

1 Background

The 1999 Agrarian Census continues in the tradition started by the INE in 1962, when it undertook the first Agrarian Census. Subsequently, new Agrarian Censuses were carried out in 1972 and 1982.

When Spain became a full member of the European Community on the 1st January 1986, the INE joined the community programme of surveys on the structure of agricultural operations included in Regulation No. 70/66 of the Council of European Communities.

Spain participated for the first time in this community programme with the sample survey in 1987. In accordance with Council Regulation (EC) No. 571/88 relating to the organisation of community surveys on the structure of agricultural operations during the period 1988/1997, an exhaustive survey or census was carried out in the year 1989 and sample surveys were undertaken in 1993, 1995 and 1997.

Given that developments in the structure of agricultural operations imply a significant element of decision for the direction of common agricultural policy, the new Council Regulation (EC) No. 2467/96 modifies the previous regulation in order to extend the period to 1998/ 2007. This regulation sets out the obligation on all member states to carry out an exhaustive survey or Census between the 1st December 1998 and the 1st March 2001 relating to the 1999 or 2000 agricultural campaign, and sample surveys for the 2003, 2005 and 2007 agricultural campaigns.

2 Legal basis

- Law 12/1999 of 9 May on Public Statistical Services (BOE (Official State Gazette) 11-5-1989)
- Royal Decree 2220/1998 of 16 October, by which the 1997-2000 National Statistics Plan is approved (BOE (Official State Gazette) 31-10-1998)
- Royal Decree 278/1999 of 22 February, by which the 1999 annual programme and the 1997-2000 National Statistics Plan are approved (BOE (Official State Gazette) 4-3-1999)
- Royal Decree 922/1999 of 28 May, by which the 1999 Agrarian Census is created (BOE (Official State Gazette) 11-6-1999)
- Order of 15 October 1999, by which the regulations governing the organisation and undertaking of the 1999 Agrarian Census are set out (BOE (Official State Gazette) 28-10-1999)

3 Objectives

The 1999 Agrarian Census has the following main objectives:

- a) To evaluate the situation of Spanish agriculture and follow up the structural evolution of agricultural operations, as well as to obtain comparable results from all the European Union member states.
- b) To obtain a framework or directory of agricultural operations that will enable sample designs of sectorial agricultural surveys to be carried out.
- c) To comply with the legal framework set out by the European Union in the different council regulations, as well as to deal with national statistical requirements and other international requests for statistical information on the agrarian sector.

4 Scope

The scope of the Agrarian Census is considered from three clearly different spheres:

GEOGRAPHICAL SCOPE

The research covers the whole national territory, which includes the fifty peninsular and insular provinces and Ceuta and Melilla.

TIME SCOPE

The Census information refers to the year in which cultivation of crops corresponding to the 1999 harvest takes place, in other words, the agricultural campaign between the 1st October 1998 and 30th September 1999, except for livestock and machinery used and owned exclusively by the operation, where the reference date is the day of the interview.

POPULATION SCOPE

The population under investigation in the Agrarian Census includes existing agricultural operations in national territory on 30th September 1999, whichever individual or legal entity is acting as owner and whatever the destination of the agricultural production.

5 Concepts and definitions

5.1 AGRICULTURAL OPERATION

This is the type unit from which agricultural products are obtained under the responsibility of an owner. The aforementioned type unit is characterised by the use of the same means of production: labour, machinery, etc.

The following are not considered to be agricultural operations:

- Riding schools, stables and land used for exercising racehorses.

- Kennels.
- Animal businesses, slaughterhouses, etc. (without animal breeding).
- Draught or work animal operations, if the unit does not breed these animals.
- Zoos, fur farms and farms for the repopulation of species such as dogs, cats and ornamental birds, etc.
- Plots of land that are developed or where development work has begun on the day of the interview.
- Agricultural services companies

5.1.1 Agricultural operation with lands

This includes those lands whose total area, in one or a number of plots even when they are not adjoining, is equal to or greater than 0.1 Ha.

5.1.2 Agricultural operation without lands

This includes operations that have less than 0.1 Ha. of land, but which own in total one or more heads of cattle; two or more heads of either horse, mule or ass; six or more heads of sheep or goat; two or more heads of pig; fifty or more heads of poultry, including chickens, turkeys, duck, geese, guinea fowl, quails, pheasants and partridges bred in captivity; thirty or more doe; ten or more beehives. This livestock can be in rural or urban areas.

5.2 GEOGRAPHICAL SITUATION OF THE OPERATION

An agricultural operation is considered to be located, for the purposes of the survey, in the municipality where the greatest part of its lands is found, or, where there are doubts, where the only or main operation building lies.

Agricultural operations without lands are considered to be assigned to the municipality where the owner has declared their livestock or, if there is no declaration, to the municipality where the farming facilities are located.

5.3 OWNER OF THE OPERATION

The owner of the operation is designated as the individual or legal entity that, acting freely and autonomously, takes on the risk of an agricultural operation, managing it themselves or through someone else.

5.4. LEGAL STATUS AND OPERATION MANAGEMENT

5.4.1 Legal Status of the Owner.

The different categories of legal status or condition are the following:

- Individual

The owner is considered to be an individual for the purposes of the Census when they are an individual or a group of individual persons (brothers, joint heirs, etc.) that work a joint heirship or other grouping of lands or livestock together without having legally formed a company or association.

When two or more individuals share the ownership of an operation, just one of them shall be stated for identification purposes in accordance with the following criteria:

- The person who manages the operation or has greatest involvement in its management.
- The person who has the greatest involvement in the operation's financial or economical responsibilities.
- The oldest person.
- Mercantile company: is a group of people whose partnership agreement is documented in a public deed and is also registered in the Mercantile Register. These companies are classified as Public Limited Company, Limited, Collective and Company Responsibility.
- Public Entity: in this case, ownership corresponds to one of the different public administrations: Central, Autonomous or Local.
- Production cooperative: is an association that works to obtain agricultural products as a joint undertaking, complying with the principles and regulations of the General Law of Cooperatives and their development norms.
- Agrarian Transformation Company (ATC): non-profit entity with social and economic purpose for the production, transformation and marketing of agricultural, livestock or forestry products, duly registered in the corresponding register.
- Other legal status: any other legal entity that has not been included in previous sections will be included here: joint tenancy, non-profit entity, etc.

5.4.2 Operation manager.

Is the person responsible for the current and daily management of the agricultural operation.

The operation manager coincides, in general, with the owner. If the two do not coincide, the operation manager can be a member of the owner's family or other wage earner.

All operations will have only one person as operation manager. It will be the person that participates the most in the management of the operation. If this

contribution is distributed equally, the operation manager is considered to be the oldest person.

5.4.3 Agricultural training of operation manager

The following agricultural training categories are considered:

Exclusively practical experience: is training acquired through practical work on an agricultural operation.

Agricultural university training: includes all university studies completed at a university or university college in agriculture, horticulture, viticulture, agricultural technology, forestry, veterinary medicine or any other related subject.

Agricultural vocational training: includes all vocational studies completed at a first or second level in any of the specialisations: agriculture, horticulture, viticulture, agricultural technology, forestry, veterinary medicine or any other related subject.

Other agricultural training: all courses or short courses taken that are a minimum of two weeks in duration and relate to one of the specialisations mentioned are included in this section.

5.5 ECOLOGICAL AGRICULTURE

Ecological agriculture is understood to be the collection of food and agricultural products without the use of chemical products and whose production methods comply with current legislation (Royal Decree 1852/1993 of 22 October on ecological agricultural production and labelling on agricultural and food products).

Production should be carried out in such a way that the plots of land and production areas are completely separated from all other units that do not produce in accordance with the biological agriculture regulations.

The owners of operations with biological agriculture must register in the corresponding Register of the Ecological Agriculture Regulating Council and must comply with their regulations and controls.

5.6 OPERATION ACCOUNTING

Agricultural accounting is understood as all systematic and regular registering of income and current expenditure, which allows a balance sheet and profit and loss account to be drawn up after the close of the "financial year", which can help the operation manager in his/her management of the operation itself. For this purpose, the informal notes on certain operation income and expenditure will not be considered accountable, nor the compilation of data carried out exclusively for tax purposes.

5.7 TOTAL AREA AND DIVISION OF LAND

The total operation area is made up of the area of all the plots included in the operation: the area owned by the owner, the area rented out for working and the area worked and governed by other types of tenancy agreement. Areas owned by the owner, but granted to third persons, are excluded.

The plots or reserves are considered to be the complete expanse of land that is within one single boundary, in other words, surrounded by land, buildings or water that do not belong to the operation.

The number of plots making up the total area is investigated.

5.8 USED AGRICULTURAL AREA (UAA)

Is the ensemble of cultivated areas of land and lands used as permanent pastures. The cultivated lands include arable crops, fallow lands, kitchen gardens and lands for woody crops.

5.9 LAND USE

The total area of each agricultural operation with land is classified in three large groups, according to the way the land is used: cultivated land, land used as permanent pastures and other lands. In all of these groups, the pure farming land as well as the proportional part in the case of association and the main farming part in the case of successive farming are included. Cultivated lands and lands used for permanent pastures are further classified into dry and irrigated lands, in accordance with the following definitions:

- Dry lands

Dry lands are considered to be those that have not received more water than natural rainfall during the Census reference period.

- Irrigated lands

These are considered to be lands that have received water during the reference period via man-made procedures, whatever the duration or quantity of watering, even if it is of a temporary nature.

5.9.1 Cultivated lands.

Are those lands that are tended to, however they are used and whenever this has been carried out during the agricultural year. These lands are tended to with hoes, ploughs, harrows, cultivators, scarifiers, toothed harrows, etc. Work involving spreading fertilizer, rolling or boarding, cutting, hand hoeing or reseeding etc. in the permanent pastures is not included in this category. The following types of crop are considered in cultivated lands:

a) Arable crops

Including those plants whose upper part has herbaceous consistency. The following groups are considered: grain cereals, leguminous plants for grain,

potato, industrial crops, fodder crops, vegetables, flowers and ornamental plants, seeds and plants for sale and other crops. The seedbeds used by the operation itself are included in the corresponding crop sections.

b) Fallow lands

Lands that have been rested during the course of the campaign without any kind of crop, but that have received some tending to.

Also included in this section are lands spread with green manure.

c) Kitchen gardens

Areas destined for growing agricultural fruit and vegetable products (including potatoes), whose production is mainly aimed at self-consumption on the operation. This area must be less than 5 areas (500 m²).

d) Woody crops

Contains those plants whose upper part has a woody consistency. One common characteristic of all of these is that of occupying the land during long periods of time without the need to be transplanted after each harvest.

The area dedicated to woody crops, either in regular plantation format or scattered about, will be considered. Trees that are scattered are treated in the same way as associated crops by noting both the pure crop area and the proportional part that is scattered in the corresponding section.

All planted areas are included, even if they are not yet in production.

Woody crops include: fruit trees, olive groves, vineyards, nurseries for non-forest woody crops, woody crops in greenhouses and other permanent crops.

Forest trees and their nurseries are excluded.

5.9.2 Lands for permanent pastures.

Are lands not included in crop rotation, permanently dedicated (for a period of five years or more) to the production of grass. The following types are considered:

a) Permanent fields or grass lands

Lands used permanently for the production of grass, characteristic of areas with a certain degree of humidity and whose main exploitation is carried out through harvesting. These lands may be tended to in some way, such as with reseeding, fertilizer, rollers or boards etc. Fodder crops are excluded, as they are included in arable crops.

b) Other areas used for pastures

Other lands not included in the previous section that have been used as pasture for livestock.

Meadows are included in the pastures, as well as disused land and scrubland when they have been used for some type of livestock farming.

5.9.3 Other lands

This section contains other lands, which although forming part of the operation, do not belong to the so-called "Used Agricultural Area" (UAA).

The following modalities are distinguished:

a) Disused land

Land that is characterised by its lack of performance and which has not provided any kind of exploitation for livestock.

b) Straw-like

Land with a main covering of straw or alfa grass whose production is not harvested and if any performance has been obtained, it should be registered within the woody crops group, forming part of the UAA.

c) Brush

Land with a predominance of wild shrubs: rockrose, heather, gorse, furze, broom, rosemary, thyme, European fan palm, Kermes oak, boiss, lentiscus etc.

d) Forest tree species

Included in this section are areas covered with forest tree species, which are not principally used for agricultural purposes or which have purposes that are different from forestry ones. Poplar groves within or on the edge of forests are included, as well as chestnut forests and walnut trees used mainly for the production of wood, Christmas tree plantations and forest nurseries that are found within forests and are used for the needs of the operation itself.

Also included are areas covered with forest trees or shrubs that mainly protect, as well as rows of trees outside forest areas and treed boundaries, which are included in the woodland area due to their importance.

Treed areas are classified according to the forest tree species contained in them:

- Leafy trees: forest areas covered with at least 75 percent leafy trees (eucalyptus, oak groves, oak, etc.)
- Resinous trees: forest areas covered with at least 75 percent resinous species (pine, juniper, firs, etc.)
- Mixed: forest areas that do not include any one of the previous cases.

They are also classified by the destination of the wood produced within them:

- Non-commercial: treed areas whose production is principally used for self-consumption or is used for preserving the environment, protecting the land or as a boundary between operations.

- Commercial: treed areas whose production is principally used for sales (wood, firewood or other forestry products with profitable aims).

e) Other areas

Included in this group are those lands that form part of the total operation area (TA), but are not UAA nor belong to any of the previous sections, therefore corresponding to the "other lands" group. In this way, the following is registered:

- Areas that are agricultural but have not been used for financial, social or other similar reasons and are not included in the alternative crops section. These areas may be used once again with means usually available on the operation.

- Areas that not directly used for vegetal production, but which are need by the exploitation (land used for buildings, stables, threshing floors, etc.) and areas that are not suitable for agricultural production, in other words, those areas that can not be cultivated if particularly powerful means are not used and which are not normally found on the operation (waste ground, quarries, etc.).

5.10 LAND TENANCY REGIME

This characteristic only refers to agricultural operations with lands and is the legal form under which the operation's owner acts.

One operation can be made up of lands under different tenancy regimes:

a) Owned lands: The following lands, for the purposes of the survey, are considered as such: those lands where the owner has right of ownership, with or without written deeds, and lands that have been worked peacefully and without interruption by the owner for a minimum of thirty years without paying rent. Also considered in this group are usufruct lands.

Lands that are the property of the owner transferred to third parties are not included in this group or in the operation. In operations where the owner is a municipal or neighbourhood community, lands that have been transferred or let during the reference campaign do not form part of the operation.

b) Leased lands: land is being leased if the owner benefits from the exploitation of the land, independently of the operation's results and via the payment of a levy of rent, in cash, in kind or both at the same time.

c) Share-cropping lands: are those lands that are the property of a third person given temporarily to the sharecropper via the payment of a certain percentage of the product worked or the equivalent in cash. This percentage depends on the local conditions, the type of company and the owner's contribution.

d) Lands under other tenancy regimes: included in this section are lands not included in any of the previous systems: lands worked via free transfer, trust lands, lands in dispute, lands in a precarious position, ground rents, leaseholds, communal lands transferred or leased.

5.11 IRRIGATION

Data relating to irrigation is collected with reference to two area types: The irrigated area and the area that has not been irrigated, even though the operation has facilities and water.

5.11.1 The operation's irrigated area:

Is the area of all plots of land, which during the Census year have been effectively irrigated at least once.

The operation's irrigated area is classified with regards each of the following criteria:

a) The irrigation method

The following methods are considered:

- Spraying: procedure by which plants receive water in the form of artificial rain.
- Localised: means of irrigation where soil water is localised via localised emissors that control the amount of water supplied to each plant (trickle irrigation, micro-spraying, exuding, etc).
- Mountain flooding: means of irrigation by which the water is applied to the plot of land and is drained or circulated on it (wild, flush, etc).
- Other methods: any other method that is different from the three previous sections is included in this category.

b) Origin of the water

If an operation, or part of one, is irrigated with water of different origins, only the main source of water will be considered when completing this section:

- Subterranean waters from wells or drill holes
- Surface waters from pools, ponds, ditches, rivers, canals, etc.
- Purified waters from purifiers
- Desalted waters from desalters

c) The water irrigation management system:

- Integrally granted in an irrigation community if the holder of the rights to the water for irrigation is an irrigation community
- Individually granted if the holder of the rights to the water for irrigation is an individual

d) Amount of water

The area irrigated is classified into the two following modalities:

- Enough water: the operation area has been irrigated during the campaign as often as the crops in the area require. In other words, the amount of irrigation and the volume of water used have not restricted the crop's intensity or its selection.

- Not enough water: irrigated area not included in the previous section.

5.11.2 Area that has not been irrigated, even though the operation has facilities and water

Is the area that has not been irrigated during the reference year, even though it could have been as the operation has its own technical facilities and enough water.

5.12 ASSOCIATED CROPS

Are crops associated to those with which they coexist during all or part of the plant cycle within the same plot of land or soil during the course of the agricultural campaign.

In associated crops the area is assigned proportionally to the use of land for each of the crops that make up the association.

Mixes of crops or mixed crops whose products are not harvested separately and which are considered to be one crop only are not considered to be associated crops, for example, mixed cereals.

Distinction is made between the following association types:

- Citrus fruit - Citrus fruit
- Vineyard-Arable
- Vineyard-Olive grove
- Vineyard-Fruit trees
- Olive grove-Arable
- Olive grove-Fruit trees
- Fruit trees-Arable
- Fruit trees-Fruit trees
- Corn-Beans
- Other arable crops with arable crops
- Agricultural crops-Forestry species
- Other associated crops

5.13 SUCCESSIVE CROPS

Successive crops are those crops that grow in the same area during the agricultural campaign.

With this type of crop, the total area is allocated to the main crop, which is considered to be the crop with the greatest production value. If the production

values do not noticeably differ, the main crop will be considered to be the one that has been planted for the longest time.

5.13.1 SECONDARY SUCCESSIVE CROPS

These are crops that precede or follow the main crop and are gathered during the twelve months of the reference period.

Horticultural crops, greenhouse crops and kitchen gardens are excluded.

The total dry and irrigated cultivated area is counted, differentiating whether it is used for:

- Cereals for grain
- Dried pulses
- Oleaginous plants for grain
- Others

5.14 GREENHOUSE BASE AREA

Is the area occupied by greenhouses used on the operation. For mobile greenhouses, the area is registered just once, even when the greenhouse is used on a number of different areas during the year. In greenhouses with a number of floors, the base area relates to the covered base floor.

5.15 MUSHROOMS, WILD MUSHROOMS AND OTHER CULTIVATED FUNGUS

Includes, exclusively, mushrooms, wild mushrooms and other fungus grown in constructions built or adapted for this purpose, or underground or in caves.

The area of beds available for cultivation that, during the twelve months of the reference period, have been filled once or a number of times with mull is registered.

The surface layers of the beds are counted only once even though they are used a number of times during the agricultural campaign.

5.16 LIVESTOCK

The animals existing on the operation on the day of the interview are included in this section, including those being moved between winter and summer pastures and livestock on an integration or contract basis. **Integration basis** is considered to be all types of contract that imply a dependence on supplies, animals, fodder and on sales. It includes therefore, vertical integration with private companies and horizontal or cooperative integration.

The following species and classifications of animals are considered in the Census: cattle, sheep, goats, pigs, horses, poultry, does, beehives and other animals.

Other animals include all hunting animals bred in captivity that have not been included in previous sections and which belong to the operation. Pets are excluded.

5.17 FACILITIES FOR THE STORAGE OF ANIMAL-ORIGIN FERTILISERS

Covered facility for the storage of animal-origin fertiliser is understood to be any facility covered in such a way that the fertiliser is protected from rain and other precipitations.

The different fertilisers considered are:

- Solid dung: excrement of domestic animals with or without bedding straw, which possibly contains a small quantity of urine.
- Slurry: urine of domestic animals that possibly contains a small quantity of excrement and/or water.
- Semi-liquid dung: dung in liquid form, in other words, a mix of excrement and urine from domestic animals that possibly contains water and/or a small quantity of "bedding straw".

The methane recovery system is understood as a system that allows the recovery of methane released from the fertiliser, without entering the atmosphere.

5.18 MACHINERY

Agricultural machinery is understood to be the ensemble of machines used on agricultural operations.

Two types of information are collected in this chapter on machinery:

- Number of machines owned exclusively by the operation: the number of machines of all types that are used or available and which exist on the operation on the day of the interview is collected.
- Use of machines by the operation, without including those that are exclusively owned: information is collected on whether machinery that is not exclusively owned by the operation has been used during the campaign, highlighting whether the machinery is jointly owned, is cooperative machinery or whether it belongs to other operations or service companies.

The following machinery is considered:

- Tractors (wheels or chains): tractors with two axles or more, used for doing agricultural work on the operation and other motor vehicles, whenever they are used as agricultural tractors (Jeeps, Unimog).

- Garden tractors, motor mowers, motor hoes and self-propelled rotary cultivators: motor machines with one axle that are used in agriculture, horticulture and viticulture and similar machines without an axle.

Machines used exclusively for parks and lawns are excluded.

- Cereal harvesters: automobile machinery, or those that work with a tractor for the harvesting (reaping, threshing and sweeping) of cereals, including rice and corn for grain.

Included in this section are combine harvesters for leguminous plants, oleaginous seeds and grasses.

- Other completely automated combine harvesters. Automobile machines that are dragged or pulled by tractors that are different from the cereal harvesters used for collection and are used continuously for sugar beet, potatoes or fodder crops. The harvesting of a crop can be done in one or a number of operations (for example when machines with different purposes are used in a number of uninterrupted operations). In this case, the different machines count as one.

Irrigation equipment: all the different equipment used for irrigation, whether this is done by spraying or using channels or tubes. Mobile irrigation equipment is understood to be that which can be moved from one piece of land to another during the same vegetation period. Fixed irrigation equipment is firmly installed and cannot be moved during the vegetation period.

5.19 AGRICULTURAL LABOUR ON THE OPERATION

Agricultural labour includes everybody who, having passed the age of obligatory schooling, has carried out agricultural work during the period 1-X-98 to 30-IX-99.

Agricultural work is considered to be all human activity that contributes to the agricultural operation's financial results. This includes:

- Organisation and management work: purchasing, sales, accounting.
- Work with sowing, cultivation and harvesting.
- Work with the livestock: the preparation and distribution of food, milking and care of the animals.
- Storage and maintenance work on the operation: silaging, fencing, packaging.
- Upkeep work on buildings, machinery and facilities.

Employees employed by others, or through mutual assistance schemes, for example labour through an agricultural services company or cooperatives, will not be considered. Domestic tasks carried out by the owner or members of his/her family or by wage earners that are not family will not be considered as the operation's agricultural work either. Work involving the manufacture of products deriving from the operation's production, such as cheese or cold meats, is also excluded.

Transport work relating to the operation is only considered if it is carried out by the operation's own employees.

5.19.1 Family labour

This characteristic is only included in agricultural operations whose owner is an individual. Family labour is considered to be the owner, his/her spouse and other family members if they carry out agricultural work for the operation on a continual or temporary basis, as wage earners or not.

Included in the **owner's other family members** are ancestors, descendants and other relatives, including those related by marriage or adoption, regardless of whether they live on the operation or somewhere else.

Persons providing family labour are classified according to sex, age, if they are operation managers or not, the number of full and/or partial days worked on the operation and whether they regularly receive any kind of remuneration and if they have carried out any other profitable activity.

5.19.2 Non-family labour

Is labour which is supplied by persons different from the owner and family members in return for money, in kind or both at the same time.

It covers:

a) Labour by permanent wage earners, whose pay is continuous throughout the year. It includes the number of persons classified by sex, age and intervals of full days, or their equivalent, worked on the operation.

Also included is the operation manager if he/she is not included in the family labour section. Included is the sex, age, number of full days worked on the operation and whether any other profit-making activity was carried out during the reference period.

b) Temporary wage earners' labour. The number of days worked, according to the workers' sex is registered.

5.20 DAYS WORKED ON THE OPERATION BY PERSONS NOT DIRECTLY EMPLOYED BY THE OWNER

The number of days worked on the operation by persons who have not been directly employed by the owner during the twelve months of the agricultural campaign are researched, for example wage earners from contracted companies.

6 Measurement units and operation types

6.1 MEASUREMENT UNITS

6.1.1 Area units

The crop areas are expressed in hectares (Ha). There are small differences when adding up the data by rows or columns in a table, as the decimal figures have been rounded up following the breakdown of individual data that are collected in the questionnaires and expressed in hectares and areas.

6.1.2 Animal units

Livestock data is expressed in number of heads or in **animal units** (AU), which are obtained by applying a coefficient to each species and type in order to group different species in one common unit.

The coefficients used are:

Dairy cows: 1; Other cows: 0.8; Male cattle of 24 months and above: 1; Female cattle of 24 months and above: 0.8; Cattle of between 12 and 24 months: 0.7; Cattle of under 12 months: 0.4; Sheep: 0.1; Goats: 0.1; Sows: 0.5; Replacement sows: 0.5; Piglets: 0.027; Other pigs: 0.3; Horses: 0.8; Chickens: 0.014; Laying hens: 0.014; Meat chickens and cockerels: 0.007; Turkeys, ducks, geese and guinea fowl: 0.03; Other poultry: 0.03; Does: 0.02. Beehives and ostriches are exempt and are not converted into AU.

These coefficients have been modified with regards the last Agrarian Census, in accordance with EUROSTAT recommendations.

6.1.3 Labour units

Work data for the operation are expressed in **number of full or partial days** or in **annual labour units** (ALU); one ALU is equivalent to the work carried out by one person on a full-time basis over one year.

The next chart gives the equivalents of ALUs, working days, hours worked and the percentage of annual work time of one person working on a full time basis:

P e r c e n t a g e	H o u r s	D a y s	A L U
> 0 to < 25 %	> 0 to < 456	> 0 to < 57	> 0 to < 0.250
25 to < 50 %	456 to < 912	57 to < 114	0.250 to < 0.500
50 to < 75 %	912 to < 1369	114 to < 171	0.500 to < 0.750
75 to < 100 %	1369 to < 1826	171 to < 228	0.750 to < 1
100 %	1826 & m o r e	228 & m o r e	1

A partial day is calculated as half of a full day.

6.1.4 Other conventional measurement units

The following conventional units are also used in the Census:

a) Gross Margin (GM)

Is the balance between the monetary value of the gross production and the value of certain direct costs inherent in this production.

As it is impossible to obtain this balance for each individual operation, a normalised coefficient is calculated at an Autonomous Community level for each activity on the agricultural operations, called the **standard gross margin (SGM)**. **Activity** is understood as each type of crop or type of livestock worked in the region.

These coefficients, which determine each activity's gross margin, are based on average data generally provided by the operations within the Farm Accountancy Network and calculated for a reference period covering a number of years. They are updated at specific points, in accordance with economic trends.

The SGM reference period for the 1999 survey corresponds to the average from the years 1995, 1996 and 1997.

For each operation, the gross margin of a particular activity is calculated by multiplying its physical size, hectares or livestock heads according to each case by the corresponding coefficient. The total of gross margins of all activities on the operation gives us the operation's **total gross margin (TGM)**.

b) European size unit (ESU)

Economic size is expressed in European measurement units known as **European size units (ESU)**. One ESU corresponds to 1,200 European currency units (ECU) of gross margin. The exchange rate used is 1 ECU = 167.119 pesetas.

6.2 OPERATION TYPES

The types aim to group agricultural operations that are relatively similar in different classes, based on two essential operation characteristics:

- The type of farming
- Economic size

Both the type and size are determined on the basis of the gross margin.

The economic size is the TGM of an operation. The type of farming (TF) is defined according to the relative composition, by activity, of the operation's gross margin.

In accordance with community demands, the General Agriculture TF have been modified as of 1995 and the new TF 13 and TF 14 have been established.

The types have been conceived as a statistical analysis instrument in order to respond to the needs of agricultural policy. They allow:

- a) An analysis of the operations' situation based on economic criteria.
- b) A comparison of the operations' situations:
 - Between different type classes.

- Between the different member states or regions.
- Between different time periods.

c) A linking of the operations' economic size with their physical size and the work factor.