



Secretariat-General

Service de la statistique et de la prospective (SSP)

**Agricultural census
and
Agricultural production methods
2010**

**recensement
agricole
2010**

NATIONAL METHODOLOGICAL REPORT

November 2012 – Version 4 - FRANCE

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Summary

The *Service de la Statistique et de la Prospective* (SSP), which is the central statistics department of the Ministry of Agriculture (MAAPRAT) has been given the task of carrying out the RA2010. The central service is responsible for designing the operation, drafting the questionnaire and the instructions, training the regional services, running the final check on the quality of the data collected and of the first published results. The SSP has relied on its specialised departments, the regional statistics services (NUTS2) for statistical and economic information (SRISE).

The definition threshold used for farms has remained unchanged since 1955 and is precisely that proposed by the European regulation. The geographical scope covers all of France. In the French overseas departments, the territories of Saint-Martin and Saint-Barthélemy are now excluded, and Mayotte has not yet been included.

Ultimately, 516 104 farms were counted in France in 2010, including 1 410 common pasture structures.

The survey took place in two main phases: the preparation of the list of potential holdings at the end of 2009, and the census itself in 2010:

- ✚ the basic list was created using the SSP farm register, the SIRENE register (business register) and the list of farmers who had applied for aid (area declarations). This first list of 1 063 000 units was examined in local committees to create a list of 665 000 potential holdings.
- ✚ In France, data for the agricultural census (RA2010) were collected from October 2010 to February 2011. Surveys were conducted for all farms of structural parts (FSS, Farm Structure Survey), other gainful activities (OGA) and production methods (EMPA).
- ✚ 3 000 investigators took part in the collection of data by computer-assisted personal interview (CAPI).

Administrative information on areas receiving aid, bovine livestock, the vineyard register and organically farmed areas and livestock was used to lighten the response requirements. It was also used for checking the data.

A special effort was made to check that the survey was exhaustive by using the available administrative data. It was the first time that this was done in France: until now, external data had not allowed for this.

There were only 0.96% non-responses, and these were estimated by hot deck.

The dissemination of the initial provisional results started in September 2011 with the publication of a four-page *Agreste Primeur*, Issue No 266.

Basic tables, local records, tables to compile and an interactive map are available on the website of the Ministry of Agriculture:

<http://www.agreste.agriculture.gouv.fr/>

The regional services also publish the results of the survey in various forms in *Agreste* documents (*Primeurs*, tables, journals, pocketbook, etc.).

1 Contacts

The agricultural survey (RA2010) and the survey on agricultural production methods (EMPA2010) were conducted entirely by the Ministry of Agriculture. Its statistical service, which is an integral part of the public statistics system, acted as contracting owner and project manager.

Organisation	<i>Ministère de l'agriculture, de l'alimentation, de la pêche, de la ruralité et de l'aménagement du territoire</i> (MAAPRAT, Ministry of Agriculture, Food, Fisheries, Rural Affairs and Spatial Planning) Secretariat-General <i>Service de la statistique et de la prospective</i> (SSP, Statistics Department)
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2 Survey methodology

2.1. National legislation (Cf. Annexes 1 and 2)

Decree No 2009-529 of 11 May 2009 on conducting a general agricultural census in 2010:

- + entrusts the survey to the SSP (MAAPRAT),
- + defines the geographical scope and logic (1 ha threshold),
- + defines the objectives (statistics on agriculture and food from the statistical register of agricultural holdings),
- + authorises local advisory committees to meet in preparatory phases,
- + specifies that the answers collected come under the Statistical Confidentiality Act (No 51-711 of 7 June 1951) and the "Information Technology and Freedoms" Act (No 78-17 of 6 January 1978).

The Decree of 11 May 2009 sets the precise scope of the survey (1 ha or 20 ares of specialised crops).

The *Conseil national de l'information statistique* (CNIS, national council on statistical information), a collaborative body representing the various social and economic partners, has given a favourable opinion on conducting the survey and a label on its implementation conditions to guarantee compliance with professional rules. The operation was given an approval number (2010 X 001 AG) for the year 2010 by the Minister for Agriculture and the Minister for Economic Affairs, Finance and Industry.

This operation comes under the public services' programme of statistical surveys for the period 2009-2012.

In accordance with the Statistical Confidentiality Act (No 51-711 of 7 June 1951), the data collected are professional, and the interviewers and statisticians are bound by professional secrecy. In return, the law obliges farmers to give precise answers to the questions asked.

Farmers are entitled to access and correct their declaration ("Information Technology and Freedoms" Act (No 78-17 of 6 January 1978).

Failure to reply or a deliberately inaccurate response gives rise to court proceedings, and an administrative fine is imposed as the final penalty.

2.2. Characteristics and reference period

Farm structure surveys and censuses meet three objectives:

- ✚ to identify the structure of farms and measure their development;
- ✚ to identify changes in agricultural production;
- ✚ to monitor the agricultural population.

2.2.1 The main information collected concerns:

- ✚ identification of the farm structure and measurement of its development:
 - ❖ legal form of holdings;
 - ❖ type of tenure;
 - ❖ identification of the main agricultural partners;
 - ❖ farm area;
 - ❖ farm equipment (energy, storage);
 - ❖ farm management;
 - ❖ signs of quality and sales, through low food-mile systems;
 - ❖ diversification;
 - ❖ economic size of holdings measured by standard gross margin (estimated from data on the area and livestock);
 - ❖ technical/economic orientation of holdings (estimated from data on the area and livestock);
- ✚ identification of agricultural production capacity and the measurement of change:
 - ❖ measuring holdings' individual fields;
 - ❖ measuring livestock population and breeding capacity;
- ✚ monitoring the agricultural population:
 - ❖ characteristics of the family working on the holdings (training, working time, etc.);
 - ❖ measuring the amount of work needed to run the holding: family labour, permanent, seasonal or temporary employees, recourse to the services of agricultural contractors or of equipment-sharing cooperatives, replacement services;
- ✚ monitoring agricultural practices:
 - ❖ data on irrigation and drainage;
 - ❖ areas under vegetable cultivation;
 - ❖ detail of crops of perfume, aromatic, medicinal and condiment plants;
 - ❖ soil cover in winter, crop sequences, tillage methods;
 - ❖ linear landscape elements;
 - ❖ energy crops;
 - ❖ fertilisation and protection of crops.

2.2.2 Information collected for national needs

Certain characteristics are surveyed for national needs. They are intended to meet the needs expressed when users are consulted prior to the drafting of the questionnaire, and mainly constitute technical instructions from the Ministry of Agriculture, research institutes and professional organisations:

- ✚ identification of characteristics of the main agricultural partners (CAP area declarations, computerised vineyard register, animal identification database, organic certification). These identifiers make it possible either to respond directly by using administrative data, complete the responses in advance, or check that data collection has been exhaustive;
- ✚ farm management. These issues give a better grasp of the future of the farms (whether they have a successor, etc.);
- ✚ signs of quality and marketing via low food-mile systems. These relate to production and marketing systems which are encouraged and of which a census can give an exhaustive overview;
- ✚ diversification via a body which is legally separate from the farm. Once turnover generated by diversification reaches a certain threshold, the farmer is obliged by law to create a legal entity which is separate from the farm. In the individual data submitted to EUROSTAT, we limited the response to diversification within the farm in order to be consistent with the FADN (Farm Accountancy Data Network). However, to analyse the phenomenon, account must be taken of diversification through a separate entity;
- ✚ livestock breeding capacity. This makes it possible to correct the livestock numbers present in the case of a partial or total cull for health reasons. This makes the type of farming established more realistic: in 2000, it was estimated that around 30% of specialised poultry meat farms had been classed under arable crops or other;
- ✚ detail of the crops of perfume, aromatic, medicinal and condiment plants. This type of production is confined to the south of the country. The census is an opportunity to better understand this small number of farms;
- ✚ areas under vegetable cultivation. The information can be used to measure changes in this very competitive sector, currently in crisis;

- ✚ questions of regional interest. Each regional service has had the possibility of adding a maximum of five questions coordinated by the central service.

2.2.3 Characteristics not collected in France

- ✚ Given the climate conditions, no cotton is grown;
- ✚ There are no genetically modified crops since they are prohibited under French law;
- ✚ Permanent crops grown under shelter have been counted using the corresponding crop codes in order to obtain a complete distribution of permanent crops. It must be noted that these crops cover only 312.8 ha on 1 382 farms, i.e. 0.2 ha on average;
- ✚ As in previous surveys, only the total olive grove area was requested (B_4_3). No areas are intended exclusively for table olives. They represent an extremely small proportion of the harvest which cannot be converted into a surface area.

2.2.4 Divergencies from variables of the European Union

In France, the farmer is called the *responsable économique et financier* (REF, economic and financial manager). He benefits from the operating profits and suffers any losses, and may be a natural or legal person.

The farm manager is defined as the person in charge of day-to-day management. We therefore look at the family of the farm manager and not that of the farmer. This divergence does not pose any problems in the case of individual farms, i.e. the majority of farms. For the others, processing is necessary to retranscribe these data in accordance with the Community rules when the file is relayed to Eurostat.

The same can be said when the farm is run by a natural person on behalf of another natural person, i.e. only 1 686 cases. Of these, only 41 farms have managers who are related to the farmer. Due to this very low number, these 41 farms have not been specifically identified and are codified by the modality "3". Modality "2" of the variable "A_2 legal personality" is therefore never present.

The recording of farm labour, family or otherwise, is identical regardless of the farm status. For EUROSTAT, in the case of farms with company status (EARL, SCEA, SA, SARL or other person), co-farmers and their families are considered as non-family labour.

The "mushrooms" variable is measured in terms of production and not in terms of area. A correspondence key has therefore been used to meet the Community requirements. One hectare is considered to produce 180 tonnes of mushrooms per year.

The average irrigated area over the last three agricultural years is anomalous in 420 cases because it is lower than the UAA for 2010. Indeed, these are farms which gave up some of their land at the start of the 2009-2010 year and are now smaller than in previous years. The change is therefore not due to a different definition of variables.

2.2.5 Reference period

The reference period for data on crops, production methods and labour is the 2009-2010 agricultural production year (1 November 2009 to 31 October 2010). For livestock, the date is 1 November 2010. For rural development, the calendar years 2008, 2009 and 2010 were taken into account.

2.2.6 Manual of definitions

Revision 6 was used for the census and the survey on production methods.

2.2.7 Questionnaires

Three different questionnaires were prepared and are provided in the annex:

- ✚ mainland France + questions of regional interest,
- ✚ overseas departments excluding Guyana (Guadeloupe, Martinique and Réunion),
- ✚ Guyana.

2.3. Organisation of the survey

The survey is designed and run by the SSP, with data collection and first-level validation being entrusted to its regional delegations, the *services régionaux d'information statistique et économique* (SRISE, regional statistical and economic information services).

2.3.1 National organisation

In the SSP, national responsibility for the survey lies with the Sub-Directorate for Agricultural, Forestry and Agri-Food Statistics (SDSAFA) and more specifically the Office of Structural, Environmental and Forestry Statistics (BSSEF), a national unit responsible for the operation. In this office, a statistics project team was created at the end of 2006 (head of project only). The members of this team were increased to five between the end of 2008 and June 2011.

From 2009 to 2011, an IT project team provided project management support.

The Sub-Directorate for data processing of the Ministry of Agriculture developed collection and validation tools for all survey phases.

The communication service of the Ministry of Agriculture performed the communication tasks before the survey to notify farmers, municipal councils, professional organisations, etc. It also took responsibility for publishing the provisional results when they first became available.

Lastly, the general services helped to recruit and pay the 3 000 interviewers employed.

A number of user committees were convened. They covered the main directorates of the Ministry of Agriculture and Fisheries, the *Institut National de Recherche Agronomique* (INRA, National Institute of Agronomic Research), the *Assemblée Permanente des Chambres d'Agriculture* (APCA, Permanent Assembly of the Chambers of Agriculture), the professional organisations, regional representatives, etc. They gave their opinions on the various aspects of the questionnaire and on the instructions to interviewers.

Furthermore, in order to implement the various operations, a technical group was created of national and regional statisticians, to:

- ✚ finalise the questionnaires and instructions after consulting the users;
- ✚ run interview tests;
- ✚ produce the educational resources needed for interviewer training by the regional services;
- ✚ create tools for checking responses at regional and national level.

2.3.2 Regional organisation

The regional statistical and economic information services (SRISE) are responsible for recruiting and training interviewers. These services plan and monitor the work of the interviewers, ensure collection and first-level validation of the data and publish regional results when the survey is declared validated.

2.4. Survey timetable

The survey started with a study of how best to conduct the agricultural census in a context where departmental statistics services are being closed down. It was the first operation on this scale to be conducted by the regional services. The basic conclusion of the study was that data collection would be by CAPI (computer-assisted personal interviewing). It was therefore necessary to test this method, starting with the ESEA 2007 survey in three *départements* (NUTS3). The method was then developed for national initiative surveys in order to settle the arrangements.

Operation	Date
Preparation of CAPI collection test	June 2007 – October 2007 -
First CAPI collection test (ESEA 2007 in 3 NUTS3)	October 2007 – February 2007
Preparation of the source-matching programmes	January 2009 – June 2009
Source-matching and development of CAPI	June 2009 – September 2009
Municipal committees	October 2009 – March 2010
Preparation of the RA questionnaire and instructions	Year 2009
Development of the RA2010 CAPI	January 2010 – September 2010
Recruitment of interviewers	March 2010 – September 2010
Training of permanent regional staff	September 2010

Operation	Date
Training of interviewers by the permanent regional agents	September 2010 – November 2010
Collection of data	October 2010 – February 2011
Completeness checks – feedback	March 2011 – June 2011
Checks – Data validation	February 2011 – July 2011
Preparation of files of provisional data for dissemination	August 2011
Work in groups to study data by themes with a view to publication	August 2011, still under way
First publication of provisional data (4 pages)	September 2011
Corrections of the basic data following detection of errors by the thematic groups	September 2011 – end February 2012

2.5. Population and survey method

The survey comprised two main phases: preparation of the list of units to survey, and the survey itself.

2.5.1 Population

As has been the case since 1955, the definition of agricultural holding used in France is that set out in Regulation (EC) No 1166/2008. It should be noted that the production of Christmas trees was introduced in 2010 to the field of agricultural production, as were common pastures. The general threshold is 1 hectare, except for certain types of specialised production, where it is lower. The French census covers the entire scope of the EU Regulation.

With a view to creating a farm register and being able to keep it updated, a change was made to bring the definition of agricultural holding closer to that of agricultural establishment used in SIRENE (the French business register). The identifier in SIRENE is the SIRET number and a decision was made to apply the simple rule that 1 agricultural SIRET = 1 agricultural holding. In the past, several SIRET numbers were taken together to form one holding. This rule results in an artificial increase in the number of holdings. However, it should be noted that this method is more correct since separate FADN accounts are kept for each SIRET.

The agricultural holding is defined, for the purpose of agricultural statistics, as an economic and production unit which meets all three of the following conditions:

- + its activity is agricultural in nature,
- + it is subject to independent everyday management,
- + the general threshold is 1 hectare of UAA, except for certain types of specialised production, where it is lower:
 - the threshold is 20 ares for the following crops:
 - hop,
 - tobacco,
 - aromatic, medicinal and culinary plants
 - vegetable, floral, fodder or industrial seeds
 - fresh vegetables, melons and strawberries outdoor - openfield
 - floral and ornamental crops
 - permanent crops (vineyards, orchards, berry plantations)
 - tree nurseries (B_4_5): wine-producing, ornamental, orchard, forestry.
 - if the holding does not own at least 1 ha of UAA or is not over the previous thresholds, the survey covers units that have :

Mainland France: at least:	... or which produced at least the following over the 2009 - 2010 agricultural production year:
<ul style="list-style-type: none"> ➤ 1 male breeder used regularly: stallion, donkey, bull, ram, boar, billygoat, etc. ➤ 1 brood or mule mare ➤ 1 cow ➤ 2 bovine animals over the age of two years ➤ 1 breeding sow ➤ a fattening house or breeding house for cattle, pigs, etc. ➤ 6 breeding ewes ➤ 6 breeding nanny-goats ➤ 10 breeding doe rabbits ➤ 100 laying hens (all species) 	<ul style="list-style-type: none"> ➤ 2 horses for slaughter ➤ 5 battery calves ➤ 5 pigs ➤ 10 sheep for slaughter ➤ 10 goats for slaughter ➤ 200 rabbits for meat ➤ 500 fattening poultry (all species) ➤ 50 rick poultry

<ul style="list-style-type: none"> ➤ an incubation capacity of 1 000 eggs ➤ 10 working beehives ➤ a fur farm breeding, for example, mink, coypu, chinchillas, goats and angora rabbits ➤ a game farm producing game for slaughter or sale, excluding hunting 	<ul style="list-style-type: none"> ➤ 10 000 eggs
<ul style="list-style-type: none"> ➤ 20 ares of asparagus ➤ 20 ares of cabbage for sauerkraut ➤ 15 ares of strawberries ➤ 5 ares for market gardening (not intended only for own consumption) ➤ 5 ares of flower or ornamental crops ➤ 10 ares of vineyard producing protected designation of origin (PDO) wines (<i>appellation d'origine protégée</i>, formerly "AOC" [<i>appellation d'origine contrôlée</i>]) ➤ 10 ares of various crops under greenhouses or high cover (except tree nurseries) ➤ 5 ares of champagne vineyards ➤ 5 ares of tree nurseries: wine-producing, ornamental, orchard, forestry ➤ 40 fruit trees standing alone, for production purposes 	<ul style="list-style-type: none"> ➤ 2 tonnes of chicory ➤ 1 tonne of mushrooms ➤ cress for sale.

In the overseas departments: at least:	... or which have been farmed over the 2009 - 2010 production year at least:
<ul style="list-style-type: none"> ➤ 1 male breeder used regularly: stallion, donkey, bull, ram, boar, billygoat, etc. ➤ 1 brood or mule mare ➤ 1 cow ➤ 2 bovine animals over the age of two years ➤ 1 breeding sow ➤ 6 breeding ewes ➤ 6 breeding nanny-goats ➤ 10 breeding doe rabbits ➤ 50 laying hens (all species) ➤ an incubation capacity of 1 000 eggs ➤ 10 working beehives ➤ a fur farm breeding, for example, mink, coypu, chinchillas, goats and angora rabbits ➤ a game farm producing game for slaughter or sale, excluding hunting 	<ul style="list-style-type: none"> ➤ 2 horses for slaughter ➤ 5 battery calves ➤ 3 pigs ➤ 10 sheep for slaughter ➤ 10 goats for slaughter ➤ 200 rabbits for meat ➤ 200 broilers (all species) ➤ 100 rick poultry ➤ 10 000 eggs
<ul style="list-style-type: none"> ➤ 10 ares of export variety bananas ➤ 10 ares of pineapple or other semi-permanent crops of fruit (passion fruit, etc.) ➤ 10 ares of sugar cane ➤ 10 ares of various crops under greenhouses or high cover (excluding tree nurseries) ➤ 5 ares geranium, vetiver, pepper, vanilla, etc. ➤ 10 ares vineyard producing protected designation of origin (PDO) wines (<i>appellation d'origine protégée</i>, formerly "AOC" [<i>appellation d'origine contrôlée</i>]) ➤ 5 ares of fresh vegetables under vegetable or flower crop rotation (not intended for own consumption) ➤ 5 ares of flowers or ornamental crops ➤ 5 ares of tree nurseries: winegrowing, ornamental, orchard, forestry ➤ 20 fruit trees standing alone, for production purposes 	<ul style="list-style-type: none"> ➤ 2 tonnes of chicory ➤ 1 tonne of mushrooms ➤ Cress for sale.

Holdings with at least 1000 poultry or 10 bovine animals are covered.

The geographical field covered is mainland France and four overseas departments, Guadeloupe, Martinique, Guyana and Réunion.

The territories of Saint-Martin and Saint-Barthélemy are excluded because their status has changed and they are no longer part of national territory. The 48 holdings have nevertheless been counted and are included in the first delivery to EUROSTAT. They will be excluded from the next deliveries.

Mayotte has not yet been integrated. It became a department in 2011 and should be incorporated in the 2013 FSS.

2.5.2 Creating the list of units

The list of units to be counted was created in two phases:

- ✚ Reconciliation of the available databases: farm register created using the RA2000 and updated, list of SIRENE (French business register) agricultural units, list of farmers who have made area declarations in applications for agricultural aid. These three main sources have been completed by sources considered to be of importance locally (beekeeping, olive oil, aromatic plants for perfume and medicinal purposes, etc.). The combined use of various sources has made it possible to draw up a preliminary list of potentially active holdings of 1 063 000 units.

Local committees were then organised in each *commune* (a smaller territorial administrative unit) to examine these lists. Each committee was steered by a permanent member of the agricultural statistics survey staff; it was composed of farmers from the *commune*. The aim was to examine each unit on the initial list and to indicate those which had definitely disappeared and those which had been forgotten. In the event of doubt, the unit stayed on the list for inclusion in the survey. This operation resulted in a list of 665 000 entry points to potential holdings.

2.6. Survey design

2.6.1 Census

The survey was conducted in the form of a census in a single run for all the variables provided for in the Regulation, the FSS, OGA (Agricultural Insurance Organisation) and SAPM (survey on agricultural production methods). 516 104 agricultural holdings were finally counted, of which 1 410 are "common land" farms.

2.7. Sampling, organisation of collection

2.7.1 Sampling

All the variables were collected during the census. Sampling was not used.

2.7.2 Organisation of collection

The census was conducted entirely by computer-assisted personal interviewing (CAPI) on touch screen table PCs (Stylus).

In the field, data collection is carried out by specialised units of the Ministry of Agriculture, i.e. the 26 regional services (NUTS2) for statistical and economic information (SRISE). They carry out survey-related tasks in the field via the network of interviewers employed for the entire agricultural statistics survey programme and through the recruitment of additional interviewers for the census. 3 000 interviewers took part in the collection.



The permanent agents of the regional statistics services recruited, trained, supervised and monitored the interviewers.

The interviewers who ran the standard SSP survey programme had the role of "tutor" vis-à-vis the interviewers recruited especially for the census. They accompanied them in their first interviews, were the first point of response to the questions and the first level at which any refusals to respond were recorded.

The CAPI interface was used to record responses, check their plausibility and send files to a central server (3G network).

An interview lasted between one and one and a half hours.

2.7.3 Use of administrative data

The SSP drew on data taken from area declarations made by farmers when applying for aid. These declared areas were used to initialise responses: the farmer simply had to confirm them or possibly amend or complete them. This then made it possible to reduce the interview time spent on area enquiries. The farmer's identifier in relation to aid was verified during the interview.

The data from the *base de données nationale d'identification* (BDNI, national identification database) were used to obtain information on bovine herds. This allowed for a standardised description of the bovine population on 1 November 2010. The farmer's number was collected during the survey for this purpose. All the information on

the age of the cattle is included in the BDNI. Only between dairy cattle and suckler cows is no distinction made. This was established from the breed of each animal.

The dairy breeds are: ABONDANCE, ARMORICAINE, OTHER FOREIGN MILKING BREEDS, AYRSHIRE, BLEUE DU NORD, BORDELAISE, BRETONNE PIE NOIRE, BRUNE, BUFFLE, CANADIENNE, DAIRY SHORTHORN, FERRANDAISE, FROMENT DU LEON, GUERNESEY, JERSEY, MONTBELIARDE, NORMANDE, PIE ROUGE DES PLAINES , PRIM' HOLSTEIN, ROUGE FLAMANDE, SIMMENTAL FRANCAISE, TARENTEISE, VILLARD DE LANS, VOSGIENNE.

The suckler breeds are: ANGUS, AUBRAC, AUROCHS RECONSTITUE, OTHER FOREIGN SUCKLER BREEDS, BAZADAISE, BEARNAISE, BISON, BLANC BLEU, BLONDE D'AQUITAINE, BRAHMA, CASTA (AURE and ST GIRONS), CHAROLAISE, CHIANINA, CORSE, CREOLE, CROISE, DE COMBAT (ESPAGNOLE BRAVA), GALLOWAY, GASCONNE, GELBVIEH, HEREFORD, HERENS, HIGHLAND CATTLE, INRA 95, LIMOUSINE, LOURDAISE, MARAICHINE, MARCHIGIANA, MIRANDAISE (GASCONNE AREOLEE), N' DAMA, NANTAISE, PARTHENAISE, PIEMONTAISE, UNKNOWN BREED, RAÇO DI BIOU (CAMARGUE), ROUGE DES PRES, SALERS, SAOSNOISE, SOUTH DEVON.

The data from the organic agency (AB, *Agence Bio*) were used to identify areas and bovine herds. This rendered the asking of questions unnecessary. The number of organic producers was thus established during the survey.

Data on rural development aid over the last three years have been calculated on the basis of the files from the *agence de services et de paiement* (ASP, services and payment agency) responsible for paying this aid.

2.8. Specific variables

2.8.1 Common land

Common land was integrated into the ESEA survey (FSS) for the first time in 2010. Until now, these areas were considered as being outside the UAA of agricultural holdings. They were identified only by the annual survey on land use.

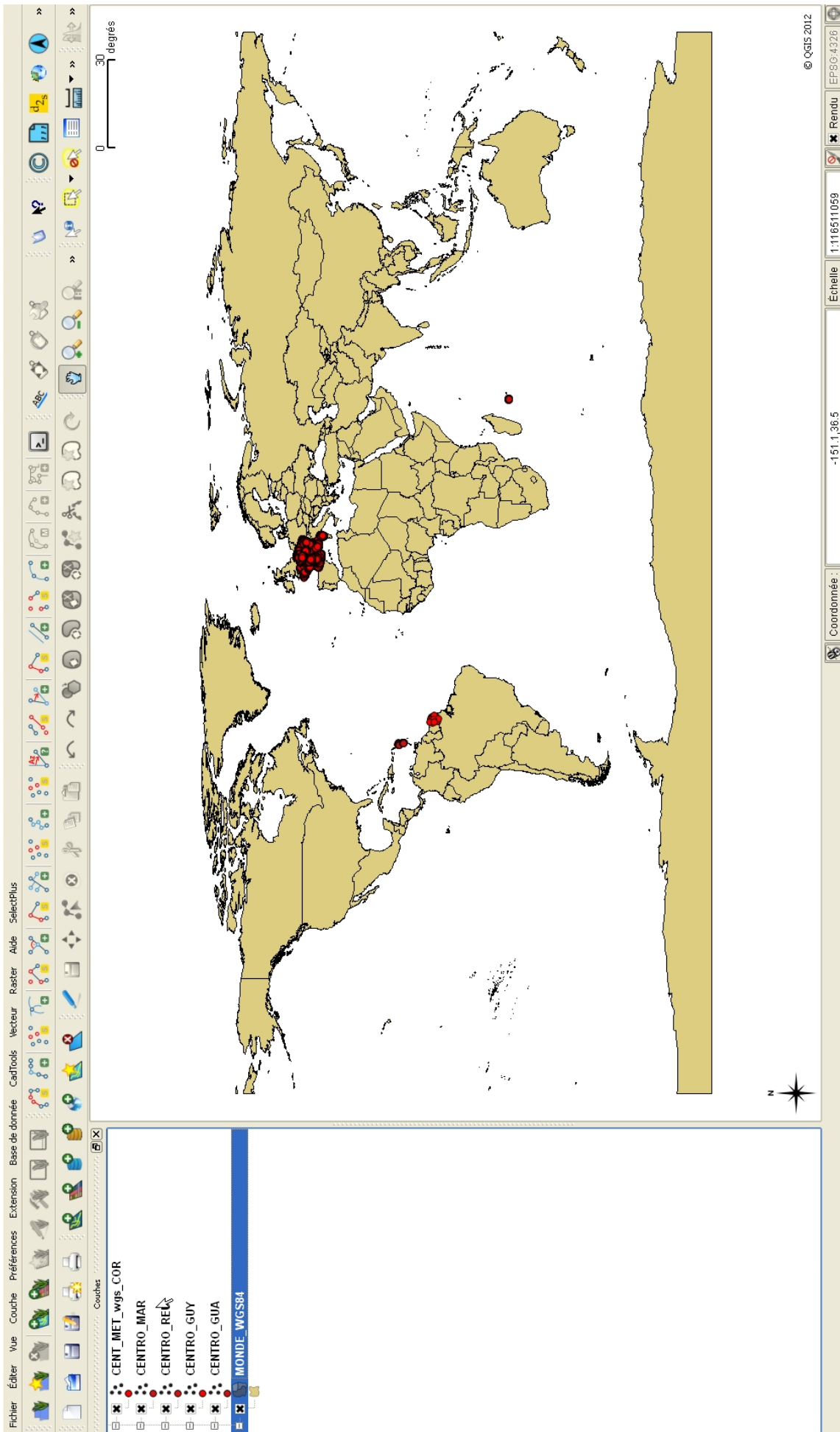
In France, there are 1 410 areas of common land covering 750 000 ha, of which 99.6% is still grassland. This common land is maintained and managed by various types of units employing 1 800 people for 676 AWU. They all file the application for the agri-environmental pasture premium (*prime herbagère agroenvironnementale*, PHAE) themselves, which they then divide between the farmers on a pro rata basis according to their use of the grassland. These units have been registered as agricultural holdings for which areas and labour data have been collected. The general questionnaire was used, and only page 15 was reserved for common land "farms".

2.8.2 Geographical coordinates of the holding headquarters

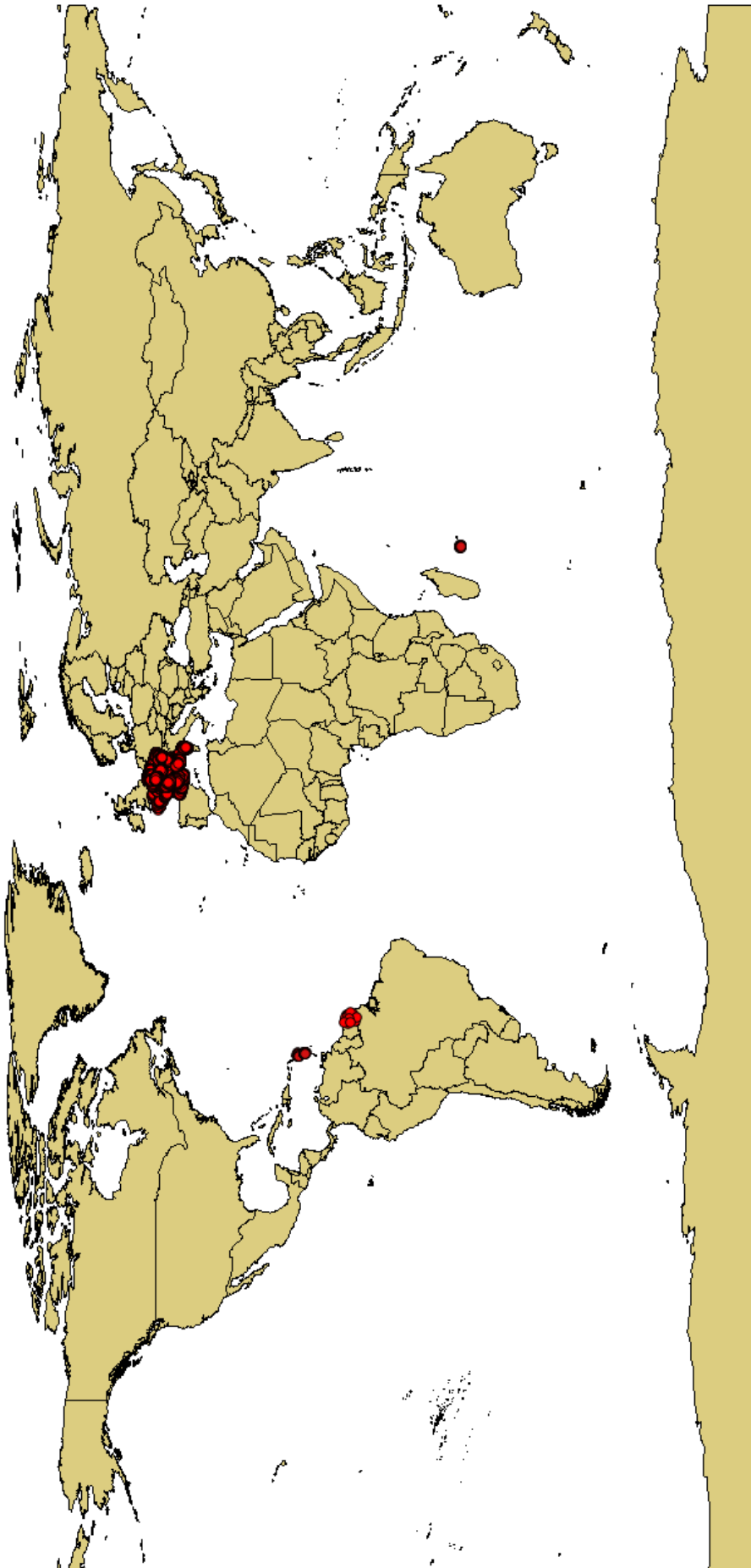
The headquarters of the agricultural holding is the farmstead (house and farm buildings together), where it exists, or otherwise the most used agricultural building, or the biggest plot of land if there are no buildings. When the municipality in which the headquarters is located is entered, the CAPI interface showed a detailed map on a scale of 1:25 000 (Scan25 IGN) of the *commune*. Clicking on the point allowed acquisition of the X,Y in extended Lambert II for mainland France and in UTM for each overseas department.

In order to depersonalise these data, they were then grouped into one single point per *commune*, the centre of the *commune* polygon. The largest distance between the centre and the most remote point of the *commune* is less than the tolerance level set out in the Regulation.

Since the data of the overseas departments could not be supplied in ETRS89, it was agreed with EUROSTAT that all the coordinates would be provided in the WGS84 benchmark, SRID 4326.



0 30 degrés



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2.8.3 Quantity of water used for irrigation

Since the most recent laws on water, meters are obligatory regardless of the source used. The vast majority of farmers were thus able to answer the question without any particular problems. If they nevertheless had found this difficult, the interviewer asked them to estimate the volume themselves. Such cases represented only 10% of farmers. The water used for watering in greenhouses is included. The water used to irrigate family gardens is sometimes included, depending on the irrigation method of the garden, and whether it is counted as part of the holding. The quantity of water used for family gardens is very low compared to the total.

2.9. Response rate and burden

2.9.1 Non-response

The CAPI interface checked that all the questions had been answered. There were no partial non-responses. When an interviewer was confronted with a first refusal, he/she had to inform the competent regional service, which tried to obtain a response. This procedure made it possible to solve most cases of refusal. In the end, total non-response represented only 0.96% of surveyed holdings.

2.9.2 Completeness

To ensure that the list of holdings is complete (Cf. section 2.5.2), a number of checks were run at the end of the data collection for the first time during this census. We used all the available administrative sources to check that the farmers mentioned in them had been counted: aid applications, the national identification database, the computerised vineyard register, the organic agency and the local interest files (plants for perfume, etc.). These checks made it possible to ensure that the census was complete. However, their complexity made the management of data following collection much more time-consuming than had been expected.

3 Accuracy and reliability of the data collected

3.1. Data processing, analyses and estimates

3.1.1 Estimate of non-responses

As we saw (cf. section 2.9.1), total non-responses accounted for only 0.96% of the questionnaires expected. They were estimated by hot deck by the SSP after collection closure and after applying the control protocols.

3.1.2 Other possible types of error

It is estimated that the census gives total coverage thanks to the completeness check run for the first time during an agricultural census in France (cf. section 2.9.2).

Errors of observation are, of course, possible even if the controls (cf. section 3.1.3) set in place during and after collection were intended to detect them. These residual errors cannot be measured.

3.1.3 Method of adjusting missing or incorrect data

There were no partial non-responses. The CAPI interface checked the presence of all the required data. Total non-responses were noted for only 0.96% of agricultural holdings. For these holdings, the areas were identified from declarations for CAP aid applications, and bovine herds were counted using the BDNI, while the other variables were identified from the data on responding holdings, whose areas and herds were the closest to those of the unresponsive holding in the same region and the same *département* (NUTS3), a hot deck method. No estimated variable represented more than 0.4% of the total of the variable at NUTS(3) level. These estimates were made at national level by statisticians in the SSP method team.

All the absolute coherence controls were programmed in the CAPI interface. The probability controls were run *a posteriori*:

- ✚ examination of the maximum values at NUTS3 level,
- ✚ examination of distribution at NUTS3 level.

Potential irregularities were pointed out to the interviewer, who had to remind the farmer to check his/her responses. Corrections to the file were made by permanent agents in the regional and national agricultural statistics services of the SSP.

3.1.4 Data checking

Data checking, the last stage before dissemination, began during the collection phase on the farmer's premises. It then continued throughout the processing chain. This control phase took much more time than initially intended.

3.1.4.1 Controls during collection

These on-site controls were on two levels: interviewer and regional manager of the statistical service responsible for the survey.

The CAPI interface involved controls to ensure that all the variables had been established. Furthermore, probability controls in each variable, and between variables, were performed during the interview in order for corrections to be made by the farmer himself via his dialogue with the interviewer. The aim was to check the values in relation to the maximum regional levels already identified in previous surveys and to check the consistency between the various parts of the questionnaire. These controls may be defined as "major" if correction was required, or "minor" if they constituted alerts. Questionnaires involving major controls cannot be transmitted to the central server by the interviewer unless this is specifically requested. In such cases, the regional service must correct the ongoing anomaly, possibly by asking the farmer to provide additional information.

The regional services checked the work of all the interviewers, by calling farmers back in a poll to check that the interviewer had indeed conducted the interview, and also how they had gone about it.

3.1.4.2 Regional controls

The regional services were responsible for checking that the administrative sources were complete (cf. section 2.9.2).

They had a tool for checking survey data which can be used at both national and regional level, and their role was to check the data arriving on the central server.

The tool could be used to obtain inventories, ratios and lists which were either predefined or programmed by the user. For instance, each region could define the most relevant controls for the context of local agriculture. All these controls were used at NUTS 3 level. These checks are used to monitor outliers, the systematic application of standards by an interviewer, errors not detected in the capture/control programme, and failure to comply with instructions.

Main functions used:

- ✚ verification of "forced" checks during collection in order to identify any systematic errors;
- ✚ list of the X biggest values for each quantitative variable, making it possible to identify outliers;

3.1.4.3 Regional-level controls of aggregate data

Controls of aggregate data are a means of improving the quality of the results. They support the system set up for collection purposes: training, field checking and capture/control in particular.

The aim was to compare the results for the main variables with data from previous years in order to check whether any major errors remained.

3.1.4.4 Central-level controls

The same controls as at regional level were applied in order to ensure that no unsettled problems remained.

Working groups of national and regional agents were created from the end of the collection in order for each group to study the results for part of the questionnaire with a view to a first publication. The work of these groups threw some light on a number of residual inconsistencies and allowed the necessary corrections.

3.2. Assessment of the results

Centrally, a first level of assessment was performed by experts of the theme-based working groups (cf. section 3.1.4.4) with a view to the first publications. They all had the same task in their respective fields, namely comparison and justification of the developments in relation to the main sources:

- ✚ data from the 2000 census;
- ✚ data from the other available sources such as the animal surveys, land use, specialised surveys on "orchards", "vegetables", etc.;
- ✚ data from the annual agricultural statistics (AAS). These are drawn up by each statistical service of the regional directorates for agriculture and forestry. Their data relate to the statistics on land use and agricultural production in the *départements*: areas, yield, quantities harvested for plants, numbers of workers, weight or

average quantities and totals for animal production. Each departmental piece of data is the result of comparing and balancing data from surveys, administrative sources (subsidies, taxation, etc.), questions addressed to the Chambers of Agriculture, trade associations, producer groups, etc.

✚ data from external sources, mainly the areas declared by farmers in the context of agricultural aid.

These comparisons did not show any surprising or irregular changes. The work tables used were not kept.

3.2.1.1 Main characteristics of the survey

	ESEA, AAL, MPA	Observations
Initial list	665 000	
Final number of questionnaires	516 104	
Non-existent units or units below the thresholds	148 848	No basic comparison from the RA2000
Estimated refusals per hot deck (imputation)	4 954	
Number of units transferred to EUROSTAT	516 104	
Number of "common" holdings	1410	Included in the 516 104

3.2.2 Comparison of the ESEA2007 and RA2010 results

All of France (including overseas departments)	EU codes	2007 excluding groups (1)	2010 all holdings	2010 excluding groups (2)	Change (2)/(1) %
Number of holdings		527 350	516 104	514 694	-2.4%
Total UAA	A_3_1	27 476 930	27 837 286	27 087 794	-1.4%
Area under arable crops	B_1	18 301 980	18 386 080	18 383 224	0.4%
Permanent grassland	B_3	6 803 820	8 418 877	7 672 298	12.8%
Permanent crops	B_4	1 018 330	1 018 274	1 018 274	0.0%
Wooded area	B_5_2	946 520	1 003 372	953 847	0.8%
Unused area	B_5_1	525 770	367 459	326 456	-37.9%
Fallow land	B_1_12_1 & B_1_12_2	1 269 760	628 907	628 758	-50.5%
Total LUs		22 543 650	24 959 837	24 959 837	10.7%
Total bovine animals	C_2	19 350 470	19 506 209	19 506 209	0.8%
Number of persons in the family	E_1_1 & E_1_3	633 210	568 398	568 048	-10.3%
Family AWU	E_1_1 & E_1_3	376 480	340 648	340 443	-9.6%
Number of persons outside the family	E_1_4	427 210	446 419	444 969	4.2%
Non-family AWU	E_1_4	342 070	351 807	351 337	2.7%

There are no surprising developments. The drop in the number of family members is due to the fact that spouses not working on the farm are no longer counted.

The increase of almost 13% of area still under grass probably stems from the trend of farmers increasing these areas in order to meet European and national restrictions regarding grassland.

4 Publication and dissemination

All the results are available on our website: <http://www.agreste.agriculture.gouv.fr/>

- ✚ The "Primeur" journals, four to eight pages long by theme and at national and regional levels;
- ✚ Municipal files setting out the main data for the 36 000 communes of France;
- ✚ General tables for all types of public;
- ✚ The "DISAR" tool allows Web users to build their own table;
- ✚ Interactive "Géoclip" mapping.

The first provisional results were disseminated in September 2011, i.e. ten months after the end of the observation period.

The main final results have been available since the end of February 2012, i.e. 16 months after the end of the observation period and two months later than planned in the initial calendar.

5 Confidentiality and data security

In accordance with the Statistical Confidentiality Act (No 51-711 of 7 June 1951), the data collected are confidential, and interviewers and statisticians are required to maintain professional confidentiality.

The data circulates after encryption.

In the tables, data concerning fewer than three units and data where one unit represents more than 85% of the information are replaced by "s". Breaches of confidentiality in the table are kept in check.

The data may be used by researchers after approval by the confidentiality committee of the national council for statistical information. If the request is approved, the data may be accessed only via a safe access centre and the resulting tables are checked for the application of statistical confidentiality.

6 Annexes (separate files)

Annex 1	Decree No 2009-529 of 11 May 2009 concerning the performance of a general agricultural survey in 2010 in France
Annex 2	Decree of 11 May 2009 (No 1105) establishing the scope of the census (1 ha or 20 ares of specialised crops)
Annex 3	Questionnaire used in mainland France
Annex 4	Questionnaire used in Guadeloupe, Martinique and Réunion
Annex 5	Questionnaire used in Guyana
Annex 6	Regional questions, mainland France
Annex 7	Instructions to interviewers
Annex 8	Guide on using the CAPI interface