm to first point of sale (per cropping)								
11. Interest payment on crop loan (per cropping)								
12. Storage fee (per cropping)								
13. Water expense (monthly)								
14. Electricity cost (monthly)								
15. Food expense for hired and exchange labor (per cropping)								
16. Landowner's share (per cropping)								
17. Financier's share (per cropping)								
18. Sack / Crate / Box / Kaing								
19. Seedling bag								
20. Wood stakes								
21. Straw twine								
22. Others (specify):								

H. PRODUCTION AND DISPOSITION (in focus parcel during JANUARY 2017 to SEPTEMBER 2017)												
Item	1st Harvest	2nd Harvest	3rd Harvest	4th Harvest	5th Harvest	6th Harvest	7th Harvest	8th Harvest	9th Harvest	10th Harvest	11th Harvest	12th Harvest
	Units (2)	Units (3)	Units (4)	Units (5)	Units (6)	Units (7)	Units (8)	Units (9)	Units (10)	Units (11)	Units (12)	Units (13)
1. Production												
1.01 Quantity in local unit												
1.02 Name of local unit (LU)												
1.03 Weight of one LU in Kilogram												
2. Disposition (quantity in local unit)												
2.01 Sold / To be sold to:												
2.01.1 Trader												
2.01.2 Processor												
2.01.3 Direct Consumer												
Price per local unit <i>(required whether the produce was sold or not sold)</i>												
2.02 Harvesters' share												
2.03 Other laborers' share												
2.04 Landowner's share												
2.05 Financier's share												
2.06 Land lease / Rental												
2.07 For home consumption												
2.08 For home - based processing												
2.09 Given away												
2.10 Paid to creditor												
2.11 Used / To be used for planting materials												
2.12 Wastage												
2.13 Others (specify) :												
Total Disposition												

I. PRODUCTION RELATED INFORMATION (in focus parcel)

1. How would you compare your production in the focus parcel during the reference period with the previous cropping? (encircle code)

- 1 - Higher
- 2 - Lower
- 3 - About the same (go to Item 3)
- 4 - No point of comparison (go to Item 3)

2. What was/were the reason/s for the change in production? (encircle code/s and/or specify verbatim answer)

Higher Production	Lower Production
1 - Increase in area	1 - Decrease in area
2 - Good weather	2 - Bad weather
3 - Good quality of seeds	3 - Low quality of seeds
4 - Use of fertilizers	4 - Poor quality of produce
5 - Adequate water supply	5 - Inadequate water supply
6 - Others (specify) :	6 - Pests and Diseases
	7 - Others (specify) :

3. What were the tomato production related problems you have encountered during the reference period? (encircle code/s or specify if necessary)

- 1 - Pests and diseases
- 2 - High cost of inputs
- 3 - Bad weather / calamities
- 4 - Lack of capital
- 5 - Rough or poor road / inadequate transport facilities
- 6 - Inadequate supply of water
- 7 - Poor soil condition
- 8 - Others (specify) :

J. MARKETING RELATED INFORMATION (in focus parcel)

1. Who was / were the buyer/s of produce during the reference period? (encircle code/s)

Indicate the percent of production sold to the encircled buyer/s.

Type of Buyer	% Sold
1 - Agent	_____ %
2 - Wholesaler	_____ %
3 - Wholesaler-retailer	_____ %
4 - Assembler	_____ %
5 - Processor	_____ %
6 - Cooperative	_____ %
7 - Consumer	_____ %
8 - Others (specify) :	_____ %
	_____ %
	_____ %

2. What were the marketing related problems you have encountered during the reference period? (encircle code/s or specify if necessary)

- 1 - Unstable prices
- 2 - Rough roads / High transport cost
- 3 - Low price of produce
- 4 - No buyer / market outlet
- 5 - Lack of marketing information
- 6 - Others (specify) :

K. ACCESS TO CREDIT (in focus parcel)

1. Have you availed of loan for tomato production during the reference period? (encircle code)

- 1 - Yes
- 2 - No, go to Block L

2. How much loan did you avail of?

P _____

3. How much was the interest rate? (check box and indicate percent rate)

- per annum _____ %
- per month _____ %
- per cropping _____ %
- no interest

4. Who / What was your major source of loan? (encircle code or specify if necessary)

- 1 - Cooperative
- 2 - Bank
- 3 - Microfinance / Credit Associations
- 4 - Trader
- 5 - Private individual (e.g. family, friends, relatives, store/shop owners)
- 6 - Informal lenders (e.g. "5-6")
- 7 - Others (specify) :

L. FARMER'S PARTICIPATION IN TOMATO PROGRAMS / PROJECTS	M. OTHER INFORMATION	N. PLANS AND RECOMMENDATIONS
<p>1. Are you aware of any government program / intervention on tomato production? <i>(encircle code)</i> 1 - Yes 2 - No</p> <p>2. Have you availed of any benefit from government program / intervention? <i>(encircle code)</i> 1 - Yes 2 - No, go to Block M</p> <p>3. What benefits have you availed of? <i>(encircle code/s)</i> 1 - Planting materials 2 - Fertilizer and other inputs 3 - Training on farming technology 4 - Post harvest facilities 5 - Marketing support 6 - Farm to market roads 7 - Irrigation Facilities 8 - Others (specify): _____</p> <p>4. Did you use the benefits in your production during the last completed cropping? <i>(encircle code)</i> 1 - Yes 2 - No, go to Block M</p> <p>5. Did the benefits receive helped increase your income from tomato farming? <i>(encircle code)</i> 1 - Yes 2 - No</p>	<p>1. Has Climate Change affected your farming practices? <i>(encircle code)</i> 1 - Yes 2 - No, go to Item 2</p> <p>1.01 What was/were the effect/s? <i>(encircle code/s or specify if necessary)</i> 1 - Change in cropping pattern 2 - Increase in input usage 3 - Decrease in yield 4 - Decrease in frequency of plowing 5 - Others (specify): _____</p> <p>2. Are you a member of farmers' organization? <i>(encircle code)</i> 1 - Yes 2 - No, go to Block N</p> <p>2.01 What is the name of the organization? _____ _____</p> <p>2.02 What was/were the benefit/s received from the organization related to tomato production? <i>(encircle code/s or specify if necessary)</i> 1 - Training / Seminars 2 - Financial / Credit support 3 - Inputs support 4 - Marketing support 5 - None 6 - Others (specify): _____</p>	<p>1. What is your plan regarding tomato farm operation? <i>(encircle code or specify if necessary)</i> 1 - Maintain current operation 2 - Expansion of area 3 - Reduction of area 4 - Shift to other crops 5 - Others (specify): _____</p> <p>2. What are your recommendations in order to improve your tomato production? _____ _____ _____ _____ _____ _____</p>

O. INTERVIEW / SURVEY PARTICULARS

CERTIFICATION

I hereby certify that the data contained in this questionnaire were obtained/edited/reviewed by me personally and in accordance with the instructions.

_____ (Name and signature of Statistical Researcher) / Contact No.	_____ (Date Accomplished)
_____ (Name and signature of Field Supervisor / Editor)	_____ (Date Accomplished)
_____ (Name and signature of PSO)	_____ (Date Reviewed)

Guidelines in Accomplishing the Survey Quality Control (SQC) Forms and Preparing the Narrative Report

One indication of the success of any survey operation is when there is uniform understanding of the concepts and procedures discussed during the training and that all gray areas and problems encountered by statistical researchers (SRs) are properly documented and addressed by field supervisors. For this survey, two quality control forms and a narrative report shall be accomplished as follows:

The Survey Quality Control (SQC) Forms

SQC Form 1 – Training Evaluation Sheet

SQC Form 1 shall be accomplished by each statistical researcher at the end of the training. The objective is to assess the quality of the training as a *whole* – the resource person/s, training format and content, and gather suggestions on aspects of the training that need further improvement, if any. The form shall be filled out as follows:

- Indicate on the spaces provided the title of the survey, the name of the province where the second level training was conducted, the date of the training and the name/s of resource person/s.
- For items 1 to 6, rate each of the concerns listed by checking the box that corresponds to the rating, that is, *Strongly Agree, Agree, Neutral, Disagree or Strongly Disagree*.
- For item 7, specify aspects of the training that need further improvement, if any, *and provide corresponding recommendations*. These will serve as inputs in planning for same training in future surveys. If the data collector or SR sees no further improvement in all aspects of the training, write “NONE” on the space provided.
- After accomplishing the evaluation sheet, the statistical researcher shall print his/her complete name and affix his/her signature, and indicate his/her contact number on the spaces provided.

NOTE: All accomplished training evaluation sheets shall be submitted to the PSO staff for submission to AAD together with the edited survey returns and narrative report. Training evaluation results shall be summarized by the PSO staff and shall form part of the narrative report for the province.

SQC Form 2 – Data Collection Feedback Sheet

SQC Form 2 shall serve as documentation of all issues/concerns and problems encountered by the statistical researcher in locating/screening of sample households and in gathering all information required for the survey, along with the corresponding answers to statistical researcher's queries and actions taken to address them. This form shall be filled out by the *field supervisor* as follows:

- Write the title of the survey, as well as the names of the region and province on the spaces provided.
- Indicate the date when the issue/concern/problem was reported by the data collector in column 1. Specify in column 2 the issue/concern/problem that was encountered. Indicate in column 3 the corresponding action taken by the field supervisor.
- After the data collection, the field supervisor shall write his/her complete name, affix his/her signature and indicate the date when the form was submitted.

NOTE: One PSO staff shall summarize the issues/concerns/problems contained in the accomplished data collection feedback sheets. These will be part of the narrative report for the province.

SQC Form 3 – Narrative Report

The narrative report shall be prepared by the PSO and shall contain the following information:

A. On PSO Training

- Number of participants (SRs, PSO staff);
- Issues/Concerns raised, including problems encountered in the dry run exercise and agreements/resolutions made;
- Training evaluation results; and
- Other training-related concerns

B. Data Collection

- Issues/concerns and problems reported by statistical researchers and actions made – these shall be taken from the accomplished SQC Form 2; and,
- Other problems encountered during field supervision and corresponding actions taken.

C. Field Editing of Returns

- Summary of commonly encountered errors found during manual editing of returns.



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TRAINING EVALUATION SHEET

 (Title of the Survey)

Province: _____

Date of training: _____

Resource Person/s: _____

INSTRUCTIONS: Rate each of the items listed below. Check the box that corresponds to your rating.

Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The resource person discussed clearly the following:					
a. Objectives of the survey	<input type="checkbox"/>				
b. Survey procedures	<input type="checkbox"/>				
c. Instructions in filling out the questionnaire	<input type="checkbox"/>				
d. Basic consistency checks	<input type="checkbox"/>				
2. The resource person provided easy-to-follow examples.	<input type="checkbox"/>				
3. The objectives of the mock interview were attained.	<input type="checkbox"/>				
4. The objectives of the dry run exercise were attained.	<input type="checkbox"/>				
5. All issues and concerns raised during the lecture, mock interview and dry run exercise were addressed and resolved.	<input type="checkbox"/>				
6. I can apply in the field operation the knowledge I gained in the training.	<input type="checkbox"/>				

7. Other aspects in the conduct of training that need further improvement: _____

Signature over Printed Name of Statistical Researcher: _____

Contact Number of Statistical Researcher: _____



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NARRATIVE REPORT

 (Title of the Survey)

Region: _____

Date of Third Level Training: _____

Province: _____

Number of Participants: (a. SRs) _____

(b. PSO staff) _____

Activity/Topic <i>(1)</i>	Issues / Concerns Reported <i>(2)</i>	Resolutions / Actions Taken <i>(3)</i>
A. Training		
Day 1 Discussion of ManOps (survey concepts, procedures, etc.)		
Mock Interview		
Editing Procedures		
Day 2 Dry-run exercise (write the name/s of barangay where dry- run was conducted)		
Training Evaluation Results		
Other Matters		
B. Data Collection		
C. Field Editing of Returns		

 Signature over Printed Name of PSO

 Date Submitted

**FARM STRUCTURES, MACHINERY AND
FARM TOOLS AND IMPLEMENTS**



FARM HOUSE



**WAREHOUSE/STORAGE OF
INPUTS**



**TWO-WHEEL
TRACTOR**



**FOUR-WHEEL
TRACTOR**



**ELECTRIC WATER
PUMP**



**GASOLINE WATER
PUMP**



TRAILER



PLOW



HARROW



SHOVEL/SPADE



HOE



SPADING FORK



POST HOLE DIGGER



YOKE



RAKE



SEEDLING TRAY



HOSE



WATERING CAN



WATER SPRINKLER



KNAPSACK SPRAYER



BOLO



SICKLE/SCYTHE



PRUNING SHEARS/SCISSORS



CART/SLED



PAIL



BASKET/KAING



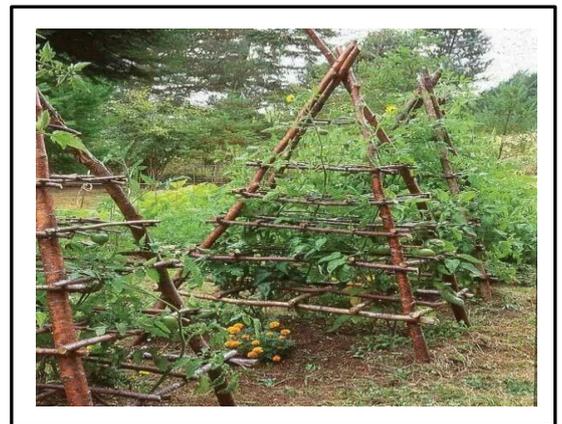
CRATES



DRUMS



WEIGHING SCALE



WOOD STAKES



PLASTIC/NYLON TWINE



SORTING TABLE

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