

NEW APPROACHES TO BUILDING SAMPLING FRAMES FOR AGRICULTURAL SURVEYS IN MEXICO

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In the context of Mexico's National Information System for Sustainable Rural Development, the National Institute of Statistics, Geography and Informatics (INEGI) in association with the Agri-Food and Fisheries Statistics and Information Service (SIAP), an Agency of the Secretariat of Agriculture, Livestock, Rural Development, Food and Fisheries (SAGARPA), different projects have been designed and developed with the goal of setting a modern information system based on standardized procedures to guarantee quality and accuracy of agricultural statistical information.

In that context, a methodology has been developed to build and maintain a directory of agricultural producers and their associated plots of land. The directory is maintained and updated in order to make it possible, among other issues to:

- Develop a statistical sampling frame to collect information for agricultural censuses and sample surveys.
- Provide support to the production of permanent statistics regarding the agricultural sector.
- Facilitate the evaluation and following of official agricultural producer support programs.

The effectiveness of the methodology is related to the active participation of all institutions involved in the project, through a collaboration plan in which each of them provide inputs and basic resources to develop activities required of the project.

On that principle, INEGI develops the methodology, provides cartographic inputs and offers consultation and support during the development of the project. SAGARPA, in coordination with the State Governments, are responsible for the data collection, through their field personnel, and for the implementation of the official statistical information program.

The methodology to develop a directory of agricultural producers considers two main components: the producers and their associated plots of land. With regard to the information about the producers, the directory contains their names, hometowns and addresses. That information is associated to data about the plots of land as well as geographical location and main characteristics, for example: surface, holding characteristics, and source of water, among other topics.

The basic information to develop the directory of producer is obtained through activities executed in the office and in the field, based on:

- The use of a geographical system, designed by INEGI, that represents geographic areas linked to statistical information, based on cartographic and photographic databases. The system shows each one of the plots of land, detailed information about the relief, communication ways, water bodies, among others.
- The use of individual files of producers registered in official government agricultural support programs; it is to say, it is an important storage of administrative records that allow, through in-office activities, to obtain an enormous quantity of information about the agricultural producers.

- The experience and knowledge of the SAGARPA field personnel or technicians about the producers and plots of land located in their work areas makes it easier to identify producers and their agricultural holdings.

The components before mentioned guarantee the quality and accuracy of the information of each one of the variables that make up the structure of the producer directory.

As a result of the methodology, two databases are maintained; one of them contains the variables while the other is the cartographic database. Both databases are digitalized to allow for the integration into a geographic information system, making it possible to obtain data up at the producer and plot of land level.