

# Ecuador - Annual Agricultural Area and Production Survey 2010

**National Institute of Statistics and Censuses (INEC), Agricultural Statistics Unit**

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# Overview

## Identification

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### ID NUMBER

ECU\_2010\_ESPAC\_v01\_EN\_M\_v01\_A\_OCS

## Overview

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### ABSTRACT

The National Institute of Statistics and Census (INEC), through the Directorate of Agricultural and Economic Statistics (DEAGA) executed the Annual Agricultural Area and Production Survey (ESPAC), 2010.

This survey was carried out in Ecuador at the national level, in all provinces, except for the Galapagos and unassigned areas such as Las Golondrinas, Manga del Cura and El Piedrero. It covered all properties with total or partial agricultural activity, called Agricultural Production Units (UPAs), selected by the Area Sampling and List Sampling, a methodology that is applied in this survey.

The main objective of the survey is to provide information on the agricultural sector, referring to planted and/ or sown, harvested areas, to the production and sales of permanent and transient crops, as well as the existence and movement of Cattle, Pigs, Sheeps, Other Species, existence of Field Birds, and Poultry Plants and Employment of Workforce.

This was done in order to have information for formulating crop plans and diversification of agricultural production, formulating price rules and incentives to improve agricultural production, establish a system of equitable distribution of production in the different areas of the country, contribute to the sectoral economic analysis, as well as, the preparation and execution of import and export policies for agricultural products so that the country, through the national government, can promote policies that strengthen the agricultural sector.

### KIND OF DATA

Sample survey data [ssd]

### UNITS OF ANALYSIS

Agricultural holdings

## Scope

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### NOTES

Topics that were covered include:

- Land use, on the day of the interview.
- Area planted or sown, harvested (alone and associated), production and sales of agricultural products, corresponding to the year of the investigation.
- Presence of cattle, on the day of the interview.
- Movement of cattle, from January 1 to the day of the interview.
- Milk production and destination, on the day before the interview.
- Presence of pigs and sheep, on the day of the interview.
- Sales of pigs and sheep, from July 1 to September 30.
- Presence of cattle: donkey, horse, mule and goat, on the day of the interview.

- Presence of field birds and poultry farms, on the day of the interview.
- Sales and self-consumption of field birds and poultry farms, from July 1 to September 30.
- Production, self-consumption and sales of chicken eggs, in the last 7 days prior to the interview.
- Employment in the Agricultural Production Unit, in the week before the day of the interview.

## Coverage

### GEOGRAPHIC COVERAGE

Regional Coverage (Data only available for one region: Azuay).

### UNIVERSE

All properties with total or partial agricultural activity called Agricultural Production Units (UPAs), selected in the sample.

The survey covers the rural area of continental Ecuador. However, populated centers, the province of Galapagos and areas not assigned to the provinces such as Las Golondrinas, Manga del Cura and El Piedrero are excluded.

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics and Censuses (INEC)	National Secretary of Planning and Development (SENPLADES)
Agricultural Statistics Unit	Production of Economic Statistics (INEC) Production of Economic Statistics (INEC) Production of Economic Statistics

### OTHER PRODUCER(S)

Name	Affiliation	Role

### FUNDING

Name	Abbreviation	Role
Ministry of Finance	MF	Financing of the entire statistical operation

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Office of the Chief Statistician	OCS	Food and Agriculture Organization	Metadata adapted for FAM
National Institute of Statistics and Census	INEC	National Secretariat of Planning and Development (SENPLADES)	Documentation of the entire statistical operation
Cristina Moncayo	CM	National Institute of Statistics and Census (INEC)	Documentation of the entire statistical operation
David Salazar	DS	National Institute of Statistics and Census (INEC)	Database Validation

### DDI DOCUMENT VERSION

ECU\_2010\_ESPAC\_v01\_EN\_M\_v01\_A\_OCS\_v01

DDI DOCUMENT ID

DDI\_ECU\_2010\_ESPAC\_v01\_EN\_M\_v01\_A\_OCS\_FAO

## Sampling

### Sampling Procedure

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The Annual Agricultural Area and Production Survey (ESPAC) 2010 uses the multi-frame sampling methodology, which consists of a combination of Sample Area Frame (MMA) and a Sample List Frame (MML). The sample frames of each of the provinces of the territory used in the III National Agricultural Census of the year 2000 are applied.

The MMA sampling consists of dividing the total area of the country into small areas without over position or omission, called Primary Sampling Units (UPMs). A UPM is an area of 10 km<sup>2</sup> on average and is delimited by natural and/ or cultural accidents easily identifiable on the ground. For the operation of the survey, these areas were outlined on an aerial photograph and a map. A second division is made as each Primary Sampling Unit (UPM) is divided into a specific number of Sampling Segment (SM). An SM is an extension of land with an area of approximately 2 km<sup>2</sup> or 200 hectares, delimited by natural and/ or cultural accidents easily identifiable on the ground. The set of all SMs constitutes the area frame (MMA) and covers the continental territory excluding the province of Galapagos and the areas not assigned to the provinces. The SMs are clearly marked and delineated on an aerial photograph and generally contain one or more UPAs or one or several non-UPAs.

The MML is a statistical procedure that consists of extracting information from all or a sample of the elements found in the list frame (MML). The MML is a Directory prepared by the INEC where the UPAs that meet certain pre-established criteria are recorded. In the MML are the main UPAs, identified by INEC, the Ministry of Agriculture and Livestock (MAG) and the private sector, based on their importance in the contribution to production.

The sample size consists of randomly selecting a subsample of 2,115 Sample Segments and the list frames from the set of the MMA. In total, a sample of 4000 Agricultural Production Units were obtained, corresponding to 17.23% and 26.25% respectively, in relation to the one investigated in the III National Agricultural Census.

### Response Rate

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In the Annual Agricultural Area and Production Survey of the year 2010, the non-response rate as other rejection indicators go hand in hand with the sample design implemented, so this rate is not unique or general.

### Weighting

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Expansion factor was derived for use in calculating the weights. It is a numerical value that is given from the design of the sample.

## Questionnaires

No content available

## Data Collection

### Data Collection Dates

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Start	End	Cycle
2010-10-18	2010-12-10	N/A

### Data Collection Mode

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Face-to-face paper [f2f]

# Data Processing

## Data Editing

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In the Annual Agricultural Area and Production Survey 2010, the Expert System is used. This is a computer system that allows the coding, validation and individual criticism of the data collected.

The person conducting the survey collects the information in the questionnaires, during the day, and at night it is delivered to the digitizer/ operator who enters the information into the computer in the Expert System. Once the information is entered, it is encrypted, validated and verified. In certain cases, the questionnaire is delivered to the field staff so that the information is verified again, and the data is re-entered.

Once the information of the segments and list is collected, a database is created.

It involves the following steps:

### 1.- Criticism - Information coding:

The critical coding process is included in the computer system prior to the delivery of the updated validation manual by the Agricultural Statistical Unit of the Economic Statistics Production Department (DECON).

### 2.- Digitizing:

At this stage of data entry, the following processes are considered: Questionnaire Entry, Coverage Control, Validation (Consistency of Questions, Associates, Vegetative Cycles that are the life periods of a crop, Intersections of the Area Framework and List Framework ), Analysis of yields and backups,

### 3.- Validation and debugging:

In the system validations are implemented in order to stop the capture when the information captured in the questionnaire is inconsistent and then be able to take the necessary measures to correct the information. It consists of analyzing and debugging the information contained in the file so that it is left without errors, omissions, inconsistencies or inconsistencies. The information is validated in an automated way in order to guarantee congruence between variables and generating a database file and the different publications generated by the National Institute of Statistics and Census, (INEC).

### 4.- Tabulation:

The final step is the tabulation of the obtained survey results.



## Data Appraisal

No content available