



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT  
Directorate L. Economic analysis, perspectives and evaluations  
**L.3. Microeconomic analysis of EU agricultural holdings**

Brussels, 05/10/2009.  
SH D(2008)

RI/CC 1500 rev. 3

Original in EN

**COMMUNITY COMMITTEE FOR  
THE FARM ACCOUNTANCY DATA NETWORK**

**TYPOLOGY HANDBOOK**

## **FOREWORD**

This handbook describes the methods of the new Community typology of agricultural holdings and the standard output (SO) coefficient calculation.

Some of its parts are based on the previous typology handbook from 2003.

Within the framework of the Community Committee for the Farm Accountancy Data Network (FADN), a working group was created to exchange views on the future development of typology from 2010 onwards. A smaller group of national experts from Lithuania (R. Daunyte), Germany (R. Meyer), United Kingdom (S. Matthews), Sweden (A-M. Karlsson), Portugal (M. do Socorro Rosário) and Austria (H. Janetschek) contributed to the writing of this handbook.

The Commission thanks them a lot for their time and contributions. Special thanks to G. Benoist, Hungarian expert detached at Eurostat for his cooperation.

\*\*\*\*\*

## TABLE OF CONTENTS

<b>INTRODUCTION .....</b>	<b>5</b>
<b>1. BASIC PRINCIPLES AND DEFINITIONS.....</b>	<b>7</b>
<b>2. DETERMINING REGIONAL COEFFICIENTS OF STANDARD OUTPUT.....</b>	<b>8</b>
2.1. Definitions and principles for calculating SO coefficients .....	8
2.2. Products to be taken into account .....	9
2.3. Special arrangements for crop products.....	11
2.3.1. <i>Mushrooms</i> .....	12
2.3.2. <i>Fodder, fallow land and land without economic use</i> .....	12
2.4. Special arrangements for animal products.....	13
2.4.1. <i>Bovine animals</i> .....	14
2.4.2. <i>Pigs</i> .....	17
2.4.3. <i>Sheep and goats</i> .....	18
2.4.4. <i>Poultry</i> .....	18
2.4.5. <i>Beehives</i> .....	19
<b>3. INVENTORY AND CHOICE OF DATA SOURCES.....</b>	<b>20</b>
3.1. Data needed to calculate a SO.....	20
3.2. Inventory of data sources .....	20
3.3. Evaluation and choice of a data source before calculation ( <i>a priori assessment</i> ) .....	22
3.4. Evaluation of a data source after calculation ( <i>a posteriori assessment</i> ) .....	24
3.5. What can be done if no data source is available?.....	25
3.6. Conclusion .....	25
<b>4. SO COEFFICIENT UPDATE AND TRANSMISSION.....</b>	<b>26</b>
4.1. Direct observation method .....	26
4.2. Updating method.....	27
4.3. Transmission to Eurostat .....	27
<b>5. DETERMINING THE ECONOMIC SIZE OF AN AGRICULTURAL HOLDING.....</b>	<b>28</b>
5.1. General definition .....	28
5.2. Special cases.....	28
5.2.1. Calves.....	28
5.2.2. Other sheep, other goats and piglets .....	29
5.2.3. Fallow land and land without economic use .....	29
5.3. Economic size classes .....	29
<b>6. DETERMINING THE TYPE OF FARMING OF AN AGRICULTURAL HOLDING.....</b>	<b>31</b>
6.1. The basis for classification .....	31
6.2. Determining the type of farming .....	31
<b>7. DETERMINING THE IMPORTANCE OF THE OTHER GAINFUL ACTIVITIES (OGA) DIRECTLY RELATED TO THE HOLDING .....</b>	<b>35</b>

ANNEXES:

<b>1. Diagram of the bovine sector .....</b>	<b>37</b>
<b>2. Calculation examples on SO coefficients .....</b>	<b>38</b>
<b>Wheat .....</b>	<b>39</b>
<b>Market gardening .....</b>	<b>40</b>
<b>Fresh fruits.....</b>	<b>41</b>
<b>Forage.....</b>	<b>42</b>
<b>Permanent grassland .....</b>	<b>43</b>
<b>Sugar beet .....</b>	<b>44</b>
<b>Pigs for fattening .....</b>	<b>45</b>
<b>Laying hens.....</b>	<b>46</b>
<b>Bovine animals .....</b>	<b>49</b>
<b>3. Frames for the transmission of the SO coefficients to Eurostat .....</b>	<b>53</b>
<b>4. List of valid SO codes for crop and livestock characteristics from FSS 2010 .....</b>	<b>55</b>
<b>5. Correspondence between the headings of the farm structure surveys and the farm return of the Farm Accountancy Data Network (FADN) .....</b>	<b>57</b>
<b>6. Algorithm for the classification of the agricultural holdings by type of farming .....</b>	<b>62</b>
<b>7. Calculation examples on farm economic size and type of farming .....</b>	<b>66</b>
<b>8. OGA directly related to the holding: definition from the Handbook on implementing the FSS and SAPM definitions of May 2008. ....</b>	<b>73</b>

## **INTRODUCTION**

In the European Union, there is a wide diversity of the production structures and systems. To make it easier to analyse the structural characteristics and economic results of the agricultural holdings, an appropriate Community classification of the agricultural holdings per type of farming and economic size class has been developed.

Since 1985, the typology of the agricultural holdings was based on standard gross margins (SGM) calculated taking into account the gross output and the subsidies, as well as certain deductible specific costs. In the meantime the common agricultural policy has drastically changed and the majority of the direct payments has been decoupled. Due to this decoupling of direct payments since 2005, it was not possible to maintain the previous typology (Commission decision 85/377/EEC) based on SGM. A SGM without subsidies could be negative and therefore can not be used as classification criteria. Therefore, a new typology has been established. Its main innovations are:

- Use of the Standard Output (SO) instead of the SGM.
- No reference to a balance of fodder.
- A 3-level "type of farming" classification (from 4 levels in the previous one).
- Expression of the economic size of the holdings directly in Euro.
- Introduction of a new classification variable reflecting the importance of the other gainful activities (OGA) directly related to the holding.

The aim of this handbook is to help the Member States to implement the new typology in a homogeneous way.

The typology may be applied to data from the Farm Structure Survey (FSS) as well as to data from the Farm Accountancy Data Network (FADN). This link between the two data sources is a key element *inter alia* of the weighting of the FADN results.

This handbook is intended to be improved continuously after the update of the legislation or user comments.

The Handbook is reproducing the official rules for calculating SO and contains in addition further explanations. The aim of this handbook is to be practical and helpful, and therefore a lot of examples are provided. These basic principles should be followed to improve harmonisation and comparability between the Member States.

The methods and rules displayed hereafter will fully apply from 2010 onwards but some adaptations are required for an earlier use. They are described in specific documents.

**Basis regulations:**

- Community typology:  
*Commission Regulation (EC) No 1242/2008 of 8 December 2008 establishing a Community typology for agricultural holdings*
- Community Farm Structure Survey (FSS):  
*Regulation (EC) No 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No 571/88*
- Definition of the FSS characteristics:  
*Commission Regulation No°XXX/2009 of XXXX XXXX 2009 implementing Regulation (EC) No 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods, as regards livestock unit coefficients and definitions of the characteristics*
- Handbook on implementing the FSS and SAPM definitions, CPSA\_SB\_652.rev.6
- Farm Accountancy Data Network (FADN):  
*Commission Regulation (EC) No°868/2008 of 3 September 2008 on the farm return to be used for determining the incomes of agricultural holdings and analysing the business operation of such holdings.*

## 1. BASIC PRINCIPLES AND DEFINITIONS

The aim of this handbook is to help the Member States to apply the methodology to establish an appropriate and harmonised typology in the EU. The basic principles to be followed are:

- Simplification
- Harmonisation between the Member States
- Comparability between the Member States

**The Community typology of agricultural holdings** is a uniform classification of holdings in the European Union. For practical reasons, the classification of farms cannot be based on financial information recorded individually for each holding. Therefore, the classification is based on a set of economical coefficients calculated as regional averages, the SO coefficients, and on the structural information (areas and numbers of heads) collected in the Farm Structure Survey (FSS) and in the Farm Accountancy Data Network (FADN).

Classification of holdings is based on their type of farming and economic size. The determining of these two elements is based on the SO of the various types of agricultural production. In addition holdings can be classified also according to the importance of the OGA of the holding. The typology is arranged in a way that homogeneous groups of holdings can be assembled in a greater or lesser degree of aggregation.

The definitions are as follows:

- a) The "**standard output**" (SO), of an agricultural product (crop or livestock) is the average monetary value of the agricultural output at farm-gate price. The SO excludes direct payments, value added tax and taxes on products. The Member States calculate regional SO coefficients for each product as average values over the reference period.
- b) The "**economic size of a holding**" is the value of its **total SO**. It is the sum of the individual SO of all the agricultural products present on the holding, expressed in Euro. Since Commission Regulation (EC) No 1242/2008 of 8 December 2008 there are 14 economic size classes.
- c) The "**type of farming of a holding**" is the production system of a holding which is characterised by the relative contribution of different enterprises<sup>1</sup> to the holding's total SO. Depending on the amount of detail required, there are three nested levels of type of farming: 9 *general types*, 21 *principal types* and 62 *particular types*.
- d) The "**importance of the OGA of the holding**" is defined as the share of the OGA turnover in the total turnover of the holding (including direct payments). Depending on this estimated OGA share, the farms are classified according to three percentage bands (from 0 to 10%, from 10% to 50%, more than 50%).

The headings of the agricultural products surveyed are called **characteristics** in the FSS and **products** in the FADN. To be clear throughout the handbook, the word characteristic is used when referring to both.

---

<sup>1</sup> Enterprise: part of an agricultural holding which can be considered as an economic activity; for e.g. dairy enterprise.

## **2. DETERMINING REGIONAL COEFFICIENTS OF STANDARD OUTPUT**

The standardised classification of agricultural holdings in a regulated Community typology concentrates on the type of farming and economic size, and is based on an economic criterion, the **SO**.

The basic principles and rules to be used for calculating SO are displayed in Annex IV of Commission Regulation Commission Regulation (EC) No 1242/2008 of 8 December 2008 establishing a Community typology for agricultural holdings.

### **2.1. Definitions and principles for calculating SO coefficients**

The **SO** of an agricultural product (crop or livestock) is the monetary value of the agricultural gross production at the farm-gate price<sup>2</sup>:

- including sales, farm use, farm consumption and changes in stocks,
- including both the value of the principal and any secondary products. The principal product<sup>3</sup> is usually the one with the highest value; the other products are taken as secondary ones,
- excluding direct payments, value added tax and taxes on products<sup>4</sup>: no direct payments (coupled, decoupled and other payments) are to be taken into account when calculating SO.

Secondary products are to be valued if they are sold or used on the farm<sup>5</sup>. The farm-gate price means the price of a product before any deduction for transportation or marketing costs. If in a region a product cannot be sold without being packed, the farm-gate price used should reflect the price of the packed product.

The SO is a unit value: for each type of crop production it corresponds to one hectare (or one are = 100 m<sup>2</sup> for mushrooms), and for livestock production it corresponds to one head of livestock (or 100 heads in the case of poultry) or one hive for bees. In the FSS it corresponds to the area and livestock as recorded at a given time, whereas in FADN it corresponds to the yearly average.

The data used to calculate a SO cover a twelve-month production period (either a calendar year or an agricultural year). If the period of production for crops and livestock is other than twelve months, the figure should be converted into values relating to a period of twelve consecutive months.

The SO of a characteristic corresponds to the weighted average situation on the agricultural holdings situated in a given geographical unit (hereafter called region). These geographical

---

<sup>2</sup> The marketing (and transporting) expenditures are to be considered as costs and they are not deducted from the price to be used in the standard output calculation.

<sup>3</sup> For example the principal product of a dairy cow is the milk; the values of the calf and of the cow meat are secondary products.

<sup>4</sup> No compensation from a private company in case of bad weather for example or from the state in case of animal health problem is to be taken into account. The SO coefficient should correspond to the output expected in "normal" conditions. If in a year the whole MS is concerned by an epizooty (like the blue tongue), this abnormal year may be excluded from the calculation for the products concerned.

<sup>5</sup> For example the straw is to be valued if it is collected for the farm use or for sale.

units are to be usable in FSS and FADN; therefore, they are all based on the general Nomenclature of Territorial Units for Statistics (NUTS) as defined in Regulation (EC) No 1059/2003. The SO can be calculated for smaller geographical units than NUTS2 regions or FADN regions. The only obligation is to describe these units as a regrouping of NUTS3 regions. The list of valid region codes and their definition can be changed in accordance with the Eurostat. It is made available through the Eurofarm data supplier manual.

**These SOs per region and characteristic are named the regional SO coefficients.**

At least once every 10 years, when the FSS is carried out in the form of a census, the basic data for determining SO are renewed. Within the 10-year period the SO coefficients are updated each time there is a new FSS.

In order to smooth the effects of short-term fluctuations, which may be considerable in cyclical animal production or in horticulture, the SO coefficients are calculated as an average over a reference period covering five successive calendar or agricultural years. For a FSS year N, the SO coefficients are the average of year N-5 to year N-1. Therefore for FSS 2010, Member States will calculate SO coefficients as an average of 2005-2009. All Member States have to use the same five years, even if the survey was anticipated to a year before.

The basic data for determining the SO and the calculated SO are established in **Euro**. For the Member States not taking part in the Economic and Monetary Union, the SO are converted into Euro using the average exchange rates for the reference period. These rates are communicated by Eurostat to these Member States. The SO may be rounded to the nearest EUR 5 where appropriate and at least at the Euro cent. The rounding is applied at the latest stage of the calculation, i.e. when the SO coefficients are sent to Eurostat.

## **2.2. Products to be taken into account**

Regional SO coefficients are calculated for each land use and livestock characteristics in the Community FSS, unless the characteristic has a low prevalence in the region concerned.

In the SO calculation, the processing of agricultural products should not be taken into account even if that activity is closely linked to production (milk into butter, cream, cheese), except for wine and olive oil. Therefore, if in a region milk is typically transformed into cheese, in the calculation of the SO of dairy cow the value of milk will be taken into account and not the value of cheese.

For characteristics which include more than one crop, such as "2.01.07.01.01-Fresh vegetables, melons and strawberries - open field" or " 2.04.01.01.01 -Fruit of temperate climate zones", the SO coefficient corresponds to the weighted average of the SOs of the products included in these characteristics. It is up to the Member States to decide which products should be included in the calculation in relation to their significance.

The list of characteristics for the FSS includes headings which are subdivided into sub-headings. The Member States may, if they wish, give a single regional SO coefficient for the main heading; in this case, as no SO coefficients for the subheadings are calculated, the coefficient for the main heading should be repeated for the subheadings. This point applies for example to the following headings and related subheadings:

- "2.01.02 -Dried pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)"

- "2.01.02.01 -Peas, field beans and sweet lupins"
- "2.01.02.99 -Other dried pulses and protein crops for the production of grain"
- "2.01.07.01 -Fresh vegetables, melons and strawberries Outdoor or under low (not accessible) protective cover"
  - "2.01.07.01.01 -Open field"
  - "2.01.07.01.02 -Market gardening"
- "2.01.08 -Flowers and ornamental plants (excluding nurseries)
  - "2.01.08.01 -Outdoor or under low (not accessible) protective cover"
  - "2.01.08.02 -Under glass or other (accessible) protective cover"
- "2.01.09 -Plants harvested green"
  - "2.01.09.01 -Temporary grass"
  - "2.01.09.02 -Other plants harvested green"
    - "2.01.09.02.01 -Green maize"
    - "2.01.09.02.02 -Leguminous plants" = "2.01.09.02.99 -Other plants harvested green not mentioned elsewhere"
- "2.04.01 -Fruit and berry plantations"
  - "2.04.01.01 -Fruit species"
    - "2.04.01.01.01 -Fruit of temperate climate zones"
    - "2.04.01.01.02 -Fruit of subtropical climate zones"
  - "2.04.01.02 -Berry species"
  - "2.04.01.03 -Nuts"
- "2.04.03 -Olive plantations"
  - "2.04.03.01 -Normally producing table olives"
  - "2.04.03.02 -Normally producing olives for oil production"
- "2.04.04 -Vineyards"
  - "2.04.04.01 -Quality wine"
  - "2.04.04.02 -Other wines"
  - "2.04.04.03 -Table grapes"
  - "2.04.04.04 -Raisins"

Concerning the "2.01.09.02 -Other plants harvested green", as there is no exact correspondence between the subheadings in the FSS and FADN, Member States willing to provide details may calculate a SO for "2.01.09.02.01 -Green maize" and a unique average coefficient for "2.01.09.02.02 -Leguminous forage plants" and "2.01.09.02.99 -Other forage plants". For practical reasons this unique average coefficient should be communicated to Eurostat with both codes 2.01.09.02.02 and 2.01.09.02.99.

If a SO coefficient is provided for a subheading, it should be provided for all the other represented subheadings.

In the particular case of "2.01.02 -Dried pulses and protein crops for the production of grain", Member States willing to provide a detailed coefficient for "2.01.02.01 -Peas, field beans and

"sweet lupins" should use the working code<sup>6</sup> "2.01.02.99" corresponding to the "Other dried pulses and protein crops for the production of grain" to provide the SO coefficient for the second subheading.

The Member States are not required to supply SO coefficients for the following characteristics:

- "2.01.12.02 -Fallow land subject to subsidies without economical use"
- "2.02 -Kitchen gardens"
- "2.03.03 -Permanent grassland no longer used for production purposes and eligible for payments of subsidies"
- "2.05 -Other land"
- "2.06.02 -Irrigated area"
- "2.06.03 -Energy crops"
- Subheadings of "3.05.03 -Other poultry"
- "3.08 -Livestock not mentioned elsewhere"

The characteristic "2.02 -Kitchen gardens" is not valued because the production is mainly intended for the own consumption of the holder's family and not for sale.

For the SO calculation, irrigation should be considered to be a practice in the same way as conventional or organic farming. For the same characteristic, the SO will be higher in a region with a large share of irrigated land than in a region not practicing irrigation.

Energy crops are already included in the area of characteristics from 2.01 to 2.04 of the FSS and in the products of table K in the FADN.

For a better harmonisation between FADN and FSS, the area of successive crops<sup>7</sup> should not be valued in FADN. Nevertheless, in those Member States where successive secondary crops are of considerable importance, they are taken into account into the SO calculation of the main crops<sup>8</sup>, which precede or follow them. For example broccoli may be cultivated after sugar beet<sup>9</sup> on the same area. Therefore, in the SO coefficient calculated for sugar beet which is the main crop, in the regions where it is a common practice, the sugar beet output can be increased by the output obtained from broccoli.

### **2.3. Special arrangements for crop products**

The regional SO coefficients for crop products are determined per area units, i.e. per hectare (per are in the case of mushrooms). The data needed for the calculation, i.e. the monetary value of the output also has to be calculated per hectare.

---

<sup>6</sup> This working code does not exist in the FSS Regulation.

<sup>7</sup> Successive crops are recorded in the FADN farm return in table K with types of crop 3 and 7.

<sup>8</sup> The main crop is the crop that has the highest value of the production. If the value of production does not determine which the main crop is, then the main crop is taken as the one that occupies the ground for the longest time.

<sup>9</sup> Sugar beet and broccoli have more or less the same output, but sugar beet occupies longer the area. Therefore, sugar beet can be considered as the main crop.

Output is made up of the principal products such as cereals and beet roots plus secondary products such as collected straw of cereals to be used on the farm or for sale. In the case of main crops, output for twelve months generally corresponds to a single harvest. For horticultural products, output for twelve months may cover several successive crops. For permanent crops (fruit trees, vines, etc.) the total cultivation period<sup>10</sup> should be taken into account to determine an average annual output. No replacement value is deducted from the output of permanent crops.

### 2.3.1. *Mushrooms*

The regional SO coefficients for characteristic "2.06.01 -Mushrooms" are calculated per unit of 100 m<sup>2</sup> (1 are) regardless of the number of harvests, i.e.: the output includes all the successive harvests.

In FSS, effective growing surface area (beds, bags or similar surfaces) is registered. If used more than once the area is still counted once only, whereas in FADN in table K, the cumulated area of all successive harvests is recorded.

Therefore, for the purpose of the FADN the 2.06.01 coefficient is divided by the average number of harvests during the year. Member States must send to Eurostat this average when transmitting the regional SO coefficients.

### 2.3.2. *Fodder, fallow land and land without economic use*

Because of the **suppression of the fodder balance**, all fodder has to be valued and not only when sold.

#### "2.01.09.01 -Temporary grass, 2.03.01.-Permanent pasture and meadows and 2.03.02 -Rough grazings"

It might be difficult to value fodder, and especially pasture, because fodder is not always marketable. The value of temporary grass, permanent pasture and rough grazing can be established in reference to the price of another fodder, for example the price of hay. In this case the yield, the dry matter content and the feeding value of the pasture under valuation should be taken into account when estimating the output for hay. If there are no existing hay markets, the closest marketable fodder can be used as reference price. In countries with hay markets, the hay is often sold for example to horse stables. Therefore, the price should be used cautiously and may be adapted (i.e. reduced) by experts. Moreover, the price of hay often corresponds to baled and carted hay, therefore if it is used to value grazed pasture, the price of hay should be reduced by these baling and carting costs.

#### "2.01.09.02 -Other plants harvested green"

For "2.01.09.02.01 -Green maize" and other forage (2.01.09.02.02 -Leguminous forage plants and 2.01.09.02.99 -Other forage plants) there are market values available in most countries. Also the opinion of experts can be used. If the information on silage markets is more reliable, it can be used as reference for valuing pasture and other forage.

---

<sup>10</sup> For permanent crops the total cultivation period is from the planting to the end of production (grubbing or abandonment)

**Another way to obtain the value of forage is to estimate it on the basis of its costs of production (i.e. value of input employed: fertilisers, seeds, etc.).**

After calculation of the SO coefficients for fodder the Member States may compare their results with those of the other MS (above all with neighbour regions or with similar conditions) and also check the effect of the new coefficients on the classification of the farms and adjust the coefficients if necessary. The coefficients for fodder can be small, in order to avoid disturbing the classification of the holdings per type of farming and economic size.

In Member States where the pasture is only grazed, a SO coefficient is still to be estimated. In certain regions, the estimated value may be small, but for the sake of comparison between Member States a value is always to be provided. Moreover, a positive value attributed to pasture used for grazing enables to differentiate these pastures in use from the pastures without economic use.

The SO for "2.01.12.01 -Fallow land without any subsidies" may be null or very small.

"2.01.12.02 -Fallow land subject to the payments of subsidies, with no economic use": as this land has no economic use, its value is zero even if the land is grazed to respect cross compliance requirements.

For the same reason the SO for "2.03.03 -Permanent grassland no longer used for production purposes and eligible for the payment of subsidies" is zero. If a pasture is grazed only for meeting the cross compliance requirements, it is not classified as 2.03.03.

#### **2.4. Special arrangements for animal products**

Gross output comprises the principal products such as meat, milk and eggs, plus secondary products such as calves and wool. Manure is not considered as a secondary product from animal production.

Regional SO coefficients are calculated per head of livestock. For poultry (3.05.01 to 3.05.03), SO are calculated per 100 heads and for bees (3.07) per hive.

For characteristics where the production period is less than twelve consecutive months, for example "3.04.99.-Other pigs" and "3.05.01 -Broilers", the period has to be extended to twelve months. In cases where the production period for livestock is greater than one year, for example "3.05.02 -Laying hens" or "3.02.06 -Dairy cows", a SO is calculated for a period of twelve months.

Typology concentrates on output. For livestock, and especially bovine animals, the characteristics are split per category of age. The output corresponds to the value of growth of the animal during the time spent in the category. In other words, it corresponds to the difference between the value of the animal when it is leaving the category and its value when it is entering the category (named also the replacement value). Member States should pay attention not to take account the animal growth twice.

All the prices to be used for the calculation of the SO in year N are to refer to year N. It is a calculation simplification which is also avoiding inflation impact on the price of the animals at the time they enter a category. For example, the value of a dairy cow in year 2005 should take into account the value of in-calf heifers in 2005 too.

The prices of animals can be found for example in weekly reports on Market prices (carcass and live animals). The price paid to farmers may differ from the statistical prices because some marketing expenditures, like transport costs and taxes, are deducted by the slaughterhouse from the carcass price. But these possible marketing deductions or selling costs should **not** be deducted because the SO is referring to the output valued at farm-gate price.

#### 2.4.1. *Bovine animals*

For cattle there is no good matching between the surveyed items and the marketable products. For instance a high share of the heifers is not intended to be slaughtered. Thus the bovine system is complex and a diagram is displayed in Annex I to describe the whole bovine sector, using FSS and FADN codes. This diagram represents the change of bovine categories according to the age, the gender and the final use of the animals. One animal category in the FSS may correspond to different types of animals in the FADN; therefore, the SO is a weighted average of the value of these different types. For example, bovine animals under one year old group males and females as well as calves for fattening or for breeding. Besides, except for cows, the orientation (milk or "meat") is not differentiated for the bovine categories. Therefore, the SO is a weighted average of the value of milk and "meat" animals.

A first step, in the calculation of SO for bovine animals is to determine the share of each use expressed in percentage of the livestock number. Very useful is determining the length of the production cycles for each category.

Buffaloes are taken into account in the bovine categories.

##### 2.4.1.1. 3.02.01.-Calves under 1 year old

This coefficient should reflect only the value of the calves kept on the farm without cows or in addition to the calves born on the farm. Therefore, the weighting by category of the SO coefficient for calves should reflect the average situation of the whole region for all farms where the calves are kept without their mother from their age of purchase up to 1 year old<sup>11</sup>.

It is to be noted that the number of calves to be valued on the farm is calculated as the difference between the total number of cows (dairy and other cows) minus the total number of calves less than one year. It is indeed not possible based on the information available to distinguish between dairy calves and non dairy calves.

The final value of 3.02.01 is a weighted average of:

- Male and female calves Kept
- From the meat and the dairy sector without
- Kept for breeding or slaughtered before the age of one year their mother

The value of the calves slaughtered under the age of one year is calculated as:

- The value at the time of slaughter
- Minus the replacement value (value of calf when purchased)
- Multiplied by the number of alive calves produced in a year by place

<sup>11</sup> For example the calves for fattening or calves for breeding bought by specialised fatteners.

The value of the calves for breeding is the weighted average of:

#Young bulls				
#Steers	Farm- gate price	Value of purchase	1 / Length of production cycle in years	* Weight %
#Heifers for breeding	*	-		
#Heifers for fattening				

#### 2.4.1.2. 3.02.06 -Dairy cows and 3.02.99 -Other cows

The value of the SO coefficient for dairy cows should reflect the average situation of the whole region for all farms with dairy cows, the output **integrating the value of milk and the value of calves at 1 year (if kept on the farm) or of the sold calves (if they are sold before the age of one)**<sup>12</sup>.

The SO for dairy cows can be calculated as follows:

$$\text{SO 3.02.06.} = \text{Value of milk} + \text{value of calf (less than one year old or when sold)} + \\ [(\text{Value of (cull animal} - \text{in-calf heifer}) * \text{replacement rate}]]$$

The price for milk is a regional average price for a standard quality of milk before deduction of any marketing or transporting costs. The super levy or quality penalties are not to be deducted. Based on expert knowledge, the price can be increased if numerous high added value products are produced on the farms in the region. Despite the value of transformed products as cheese, cream, butter and other milk products is not taken into account, the value of the milk itself may be higher due to its use at the production of high added value products. The value of milk is equal to the average yield multiplied by the farm-gate price.

Value of calf: when adding the **value of a calf less than one year old** to the dairy cow value, the same method as used to calculate the value of 3.02.01. may be used, but the weights by destination have to be adapted. When looking specifically at dairy animals, a higher share of females may be used for replacement and the final use of males and the prices are different as for "meat" breeds. In contrast to 3.02.01 SO coefficient, in the dairy cow SO the value of the new-born is not deducted. In a region where the majority of the dairy calves are sold in the first weeks to other farms, the calf output to be included in the SO coefficient for cows is limited to the value of the new-born. However the value of the young female calves kept for the renewal of the dairy herd should be included.

For calculating the value of the calves to be included in the value of cows, the following points should be also taken into account:

- Fertility rate (total number of calves born alive divided by total number of inseminated females)
- Mortality rate of calves (total number of calves alive after one month divided by total number of calves born)
- Lactation period (period of time between two calving)

<sup>12</sup> The output of the calf up to one year is added to the cow output and only the surplus of calves (number of calves minus number of cows) present on the farm is valued.

The value of a cull animal is the weight multiplied by the price per kilo. The value of the cull cow measures the meat product from the cow. This value is to be spread on the number of productive years of the animal. The price should refer to the **farm-gate price**. This information on prices can be found for example in weekly price reports, 'Beef quotations', using a reference category of P/0 (EUROP carcass classification).

The value of in-calf heifer is deducted in order to take into account the replacement value. A heifer is a bovine female not yet calved. In some countries there are markets for in-calf heifers. If not, this price has to be estimated.

The cull animal value and the replacement value are divided by the average number of lactations, which is the same as to multiply by the replacement rate. The value of an in-calf heifer is often higher than the value of a cull dairy cow. Therefore, it can be expected that this part of the calculation will be negative.

For valuing suckler cows in "3.02.99 -Other cows", the same method as for dairy cows can be used.

An example of calculation is provided in the Handbook in Annex 2.

#### **2.4.1.3. Other bovine animals**

For the calculation of the SO coefficients of all the other bovine animals, it is reminded that each coefficient is a weighted average of the different categories of animals according to their final use. For example, the SO of the "3.02.03 -Female bovine animals from 1 to 2 years old" is a weighted average of the value of the females kept for breeding or fattening and a few females that could be slaughtered before the age of two.

Mortality rate of adult animals should be taken into account in the final value of the other bovine animals. In "3.02.06 -Dairy cow" and "3.02.99 -Other cows" the mortality rate is already taken into account through the replacement rate.

There are different ways of calculating the value of the animals:

1. The value can be calculated on the basis of the annual growth, i.e. the weight at the end of the period (or when slaughtered) minus the weight at the beginning of the period multiplied by the farm-gate price.

OR

2. The value of the finished animal can be calculated and spread on the length of the production cycle: (value at the time of slaughter minus value of new-born) divided by the length of the production cycle in years.

OR

3. In the regions where the fattening activity is specialised, it can be interesting to look at the value of the finished animal minus the weanling value and then the length of the "production" is limited to the fattening period.

The choice between the different methods will mainly depend on the data available and on the bovine systems existing in the region. The important thing to keep in mind is to deduct the replacement value when necessary<sup>13</sup>.

For example<sup>14</sup>, the value of "3.02.02 -Male bovine animals from 1 to 2 year old" is the weighted average of the value of the young bulls slaughtered before the age of two and the males kept to be fattened as steers or to become bulls.

A young bull is a finished animal; its value can be calculated choosing one of the following options:

1- { (Weight when slaughtered –Weight at the age of one) \* Young bull farm-gate price } \* Number of young bulls per place per year

2- { (Weight \* Young bull farm-gate price) – replacement value (= new-born value) } / (length of the production cycle in years)

3- { (Weight \* Young bull farm-gate price) – replacement value (= weanling price) } / (length of the fattening cycle in years)

The value of the male kept to be fattened as steer can be calculated the same way:

1- { (Weight at the age of 2 –Weight at the age of one) \* farm-gate price of a two year old steer}

2- { (Weight \* Steer farm-gate price) – replacement value (= new-born value) } / (length of the production cycle in years)

3- { (Weight \* Steer farm-gate price) – replacement value (= weanling price) } / (length of the fattening cycle in years)

The final SO for 3.02.02. is a weighted average of the two above values according to the share of young bulls and future steers in this category of age in the region.

#### 2.4.2. Pigs

##### "3.04.01 -Piglets under 20 kg"

The SO for piglets is calculated per head. It should reflect the output of piglets kept on farms without sows<sup>15</sup>. The value for piglets should be divided by the length of production of a piglet in years to cover a twelve months production period.

The piglets are not valued if there are sows on the farm.

##### "3.04.02 -Sows":

The SO for sows may be calculated as follows:

SO 3.04.02 = (Value at the time of slaughter – value when starting piglets production) / number of productive years  
+ Value of piglets

<sup>13</sup> When the SO is calculated based on the annual growth there is no need to deduct any replacement value.

<sup>14</sup> See also Annex 2.

<sup>15</sup> If there are sows on the farm piglets value is already included in the sow output.

The female pigs intending for breeding purposes, regardless if they have farrowed or not, are included in 3.04.02. The value of piglets to be added corresponds to the number of piglets per sow and per year multiplied by piglet selling price.

#### "3.04.99 -Other pigs":

This characteristic covers the pigs for fattening and the boars. The boars are seldom therefore the SO for 3.04.99 could be calculated as the value of the pigs for fattening.

The SO for pigs for fattening may be calculated as follows:

$$SO\ 3.04.99 = (\text{Value at the time of slaughter} - \text{piglet value}) * \text{number of pigs produced per place per year}$$

#### *2.4.3. Sheep and goats*

##### "3.03.01.99 -Other sheep and 3.03.02.99 -Other goats":

The other sheep/goats value is a weighted average of the lambs/kids kept on farms without breeding females<sup>16</sup> and other sheep/goats for slaughter and the male reproducers. The male sheep reproducers may not be significant and the SO can be limited to the lamb value. Lambs may be slaughtered at different age, but there are regional quotations for lamb at the time of slaughter. The value should be corrected to cover a twelve months period.

The SO for the other sheep and other goats can be calculated as follows:

$$SO\ 3.03.01.99 \& 3.03.02.99 = (\text{Value at the time of slaughter} - \text{value of new-born}) / \text{production period in years}$$

##### "3.03.01.01 -Ewes and 3.03.02.01.-She-goats":

In the ewes and she-goats headings, the lambs for breeding and the kids for breeding as well as the cull ewes and cull she-goats are included.

The other sheep and other goats are not valued if there are breeding females on the farm. Therefore, the coefficient for the breeding females should reflect the average situation of the whole region for all farms with ewes or she-goats, **the output integrating the value of fattened lambs or kids** (if they are fattened on the farm) or the value of the new-born lambs or kids (if they are fattened on other farms).

The SO for ewes and she-goats can be calculated as for the cows:

$$\begin{aligned} SO\ 3.03.01.01 \& 3.03.02.01 = & (\text{Value at the time of slaughter} - \text{value when starting lambing/kidding}) / \text{number of lambing/kidding years} \\ & + \text{Value of fattened lamb/kid} \\ & + \text{Value of other products (milk, wool)} \end{aligned}$$

#### *2.4.4. Poultry*

As for the other animals, the characteristic for poultry may cover more categories. The eggs are the principal product of laying hens. The chicks are the principal product of the breeding

---

<sup>16</sup> When there are breeding females on the farm the value of lambs and kids is included in the total breeding female output.

hens. They are not valued as such because they are included in "3.08 -Other animals"<sup>17</sup>. A detailed example is provided in the Annex 2.

#### 2.4.5. *Beehives*

The principal product of beehives is honey; the secondary products are wax, royal jelly... No replacement value is to be deducted because the SO is concentrating on the output.

---

<sup>17</sup> This is a characteristic for which the number of heads is not collected in the FSS and a product for which no average number is collected in FADN

### **3. INVENTORY AND CHOICE OF DATA SOURCES**

This chapter aims at helping the persons in charge of the calculation of the SO coefficients to find and choose the most appropriate data source for their calculation.

#### **3.1. Data needed to calculate a SO**

The basic data needed to calculate a SO are:

- Yield (average yield in a region or in a Member State)
- Physical quantities produced
- Prices
- Cultivated area
- Number of animals present and slaughtered
- Technical information, like length of production cycle, productivity of animals, mortality of new-born etc.

#### **3.2. Inventory of data sources**

There are numerous different kinds of data sources which can be used for the calculation of SOs. Of course, in different Member States the data sources are not all the same, but the main data sources are listed below in order of priority:

##### **1) Farm Structure Survey (FSS) - Eurostat**

The Community Farm Structure Survey provides statistics on the structure of the agricultural holdings (area and livestock) at different geographic levels. Each Member State is responsible for carrying out two kinds of Farm Structure Surveys:

- a census of agricultural holdings at least every 10 year
- a sample based intermediate survey in between, for example every three years

##### **2) Agricultural Prices – Eurostat and DG AGRI**

Two kinds of agricultural price statistics are managed by Eurostat:

- the Statistics of Absolute Agricultural Prices
- the EU agricultural Price Indices.

The national authorities of the Member States (National Statistical Offices and/or Ministries of Agriculture) are responsible for collecting absolute prices and calculating the average prices for their country, as well as for calculating the price indices. The periodicity is monthly or annual.

Moreover in the framework of the implementation of the CAP, the DG for Agriculture and Rural development collects agricultural market prices (The Market Information System). The periodicity may be weekly.

### 3) Crop and animal production – Eurostat

These are monthly or annual statistics on agriculture, for example:

- Statistics on the production of crop products (area under cultivation, quantity produced, yields...)
- Milk statistics (quantity of milk collected, use of milk)
- Meat production (number of slaughtering, carcass weight...)
- Livestock statistics (herd structure, number of heads by category), from 1 to 3 times a year

### 4) Administrative data bases (national and regional), for example:

- Integrated Administration and Control System (IACS)
- System for the Identification and Registration of the Bovine animals
- Organic farming register

### 5) Research and Advisory institutes (public or private), for example:

- Agricultural advisors
- Research Institutes
- Producer organisations
- Accounting offices

Research and advisory institutes can usually provide expertise and technical references. In some countries the producer organisations have also their technicians and experts. These can be useful especially when looking for information on small-scale production with not that big economical significance.

### 6) Specific surveys

Specific surveys are based on a sample of farms. The needed information is collected through a questionnaire. If the sample is well designed, the survey provides a set of reliable, robust and comparable results. But this kind of survey may be heavy and expensive to carry out.

### 7) Farm Accountancy Data Network (FADN)

The FADN database contains accountancy data issued from the bookkeeping of a sample of farms. In addition to financial data, information on the production of the farm (area, quantity...) is collected.

### 8) Economic Accounts for Agriculture (EAA)

The main purpose of the Economic Accounts for Agriculture is to analyse the production process and primary income generated by it. The accounts are therefore based on the industry concept. The EAA can be used to check the validity of the SO coefficients after their calculation.

As a conclusion, the data for calculating the SO coefficients can be taken from one or several sources (see table 1 below). The Member States should also pay attention to use coherent data sources; for example between yields and area. In the FSS the area of cereals refers to the field area whereas in the crop production survey the yield refers to the harvested area. Correction coefficients may be applied (see example on rye yield in § 3.3.).

One should use the source considered to be the most reliable for each element in the calculation. The following chapter discusses how to make a choice when more than one possible source exists.

**Table 1. List of data sources and information available**

	Price	Area	Yield	Total quantities produced	Number of livestock	Technical data	Other information
FSS		X			X		
Agr price statistics	X						
FADN	X	(X)	X	(X)	(X)		X
Crop and animal production statistics		X	X	X	X	X	
IACS		X			X		
Bovine livestock identification database					X		
Agr advisors	X	X	X			X	
Producer organisations	X		X			X	
Accounting offices							X
Specific surveys	X		X			X	
EAA				X			X
Experts	X		X			X	

### **3.3. Evaluation and choice of a data source before calculation (*a priori* assessment)**

The decisions concerning the choices of data sources are to be made case by case. Each data source has its strengths and weaknesses, and the one which seems to be the most reliable has to be picked out for the parameter needed. Even if a certain source contains a great number of figures, in practice it can not be used for every figure required, since it is not equally reliable throughout the data set.

There are some practical questions that can be asked to help to evaluate the data source and the information it contains:

- Relevance of the data:

The relevance of a data source is a qualitative judgment on whether the data source answers well the question in a given context. For example, is the data of the neighbour region relevant for the region studied? A new data source may be more precise for one variable, but if it is not comparable to other selected data sources used for the coefficients calculation it may not be relevant and left aside. The set of data sources has to be taken into account as a whole.

- Representativeness of the data:

In contrast with the relevance, the representativeness of a data source may be quantitatively measured. What is the coverage of the data in relation to the field looked for? What is the size of the sample? i.e. is the figure statistically satisfactory as regards the coverage of the field of observation? Evaluating the representativeness of a source is easier than evaluating its relevance, since it can often be based on quantifiable statistical components (sampling plan, selection bias, known heterogeneity, etc.).

- Quality and reliability of the data:

Who collects and produces the data? What is the interest of the data maker? From which kind of farms/companies, etc. the information is collected? Each data source is collected for its own purpose. For example, producer organisations collect data for different purposes than the administration. Is submitting information to the data collector on a voluntary or compulsory basis?

- Continuity:

Is the data regularly collected or updated? How often? If possible, the same source for a certain figure (for example the price of wheat) should be used not only for all the years included in a SO calculation of certain year (e.g. SO 2010), but also for the calculation of the consecutive SO coefficients (e.g. SO 2010 and SO 2013). If the data source used varies, it may cause changes in the SO coefficient and, as a result, the classification of the farms may change for methodology reasons and not because of a real evolution of the structure of agriculture.

There are no good or bad sources, only ones in which we can have a greater or lesser degree of confidence when using them to calculate SO. A data source may seem not appropriate due to a lack of representativeness of the searched field. However, it may become very relevant if it can be processed easily to cover the desired field.

- Choosing data source between national and regional level:

When a data source is the only one to provide detailed information at regional level, but there are doubts about its relevance or representativeness in part of the field covered, there are different solutions:

- ✓ A less detailed source may be used, it would give a national result, but it would probably be more reliable.
- ✓ A less reliable regional figure may be adjusted to a more reliable regional figure when geographical factors are more or less equivalent in both of them.

- ✓ The most reliable regional figures may be retained and the other regional figures may be estimated on the basis of the national figure and reliable regional SO. This method may be applied to calculations of regional yields.
- ✓ It may be decided that differences between regions are mainly a result of structural effects that can be measured. If the regional figures are not very reliable, they can be recalculated using regional structure and national figures. In this case, it is important to check the new ranking of the regions to ensure that it is not too different from the ranking produced by the regional figures. This method is suitable for valuations of mixed products such as fruit and vegetables.

To maintain a consistent line in difficult decisions, it is necessary to keep track of the assumptions and hypotheses on which the decision is based. This technique avoids the need of asking the same questions all over again in a few years' time and to keep continuity in the calculation method.

### **Example: Yield of rye in Sweden**

Yield of rye in region 1 can be found in two surveys:

- o FADN
- o the crop production survey

According to FADN the yield of rye in region 1 in the year 2005 was: **4 280 kg/ha +/- 16 %.**

According to the crop production survey, the yield in region 1 in the year 2005 was: 5 090 kg/ha +/- 2%. In the production survey the yield per hectare is defined as quantity produced per harvested area. Therefore, the yield has to be adjusted. In the region concerned, 1.3% of the rye area was not harvested. The yield should then be adjusted to **5 024 kg/ha +/- 2%.**

The crop production survey is considered as the best data source to be used because

- o its purpose is to estimate yields: the data source is relevant,
- o the population covers the same population as FSS (while FADN covers 90 %): the data source is representative,
- o the estimate is more precise (smaller deviation): the data source is reliable.

### **3.4. Evaluation of a data source after calculation (*a posteriori* assessment)**

Often it is impossible to evaluate *a priori* how relevant or representative a source is. If it is the only source available, it has to be used even if it is not very good.

The most frequent, but also the trickiest case, is when two rival sources are giving different results but no clear distinction emerges from *a priori* evaluation. *A posteriori* criteria have to be used afterwards to validate the use of one or the other source:

- Impact on the classification of the farms (by type of farming and economic size)
- Experts' advice
- Comparison between SO coefficients for the same characteristic in different regions: is the ranking between the regions realistic?

- Comparison between SO coefficients for the same characteristic in the other Member States, above all the neighbours with similar agricultural features.
- Comparison with FADN results or with the EAA.

### **3.5. What can be done if no data source is available?**

Sometimes it is difficult to find the data needed for a SO calculation in existing data sources, especially if that specific data is rare or is not often used. In that case the following advices may be useful:

- check if these specific data exist in neighbour regions or neighbour countries and if it could be used and how
- if possible draw a specific survey for example next to the farmers belonging to the FADN
- consult experts; make a list of contact people and ask their opinion

### **3.6. Conclusion**

SO coefficients are mainly used to calculate the typology, i.e. to classify the farms. This classification is used to display the results of the FSS and the FADN, to weight the FADN results and to facilitate the analyses and comparison between Member States. The SO can also be used by the Member States as indicators.

Therefore, despite the available data sources are only rarely beyond reproach, the Member States should ensure that the SO coefficients have been calculated with due care, that they are realistic and robust results.

## **4. SO COEFFICIENT UPDATE AND TRANSMISSION**

At least once in about 10 years, at the time of the FSS carried out in the form of a census, the basic data for determining SO are renewed on the basis of the "**direct observation**" method. Between the two FSS-census the SO coefficients are updated each time there is a new Farm Structure Survey. The update is done either by:

- Using the "**direct observation**"-method, or
- Using an "**updating**" method for bringing SO values up to date.

### **4.1. Direct observation method**

The basic data needed for calculating the SO is collected systematically during the same reference period in all Member States at least once every 10 years. For the FSS year N, the reference period shall mean the year N-3, covering the five successive accounting years from year N-5 to year N-1.

The basic data needed is:

- The quantity of the main product (by area or livestock unit)
- The corresponding unit price
- The value of any secondary product
- The replacement value for livestock

This basic data is collected by Member States from data sources listed in chapter 3 of the Handbook.

The Member States should forward to Eurostat the following information:

- The value of the SO coefficient in Euro: if rounding is applied, the rounded value is transmitted.
- The 5-year averages (or the 5 relevant yearly averages), per region and per characteristic of the quantity of the main product (by area or livestock unit), the corresponding unit price, the total value of any secondary product, the replacement value and the SO in national currency. Nevertheless, providing the quantity and corresponding unit price is optional because this information may not be available when the SO corresponds to a weighted average of different products. Moreover, it is not necessary to provide the replacement value for animal production if it is already taken into account in the gross output.
- The rate (National Currency/Euro) used for converting the SO into Euro (the 5-year average conversion rates are provided by Eurostat).
- The reference period applied and the years covered, as well as the information whether the calendar year or the agricultural year is applied for determining the SO coefficients.

- The mushrooms coefficients: the number of annual successive harvests.

## 4.2. Updating method

The principle is to multiply SO coefficients from a preceding reference period by a coefficient equivalent to the change in value of the SO between the new 5-year reference period and the preceding reference period.

This coefficient is established by the Member States for each characteristic and region. It should correspond to the best possible estimate of the overall changes between the two 5-year reference periods in terms of quantities produced per unit and prices.

The coefficient is applied to the values in national currency of the SO of the preceding reference period. The "updated" SO are then converted to Euro using the conversion rate provided by Eurostat.

A single coefficient applied in a uniform way to SO values of different products and fixed for a whole region or Member State is rarely considered as a sufficiently accurate method of updating.

## 4.3. Transmission to Eurostat

The list of characteristics for which a coefficient should be provided is displayed in Annex 4. As a reminder for practical reasons when the coefficients of the sub headings are equal to the main heading coefficient they need to be repeated.

The frames to be used for both methods ("direct observation" and "updating") are displayed in Annex 3. The frames for "direct observation" contain columns for 'quantity' and 'price'. Filling this information is voluntary and the Member States can decide to which characteristic to provide them. The column 'value' is required for every characteristic. It is not always necessary to provide the replacement value for animal production (see § 4.1.).

The Excel file to be used is made available by the Commission on CIRCA<sup>18</sup>.

The SO coefficients (and the data used for their calculation) for an FSS for year N should be transmitted to Eurostat the 31 December of Year N at the latest. In Member States where the FSS is done one year in advance, the date of delivery is the same as for the other Member States.

The transmission of the Excel file should be done using the eDamis system<sup>19</sup>:

<https://webgate.ec.europa.eu/edamis>

---

<sup>18</sup> In both interests groups for the FSS and typology and for the FADN.

<sup>19</sup> eDamis Helpdesk: [ESTAT-SUPPORT-EDAMIS@ec.europa.eu](mailto:ESTAT-SUPPORT-EDAMIS@ec.europa.eu), reference: AGRI\_SGMCOEF\_N

## **5. DETERMINING THE ECONOMIC SIZE OF AN AGRICULTURAL HOLDING**

### **5.1. General definition**

The economic size of a holding is equal to its total SO. Each hectare or head of livestock present on the holding is multiplied by the corresponding SO coefficient, the given result for each characteristic is the individual SO of the characteristic. The sum of the individual SOs is the economic size of the holding. As a reminder no value for the subsidies and for the other gainful activities directly related to the holding are included in the economic size of the holding.

The total economic size of the holding is therefore depending on its structure (number of hectares and animals) and on the SO coefficients applied in the region the holding belongs to.

In other words, the economic size of a holding corresponds to the output a farmer can potentially expect to get from his/her land and livestock in a given region.

The list of crop and livestock characteristics to be used is displayed in the Annex 4 of the handbook and corresponds to the characteristics listed in the FSS under the following chapters:

- 2.01.: Arable land
- 2.03.: Permanent grassland
- 2.04.: Permanent crops
- 2.06.01.: Mushrooms
- 3.: Livestock

A list of correspondence between the codes used in the FSS and those used in FADN is displayed in the Regulation establishing the typology and a copy is displayed in Annex 5.

**Table 2: Example of the economic size calculation of a holding**

Holding Structure			Regional SO coefficient	Individual SO
2.01.01.01.	Wheat	20 ha	1060 €/ha	21 200 €
2.01.03.	Potatoes	10 ha	3 550 €/ha	35 500 €
3.04.99.	Pigs for fattening	12 heads	200 €/head	2 400 €
<b>Total = Economic size of the holding =</b>			<b>59 100 €</b>	

### **5.2. Special cases**

#### **5.2.1. Calves**

Only the surplus of calves (number of calves minus number of cows) present on the farm is valued. Therefore, the SO of additional calves bought for fattening will be taken into account in the size of the holding. The number of calves to be valued can be calculated as follows:

- In FSS:  $3.02.01 - (3.02.06 + 3.02.99)$  = number of bovine animals less than one year old minus {number of dairy cows and other cows }
- In FADN:  $(D23 + D24) - (D30 + D31 + D32)$  = number of calves for fattening and other cattle under 12 months minus {number of dairy cows, cull dairy cows and other cows }.

**Table 3: Example of the economic size calculation of a holding with calves**

Holding Structure			Regional SO coefficient	Individual SO
3.02.99.	Other cows	15 heads	430 €/head	6 450 €
3.02.01.	Calves (less than one year old)	40 heads	600 €/head	0
<b>3.02.01. - 3.02.99.</b>	<b>Additional number of calves</b>	<b>25 heads</b>	<b>600 €/head</b>	<b>15 000 €</b>
3.02.02.	Young bulls	28 heads	260 €/head	7 280 €
3.02.03.	Heifers less than two years old	7 heads	300 €/head	2 100 €
<b>Total = Economic size of the holding =</b>				<b>30 830 €</b>

### 5.2.2. Other sheep, other goats and piglets

On farms with ewes, the other sheep are not valued. Similarly, on farms with she-goats, the other goats are not valued. Besides, piglets are valued only on holdings without sows.

**Table 4: Example of the economic size calculation of two holdings with pigs**

Holding with sows			Regional SO coefficient	Individual SO
3.04.01.	Piglets	500 heads	80 €/head	0
3.04.02.	Sows	50 heads	700 €/head	35 000 €
<b>Total = Economic size of the holding =</b>				<b>35 000 €</b>
Holding without sows			Regional SO	Individual SO
3.04.01.	Piglets	200 heads	80 €/head	16 000 €
3.04.99.	Other pigs	200 heads	200 €/head	40 000 €
<b>Total = Economic size of the holding =</b>				<b>56 000 €</b>

### 5.2.3. Fallow land and land without economic use

If a farm has only "2.01.12.01 -Fallow land without any subsidies" the economic size of the holding is zero.

The SO coefficients value for "2.01.12.02 -Fallow land subject to the payment of subsidies, with no economic use" and "2.03.03 -Permanent grassland no longer used for production purposes and eligible for the payment of subsidies" is zero.

Detailed examples are provided in Annex 7.

## 5.3. Economic size classes

The farms are classified according to their economic potential in 14 economic size classes.

The economic size classes are used:

- To establish the threshold defining the field of observation for the FADN.

- To establish the selection plan of the holdings to be part of the FADN sample and, in consequence, to weight the FADN results.
- To display the results of the agricultural holdings broken down by robust size classes at national or EU level. The robustness means they are not sensitive to the kind of production of the farms.

Different clustering rules have been defined in order to enable these different operations. The clustering rules that can be used to display the results of the agricultural holdings are shown in the following table:

**Table 5: Economic size classes and aggregated classes for the presentation of results**

Economic size classes in €			ES9			ES6		
N° Class	MIN (in €)	MAX (in €)	N° Class	MIN (in €)	MAX (in €)	N° Class	MIN (in €)	MAX (in €)
1	0	2.000						
2	2.000	4.000	1	2.000	8.000	1	2.000	8.000
3	4.000	8.000						
4	8.000	15.000	2	8.000	15.000	2	8.000	25.000
5	15.000	25.000	3	15.000	25.000			
6	25.000	50.000	4	25.000	50.000	3	25.000	50.000
7	50.000	100.000	5	50.000	100.000	4	50.000	100.000
8	100.000	250.000	6	100.000	250.000			
9	250.000	500.000	7	250.000	500.000			
10	500.000	750.000						
11	750.000	1.000.000	8	500.000	1.000.000			
12	1.000.000	1.500.000				6	500.000	
13	1.500.000	3.000.000						
14	3.000.000							

As far as selection plans are concerned, to ensure the representativity of the FADN results, it is essential that the selection plans are based on definite clustering rules. A Member State may decide to apply the following clustering rules of the economic size classes (refer to annex II to Commission Regulation N°1242/2008 and amendments):

- Classes 2 and 3: superior or equal to € 2 000 and strictly inferior to € 8 000;
- Or classes 3 and 4: superior or equal to € 4 000 and strictly inferior to € 15 000;
- Classes 4 and 5: superior or equal to € 8 000 and strictly inferior to € 25 000;
- Or classes 3 to 5: superior or equal to € 4 000 and strictly inferior to € 25 000;
- Classes 6 and 7: superior or equal to € 25 000 and strictly inferior to € 100 000;
- Classes 8 and 9: superior or equal to € 100 000 and strictly inferior to € 500 000;
- Classes 10 and 11: superior or equal to € 500 000 and strictly inferior to € 1 000 000;
- Classes 12 to 14: superior or equal to € 1 000 000;
- Or classes 10 to 14: superior or equal to € 500 000.

For example, a Member State may not cluster the economic size classes 8 to 14 (above 100 000 €), at a maximum the selection plan can be established clustering the economic size classes 8 and 9, and from 10 to 14.

## **6. DETERMINING THE TYPE OF FARMING OF AN AGRICULTURAL HOLDING**

The type of farming of a holding is the production system of a holding which is characterised by the relative contribution of different enterprises to the holding's total SO.

### **6.1. The basis for classification**

The classification of agricultural holdings by type of farming is based on:

- (1) the definition of the five main groups of **specialist agricultural holdings**:

- field crops (general cropping)
- horticulture (vegetables and flowers)
- permanent crops (vines and fruit trees)
- grazing livestock (bovine animals for milk and for meat, sheep, goats)
- granivores (pigs, poultry and also rabbits)

- (2) the acknowledgment of the importance of **mixed holdings**, which has two consequences:

- the choice of a 2/3 threshold<sup>20</sup> below which a holding is deemed not to be specialised;
- the definition of three mixed groupings with various combinations:
  - a combination of crop products,
  - a combination of livestock products,
  - a combination of crop and livestock products.

The classification has three levels of types of farming:

- 9 **general** types, including a type for non-classifiable holdings,
- 21 **principal** types,
- 62 **particular** types.

### **6.2. Determining the type of farming**

The type of farming of an agricultural holding is determined by the importance of each enterprise in the total SO of the farm: i.e. by the share of certain predefined partial SO in the total SO of the farm. 16 partial SO are defined. The "poles" P1 to P5 correspond to the five main groupings of specialist holdings, i.e. the five general types of farming:

- |    |  |
|----|--|
| P1 | specialist holdings with field crops     |
| P2 | specialist horticultural holdings        |
| P3 | specialist holdings with permanent crops |
| P4 | specialist grazing livestock holdings    |
| P5 | specialist granivores holdings           |

---

<sup>20</sup> In terms of share of an enterprise in the total SO of a farm.

## DEFINITION OF THE REGROUPING CODES

- P45. *Cattle, dairying* = 3.02.01. (bovine animals under one year old male and females) + 3.02.03. (bovine animals, one but less than two years old, female) + 3.02.05. (heifers, two years old and over) + 3.02.06. (dairy cows).
- P46. *Cattle* = P45 (cattle, dairying) + 3.02.02. (bovine animals, one but less than two years old, male) + 3.02.04. (male bovine animals two years old and over) + 3.02.99. (other cows).
- GL *Grazing livestock* = 3.01. (equidae) + P46 (cattle) + 3.03.01.01. (sheep breeding females) + 3.03.01.99 (other sheep) + 3.03.02.01. (goats breeding females) + 3.03.02.99. (other goats)
- If GL=0  
 FCP1 *Forage for sale* = 2.01.05. (fodder roots and brassicas) + 2.01.09. (plants harvested green) + 2.03.01. (pasture and meadow excluding rough grazings) + 2.03.02. (Rough grazings)  
 FCP4 *Forage for grazing livestock* = 0  
 P17 *Roots* = 2.01.03. (potatoes) + 2.01.04. (sugar beet) + 2.01.05. (fodder roots and brassicas)
- If GL>0  
 FCP1 *Forage for sale* = 0  
 FCP4 *Forage for grazing livestock* = 2.01.05. (fodder roots and brassicas) + 2.01.09. (plants harvested green) + 2.03.01. (pasture and meadow excluding rough grazings) + 2.03.02. (Rough grazings)  
 P17 *Roots* = 2.01.03. (potatoes) + 2.01.04. (sugar beet)
- P151. *Cereals without rice* = 2.01.01.01. (common wheat and spelt) + 2.01.01.02. (durum wheat) + 2.01.01.03. (rye) + 2.01.01.04. (barley) + 2.01.01.05. (oats) + 2.01.01.06. (grain maize) + 2.01.01.99. (other cereals for the production of grain)
- P15. *Cereals* = P151 (cereals without rice) + 2.01.01.07. (rice)
- P16. *Oilseeds* = 2.01.06.04. (rape and turnip rape) + 2.01.06.05. (sunflower) + 2.01.06.06. (soya) + 2.01.06.07. (flax (linseed)) + 2.01.06.08. (other oil seed crops)
- P51. *Pigs* = 3.04.01. (piglets of less than 20 kilograms live weight) + 3.04.02. (breeding sows of 50 kilograms or more) + 3.04.99. (other pigs).
- P52. *Poultry* = 3.05.01. (broilers) + 3.05.02. (laying hens) + 3.05.03. (other poultry).
- P1. *General cropping* = P15 (cereals) + 2.01.02. (dried pulses and protein crops) + 2.01.03. (potatoes) + 2.01.04. (sugar beet) + 2.01.06.01. (tobacco) + 2.01.06.02. (hops) + 2.01.06.03. (cotton) + P16 (oilseeds) + 2.01.06.09. (flax) + 2.01.06.10. (hemp) + 2.01.06.11. (other fibre crops) + 2.01.06.12. (aromatic plants, medicinal and culinary plants) + 2.01.06.99. (other industrial crops not mentioned elsewhere) + 2.01.07.01.01. (fresh vegetables, melons, strawberries – outdoor or under low (not accessible) protective cover – open field) + 2.01.10. (arable land and seedlings) + 2.01.11. (other arable land) + 2.01.12.01. (fallow land without any subsidies) + FCP1 (forage for sale)
- P2. *Horticulture* = 2.01.07.01.02. (fresh vegetables, melons, strawberries – outdoor or under low (not accessible) protective cover – market gardening) + 2.01.07.02. (fresh vegetables, melons, strawberries – under glass or other (accessible) protective cover) + 2.01.08.01. (flowers and ornamental plants – outdoor or under low (not accessible) protective cover) + 2.01.08.02. (flowers and ornamental plants – under glass or other (accessible) protective cover) + 2.06.01. (mushrooms) + 2.04.05. (nurseries)
- P3. *Permanent crops* = 2.04.01. (fruit and berry plantations) + 2.04.02. (citrus plantations) + 2.04.03. (olive plantations) + 2.04.04. (vineyards) + 2.04.06. (other permanent crops) + 2.04.07. (permanent crops under glass)
- P4. *Grazing livestock and forage* = GL (grazing livestock) + FCP4 (forage for grazing livestock)
- P5. *Granivores* = P51 (pigs) + P52 (poultry) + 3.06. (rabbits, breeding females)
- 3.07. (Bees) does not belong to any regrouping code but it is added to the economic size of the holding
- Total SO of the holding = P1 + P2 + P3 + P4 + P5 + 3.07.**

**Exceptions:**

3.02.01.: Only the additional number of calves (above the number of cows) is valued.

If  $(3.02.01. \text{ (expressed in heads)} - 3.02.06. \text{ (expressed in heads)} - 3.02.99. \text{ (expressed in heads)}) > 0$  then  
 $SO(3.02.01.) = SO_{\text{coefficient}}(3.02.01.) * (3.02.01. \text{ (expressed in heads)} - 3.02.06. \text{ (expressed in heads)} - 3.02.99. \text{ (expressed in heads)})$  Else  $SO(3.02.01.) = 0$

3.03.01.99.: If there are ewes on the farm the other sheep are not valued (if  $3.03.01.01. > 0$  then  $3.03.01.99. = 0$ )

3.03.02.99.: If there are she-goats on the farm the other goats are not valued (if  $3.03.02.01. > 0$  then  $3.03.02.99. = 0$ )

3.04.01.: If there are sows on the farm piglets are not valued (if  $3.04.02. > 0$  then  $3.04.01. = 0$ )

2.01.12.01.: This characteristic is not valued if there is nothing else on the holding (If Total SO of the holding =  $2.01.12.01.$  then  $2.01.12.01. = 0$  and Total SO of the holding = 0)

In order to avoid any misleading classification of the farms, a code groups all the grazing livestock (GL) together. If there are grazing livestock on the farm (i.e. GL > 0) then the fodder SO is part of the livestock regrouping code (P4). On the contrary, if there are no grazing livestock on the farm (i.e. GL = 0) the fodder value is attributed to the fieldcrops partial SO (P1). For practical reasons two partial SO have been created for fodder: FCP1 and FCP4; if GL > 0 then FCP1 is zero and FCP4 is part of P4; if GL = 0 then FCP1 is part of P1 and FCP4 = 0. For the same reason the partial SO for roots (P17) includes fodder roots (2.01.05.) only if there are no grazing livestock on the farm.

To determine the type of farming of a given holding, the following have to be calculated:

- (a) each *characteristic-level* SO corresponding to the characteristics recorded in the survey (hectares or number of heads of livestock multiplied by the corresponding regional SO coefficient);
- (b) the *partial* SO for the characteristics regrouped (sum of the individual SO);
- (c) the *total* SO of the farm (sum of the *partial* SO)

Finally, the type of farming can be determined on the basis of the algorithm described in Annex 6. The algorithm is a series of ordered tests; first the general type of farming is determined, followed by the principal and particular types of farming of an agricultural holding.

The first test determines whether the holding belongs to the 'SPECIALIST FIELD CROPS' type of farming. The value of the partial SO P1 is compared with the value of the total SO of the holding analysed. If the test is true, the following tests will determine the principal and particular type of farming of the holding within the 'SPECIALIST FIELD CROPS'. Otherwise the second test determines if the holding belongs to the 'SPECIALIST HORTICULTURE' type of farming...

**Example n°1**

Is:  $P1 > 2/3 * \text{total SO}?$

- YES: The general type of farming of the holding is '1. SPECIALIST FIELD CROPS'
  - ↳ Is:  $(P15 + P16 + 2.01.02.) > 2/3 * \text{total SO}?$
  - YES: The principal type of farming of the holding is '15. SPECIALIST COP'
    - ↳ Is:  $(P151 + P16 + 2.01.02.) > 2/3 * \text{total SO}?$
    - NO
      - ↳ Is  $(2.01.01.07.) > 2/3 * \text{total SO}?$

- YES: The particular type of farming of the holding is '152. SPECIALIST RICE'

**Example n°2**

Is: **P1 > 2/3 \* total SO?**

- NO
- ↳ Is: **P2 > 2/3 \* total SO?**
- NO
- ↳ Is: **P3 > 2/3 \* total SO?**
- YES: The general type of farming of the holding is '3. SPECIALIST PERMANENT CROPS'
  - ↳ Is: **2.04.04. > 2/3 \* total SO?**
  - YES: The principal type of farming of the holding is '35. SPECIALIST VINEYARDS'
    - ↳ Is: **2.04.04.01. > 2/3 \* total SO?**
    - NO
    - ↳ Is: **2.04.04.02. > 2/3 \* total SO?**
    - NO
    - ↳ Is: **2.04.04.03. > 2/3 \* total SO?**
    - YES: The particular type of farming of the holding is 'SPECIALIST TABLE GRAPES'

Any holding may thus be classified under one of the 8 general types of farming, one of the 21 principal types (the level most commonly used) and one of the 62 particular types. If the first level tests are all negative, the unclassified holding belongs to "9. Non-classified holdings". It can happen when there is no SO value on the holding, for example, if a farm has only kitchen garden or fallow land or land without economic use.

Detailed examples are provided in Annex 7.

## **7. DETERMINING THE IMPORTANCE OF THE OTHER GAINFUL ACTIVITIES (OGA) DIRECTLY RELATED TO THE HOLDING**

In typology, it was decided to introduce a new classification variable reflecting the importance of the other gainful activities directly related to the holding.

The aim of the Handbook is not to define which activities have to be considered as OGA directly related to the holding. The OGA of the holding are defined and listed in the Handbook on implementing the FSS and SAPM definitions (Annex 8).

The share of the OGA directly related to the holding in the final output of the holding is estimated as the share of the OGA directly related to the holding turnover in the total turnover of the holding (including direct payments) as follows:

$$\text{RATIO} = \frac{\text{Turnover of OGA directly related to the holding}}{\text{Total holding turnover (agricultural + OGA directly related to the holding)} \\ + \text{direct payments}}$$

The total turnover of the holding is the sum of:

- the sales of agricultural products,
- the turnover of the OGA directly related to the holding (= sales of processed products<sup>21</sup>, revenue of agritourism, sales of renewable energy, sales of timber, sales of processed wood, sales of handicraft, revenue from contract work...),
- the direct payments (excluding the subsidies on investment).

**The RATIO is not to be calculated precisely, an order of magnitude is enough because the holdings are to be classified in three classes with wide range of limits:**

Classes	Limits in percentage
I	From 0% to 10%
II	From more than 10% to 50%
III	From more than 50% to less than a 100%

Before estimating the ratio, for the purpose of FADN the accountant may ask to the farmer what was his answer to the FSS survey (and vice versa).

For Member States willing to calculate precisely the ratio (in particular in FADN) only part of the needed information is already collected in the farm return, but the accountant may have at his disposal the rest of the necessary information.

---

<sup>21</sup> Olive oil and wine are considered as agricultural products and therefore are not part of the OGA turnover. On the contrary the sales of cheese, butter, processed meat products... are part of the OGA turnover.

For example in FADN, the ratio can be estimated based on:

- The total direct payments recorded in J118
- The total sales of the holding recorded in K183 and in table E
- The total revenue from OGA: those recorded in FADN and the ones not recorded

$$\text{RATIO} = \frac{(K160 + K163 + K167 + K168 + K174 + K175 + K176 + K177 + K179) \text{ col 7} \\ + \text{other revenue from OGA of the holding not recorded in the farm return}}{K183 \text{ col 7} + (E51 + E52 + E54 + E55 + E56 + E57 + E58) \text{ col. 2} + J118 \\ + \text{other revenue from OGA of the holding not recorded in the farm return}}$$

Where:

K160 col 7 = Sales of Processed products from crops

K163 col 7 = Sales of Products of cows' milk

K167 col 7 = Sales of Products of sheep's milk

K168 col 7 = Sales of Products of goats' milk

K174 col 7 = Sales of Felled timber

K175 col 7 = Sales of Standing timber

K176 col 7 = Sales of Other forestry products

K177 col 7 = Turnover from Contract work for others (only if directly related to the holding)

K179 col 7 = Turnover from Farm tourism

K183 col 7 = Total sales of production (Excluding livestock)

E51 col 2 = Sales of horses

E52 col 2 = Sales of cattle

E54 col 2 = Sales of sheep

E55 col 2 = Sales of goats

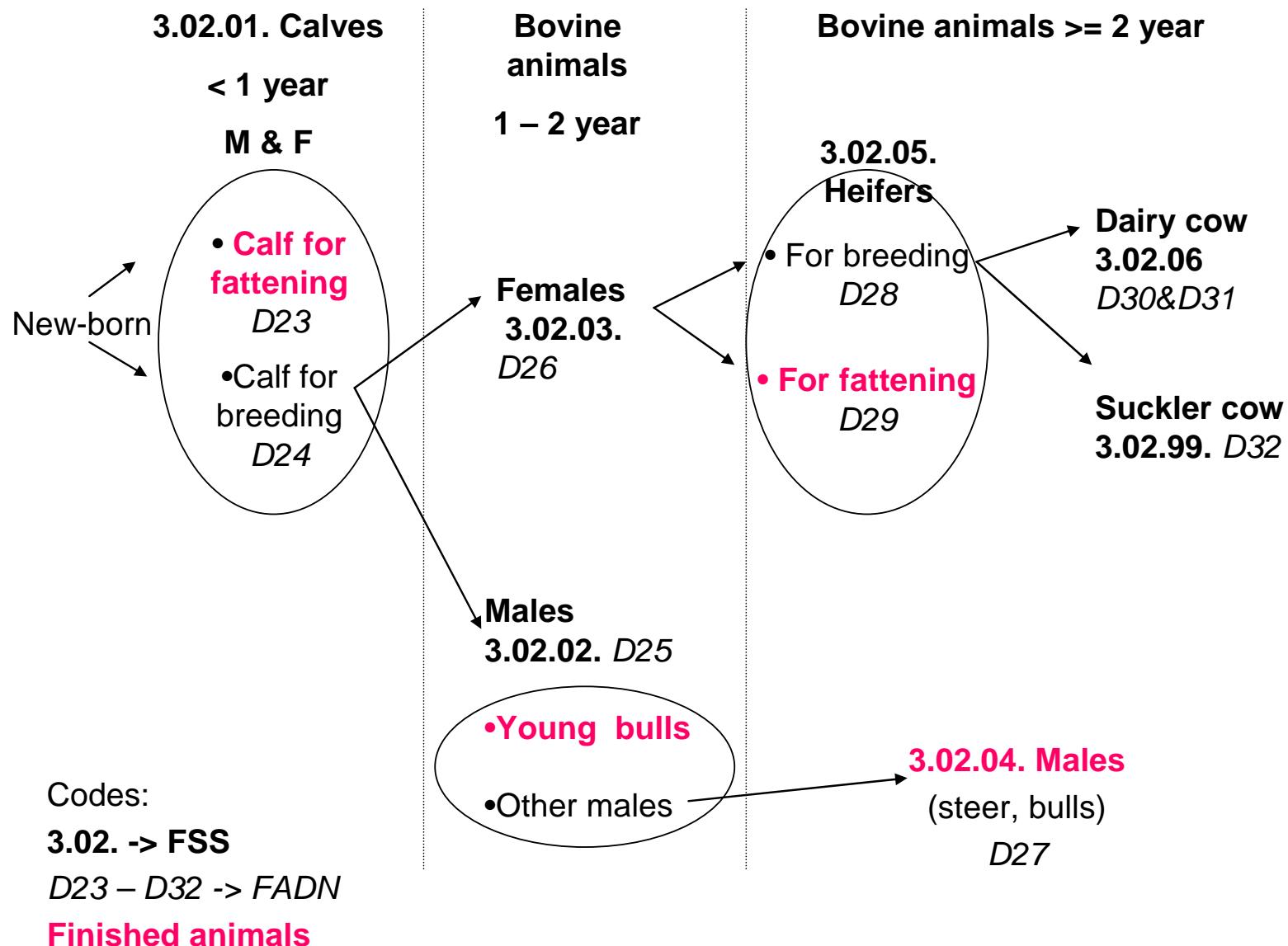
E56 col 2 = Sales of pigs

E57 col 2 = Sales of poultry

E58 col 2 = Sales of other animals

J118 = total grants and subsidies (excluding those on investment)

## ANNEX 1: BOVINE ANIMALS DIAGRAM



## **ANNEX 2**

### **SO CALCULATION EXAMPLES**

Please note that these examples are aiming at illustrating the methodology. They refer to the particular situation of the region concerned, in other Member States, the calculation may be different because the production systems are different or because the data available are more detailed or less detailed.

## Annex 2 (1) : Calculation examples on SO coefficients – WHEAT

LITHUANIA	Crops	Year 2005	Standard Output in €	325
Eurostat Code	2.01.01.01. (D01)	Common wheat		
FADN Code	120			

### 1- Comments

SO covers both winter and summer wheat produced for milling, feed, seed, etc. The most reliable data was selected as a source for SO calculation. Areas of wheat were taken from FSS 2005, physical output was obtained from annual crop survey at Statistical Office, and average price from price statistics. In the case of wheat, a secondary product is straw. There is no reliable statistics on this product, therefore, some FADN farms were surveyed and estimates were done by experts. In 2005, the average yield of wheat straw was 40 q/ha. However, only one quarter of the straw was collected for sale or farm use, therefore appropriate coefficient was applied (0.25). Average price is estimated to 1 Euro per q.

### 2- Reference data

Data source code	Wheat categories	Area (1000 ha)	Quantity (1000 q)	Yield (q/ha)
1	Winter Wheat	298.3	11 487	38.51
1	Summer Wheat	71.2	2 307	32.40
Calculation	Wheat	369.5	13 794	37.33

### 3- Detailed calculation

Data source code	Designation		% used	Unit	Quantity	Price(€)	Value (€)
			a	b	c	d=a*b*c	
1	Principal Product	Wheat	100%	kg/ha	3733	0.0843	315
2	Secondary Product	Straw	25%	q/ha	40	1	10
	SO per year						325

### 4- Observations

1 harvest a year

### 5- Data Sources

Code	Quantity	Price	Area
1	Crop prod-Eurostat	Price Statistics	FSS 2005
2	Estimate	Estimate	

## Annex 2 (2) : Calculation examples on SO coefficients – MARKET GARDENING

**PORUGAL**

**Horticulture**

**Year 2005**

Eurostat Code	2.01.07.01.02. (D14b)	Market gardening	Standard Output in €	8 085
FADN Code	137			

### 1- Comments

The SO for market gardening is a weighted average of the SO for different categories of products. In a region, there may be different yields for the same product (therefore the type of lettuce 1 is differentiated from the lettuce 2). The detailed area by product is available at regional level. For some products the area available reflects the number of harvests, in these cases the area has to be divided by the number of harvests (in this example lettuce, carrots and cabbage lombardo). If the prices are known only per kg and the quantities per piece, the quantity per kg is estimated.

### 2- Weighting and detailed calculation

Category designation	Unit	Harvest / year	Quantity	Price (€)	Value	Area (ha)	Share (%)	Weighted SO (€)
		a	b	c	d = a*b*c	e	f = e/Total e	g = d*f
Main Product	Lettuce 1	kg	4	20 000	0.38	30 400	280	3.7% 1 122
Main Product	Lettuce 2	kg	4	18 000	0.6	43 200	9	0.1% 51
Main Product	French Garlic 1	kg	1	18 500	0.38	7 030	291	3.8% 270
Main Product	French Garlic 2	kg	1	12 000	0.35	4 200	8	0.1% 4
Main Product	Onion 1	kg	1	35 000	0.2	7 000	732	9.7% 677
Main Product	Onion 2	kg	1	40 000	0.35	14 000	64	0.8% 118
Main Product	Carrot 1	kg	2	40 000	0.18	14 400	516	6.8% 982
Main Product	Carrot 2	kg	1	24 000	0.21	5 040	142	1.9% 95
Main Product	Green Pea 1	kg	1	4 250	0.23	978	218	2.9% 28
Main Product	Green Pea 2	kg	1	5 000	1.53	7 650	9	0.1% 9
Main Product	Green Bean 1	kg	1	5 000	0.45	2 250	283	3.7% 84
Main Product	Green Bean 2	kg	1	4 900	0.72	3 528	10	0.1% 5
Main Product	Harricot 1	kg	1	8 500	0.75	6 375	384	5.1% 323
Main Product	Harricot 2	kg	1	12 000	0.82	9 840	34	0.4% 44
Main Product	Watermelon	kg	1	30 000	0.3	9 000	21	0.3% 25
Main Product	Melon 1	kg	1	25 000	0.22	5 500	144	1.9% 105
Main Product	Melon 2	kg	1	20 800	0.6	12 480	31	0.4% 51
Main Product	Strawberry 1	kg	1	22 000	0.8	17 600	129	1.7% 300
Main Product	Strawberry 2	kg	1	26 000	0.85	22 100	28	0.4% 82
Main Product	Tomato fresh 1	kg	1	50 000	0.35	17 500	332	4.4% 768
Main Product	Tomato fresh 2	kg	1	36 000	0.4	14 400	36	0.5% 68
Main Product	Tomato industry	kg	1	85 000	0.09	7 650	452	6.0% 457
Main Product	Cauli flower	kg	1	12 500	0.25	3 125	673	8.9% 278
Main Product	Cabbage repolho	kg	1	25 000	0.19	4 750	879	11.6% 552
Main Product	Cabbage lombardo	kg	2	28 500	0.2	11 400	573	7.6% 862
Main Product	Brassica Brocoli	kg	1	10 000	0.3	3 000	891	11.8% 353
Main Product	Brassica Napus	kg	1	20 000	0.35	7 000	402	5.3% 372
					Total	7 570	100.0%	8 085

### 3- Data Sources

Quantity	Price	Areas
Ministry of Agriculture	Ministry of Agriculture	Ministry of Agriculture

## Annex 2 (3) : Calculation examples on SO coefficients – FRESH FRUITS

**PORUGAL**

**Permanent Crops**

**Year 2005**

Eurostat Code	2.04.01.01.01. (G01a)	Fruit of temperate climate zones	Standard Output in €	2 878
FADN Code	349 + 350 + 352			

### 1- Comments

There are different categories of apples and cherries with different yields, the SO for fruits is a weighted average of the SO for all these categories, plus pears, peaches and figues. Moreover the production may be irrigated or not. The quantity refers to the annual production in a year of harvest, the trees do not produce in the first years of cultivation. To take this into account, the annual production has to be corrected by a coefficient corresponding to the number of years of harvest devideed by the number of years of cultivation. In this region, cherries and figues are always sold packed therefore the value reflects the price of the packed product.

### 2- Weighting and detailed calculation

Category designation	Unit	Number of years of harvest	Number of years of cultivation	Coefficient	Quantity	Price(€)	Value	Area (ha)	Share (%)	Weighted SO (€)
		a	b	c = a/b	d	e	f = c*d*e	g	h = g/Total g	i = f*h
Principal Product	cherry irr 1	kg	20	24	0.83	1 800	1.25	1 875	521	5%
Principal Product	cherry irr 2	kg	20	24	0.83	2 000	1.5	2 500	695	7%
Principal Product	cherry irr 3	kg	20	24	0.83	1 800	1.5	2 250	521	5%
Principal Product	cherry irr 4	kg	20	24	0.83	2 000	1.5	2 500	382	4%
Principal Product	figues	kg	25	27	0.93	1 800	0.5	833	413	4%
Principal Product	apple irr 1	kg	20	23	0.87	18 000	0.2	3 130	266	3%
Principal Product	apple irr 2	kg	20	23	0.87	15 500	0.2	2 696	445	5%
Principal Product	apple irr 3	kg	20	23	0.87	15 000	0.2	2 609	280	3%
Principal Product	apple irr 4	kg	20	23	0.87	16 500	0.23	3 300	2 345	25%
Principal Product	apple irr 5	kg	20	23	0.87	16 000	0.23	3 200	1 227	13%
Principal Product	apple irr 6	kg	20	23	0.87	20 000	0.36	6 261	100	1%
Principal Product	apple irr 7	kg	20	23	0.87	20 000	0.32	5 565	136	1%
Principal Product	apple irr 8	kg	20	23	0.87	15 000	0.2	2 609	770	8%
Principal Product	apple irr 9	kg	20	23	0.87	18 000	0.2	3 130	189	2%
Principal Product	apple irr 10	kg	20	23	0.87	15 000	0.2	2 609	136	1%
Principal Product	apple irr 11	kg	20	23	0.87	21 000	0.39	7 122	30	0%
Principal Product	apple irr 12	kg	20	23	0.87	22 500	0.27	5 283	41	0%
Principal Product	pear irr	kg	20	23	0.87	8 500	0.32	2 365	384	4%
Principal Product	peach	kg	20	24	0.83	5 000	0.8	3 333	594	6%
							Total	9 476	100%	2 878

### 3- Observations

Coefficient = a/b

a = number of years of harvest

b = number of years of cultivation (begin to end or abondonment)

irr = irrigated

### 4- Data Sources

Quantity	Price	Areas
Crops production survey	Price Statistics	Crops production survey

## Annex 2 (4) : Calculation examples on SO coefficients – FORAGE

ENGLAND

Crops: Plants harvested green

Year 2005

### 1- Comments

As there is virtually no market activity for the plants harvested green the value of output is based on an equivalent value for hay. This data is taken from price statistics and an average value deducted for the cost of baling and carting hay using expert knowledge (15 £/t). Care needs to be taken not to overvalue the average price due to demand for horse feed. This value is then adjusted according to the feeding value for the other constituents of this standard output. This data is provided by expert advice. Yield should be based on dry matter (DM) to ensure consistency across the types of fodder. Temporary grass may be grazed or to produce hay or silage. Utilisation of grazed pasture is limited to 70%. In the FSS 2005 no information was available on the share of leguminous plants in the other forage.

### 2- Reference data

	Yield	Average DM content	Yield DM utilised	Nutritive value	Value per t of DM	
	fresh wet t/ha		t of DM/ha	MJ/kg DM	£/t	€/t
	a		b	c=a*b	d	f=e*1.4
Hay	8.0	90%	7.2	8.80	57.27	80.17

Value of other products derived from hay price

	Yield	Average DM content	% of use	Yield DM utilised	Nutritive value	Value per t of DM	
	fresh wet t/ha		t of DM/ha	MJ/kg DM	£/t	€/t	
	a		b	c=a*b*g	d	i=(e-15)*h/d	f=i*1.4
Grazed Pasture	46.25	20%	70%	6.48	11.50	55.23	77.33
Grass silage	40.00	22%	100%	8.8	10.80	51.87	72.62
Green maize	40.00	21%	100%	8.4	10.80	51.87	72.62
Kale	45.00	14%	100%	6.3	11.00	52.83	73.97
Forage rape/turnips	35.00	14%	100%	4.9	9.50	45.63	63.88
Whole crop cereals	22.00	32%	100%	7.04	8.70	41.79	58.50

### 3- Detailed calculation

A Eurostat Code 2.01.09.01. (D18a) Temporary grass Standard Output in € **548**  
FADN Code 147

Designation	Use (%)	Unit	Quantity	Price (€/t)	Value (€)
	j		c	f	k=j*c*f
Principal Product Grazed Pasture	65%	DM t/ha	6.48	77.33	325
Principal Product Grass silage	33%	DM t/ha	8.80	72.62	211
Principal Product Hay	2%	DM t/ha	7.20	80.17	12
SO per year				Sum	548

B Eurostat Code 2.01.09.02.01. (D18bi) Green Maize Standard Output in € **610**  
FADN Code 326

Designation	Use (%)	Unit	Quantity	Price (€/t)	Value (€)
	j		c	f	k=j*c*f
Principal Product Green maize	100%	DM t/ha	8.4	72.62	610

C Eurostat Code 2.01.09.02.02. & .99. Other forage plants Standard Output in € **403**  
FADN Code 327 & 328

### C-1- Comments

In the FSS 2005 no data is available enabling to split the leguminous plants from the rest of the other forage plants.

### C-2- Detailed calculation

Designation	Use (%)	Unit	Quantity	Price (€/t)	Value (€)
	j		c	f	k=j*c*f
Principal Product Kale	20%	DM t/ha	6.30	73.97	93
Principal Product Forage rape/turnips	20%	DM t/ha	4.90	63.88	63
Principal Product Whole crop cereals	60%	DM t/ha	7.04	58.50	247
SO per year				Sum	403

### 4- Data Sources

Quantity	Price	% Use
Expert knowledge; expressed as Dry Matter to ensure consistency across various fodder crops	Price Statistics for hay, price of other forage crops calculated on basis of feed value compared to hay after deduction of £15 for baling and making hay	Based on Expert knowledge related to the average use of 1ha

## Annex 2 (5) : Calculation examples on SO coefficients – PERMANENT GRASSLAND

ENGLAND

Crops: Permanent grassland

Year 2005

### 1- Comments

As there is virtually no market activity for permanent grassland the value of output is based on an equivalent value for hay. This data is taken from price statistics and an average value is deducted for the cost of baling and carting hay (15 £/t) using expert knowledge. A value is then applied to permanent grass based on its relative feeding value compared to hay. The breakdown of permanent pasture for grazing, hay or silage is from expert advice. Utilisation of grazed grass is assumed to be 70% for permanent pasture and 60% for rough grazings. The same calculation is carried out for rough grazings which in this example is considered to have a feeding value equivalent to barley straw. These calculations must be based on the dry matter content of the feeding material.

### 2- Reference data

	Yield	Average	Yield DM utilised	Nutritive value	0.00	
	fresh wett t/ha	DM content	t of DM/ha	MJ/kg DM	£/t	€/t
	a	b	c=a*b	d	e	f=e*1.4
Hay	8.0	90%	7.20	8.80	57.27	80.17

Value of other products derived from hay price

	Yield	Average	% of use	Yield DM utilised	Nutritive value	0.00	
	fresh wett t/ha	DM content		t of DM/ha	MJ/kg DM	£/t	€/t
	a	b	g	c=a*b*g	h	i=(e-15)*h/d	f=i*1.4
Grazed Pasture	41.63	20%	70%	5.83	11.50	55.23	77.33
Grass silage	36.00	22%	100%	7.92	10.80	51.87	72.62
Rough grazing	4.33	30%	60%	0.78	7.30	35.06	49.09

### 3- Detailed calculation

A	Eurostat Code 2.03.01. (F1)	Pasture and meadows	Standard Output in €	489
	FADN Code 150			

Data source code	Designation	Use (%)	Unit	Yield DM utilised	Price (€/t)	Value (€)
		j		c	f	k=j*c*f
1	Principal Product Hay	1%	DM t/ha	7.20	80.17	6
2	Principal Product Grazed Pasture	69%	DM t/ha	5.83	77.33	311
2	Principal Product Grass silage	30%	DM t/ha	7.92	72.62	173
	SO per year				Sum	489

B	Eurostat Code 2.03.02. (F2)	Rough grazings	Standard Output in €	38
	FADN Code 151			

Data source code	Designation	Unit	Yield DM utilised	Price (€/t)	Value (€)
			c	f	k=c*f
2	Principal Product Rough grazings	DM kg/ha	0.78	49.09	38

### 4- Data Sources

Code	Quantity	Price
1	Expert knowledge, expressed as DM to allow for different types of forage	Price Statistics for Hay (meadow grass)
2	Expert knowledge, expressed as DM	Equivalent price for grass grazed in the field (price of hay minus £15) adjusted for dry matter and feeding value. Proportions of hay, silage and grazing can be derived from FADN

## Annex 2 (6) : Calculation examples on SO coefficients – SUGAR BEET

GERMANY	Crops	Year 2005	
Eurostat Code	2.01.04. (D11)	Sugar beet	Standard Output in €
FADN Code	131		2 817

### 1- Comments

The most reliable data were selected as a source for SO calculation. Areas of sugar beet were taken from FSS 2005, physical output was obtained from annual report of sugar refineries, and average price from price statistics report of sugar refineries. Average yield of sugar beet was 60.2 t/ha. In the case of sugar beet, a secondary product may be leaves but not in Germany.

### 2- Reference data

Data source code		Area (1000 ha)	Quantity (1000 t)	Yield (t/ha)
1	Sugar beet	420.1	25 285	60.19

### 3- Detailed calculation

Designation		% used	Unit	Quantity	Price (€)	Value (€)
		a		b	c	d=a*b*c
Principal Product	Sugar beet	100%	t/ha	60.2	46.8	2 817

### 4- Observations

1 harvest a year

### 5- Data Sources

Quantity	Price	Area
Sugar refineries	Sugar refineries	FSS 2005

## Annex 2 (7) : Calculation examples on SO coefficients – PIGS FOR FATTENING

LITHUANIA	Livestock	year 2005
Eurostat Code	3.4.99.	Others Pigs
FADN Code	45 & 46	Standard Output in € <b>160</b>

### 1- Comments

According to the FSS 2005, there were 819 850 other pigs: 816 739 fattening pigs and 3111 boars. The boars represent 0.38% of all other pigs, therefore, SO of other pigs was limited to the SO of fattening pigs.

The basic calculation was done per animal. Fattening lasts approximately 175-180 days, therefore, the final result was multiplied by the rotation factor in order to give the SO per twelve months of production.

The average carcass weight was taken from Statistical Department. Value of piglets for replacement of pigs (or internal transfer) was taken from the FADN accounts.

### 2- Weighting per category of product

Categories	%
pigs for fattening	100
boars	0

### 3- Detailed calculation

Designation	Rotation factor	Unit	Quantity	Price(€)	Formula	Value (€)
	a		b	c		
Principal Product	carcass weight	kg	75.56	1.44	$d = b * c$	109
Replacement Value	piglet	head	1	29	$e = b * c$	29
SO per head		€ / head			$f = d - e$	80
SO per year		€ / year			$a * f$	<b>160</b>

4- Observations      Rotation factor      2      fattening period: 175 - 180 days

### 5- Data Sources

Item	Quantity	Price	Value
Principal Product	Statistical office	Price Statistics	
Replacement Value			FADN

## Annex 2 (8.1) : Calculation examples on SO coefficients – LAYING HENS

<b>ENGLAND</b>	Livestock	year 2005	
<b>Eurostat Code</b>	3.5.02.	<b>Laying hens</b>	<b>Standard Output in £/100 heads</b> <b>759</b>
<b>FADN Code</b>	D48		<b>Standard Output in €/100 heads</b> <b>1 062</b>

## 1- Comments

The laying hens characteristic covers a lot of different products: growing pullet, pullets above 18 weeks, layer breeders, broiler breeders and coqs and cockerels

## 2- Weighting per category of product

Categories		Heads (1000)		Partial SO in £ per head	Weighted SO in £ per head
		number	Share (%)		
		w	x = w/Total w		
(i)	growing pullets	1 944	28%	4.40	1.22
(ii)	and hens in lay	3 837	55%	7.48	4.10
(iii)	layer breeders	283	4%	13.41	0.54
	adult hens	201	3%	18.46	
	pullets	82	1%	1.04	
(iv)	broiler breeders	929	13%	12.91	1.72
	adult hens	400	6%	20.16	
	pullets	530	8%	7.45	
(v)	cocks and cockerels	148	0%	0	
<b>Total (without (cocks and cockerels))</b>		<b>6 993</b>	<b>100%</b>		<b>7.59</b>

### **3- Detailed calculation**

### (i) growing pullets

### **(i)-1- Comments**

The value of pullets reared for commercial laying, should be consistent with the value of the incoming pullet used for the standard output for hens laying eggs for eating as described at paragraph (ii). There are assumed to be 2.50 batches per year which is broadly consistent with an eighteen week growth period to point of lay and a 2 week interval between batches.

### (i)-2- Detailed calculation

	Designation	Birds / year	Unit	Quantity	Price (£)	Formula	Value (£)
		a		b	c		
Principal Product Replacement Value	Gross output		head	1	2.28	$d = b*c$	2.28
	Chick price		head	1	0.5		
	Chick mortality rate		%	4%			
	Total Chick		head	1.04	0.5	$e = b*c$	0.52
SO per head		2.5	head		0.5	$f = d-e$	1.76
<b>SO per year</b>			head			$a*f$	<b>4.40</b>

### **(i)-3- Observations**

Number of birds / year  
Chick mortality rate

2.5 18 weeks growth period and 2 week interval between batches  
4%

#### **(i)-4- Data Sources**

(+ Data Sources)			
Code	Quantity	Price	Other
d		Farm Business Survey (FBS)	
e		Expert advice / FBS	
a&b			Expert advice

## Annex 2 (8.2): Calculation examples on SO coefficients – LAYING HENS

### (ii) pullets>18 weeks and hens in lay

#### (ii)-1- Comments

The value of eggs is taken from price statistics and the output is adjusted to reflect a 12 month period by multiplying the total eggs produced over the lifetime of the bird by 0.89 (52 weeks divided by the average production cycle of 58.33).

The standard output data are based on the results from the 2004/5 Farm Business Survey (FADN). The average cost of the incoming point of lay pullets is identical to the outgoing value of the point of lay pullets in the standard output described at paragraph (i).

#### (ii)-2- Detailed calculation

	Designation	Coefficient for 12 months period	Unit	Quantity	Price (£)	Formula	Value (£)
	a		b	c			
Secondary product	Cull animal		head	1	0.02	$d = b*c$	0.02
Principal Product	Eggs		eggs/head	308	0.035	$e = b*c$	10.78
Replacement Value	Growing pullet		head	1	2.28		
	Growing Pullet mortality rate		%	5%			
SO per head	Total Growing Pullet		head	1.05	2.28	$f = b*c$	2.39
<b>SO per year</b>		0.89	head			$g = d+e-f$	8.41
						$a*g$	<b>7.48</b>

<b>(ii)-3- Observations</b>	Production cycle	58.33 weeks
	Coefficient to cover 12 months	0.89 (52 weeks / 58.33 weeks)
	Growing Pullet mortality rate	5%

#### (ii)-4- Data Sources

Code	Quantity	Price	Other
d&f		FBS	
e	FBS	Price statistics	
a&b			Expert advice

### (iii) layer breeders

#### (iii)-1- Comments

The FSS item that this standard output is applied to includes pullets reared as replacements for layer breeders. A separate standard output has to be calculated for these pullets and a weighted total output calculated for these birds. For breeding hens laying eggs to hatch layer chicks, egg yield and price data have been provided by expert advice.

#### (iii)-2- Detailed calculation

##### a- adults

	Designation	Coefficient for 12 months period	Unit	Quantity	Price (£)	Formula	Value (£)
	a		b	c			
Secondary product	Cull animal		head	1	0.02	$d = b*c$	0.02
Principal Product	Fertile Eggs		eggs/head	235	0.15	$e = b*c$	35.25
Replacement Value	Growing pullet 21 weeks		head	1	8.43		
	Growing Pullet mortality rate		%	10%			
SO per head	Total Growing Pullet		head	1.10	8.43	$f = b*c$	9.27
<b>SO per year</b>		0.71	head			$g = d+e-f$	26.00
						$a*g$	<b>18.46</b>

##### b. pullets

	Designation	Birds / year	Unit	Quantity	Price (£)	Formula	Value (£)
	a		b	c			
Principal Product	Pullet		head	1	8.43	$h = b*c$	8.43
Replacement Value	Chick price		head	1	7.21		
	Chick mortality rate		%	10%			
SO per head	Total Chick		head	1.10	7.21	$i = b*c$	7.93
<b>SO per year</b>		2.08				$j = h-i$	0.50
						$a*j$	<b>1.04</b>

<b>(iii)-3- Observations</b>	Production cycle	73 weeks
	Coefficient to cover 12 months	0.71 (Rounded 52 weeks / 73 weeks)
	Growing Pullet mortality rate	10%
	Number of birds / year	2.08 23 weeks growth period and 2 week interval between batches

#### (iii)-4- Data Sources

Code	Quantity	Price	Other
d		FBS	
e		Expert advice / FBS	
f&h		Expert advice	
b			Expert advice
i		Expert advice	

## Annex 2 (8.3): Calculation examples on SO coefficients – LAYING HENS

### (iv) broiler breeders

#### (iv)-1- Comments

As for layer breeders this standard output is applied to replacement pullets as well as breeding adult hens. All of the output data are provided by expert advice. Implied total chick production should be checked on a national basis with the total broiler chick requirement which is available from Defra price statistics.

#### (iv)-2- Detailed calculation

##### a- adults

	Designation	Coefficient for 12 months period	Unit	Quantity	Price (£)	Formula	Value (£)
		a	b	c			
Secondary product	Cull animal		head	1	0.02	d = b*c	0.02
Principal Product	Fertile eggs		eggs/head	148	0.16	e = b*c	23.68
Replacement Value	Growing pullet 25 weeks		head	1	6.24		
	Growing Pullet Mortality rate		%	6%			
SO per head	Total Growing Pullet		head	1.06	6.24	f = b*c	6.61
<b>SO per year</b>		1.18	head			g = d+e-f	17.09
						a*g	<b>20.16</b>

##### b- pullets

	Designation	Birds / year	Unit	Quantity	Price (£)	Formula	Value (£)
		a		b	c		
Principal Product	Pullet 25 weeks		head	1	6.24	h = b*c	6.24
Replacement Value	Chick		head	1	2.19		
	Chick mortality rate		%	6%			
SO per head	Total Chick		head	1.06	2.19	i = b*c	2.32
<b>SO per year</b>		1.90	head			j = h-i	3.92
						a*j	<b>7.45</b>

#### (iv)-3- Observations

Production cycle  
Coefficient to cover 12 months  
Growing Pullet Mortality rate  
Number of birds / year

44 weeks  
1.18 (Rounded 52 weeks / 44 weeks)

6%  
1.93 25 weeks growth period and 2 week interval between batches

#### (iv)-4- Data Sources

Code	Quantity	Price	Other
d		FBS	
e	Expert advice	Expert advice	
f&h		Expert advice	
b			Expert advice
i		Expert advice	

### (v) Cocks and cockerels of all ages kept for breeding

#### (v)-1- Comments

These are given a standard output of zero because their output (ie their progeny) are incorporated into the standard output for hens which lay eggs to hatch chicks.

## Annex 2 (9.1): Calculation examples on SO coefficients – BOVINE ANIMALS

**SWEDEN**

**Livestock**      **year**      **2 005**

**Eurostat Code**      **3.02. (J2-J8)**  
**FADN Code**      **D23-D32**

### Bovine animals

#### 1- Comments

As a first step of the calculation, a table splitting the bovine animals by category (age, gender, orientation) is necessary. In the region studied, the number of young calves exchanged between farmers is very limited, therefore it is supposed that no calves are kept without their mothers and no calculation for the calves under one year is presented in this example. The value of these calves is entirely integrated in the cows value.

#### 2- Summary and weighting per category of bovine animal

Old FSS code	Category of animal	Number of heads in		SO SEK/head	
		Heads	%	SEK/head	€/head
J7	Dairy cow	393 200	100%	23 111	2 490
J8	Suckler cow	176 700	100%	5 045	543
J6	Heifers >= 2 years	96 000	100%	3 617	390
	Dairy sector	65 540	68%	3 841	414
	Meat sector	30 460	32%	3 135	338
J5	Males >= 2 years	27 100	100%	4 752	512
	Dairy sector	27 100	100%	4 752	512
	Meat sector	-	0%		
J4	Female 1-2 years	233 200	100%	3 637	392
	Dairy sector	157 150	67%	3 938	424
	Meat sector	76 050	33%	3 014	325
J3	Males 1-2 years	170 300	100%	8 293	893
	Dairy sector	129 400	76%	7 923	854
	Meat sector	40 900	24%	9 462	1 019

Source: for the number of heads, the central database for cattle, FSS 2005 and experts opinion

#### 3- DAIRY COWS

<b>Eurostat Code</b>	<b>3.02.06. (J7)</b>	<b>Dairy cows</b>	<b>Standard Output in SEK</b>	<b>23 111</b>
<b>FADN Code</b>	<b>D30 + D31</b>			

#### 3-1- Comments

The output for cows covers the output obtained from milk, from meat and from the calf under one year. To calculate the calf value, the different types of final use of the calves are listed and weighted. In this region it can be considered that all the calves are kept for breeding or to be fattened on the farm where they are born. The milk yield is calculated based on the number of cows present on the farm and not the number of milked cows because the SO is to be applied to FSS and FADN where the number of present cows is recorded. The replacement value of the incalfed heifer is based on expert opinion. As the SO value should cover a 12 Months period, the replacement value and the meat value are multiplied by the replacement rate which is equivalent to a division by the number of milking years.

#### 3-2- Detailed calculation

##### Calves < 1 year dairy sector - not sold as new-born but kept on the farm with the dairy cows

Final use of calves	Number of calves per year	Length of production cycle in years	Unit	Price (SEK)	Weight (% final use)	Formula	Weighted value (SEK)
	a	b	c	d			
Heifers for breeding		2.3	head	9 000	40%	c/b*d	1 565
Females for fattening <1 year	1.9	head	1 600	3.5%	a*c*d	106	
Female for fattening 1-2 years		1.5	head	4 200	3.5%	c/b*d	98
Heifers for fattening		2.2	head	4 600	3.0%	c/b*d	64
Male for fattening <1 year		2	head	4 500	3.0%	a*c*d	270
Male for fattening 1-2 years		1.2	head	6 160	39%	c/b*d	2 059
Male for fattening >2 years		2.1	head	6 300	8%	c/b*d	242
<b>Total weighted value</b>			head	<b>100%</b>	<b>Sum</b>		<b>4 404</b>

##### Dairy cow

Designation	Mortality rate	Replacement rate	Number of calves/ year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
	a	b	c	d	e			
Principal product	Milk			kg	8 050	2.7	f=d*e	21 735
Secondary product	Calf less than 1 year	6.0%		head	1	<b>4 404</b>	g=(1-a)*c*d*e	3 312
Secondary product	Meat	0.4	0.8	kg	260	16	h=b*d*e	1 664
Replacement value	Incalfed heifer	0.4		head	1	9 000	i=b*d*e	3 600
<b>SO per year</b>				head			j=f+g+h-i	<b>23 111</b>

#### 3-4- Observations

Milk yield = (Collected milk+ milk quota for direct sales) / Number of dairy cows

#### 3-5- Data Sources

- h      Price statistics, slaughter statistics
- i      Market values expert opinions combined with the central database for cattle
- f      Milk production statistics and structural statistics
- g      Price statistics, statistics about animal health based on the central database for cattle

## Annex 2 (9.2): Calculation examples on SO coefficients – BOVINE ANIMALS

### 4- SUCKLER COWS

Eurostat Code FADM Code	3.02.99. (J8) D32	Other cows	Standard Output in SEK	5 045
----------------------------	----------------------	------------	------------------------	-------

#### 4-1- Comments

The same reasoning is applied as for the dairy cows. In the region studied there are only very few bulls more than 2 year old with a meat breed therefore they are not taken into account for the calculation of the calf value.

#### 4-2- Detailed calculation

##### Calves < 1 year meat sector - not sold as new-born but kept on the farm with the cows

Final use of calves	Number of calves per year	Lenght of production cycle in years	Unit	Price (SEK)	Weight (% final use)	Formula	Weighted value (SEK)
	a	b	c	d			
Heifers for breeding		2.2	head	7 000	20%	c/b*d	646
Females for fattening <1 year	2	head	4 500	15%	a*c*d	1 350	
Female for fattening 1-2 years		1.7	head	5 000	10%	c/b*d	294
Heifers for fattening		2.2	head	5 200	5%	c/b*d	120
Male for fattening <1 year		1.5	head	6 000	30%	a*c*d	2 700
Male for fattening 1-2 years		1.2	head	8 160	20%	c/b*d	1 399
<b>Total weighted value</b>					<b>100%</b>	<b>Sum</b>	<b>6 509</b>

##### Other cow

Designation	Mortality rate	Replacem ent rate	Number of calves/ year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
	a	b	c		d	e		
Principal product	Calf less than1 year	6.0%	0.9	head	1	<b>6 509</b>	$g=(1-a)*c*d*e$	5 507
Secondary product	Meat	0.2		head	1	4 690	$h=b*d*e$	938
Replacement value	Incalved heifer	0.2		head	1	7 000	$i=b*d*e$	1 400
<b>SO per year</b>				head			$j=g+h-i$	<b>5 045</b>

#### 4-4- Data Sources

- h Price statistics, slaughter statistics
- i Market values expert opinions combined with the central database for cattle
- g Price statistics, statistics about animal health based on the central database for cattle

### 5- HEIFERS TWO YEARS OLD AND OVER

Eurostat Code FADM Code	3.02.05. (J6) D28 & D29	Heifers	Standard Output in SEK	3 617
----------------------------	----------------------------	---------	------------------------	-------

#### 5-1- Comments

Under the same characteristic are grouped heifers for fattening and for breeding from the milk and the meat sectors. A heifer for fattening in the milk sector is a heifer which failed calving, therefore there are only few of them and their value is small. In the meat sector the value of the female entering the category (i.e. at the age of two) is higher for a heifer for breeding than for a heifer for fattening because of the calf value.

#### 5-2- Detailed calculation

Designation	Weight	Mortality rate	Number of heifers produced per year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
	a	b	c		d	e		
<b>Heifers // meat sector</b>		<b>32%</b>						
Heifers for fattening								
Principal product	Meat	30%		head	1	5 200	$f=d*e$	5 200
Replacement value	Female value at 2 year			head	1	5 000	$g=d*e$	5 000
SO per year				head	1		$m1=c*(f-g)*(1-b)$	1 140
Heifers for breeding								
Principal product	Incalved heifer	70%		head	1	7 000	$i=d*e$	7 000
Replacement value	Female value at 2 year			head	1	6 300	$j=d*e$	6 300
SO per year				head			$m2=c*(i-j)*(1-b)$	3 990
<b>Weighted SO per year</b>							$m=a*m1+a*m2$	<b>3 135</b>
<b>Heifers // dairy sector</b>		<b>68%</b>						
Heifers for fattening								
Principal product	Meat	10%		head	1	4 600	$f=d*e*(1-b)$	4 600
Replacement value	Female value at 2 year			head	1	7 000	$g=d*e*(1+b)$	7 000
SO per year				head	1		$d1=c*(f-g)*(1-b)$	-13 968
Heifers for breeding								
Principal product	Incalved heifer	90%		head	1	9 000	$i=d*e*(1-b)$	9 000
Replacement value	Female value at 2 year			head	1	7 000	$j=d*e$	7 000
SO per year				head			$d2=c*(i-j)*(1-b)$	5 820
<b>Weighted SO per year</b>							$d=a*d1+a*d2$	<b>3 841</b>
<b>Heifers weighted SO per year</b>							$m*a+d*a$	<b>3 617</b>

#### 5-3- Observations

- m1 & d1 Sold at about 26 months therefore the value is multiplied by 6 to cover a 12 Months period
- m2 First calving at about 26 months therefore 6 heifers > 2 years are leaving the category per year
- d2 First calving at about 28 months therefore 3 heifers > 2 years are leaving the category per year

#### 5-4- Data Sources

- f&i Price statistics (Agriwise)
- g&j Females are seldom sold at the age of 2, the price is estimated

## Annex 2 (9.3): Calculation examples on SO coefficients – BOVINE ANIMALS

### 6- FEMALE ONE BUT LESS THAN TWO YEAR OLD

Eurostat Code FADN Code	3.02.03. (J4) D26	Female 1-2 years	Standard Output in SEK	3 637
----------------------------	----------------------	------------------	------------------------	-------

#### 6-1- Comments

Under the same characteristic are grouped females for fattening and for breeding from the milk and the meat sectors.

#### 6-2- Detailed calculation

Designation		Weight	Mortality rate	Number of females produced per year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
		a	b	c		d	e		
<b>Female 1-2 years // meat sector</b>		<b>33%</b>							
Slaughtered		30%		4					
<i>Principal product</i>	<i>Meat</i>				<i>head</i>	1	5 000	$f=d^*e$	5 000
<i>Replacement value</i>	<i>Female value at 1 year</i>				<i>head</i>	1	3 700	$g=d^*e$	3 700
<i>SO per year</i>			3%		<i>head</i>	1		$m1=c^*(f-g)^*(1-b)$	5 044
Kept for breeding		70%		1				$m2=c^*(i-j)^*(1-b)$	
<i>Principal product</i>	<i>Female value at 2 year</i>				<i>head</i>	1	5 910	$i=d^*e$	5 910
<i>Replacement value</i>	<i>Female value at 1 year</i>				<i>head</i>	1	3 700	$j=d^*e$	3 700
<i>SO per year</i>			3%					$m2=c^*(i-j)^*(1-b)$	2 144
<b>Weighted SO per year</b>								$m=a^*m1+a^*m2$	3 014
<b>Female 1-2 years // dairy sector</b>		<b>67%</b>							
Slaughtered		10%		2					
<i>Principal product</i>	<i>Meat</i>				<i>head</i>	1	4 200	$f=d^*e^*(1-b)$	4 200
<i>Replacement value</i>	<i>Female value at 1 year</i>				<i>head</i>	1	2 800	$g=d^*e^*(1+b)$	2 800
<i>SO per year</i>			3%		<i>head</i>	1		$d1=c^*(f-g)^*(1-b)$	2 716
Kept for breeding		90%		1				$d2=d^*(1-b)$	
<i>Principal product</i>	<i>Female value at 2 year</i>				<i>head</i>	1	7 000	$i=d^*e^*(1-b)$	7 000
<i>Replacement value</i>	<i>Female value at 1 year</i>				<i>head</i>	1	2 800	$j=d^*e$	2 800
<i>SO per year</i>			3%					$d2=c^*(i-j)^*(1-b)$	4 074
<b>Weighted SO per year</b>								$d=a^*d1+a^*d2$	3 938
<b>Female 1-2 years weighted SO per year</b>								$m^*a+d^*a$	3 637

#### 6-3- Observations

m1 Slaughtered at about 15 months therefore the value is multiplied by 4 to cover a 12 Months period  
d1 Slaughtered at about 18 months therefore the value is multiplied by 2 to cover a 12 Months period

#### 6-4- Data Sources

f&i Price statistics (Agriwise)  
g&j Females are seldom sold at the age of 1, the price is estimated

### 7- MALES TWO YEARS OLD AND OVER

Eurostat Code FADN Code	3.02.04. (J5) D27	Males > 2 years	Standard Output in SEK	4 752
----------------------------	----------------------	-----------------	------------------------	-------

#### 7-1- Comments

This category covers only dairy animals

#### 7-2- Detailed calculation

Designation		Weight	Mortality rate	Number of males produced per year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
		a	b	c		d	e		
Slaughtered		100%		6					
<i>Principal product</i>	<i>Meat</i>				<i>head</i>	1	6 300	$f = d^*e^*(1-b)$	6 300
<i>Replacement value</i>	<i>Male value at 2 year</i>				<i>head</i>	1	5 500	$g = d^*e^*(1+b)$	5 500
<i>SO per year</i>			1%		<i>head</i>	1		$d1 = c^*(f-g)^*(1-b)$	4 752

#### 7-3- Observations

d1 Slaughtered at about 26 months

#### 7-4- Data Sources

f Price statistics (Agriwise)  
g Estimation

## Annex 2 (9.4): Calculation examples on SO coefficients – BOVINE ANIMALS

### 8- MALE ONE BUT LESS THAN TWO YEAR OLD

Eurostat Code	3.02.02. (J3)	Male 1-2 years	Standard Output in SEK	8 293
FADN Code	D25			

#### 8-1- Comments

Under the same characteristic are grouped males for fattening and for breeding from the milk and the meat sectors. In the meat sector the bulls over two years old are seldom therefore their value is not estimated and it is considered that all the males are slaughtered before the age of two.

#### 8-2- Detailed calculation

Designation		Weight	Mortality rate	Number of males produced per year	Unit	Quantity	Price (SEK)	Formula	Value (SEK)
		a	b	c	d	e			
<b>Male 1-2 years // meat sector</b>		<b>24%</b>							
Slaughtered <i>Principal product</i> Replacement value <b>SO per year</b>	<i>Meat Male value at 1 year</i>	100%		6	<i>head head head</i>	1 1 1	8 160 6 500	$f=d^e(1-b)$ $g=d^e(1+b)$ $m=c^*(f-g)*(1-b)$	8 160 6 500 <b>9 462</b>
<b>Male 1-2 years // milk sector</b>		<b>76%</b>							
Slaughtered <i>Principal product</i> Replacement value <b>SO per year</b> Kept for breeding <i>Principal product</i> Replacement value <b>SO per year</b> <b>Weighted SO per year</b>	<i>Meat Male value at 1 year</i>	80%  20%	3%  3%	6  1	<i>head head head head head</i>	1 1 1 1 1	6 160 4 500  5 500 4 500	$f=d^e(1-b)$ $g=d^e(1+b)$ $d1=c^*(f-g)*(1-b)$ $d2$ $i=d^e(1-b)$ $j=d^e$ $d2=c^*(i-j)*(1-b)$ $d=a*d1+a*d2$	6 160 4 500  5 500 4 500 970 <b>7 923</b>
<b>Male 1-2 years weighted SO per year</b>								$m^*a+d^*a$	<b>8 293</b>

**8-3- Observations** m1 & d1 Slaughtered at about 14 months therefore the value is multiplied by 6 to cover a 12 Months period

**8-4- Data Sources** f&i  
g&j Price statistics (Agriwise)  
Males are seldom sold at the age of 1, the price is estimated

### Annex 3: Frames for the transmission of the SO coefficients to Eurostat

#### 1- "Direct observation" method

#### DETERMINATION OF STANDARD OUTPUT FOR CROP PRODUCTION

Member State:			Reference period for SO year: Years covered:			<input type="checkbox"/> Calendar years <input type="checkbox"/> Agricultural years			
Code of the crop <sup>(1)</sup>	Description of the crop	Code of the region <sup>(2)</sup>	Main product			Secondary products value	Standard Output		Comments
			Quantity <sup>(3)</sup>	Price/ unit <sup>(3)</sup>	Value		National Currency	EURO	

(1) The list of valid product codes is presented in the Annex 4

(2) The list of valid regional codes is presented in the Eurofarm manual, a Eurostat working document

(3) Optional

#### DETERMINATION OF STANDARD OUTPUT FOR ANIMAL PRODUCTION

Member State:			Reference period for SO year: Years covered:			<input type="checkbox"/> Calendar years <input type="checkbox"/> Agricultural years						
Code of the livestock product <sup>(1)</sup>	Description of the livestock product	Code of the region <sup>(2)</sup>	Annual growth or slaughter value			Other main product		Secondary products value	Replacement value (4)	Standard Output		Comments
			Quantity <sup>(3)</sup>	Price/ unit <sup>(3)</sup>	Value	Quantity <sup>(3)</sup>	Price/ unit <sup>(3)</sup>			Value	National Currency	

(1) The list of valid product codes is presented in the Annex 4

(2) The list of valid regional codes is presented in the Eurofarm manual, a Eurostat working document

(3) Optional

(4) Not to be provided if the calculation is based on the annual growth in weight

### **Annex 3: Frames for the transmission of the SO coefficients to Eurostat (2)**

2- "Updating" method

**SO year:**

#### **UPDATING OF SO**

Member State: \_\_\_\_\_ Region: \_\_\_\_\_

Reference period used as a base: \_\_\_\_\_ (direct observation)

- Calendar year
- Agricultural year

Currency unit: - national currency \_\_\_\_\_  
- EURO: conversion rate national currency/EURO \_\_\_\_\_

Code of the product	SO for the reference period used as a base	Coefficient of change applied	Updated SO		
			National currency	EURO	
				Converted	Rounded

#### Annex 4: List of valid SO codes for crop and livestock characteristics from FSS 2010

New FSS Code	Old FSS Code <sup>22</sup>	Unit: Euro per	Label
2.01.01.01	D01	ha	Common wheat and spelt
2.01.01.02	D02	ha	Durum wheat
2.01.01.03	D03	ha	Rye
2.01.01.04	D04	ha	Barley
2.01.01.05	D05	ha	Oats
2.01.01.06	D06	ha	Grain maize
2.01.01.07	D07	ha	Rice
2.01.01.99	D08	ha	Other cereals for the production of grain
2.01.02	D09	ha	Dried pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)
2.01.02.01	D09E	ha	Peas, field beans and sweet lupins
2.01.02.99		ha	Other dried pulses and protein crops for the production of grain
2.01.03	D10	ha	Potatoes (including early potatoes and seed potatoes)
2.01.04	D11	ha	Sugar beet (excluding seed)
2.01.05	D12	ha	Fodder roots and brassicas (excluding seed)
2.01.06.01	D23	ha	Tobacco
2.01.06.02	D24	ha	Hops
2.01.06.03	D25	ha	Cotton
2.01.06.04	D26	ha	Rape and turnip rape
2.01.06.05	D27	ha	Sunflower
2.01.06.06	D28	ha	Soya
2.01.06.07	D29	ha	Linseed (oil flax)
2.01.06.08	D30	ha	Other oil seed crops
2.01.06.09	D31	ha	Flax
2.01.06.10	D32	ha	Hemp
2.01.06.11	D33	ha	Other fibre crops
2.01.06.12	D34	ha	Aromatic plants, medicinal and culinary plants
2.01.06.99	D35	ha	Other industrial crops not mentioned elsewhere
2.01.07.01.01	D14A	ha	Fresh vegetables, melons and strawberries outdoor or under low protective cover: Open field
2.01.07.01.02	D14B	ha	Fresh vegetables, melons and strawberries outdoor or under low protective cover: Market gardening
2.01.07.02	D15	ha	Fresh vegetables, melons and strawberries under glass or other (accessible) protective cover
2.01.08.01	D16	ha	Flowers and ornamental plants (excluding nurseries):outdoor or under low (not accessible) protective cover
2.01.08.02	D17	ha	Flowers and ornamental plants (excluding nurseries): under glass or other (accessible) protective cover
2.01.09	D18	ha	Plants harvested green
2.01.09.01	D18A	ha	Temporary grass
2.01.09.02	D18B	ha	Other plants harvested green
2.01.09.02.01	D18B1	ha	Green maize
2.01.09.02.02		ha	Leguminous plants
2.01.09.02.99		ha	Other plants harvested green not mentioned elsewhere
2.01.10	D19	ha	Arable land seeds and seedlings
2.01.11	D20	ha	Other arable land crops

<sup>22</sup> A missing old FSS code means that there is no exact correspondence between the product designation in the FSS 2007 and in the new FSS from 2010.

**Annex 4: List of valid SO codes for crop and livestock characteristics from FSS 2010 (2)**

New FSS Code	Old FSS Code	Unit: Euro per	Label
2.01.12.01	D21	ha	Fallow land without any subsidies
2.01.12.02	D22	ha	Fallow land subject to the payment of subsidies, with no economic use
2.03.01	F01	ha	Pasture and meadow, excluding rough grazings
2.03.02	F02	ha	Rough grazings
2.03.03	F03	ha	Permanent grassland no longer used for production purposes and eligible for the payment of subsidies
2.04.01	G01	ha	Fruit and berry plantations
2.04.01.01		ha	Fruit species
2.04.01.01.01		ha	Fruit of temperate climate zones
2.04.01.01.02		ha	Fruit of subtropical climate zones
2.04.01.02		ha	Berry species
2.04.01.03	G01C	ha	Nuts
2.04.02	G02	ha	Citrus plantations
2.04.03	G03	ha	Olive plantations
2.04.03.01	G03A	ha	Normally producing table olives
2.04.03.02	G03B	ha	Normally producing olives for oil production
2.04.04	G04	ha	Vineyards, of which normally producing:
2.04.04.01	G04A	ha	Quality wine
2.04.04.02	G04B	ha	Other wines
2.04.04.03	G04C	ha	Table grapes
2.04.04.04	G04D	ha	Raisins
2.04.05	G05	ha	Nurseries
2.04.06	G06	ha	Other permanent crops
2.04.07.	G07	ha	Permanent crops under glass
2.06.01	I02	100 m <sup>2</sup>	Mushrooms
3.01	J01	head	Equidae
3.02.01	J02	head	Bovine animals, under one year old, male and female
3.02.02	J03	head	Male bovine animals, one but less than two years old
3.02.03	J04	head	Female bovine animals, one but less than two years old
3.02.04	J05	head	Male bovine animals, two years old and over
3.02.05	J06	head	Heifers, two years old and over
3.02.06	J07	head	Dairy cows
3.02.99	J08	head	Other cows
3.03.01	J09	head	Sheep (all ages)
3.03.01.01	J09A	head	Breeding females
3.03.01.99	J09B	head	Other sheep
3.03.02	J10	head	Goats (all ages)
3.03.02.01	J10A	head	Breeding females
3.03.02.99	J10B	head	Other goats
3.04.01	J11	head	Piglets having a live weight of under 20 kilograms
3.04.02	J12	head	Breeding sows weighing 50 kilograms and over
3.04.99	J13	head	Other pigs
3.05.01	J14	100 heads	Broilers
3.05.02	J15	100 heads	Laying hens
3.05.03	J16	100 heads	Other poultry
3.06	J17	head	Rabbits, breeding females
3.07	J18	hive	Bees

**Annex 5: Correspondence between the headings of the farm structure surveys and the farm return of the Farm Accountancy Data Network (FADN)**

Equivalent headings for the application of Standard Outputs		
Code to be used for the heading	2010, 2013, 2016 Community surveys on the structure of agricultural holdings Regulation (EC) No 1166/2008 on farm structure surveys	FADN farm return Regulation (EEC) No 868/2008 on the farm return
<i>I. Crops</i>		
2.01.01.01	Common wheat and spelt	120. Common wheat and spelt
2.01.01.02	Durum wheat	121. Durum wheat
2.01.01.03	Rye	122. Rye (including meslin)
2.01.01.04	Barley	123. Barley
2.01.01.05	Oats	124. Oats 125. Summer cereal mixes
2.01.01.06	Grain maize	126. Grain maize (including humid grain maize)
2.01.01.07	Rice	127. Rice
2.01.01.99	Other cereals for the production of grain	128. Other cereals
2.01.02	Dried pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)	129. Protein crops
2.01.02.01	Of which peas, field beans and sweet lupins	360. Peas, field beans and sweet lupins
		361. Lentils, chickpeas and vetches 330. Other protein crops
2.01.03	Potatoes (including early potatoes and seed potatoes)	130. Potatoes (including early potatoes and seed)
2.01.04	Sugar beet (excluding seed)	131. Sugar beet (excluding seed)
2.01.05	Fodder roots and brassicas (excluding seed)	144. Fodder roots and brassicas (excluding seeds)
2.01.06.01	Tobacco	134. Tobacco
2.01.06.02	Hops	133. Hops
2.01.06.03	Cotton	347. Cotton
2.01.06.04	Rape and turnip rape	331. Rape

2.01.06.05	Sunflower	332.	Sunflower
2.01.06.06	Soya	333.	Soya
2.01.06.07	Linseed (oil flax)	364.	Flax other than fibre flax
2.01.06.08	Other oil seed crops	334.	Other oil seeds
2.01.06.09	Flax	373.	Flax
2.01.06.10	Hemp	374.	Hemp
2.01.06.11	Other fibre crops		
2.01.06.12	Aromatic plants, medicinal and culinary plants	345.	Medicinal plants condiments, aromatics and spices, including tea, coffee and coffee chicory
2.01.06.99	Other industrial crops not mentioned elsewhere	346.	Sugar cane
		348.	Other industrial crops
2.01.07	Fresh vegetables, melons and strawberries of which		
2.01.07.01	Outdoor or under low (not accessible) protective cover		
2.01.07.01.01	Open field	136.	Field scale fresh vegetables, melons and strawberries grown in the open
2.01.07.01.02	Market gardening	137.	Fresh vegetables, melons, strawberries grown in market gardens in the open
2.01.07.02	Under glass or other (accessible) protective cover	138.	Fresh vegetables, melons and strawberries under shelter
2.01.08	Flowers and ornamental plants (excluding nurseries):		
2.01.08.01	Outdoor or under low (not accessible) protective cover	140.	Flowers and ornamental plants grown in the open (excluding nurseries)
2.01.08.02	Under glass or other (accessible) protective cover	141.	Flowers and ornamental plants grown under shelter
2.01.09	Plants harvested green		
2.01.09.01	Temporary grass	147.	Temporary grass
2.01.09.02	Other plants harvested green	145.	Other fodder plants
2.01.09.02.01	Green maize	326.	Fodder maize
2.01.09.02.02 =	Leguminous plants AND	327.	Other silage cereals AND

2.01.09.02.99	Other plants harvested green not mentioned elsewhere	328.	Other fodder plants
2.01.10	Arable land seeds and seedlings	142.	Grass seeds
		143.	Other seeds
2.01.11	Other arable land crops	148.	Other arable crops not included in headings 120 to 147
		149.	Land ready for sowing leased to others, including land made available to employees as a benefit in kind
2.01.12.01	Fallow land without any subsidies	315.	Fallow land without any subsidies
2.01.12.02	Fallow land subject to the payment of subsidies, with no economic use	316.	Fallow land subject to the payment of subsidies
2.03.01	Pasture and meadow, excluding rough grazings	150.	Meadows and permanent pasture
2.03.02	Rough grazings	151.	Rough grazing
2.03.03	Permanent grassland no longer used for production purposes and eligible for the payment of subsidies	314.	Permanent grassland no longer used for production purposes and eligible for the payment of subsidies
2.04.01	Fruit and berry plantations	152.	Fruit and berry orchards
2.04.01.01	Fruit species of which		
2.04.01.01.01	Fruit of temperate climate zones	349.	Pome fruit
		350.	Stone fruit
2.04.01.01.02	Fruit of subtropical climate zones	353.	Tropical and subtropical fruit
2.04.01.02	Berry species	352.	Small fruit and berries
2.04.01.03	Nuts	351.	Nuts
2.04.02	Citrus plantations	153.	Citrus fruit orchards
2.04.03	Olive plantations	154.	Olive groves
2.04.03.01	Normally producing table olives	281.	Table olives
2.04.03.02	Normally producing olives for oil production	282.	Olives for oil production
		283.	Olive oil
2.04.04	Vineyards, of which normally producing:	155.	Vines
2.04.04.01	Quality wine	286.	Grapes for quality wine with PDO
		292.	Grapes for quality wine with PGI

		289. Quality wine with PDO
		294. Quality wine with PGI
2.04.04.02	Other wines	293. Grapes for other wines
		288. Miscellaneous products of vines: grape must, juice, brandy, vinegar and others produced on the farm
		295. Other wines
2.04.04.03	Table grapes	285. Table grapes
2.04.04.04	Raisins	291. Raisins
2.04.05	Nurseries	157. Nurseries
2.04.06	Other permanent crops	158. Other permanent crops
2.04.07	Permanent crops under glass	156. Permanent crops grown under shelter
2.06.01	Mushrooms	139. Mushrooms
<b>II. Livestock</b>		
3.01	Equidae	22. Equidae (all ages)
3.02.01	Bovine animals, under one year old, male and female	23. Calves for fattening
		24. Other cattle less than one year old
3.02.02	Bovine animals, one but less than two years old, male	25. Male cattle, from one to less than two years old
3.02.03	Bovine animals, one but less than two years old, female	26. Female cattle, from one to less than two years old
3.02.04	Male bovine animals, two years old and over	27. Male cattle, two years old or more
3.02.05	Heifers, two years old and over	28. Breeding heifers
		29. Heifers for fattening
3.02.06	Dairy cows	30. Dairy cows
		31. Cull dairy cows
3.02.99	Other cows	32. Other cows
3.03.01	Sheep (all ages)	
3.03.01.01	Breeding females	40. Ewes
		41. Other sheep
3.03.02	Goats (all ages)	

3.03.02.01	Breeding females	38. Goats, breeding females
3.03.02.99	Other goats	39. Other goats
3.04.01	Piglets having a live weight of under 20 kilograms	43. Piglets
3.04.02	Breeding sows weighing 50 kilograms and over	44. Breeding sows
3.04.99	Other pigs	45. Pigs for fattening 46. Other pigs
3.05.01	Broilers	47. Table chickens
3.05.02	Laying hens	48. Laying hens
3.05.03	Other poultry	49. Other poultry
3.05.03.01	Turkeys	
3.05.03.02	Ducks	
3.05.03.03	Geese	
3.05.03.04	Ostriches	
3.05.03.99	Other poultry, not mentioned elsewhere	
3.06	Rabbits, breeding females	34. Rabbits, breeding females
3.07	Bees	33. Bees

## Annex 6: Algorithm for the classification of the agricultural holdings by type of farming

**Total SO of the holding > 0**

**Specialist holdings - crops**

P1	>	2/3	Total SO	1
P15 + P16 + 2.01.02		> 2/3	Total SO	15
P15+P16+2.01.02		> 2/3	Total SO	151
2.01.01.07		> 2/3	Total SO	152
Other cases				153
P15 + P16 + 2.01.02		≤ 2/3	Total SO	16
P17		> 2/3	Total SO	161
P15+P16+2.01.02 AND P17		> 1/3	Total SO	162
2.01.07.01.01		> 1/3	Total SO	163
2.01.06.01		> 2/3	Total SO	164
2.01.06.03		> 2/3	Total SO	165
Other cases				166

### 1. Specialist field crops

#### 15. Specialist cereals, oilseeds and protein crops

- 151. Specialist cereals (other than rice), oilseeds and protein crops
- 152. Specialist rice
- 153. Cereals, oilseeds, protein crops and rice combined

#### 16. General field cropping

- 161. Specialist root crops
- 162. Cereals, oilseeds, protein crops and root crops combined
- 163. Specialist field vegetables
- 164. Specialist tobacco
- 165. Specialist cotton
- 166. Various field crops combined

**P2 > 2/3 Total SO**

**2**

<b>2.01.07.02 + 2.01.08.02</b>	<b>&gt; 2/3</b>	<b>Total SO</b>	<b>21</b>
2.01.07.02	> 2/3	Total SO	211
2.01.08.02	> 2/3	Total SO	212
Other cases			213
<b>2.01.07.01.02 + 2.01.08.01</b>	<b>&gt; 2/3</b>	<b>Total SO</b>	<b>22</b>
2.01.07.01.02	> 2/3	Total SO	221
2.01.08.01	> 2/3	Total SO	222
Other cases			223
<b>2.01.07.02 + 2.01.08.02 ≤ 2/3 Total SO AND 2.01.07.01.02 + 2.01.08.01 ≤ 2/3 Total SO</b>			<b>23</b>
2.06.01	> 2/3	Total SO	231
2.04.05	> 2/3	Total SO	232
Other cases			233

**P3 > 2/3 Total SO**

**3**

<b>2.04.04</b>	<b>&gt; 2/3</b>	<b>Total SO</b>	<b>35</b>
2.04.04.01	> 2/3	Total SO	351
2.04.04.02	> 2/3	Total SO	352
2.04.04.03	> 2/3	Total SO	353
Other cases			354
<b>2.04.01 + 2.04.02</b>	<b>&gt; 2/3</b>	<b>Total SO</b>	<b>36</b>
2.04.01.01.01 + 2.04.01.02 > 2/3		Total SO	361
2.04.02	> 2/3	Total SO	362
2.04.01.03	> 2/3	Total SO	363
2.04.01.01.02	> 2/3	Total SO	364
Other cases			365
<b>2.04.03</b>	<b>&gt; 2/3</b>	<b>Total SO</b>	<b>37</b>
2.04.03	> 2/3	Total SO	370
<b>Other cases</b>			<b>38</b>
	Other cases		380

## 2. Specialist horticulture

### 21. Specialist horticulture indoor

- 211. Specialist vegetables indoor
- 212. Specialist flowers and ornamentals indoor
- 213. Mixed horticulture indoor specialist

### 22. Specialist horticulture outdoor

- 221. Specialist vegetables outdoor
- 222. Specialist flowers and ornamentals outdoor
- 223. Mixed horticulture outdoor specialist

### 23. Other horticulture

- 231. Specialist mushrooms
- 232. Specialist nurseries
- 233. Various horticulture

## 3. Specialist permanent crops

### 35. Specialist vineyards

- 351. Specialist quality wine
- 352. Specialist wine other than quality wine
- 353. Specialist tables grapes
- 354. Other vineyards

### 36. Specialist fruit and citrus fruit

- 361. Specialist fruit (other than citrus, tropical fruits or nuts)
- 362. Specialist citrus fruit
- 363. Specialist nuts
- 364. Specialist tropical fruits
- 365. Specialist fruit, citrus, tropical fruits and nuts: mixed production

### 37. Specialist olives

- 370. Specialist olives

### 38. Various permanent crops combined

- 380. Various permanent crops combined

## Specialist holdings – animal production

<b>P4 &gt; 2/3 Total SO</b>	<b>4</b>
3.02.06 > 3/4 GL AND GL > 1/10 P4	45
3.02.06 > 3/4 GL AND GL > 1/10 P4	450
<b>P46 &gt; 2/3 GL AND 3.02.06 ≤ 1/10 GL AND GL &gt; 1/10 P4</b>	<b>46</b>
P46 > 2/3 GL AND 3.02.06 ≤ 1/10 GL AND GL > 1/10 P4	460
<b>P46 &gt; 2/3 GL AND 3.02.06 &gt; 1/10 GL AND GL &gt; 1/10 P4 excluding class 45</b>	<b>47</b>
P46 > 2/3 GL AND 3.02.06. > 1/10 GL AND GL > 1/10 P4 excluding class 45	470
<b>Other cases</b>	<b>48</b>
3.03.01. > 2/3 GL AND GL > 1/10 P4	481
P46 > 1/3 GL AND 3.03.01. > 1/3 GL and GL > 1/10 P4	482
3.03.02 > 2/3 GL AND GL > 1/10 P4	483
Other cases	484

## 4. Specialist grazing livestock

### 45. Specialist dairying

450. Specialist dairying

### 46. Specialist cattle – rearing and fattening

460. Specialist cattle – rearing and fattening

### 47. Cattle – dairy, rearing and fattening combined

470. Cattle – dairy, rearing and fattening combined

### 48. Sheep, goats and other grazing livestock

481. Specialist sheep

482. Sheep and cattle combined

483. Specialist goats

484. Various grazing livestock

<b>P5 &gt; 2/3 Total SO</b>	<b>5</b>
<b>P51 &gt; 2/3 Total SO</b>	<b>51</b>
3.04.02 > 2/3 Total SO	511
3.04.01 + 3.04.99 > 2/3 Total SO	512
Other cases	513
<b>P52 &gt; 2/3 Total SO</b>	<b>52</b>
3.05.02 > 2/3 Total SO	521
3.05.01 + 3.05.03 > 2/3 Total SO	522
Other cases	523
<b>Other cases</b>	<b>53</b>
Other cases	530

## 5. Specialist granivores

### 51. Specialist pigs

511. Specialist pig rearing

512. Specialist pig fattening

513. Pigs rearing and fattening combined

### 52. Specialist poultry

521. Specialist layers

522. Specialist poultry-meat

523. Layers and poultry-meat combined

### 53. Various granivores combined

530. Various granivores combined

## Mixed holdings

$(P1 + P2 + P3) > 2/3 \text{ Total SO}$ AND $\{P1 \leq 2/3 \text{ AND } P2 \leq 2/3 \text{ AND } P3 \leq 2/3\} \text{ Total SO}\}$	61
P2 > 1/3 Total SO AND P3 > 1/3 Total SO	611
P2 > 1/3 Total SO AND P1 > 1/3 Total SO	612
P1 > 1/3 Total SO AND 2.04.04 > 1/3 Total SO	613
P1 > 1/3 Total SO AND P3 > 1/3 Total SO AND 2.04.04 ≤ 1/3 Total SO	614
P1 > 1/3 Total SO AND P2 ≤ 1/3 Total SO AND P3 ≤ 1/3 Total SO	615
Other cases	616

## 6. Mixed cropping

### 61. Mixed cropping

- 611. Horticulture and permanent crops combined
- 612. Horticulture and field crops combined
- 613. Field crops and vineyards combined
- 614. Field crops and permanent crops combined
- 615. Mixed cropping, mainly field crops
- 616. Other mixed cropping

$(P4 + P5) > 2/3 \text{ Total SO}$ AND $\{P4 \leq 2/3 \text{ AND } P5 \leq 2/3 \text{ Total SO}\}$	7
$P4 > P5$	73
P45 > 1/3 GL AND 3.02.06 > 1/2 P45	731
Other cases	732
$P4 \leq P5$	74
P5 > 1/3 Total SO AND P45 > 1/3 GL AND 3.02.06 > 1/2 P45	741
Other cases	742

## 7. Mixed livestock holdings

### 73. Mixed livestock, mainly grazing livestock

- 731. Mixed livestock, mainly dairy
- 732. Mixed livestock, mainly non-dairy grazing livestock

### 74. Mixed livestock, mainly granivores

- 741. Mixed livestock; granivores and dairy combined
- 742. Mixed livestock: granivores and non-dairy grazing livestock

Other cases where Total SO > 0	8
$P1 > 1/3 \text{ Total SO AND } P4 > 1/3 \text{ Total SO}$	83
P45 > 1/3 GL AND 3.02.06 > 1/2 P45 AND P45 < P1	831
P45 > 1/3 GL AND 3.02.06 > 1/2 P45 AND P45 ≥ P1	832
P4 < P1 excluding class 831	833
Other cases	834
<b>Other cases</b>	<b>84</b>
P1 > 1/3 Total SO AND P5 > 1/3 Total SO	841
P3 > 1/3 Total SO AND P4 > 1/3 Total SO	842
3.07. > 2/3 Total SO	843
Other cases	844

## 8. Mixed crops – livestock

### 83. Field crops – grazing livestock combined

- 831. Field crops combined with dairy
- 832. Dairying combined with field crops
- 833. Field crops combined with non-dairy grazing livestock
- 834. Non-dairy grazing livestock combined with field crops

### 84. Various crops and livestock combined

- 841. Field crops and granivores combined
- 842. Permanent crops and grazing livestock combined
- 843. Apiculture
- 844. Various mixed crops and livestock

## 9. Non-classified holdings

### 90. Non-classified holdings

- 900. Non-classified holdings

Total SO = 0	9
Total SO = 0	90
Total SO = 0	900

## Annex 7: Calculation examples on farm economic size and type of farming

### Example 1: FADN farm

#### A. Determination of the economic size of this holding

FADN Code	Equivalent New FSS Code	Equivalent Old FSS Code	Animals present on the farm and area per crop			SO Coeff.	Total SO
			Label	Unit	Number (a)	b	a * b
120	2.01.01.01	D01	Common wheat and spelt	ha	75.13	951	71 444
123	2.01.01.04	D04	Barley	ha	5.80	811	4 704
124	2.01.01.05	D05	Oats	ha	5.10	666	3 397
331	2.01.06.04	D26	Oilseed rape	ha	13.30	708	9 419
360	2.01.02.01	D09e	Peas, field beans and sweet lupins	ha	26.85	736	19 758
345	2.01.06.12	D34	Medicinal and aromatic plants, condiment and spices	ha	0.01	1 921	19
131	2.01.04	D11	Sugar beet	ha	23.20	2 388	55 398
144	2.01.05	D12	Fodder roots and brassicas	ha	6.50	568	3 692
146	2.01.12.02	D22	Fallows and set aside Missing data Code = 8	ha	2.04	0	0

Total economic size of the holding (€) **167 831**  
Economic size class **VIII**

#### B. How to determine the type of farming of this holding?

1- Calculate the regrouping codes (see the definition in § 6.2. of the Handbook)

<b>GL=0</b>	FCP1	2.01.05	3 692
	P17	2.01.04 + 2.01.05	59 090
	P1	2.01.01.01 + 2.01.01.04 + 2.01.01.05 + 2.01.06.04 + 2.01.02.01 + 2.01.06.12 + 2.01.04 + FCP1	167 831
	P15	2.01.01.01 + 2.01.01.04 + 2.01.01.05	79 546
	P16	2.01.06.04	9 419
	2.1.2	2.01.02.01	19 758
<b>TOTAL SO</b>			<b>167 831</b>

2- Compare the values of the regrouping codes (see the scheme in Annex 6)

First test to be done: TOTAL SO > 0 Yes

The second test aims at determining the General type of farming  
The values of P1, P2, P3, P4 and P5 are compared to 2/3 of the total SO of the holding

**2/3 TOTAL SO = 111 888**

<b>P1 &gt; 2/3 Total ?</b>	<b>Yes</b>
<b>General type of farming = 1 Specialist field crops</b>	

The final step is to determine the principal and particular types of farming  
P15 + P16 + 2.01.02 > 2/3 Total? No

**P15 + P16 + 2.01.02 = 108 722**

<b>P15 + P16 + 2.01.02 &lt;= 2/3 Total?</b>	<b>Yes</b>
<b>Principal type of farming = 16 General field crops</b>	

P17 > 2/3 Total ? No

<b>P15 + P16 + 2.01.02 &gt; 1/3 Total ?</b>	<b>Yes</b>
<b>And P17 &gt; 1/3 Total ?</b>	<b>Yes</b>

**1/3 Total SO = 55 944**

**Particular type of farming = 162 COP and root crops combined**

## Example 2: FADN farm

### A. Determination of the economic size of this holding

FADN Code	Equivalent New FSS Code	Equivalent Old FSS Code	Animals present on the farm and area per crop			SO Coeff.	Total SO
			Label	Unit	Number (a)	b	a * b
24	3.02.01	J02	Other cattle < 12 months*	heads	27.00	155	0
26	3.02.03	J04	Female cattle 12-24 months	heads	8.00	235	1 880
27	3.02.04	J05	Male cattle over 24 months	heads	2.00	220	440
28	3.02.05	J06	Breeding heifers	heads	5.50	170	935
32	3.02.99	J08	Other cows	heads	34.50	600	20 700
47	3.05.01	J14	Table chickens**	100 heads	9 000.00	145	13 050
120	2.01.01.01	D01	Common wheat and spelt	ha	45.50	830	37 765
123	2.01.01.04	D04	Barley	ha	16.20	720	11 664
146	2.01.12.01	D21	Fallows and set aside - Missing data Code = 3	ha	5.35	0	0
150	2.03.01	F01	Permanent pasture	ha	31.50	230	7 245
331	2.01.06.04	D26	Oilseed rape	ha	27.13	840	22 789
360	2.01.02.01	D09e	Peas, field beans and sweet lupins	ha	9.85	930	9 161
<b>Total economic size of the holding (€)</b>						<b>125 629</b>	
<b>Economic size class</b>						<b>VIII</b>	

\* The number of calves is below the number of cows, therefore the value of 3.02.01 is 0

\*\* The SO coefficient for poultry is determined per 100 heads

### B. How to determine the type of farming of this holding?

1- Calculate the regrouping codes (see the definition in § 6.2. of the Handbook)

P46	3.02.01 + 3.02.03 + 3.02.04 + 3.02.05 + 3.02.99	23 955
GL	P46	23 955
GL > 0	then FCP1 = 0 and FCP4 > 0	
FCP4	2.03.01	7 245
P1	2.01.01.01 + 2.01.01.04 + 2.01.06.04 + 2.01.02.01	81 379
P2		0
P3		0
P4	GL + FCP4	31 200
P5	3.05.01	13 050
<b>TOTAL SO</b>		<b>125 629</b>

2- Compare the values of the regrouping codes (see the scheme in Annex 6)

First test to be done: TOTAL SO > 0 Yes

The second test aims at determining the General type of farming

The values of P1, P2, P3, P4 and P5 are compared to 2/3 of the total SO of the holding

	<b>2/3 TOTAL SO =</b>	<b>83 752</b>	
P1 > 2/3		No	
Total ?		No	
P2 > 2/3 Total ?		No	
P3 > 2/3 Total ?		No	
P4 > 2/3 Total ?		No	
P5 > 2/3 Total ?		No	
(P1 + P2 + P3) > 2/3 Total ?		No	
(P4 + P5) > 2/3 Total ?		No	
<b>Other cases</b>		<b>Yes</b>	

**General type of farming = 8 Mixed crops - livestock**



The second test aims at determining the General type of farming  
 The values of P1, P2, P3, P4 and P5 are compared to 2/3 of the total SO of the holding

$$2/3 \text{ TOTAL SO} = 14 172$$

P1 > 2/3 Total ?	No
P2 > 2/3 Total ?	No
P3 > 2/3 Total ?	No
P4 > 2/3 Total ?	Yes

**General type of farming = 4 Specialist grazing livestock**

The final step is to determine the principal and particular types of farming  
 3.2.06. > 3/4 GL?

No

$$\begin{array}{ll} 3/4 GL = & 9 006 \\ 3.2.06 = & 8 892 \end{array}$$

P46 > 2/3 GL ?	Yes
and 3.2.06 <= 1/10 GL ?	No

$$1/10 GL = 1 201$$

and 3.2.06 > 1/10 GL ?	Yes
and GL > 1/3 P4 ?	Yes

$$1/3 P4 = 5 638$$

**Principal type of farming = 47 Cattle - dairying, rearing and fattening combined**  
**Particular type of farming = 470 Cattle - dairying, rearing and fattening combined**

## Example 4: FADN farm

### A. Determination of the economic size of this holding

FADN Code	Equivalent New FSS Code	Equivalent Old FSS Code	Animals present on the farm and area per crop			SO Coeff.	Total SO
			Label	Unit	Number (a)	b	a * b
23	3.02.01	J02	Calves for fattening*	heads	19.2		
24	3.02.01	J02	Other cattle less than 12 months*	heads	15.1		
	3.02.01	J02	Total calves	heads	34.3		
	3.02.01. – 3.02.06	J02	Total calves - Dairy cows	heads	3.9	170	661
25	3.02.02	J03	Male cattle 12-24 months	heads	8.6	112	965
26	3.02.03	J04	Female cattle 12-24 months	heads	19.6	104	2 030
28	3.02.05	J06	Breeding heifers	heads	1.2	154	185
30	3.02.06	J07	Dairy cows	heads	30.4	650	19 760
43	3.04.01	J11	Piglets**	heads	24.2	9	0
44	3.04.02	J12	Breeding sows	heads	25.8	382	9 859
45	3.04.99	J13	Pigs for fattening	heads	176.9	84	14 912
46	3.04.99	J13	Other pigs	heads	1	84	84
120	2.01.01.01	D01	Common wheat	ha	11.3	394	4 454
123	2.01.01.04	D04	Barley	ha	12	266	3 197
124	2.01.01.05	D05	Oats	ha	8.2	178	1 456
128	2.01.01.99	D08	Other cereals	ha	57.5	211	12 143
331	2.01.06.04	D26	Rape	ha	91.3	391	35 735
147	2.01.09.01	D18a	Temporary grass	ha	73.45	123	9 067
182			Other areas	ha	1.13	0	0

**Total economic size of the holding (€) 114 509**  
**Economic size class VIII**

\* Total number of calves = 34.3; there are more calves than dairy cows, therefore the surplus of calves is valued

\*\* There are breeding sows on the farm, therefore no valuation of the piglets

## B. How to determine the type of farming of this holding?

1- Calculate the regrouping codes (see the definition in § 6.2. of the Handbook)

P45	3.02.01 + 3.02.03 + 3.02.05+ 3.02.06	22 636
P46	P45 + 3.02.02	23 601
GL	P46	23 601
GL > 0	then FCP1 = 0 and FCP4 > 0	
FCP4	2.01.09.1	9 067
P1	2.01.01.01 + 2.01.01.04 + 2.01.01.05 + 2.01.01.99 + 2.01.06.04	56 985
P2		0
P3		0
P4	GL + FCP4	32 668
P5	3.04.01 + 3.04.02 + 3.04.99	24 856
<b>TOTAL SO</b>		<b>114 509</b>

2- Compare the values of the regrouping codes (see the scheme in Annex 6)

First test to be done: TOTAL SO > 0 Yes

The second test aims at determining the General type of farming

The values of P1, P2, P3, P4 and P5 are compared to 2/3 of the total SO of the holding

**2/3 TOTAL SO = 76 339**

P1 > 2/3 Total ?	No
P2 > 2/3 Total ?	No
P3 > 2/3 Total ?	No
P4 > 2/3 Total ?	No
P5 > 2/3 Total ?	No
(P1 + P2 + P3) > 2/3 Total ?	No
(P4 + P5) > 2/3 Total ?	No

**P4 + P5 = 57 524**

**Other cases** Yes

**General type of farming = 8 Mixed crops - livestock**

The final step is to determine the principal and particular types of farming

P1 > 1/3 Total ? Yes

and P4 > 1/3 Total ? No

**1/3 Total SO = 38 170**

**Other cases** Yes

**Principal type of farming = 84 Various crops and livestock combined**

P1 > 1/3 Total and P5 > 1/3 Total ? No

P3 > 1/3 Total and P4 > 1/3 Total ? No

3.7. > 2/3 Total ? No

**Other cases** Yes

**Particular type of farming = 844 Various mixed crops and livestock**

## Example 5: FADN farm

### A. Determination of the economic size of this holding

FADN Code	Equivalent New FSS Code	Equivalent Old FSS Code	Animals present on the farm and area per crop		SO Coeff.	Total SO	
			Label	Unit	Number (a)	b	a * b
23	3.02.01	J02	Calves for fattening*	heads	18.9	892	0
27	3.02.04	J05	Male cattle over 24 months	heads	3	1841	5 524
28	3.02.05	J06	Breeding heifers	heads	47	1469	69 027
32	3.02.99	J08	Other (including suckler) cows	heads	63	515	32 445
40	3.03.01.01	J09a	Ewes	heads	1172.9	98	114 557
41	3.03.01.99	J09b	Other sheep**	heads	237	98	0
146	2.01.12.01	D21	Fallow land - Missing data code = 3	ha	618	24	14 832
281	2.04.03.01	G03a	Table olives	ha	57	450	25 650
283	2.04.03.02	G03b	Olive oil	ha	75	299	22 425
326	2.01.09.02.01	D18bi	Fodder maize	ha	90	422	37 980
327	2.01.09.02.99	D18biii	Other silage cereals	ha	192	209	40 128
<b>Total economic size of the holding (€)</b>						<b>362 569</b>	
<b>Economic size class</b>						<b>IX</b>	

\* The number of calves is below the number of cows, therefore the value of 3.02.01 is 0

\*\* There are ewes on the farm, therefore no valuation of the other sheep

### B. How to determine the type of farming of this holding?

1- Calculate the regrouping codes (see the definition in § 6.2. of the Handbook)

P46	3.02.01 + 3.02.04 + 3.02.05 + 3.02.99	106 996
GL	P46 + 3.03.01.01 + 3.03.01.99	221 554
GL > 0	then FCP1 = 0 and FCP4 > 0	
FCP4	2.01.09.02.01 + 2.01.09.02.99	78 108
P1	2.01.12.01	14 832
P2		0
P3	2.04.03.01 + 2.04.03.02	48 075
P4	GL + FCP4	299 662
P5		0
<b>TOTAL SO</b>		<b>362 569</b>

2- Compare the values of the regrouping codes (see the scheme in Annex 6)

First test to be done: TOTAL SO > 0 Yes

The second test aims at determining the General type of farming

The values of P1, P2, P3, P4 and P5 are compared to 2/3 of the total SO of the holding

$$2/3 \text{ TOTAL SO} = 241 712$$

P1 > 2/3 Total ?	No
P2 > 2/3 Total ?	No
P3 > 2/3 Total ?	No
P4 > 2/3 Total ?	Yes

**General type of farming = 4 Grazing Livestock**

The final step is to determine the principal and particular types of farming

3.2.04 > 3/4 GL ? No

P46 > 2/3 GL ? No

$$2/3 GL = 147 702$$

Other cases Yes

**Principal type of farming = 48 Sheep, goats and other grazing livestock**

3.3.1.01 > 2/3 GL	No
P46 > 1/3 GL ?	Yes
and 3.3.1.01 > 1/3 GL ?	Yes
and GL > 1/3 P4 ?	Yes

1/3 GL = 73 851

1/3 P4 = 99 887

**Particular type of farming = 482 Sheep and cattle combined**

**Annex 8: OGA directly related to the holding: definition from the Handbook on implementing the FSS and SAPM definitions  
(CPSA/SB/652. rev. 6 - July 2009)**

<b>VI. OTHER GAINFUL ACTIVITIES OF THE HOLDING (DIRECTLY related to the holding)</b>	<b>Characteristic</b>	<b>Definition</b> (as provided in the Commission Regulation No xxxx/xx of .....2009)	<b>Note/explanations</b>
6.01	<b>VI. (i) List of other gainful activities</b>	<p>Other gainful activities of the holding comprise all activities other than farm work, <u>directly related to the holding</u> and having an economic impact on the holding.</p> <p>“Activities directly related to the holding” means activities where either the resources of the holding (area, buildings, machinery, etc.) or its products are used in the activity. If only the farm labour force (family and non-family) and no other resources of the holding are used, the workers are seen as working under two separate arrangements, and these other gainful activities are thus not seen as being directly related to the holding.</p> <p>Non-agricultural as well as agricultural work for other holdings is included.</p> <p>Gainful activities in this context mean active work; pure financial investments are therefore excluded. Renting out the land for diverse activities without being further involved in these activities is also excluded.</p>	<p>Several other gainful activities directly related to the holding can be carried out on and by the same holding.</p> <p>A commercial activity not linked to any agricultural holding activity and localised on the holding is not another gainful activity of the holding (for example a hairdresser, an insurance company or if the farmer as a second activity is renting agricultural machinery that he does not use on his own holding, a shop where no own products are sold, hunting activities etc.).</p> <p>The information collected should reflect “standard” situation of the holding, therefore any occasional other gainful activities should be excluded.</p>
6.01.01	Tourism, accommodation and other leisure activities	All activities in tourism, accommodation services, showing the holding to tourists or other groups, sport and recreation activities etc. where either land, buildings or other resources of the holding are used.	If mainly buildings other than those originally built for agricultural purposes are used, it is considered as a separate commercial activity and should be excluded, unless it improves activities already available on the holding (for example new building for the camping).
6.01.02	Handicraft	Handicraft items either manufactured on the holding by the holder or the family members, or by non-family labour force, provided that they are also carrying out farm work, regardless of how the products are sold.	
6.01.03	Processing of farm products	<p>All processing of a primary agricultural product to a processed secondary product on the holding, regardless of whether the raw material is produced on the holding or bought from outside. This includes processing meat, making cheese, etc.</p> <p>All processing of farm products belongs to this item unless the processing is regarded as a part of agricultural</p>	<p>Sale of the farm products directly to consumers is considered as the farm activity and therefore excluded from other gainful activities directly related to the holding unless the processing of the product is taking place on the holding (for example milk sold directly to neighbours is excluded, since no processing is required).</p> <p>The packaging of the products is excluded, except if it significantly increases the marketing possibilities (if it is not a standard marketing</p>

<b>VI. OTHER GAINFUL ACTIVITIES OF THE HOLDING (DIRECTLY related to the holding)</b>	<b>Characteristic</b>	<b>Definition</b> (as provided in the Commission Regulation No xxxx/xx of .....2009)	<b>Note/explanations</b>
		activity. Wine processing and olive oil production are therefore excluded unless the bought-in proportion of wine or olive oil is significant.	characteristics in the region).  Processing of farm products for self-consumption only or the sale of a possible surplus of such products is not included.
6.01.04	Production of renewable energy	Producing renewable energy for the market including biogas, biofuels or electricity, by wind turbines, other equipment or from agricultural raw materials. Renewable energy produced only for the holding's own use is not included here.	Renting out the land only for the establishing the wind mill is excluded. Selling of raw material to another enterprise for the production of renewable energy is excluded.
6.01.05	Wood processing (e.g. sawing)	The processing of raw wood on the holding for the market (sawing timber, etc.).	Further processing, such as producing furniture from the timber, belongs normally under Handicraft 6.01.02.
6.01.06	Aquaculture	Production of fish, crayfish etc. on the holding. Activities involving only fishing are excluded.	All activities (fish production in the artificial environment but also production in the rives, sea, etc.) are included if either the resources of the holding (area, buildings, machinery, agricultural products, etc.) or the products of the holdings are used for these activities.
6.01.07	Contractual work (using production means of the holding)	Contractual work using the equipment of the holding, differentiating between work that is inside or outside the agricultural sector, e.g. clearing snow, haulage work, landscape maintenance, agricultural and environmental services etc.	Maintaining the land in good agricultural and environmental conditions on the own land is considered as the farm activity and therefore excluded from other gainful activities directly related to the holding.
6.01.07.01	Agricultural (for other holdings)		
6.01.07.02	Non-agricultural		
6.01.08	Forestry	Forestry work using both the farm labour force and the machinery and equipment of the holding generally used for agricultural purposes.	
6.01.99	Other	Other gainful activities directly related to the holding not mentioned elsewhere.	These other activities can be among others raising fur animals, care farming etc. Use of the agricultural holding buildings for the storage of caravans, boats and other objects for the part of the year but for agricultural purposes for the rest of the year is included. If the agricultural holding buildings are not used for agricultural production at all, the rent of such buildings is not considered directly related to the holding and therefore excluded from other gainful activities directly related to the holding.