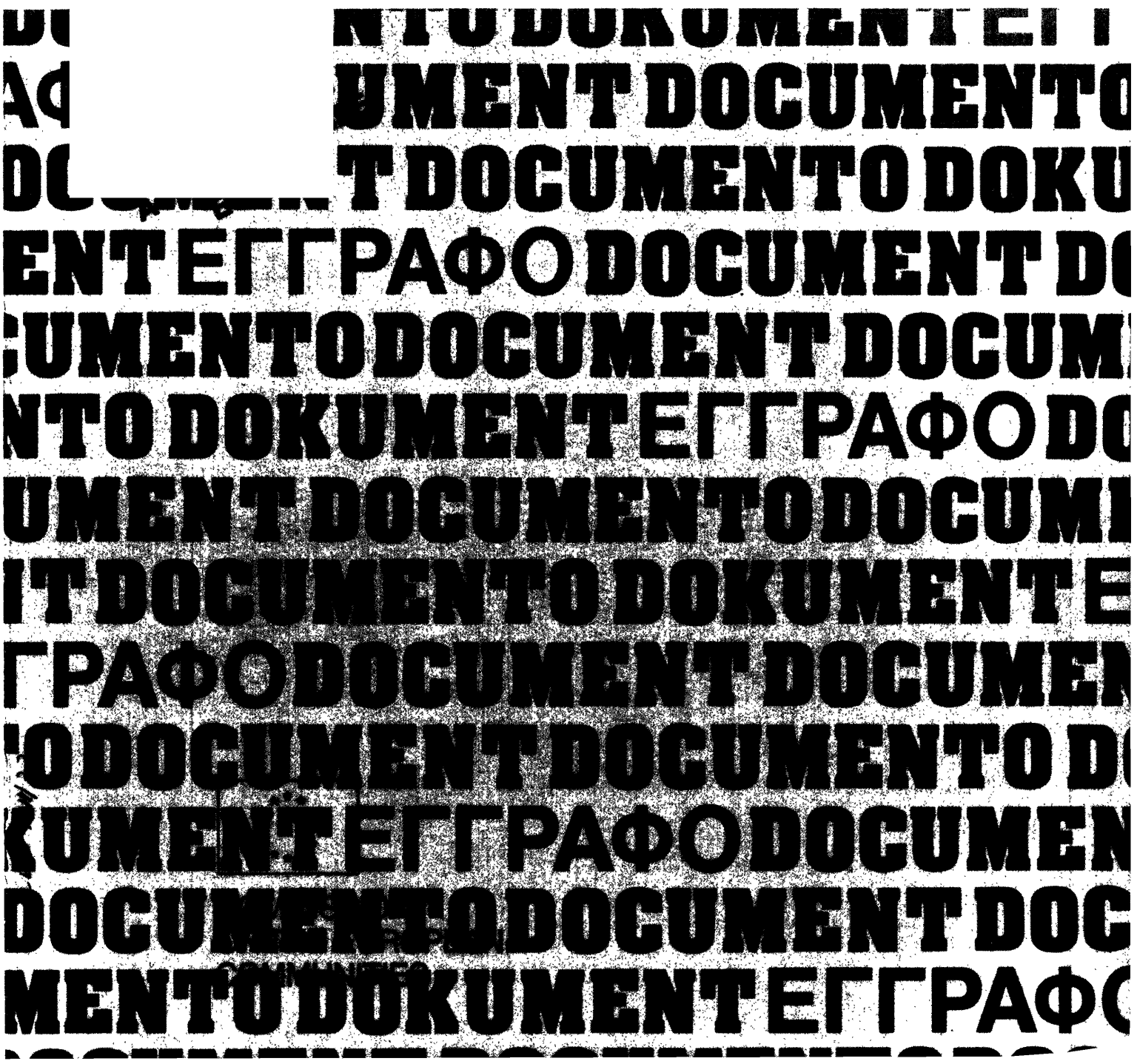
FARM ACCOUNTANCY DATA NETWORK
An A to Z of methodology

FARM ACCOUNTANCY DATA NETWORK - AN A TO Z OF METHODOLOGY



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Document

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1st Edition August 1989

CONTENTS

List of Tables.....v

List of Figures.....vii

List of Abbreviations.....viii

Editorial Note.....viii

1. INTRODUCING THE FARM ACCOUNTANCY DATA NETWORK (FADN).....1

1.1 What is FADN?.....1
1.2 Why is an A-Z of FADN necessary?.....1
1.3 Data is confidential.....1
1.4 Liaison Agencies collect data.....2
1.5 Reimbursement by the Commission.....2
1.6 FADN is principally concerned with agriculture.....2
1.7 FADN is guided by a Community Committee.....2
1.8 Founding legislation.....2

2. DEFINING THE FIELD OF OBSERVATION.....3

2.1 The universe of farms.....3
2.2 The field of observation consists of "commercial" farms.....3
2.3 The economic size of farms: Standard Gross Margins and European Size Units.....4
2.3.1. Standard Gross Margins.....4
2.3.2 European Size Units.....5
2.4 Procedure for determining farm size in ESU.....5
2.5 Delimitation of the field of observation.....5
2.6 The extent to which FADN's field of observation covers the universe.....5

3. SELECTING THE SAMPLE OF FARMS FROM FADN'S FIELD OF OBSERVATION.....9

3.1 Introduction.....9
3.2 Member States conduct their own selection.....9
3.3 Stratification.....9
3.3.1 The use of stratification.....9
3.3.2 Region.....10
3.3.3 Economic size.....10
3.3.4 Type of farming.....10
3.4 The universe and field of observation represented as a matrix of cells.....10
3.5 Determining the optimal size of the sample.....17
3.6 The extent to which the sample is random.....17
3.7 Selection plans.....20
3.8 Selection procedures in Member States.....20
3.9 The size of the FADN sample.....20
3.9.1 The reasons why the intended sample size may not be attained in practice.....20
3.9.2 Actual sample size in recent years.....24

4. THE COLLECTION OF DATA FROM FARMS....39

4.1 Responsibility rests with Liaison Agencies of the Member States....39
4.2 Confidentiality is maintained....39
4.3 Time period for data collection....39
4.4 The Farm Return....39
4.5 The source of data at the farm level....40
4.6 Organisational structure for data collection....40

5. ENSURING THE HIGH QUALITY OF FADN DATA....47

5.1 The need for quality control....47
5.2 Quality control procedures followed by Liaison Agencies....47
5.3 Quality control procedures followed by the Commission....47
5.3.1 Quality control procedures at the level of the individual farm....47
5.3.2 Quality control procedures at the aggregate level....53
5.4 Timetable for quality control and calculation of results....53

6. THE WEIGHTING SYSTEM....55

6.1 The need for a weighting system....55
6.2 Information on the field of observation....55
6.3 The aggregation of cells....55
6.4 Minimum weighting factors....56
6.5 Maximum weighting factors....56

7. STANDARD RESULTS AND AD HOC ANALYSES....61

7.1 Standard Results....61
7.1.1 What are Standard Results?....61
7.1.2 The definition of variables....61
7.1.3 Financial variables expressed in ECU....61
7.1.4 Standard groupings....61
7.1.5 Selective printing....69
7.2 The execution of ad hoc analyses....69

8. THE RICA FORECASTING SYSTEM (RFS)....77

8.1 Objectives....77
8.2 Standard updates....77
8.2.1 How is the updating done?....77
8.2.2 Sequence of standard updating exercises....77
8.2.3 Example of output....77
8.3 Ad hoc updates....77
8.4 Limitations of the RFS system : the RFS II Farm Model....78

ANNEX I : Bibliography of publications....81

ANNEX II : FADN legislation....83

ANNEX III : Multilingual glossary of FADN terms....87

ANNEX IV : Test types I and II....91

ANNEX V : Index....93

LIST OF TABLES

1 The value of 1 ESU according to the set of SGMs that are used.....5

2 Economic size thresholds applied by the Commission (in ESU).....7

3 The degree (%) to which FADN's field of observation covers the universe in each Member State and in the Community (EUR10 - 1985).....8

4 The number of FADN regions in each Member State.....12

5 Economic size classes used for stratification of the field of observation.....13

6 Principle types of farming as specified in the Community typology of agricultural holdings.....14

7 Determination of sample size and method of selection of the FADN sample, by Member State.....21

8 Actual sample size and average weight for Member States and for the Community (1986).....24

9 - 21 Sampling fractions (%) by size class and type of farming by Member State and for the Community.....25

22 An example of a print-out of errors/warnings by Farm Return.....51

23 An example of a print-out of errors/warnings by by test.....52

24 Proposed 15-month timetable for the control of data and the production of Standard Results.....54

25 Those types of farming and size classes that are aggregated for the calculation of weighting factors.....58

26 An example of Standard Results for 1986/7.....62

27 Coefficients used to convert species and classes of livestock to Livestock Units (LU).....70

28 Mean rates applied for FADN purposes to convert national currencies to ECU.....71

29 Nine types of farming groups used by the Commission for the Standard Results.....71

30 An example of Standard Results for different regions (in this case the regions of Portugal).....72

31 An example of Standard Results for different types of farming.....73

32 An example of Standard Results for different economic size classes.....74

33 An example of Standard Results for different land area classes.....75

34 An example of Standard Results for different income classes.....76

35 An example of a forecasting exercise using RFS: the percentage change in Net Value Added per Annual Work Unit from 1986 to 1987 in real terms.....79

LIST OF FIGURES

A	The universe and the field of observation	3
B	Procedure for deriving the economic size of farms in ESU	6
C	FADN regions	11
D	The universe and field of observation as a matrix of cells	16
E	Accounting years for Member States	18
F	The number of farms at different stages in the selection process	22
G	The size of the actual sample since 1968	23
H.1 - H.12	Organisational structure for collecting FADN data by Member State	41
J	Quality control procedures followed by Liaison Agencies	48
K	Quality control procedures followed by the Commission	49
L	Aggregation of cells - similar cells with one empty at sample level	57
M	The problem of empty cells in the field of observation	59
N	The problem of low sampling fractions and dissimilar cells	59
P	The derivation of income indicators I	66
Q	The derivation of income indicators II	67
R	The derivation of capital indicators	68

LIST OF ABBREVIATIONS

AWU	Annual Work Unit
CEC	Commission of the European Communities
EC	European Community
ECU	European Currency Unit
ESU	European Size Unit
EUR10	The European Community except Spain and Portugal
FADN	Farm Accountancy Data Network
FFI	Farm Family Income
FNVA	Farm Net Value Added
FSS	Farm Structure Survey
FWU	Family Work Unit
LU	Livestock Unit
MS	Member State
NS	National Survey
OJ	The Official Journal of the European Communities
RFS	RICA Forecasting System
RICA	Réseau d'information comptable agricole (French acronym for FADN)
s	secret
SGM	Standard Gross Margin
SOEC	Statistical Office of the European Communities (Eurostat)
TF	Type of Farming
UAA	Utilised Agricultural Area

EDITORIAL NOTE

Throughout the document, the names of the Member States of the European Communities are given in their national languages. The English equivalents are as follows:

Belgi(qu)e	Belgium
Danmark	Denmark
Deutschland	West Germany
Ellas	Greece
Espana	Spain
France	France
Italia	Italy
Luxembourg	Luxembourg
Nederland	The Netherlands
Portugal	Portugal

1. INTRODUCING THE FARM ACCOUNTANCY DATA NETWORK (FADN)

1.1 What is FADN?

As background to policy initiatives and decisions, the Commission of the European Communities needs:

i) information on the level of farm incomes;
ii) analyses of the effects of policy options.

The Commission has established FADN to provide these functions. It is a pan-EC system of sample surveys that take place each year and constitutes an important tool within the Commission's technical apparatus for supplying information and executing analyses.

1.2 Why is an A-Z of FADN necessary?

Running a pan-EC system of surveys is a difficult task. For the data to be accurate and to reflect the enormous variation in Community(1) agriculture, the sample surveys must be very carefully designed and executed. For instance, the Commission needs to ensure that the sample of farms represents both large and small farms. The terms used - such as Net Farm Income and Cash-Flow - must carry exactly the same meaning in all twelve Member States. All the data received by the Commission need to be thoroughly and systematically checked.

Principles such as these mean that FADN has been developed by the Commission staff into a harmonised system of sample surveys, using precisely defined terms, carefully elaborated selection methods and transparent, comprehensive control procedures.
It is to explain these terms, methods and procedures that this document, designed as a companion volume to the Community FADN Farm Return, has been written.

1.3 Data is confidential

Incorporated into the founding legislation of FADN is a stipulation that all data relating to individual farms received by the Commission are to be treated with the utmost confidentiality. Consequently, data at the level of individual farms are not normally released outside the Directorate General for Agriculture of the Commission. Only aggregated results for a group of farms and for farms within regions and Member States are published since, at this level of aggregation, information relating to individual farms cannot be discerned.

---

(1) Unless otherwise stated, the term 'Community' refers to the Community of 12 Member States (Belgi(qu)e, Danmark, Deutschland, Ellas, España, France, Ireland, Italia, Luxembourg, Nederland, Portugal, United Kingdom). EUR10 refers to the Community of 10 Member States that existed before the accession of Espana and Portugal on 1 January 1986.

1.4 Liaison Agencies collect data

The Commission does not directly collect data itself. This is the responsibility of a Liaison Agency in each Member State and is either undertaken by the Liaison Agency itself or by bodies nominated by it. Each Liaison Agency is guided for the purposes of FADN by a National FADN Committee. Chapter 4 provides more information on Liaison Agencies.

1.5 Reimbursement by the Commission

The Commission recognises that participation in the FADN survey imposes a cost on the Liaison Agencies. It thus makes a fixed payment to the Liaison Agencies towards the cost of converting Member State data to the format required by the Commission. A payment is made for each successfully completed Farm Return received by the Commission.

1.6 FADN is principally concerned with agriculture

The FADN survey covers the entire range of agricultural activities carried out on farms. However, it also collects data on some non-agricultural farming activities (such as tourism and forestry).

1.7 FADN is guided by a Community Committee

The operation of FADN is guided by a management committee which generally meets twice a year. The committee is known as the FADN Community Committee and consists of representatives of the Liaison Agencies of the Member States. It is chaired by a staff member of the Commission and amongst its other duties considers all legislation relating to FADN.

1.8 Founding legislation

The legislation establishing FADN is Council Regulation 79/65/CEE of 15 June 1965[1]. This legislation has since been modified and expanded - Annex II includes a list of all relevant regulations and decisions.

---

(1) OJ No 109, 23.6.1965, p. 1859/65.

2. DEFINING THE FIELD OF OBSERVATION

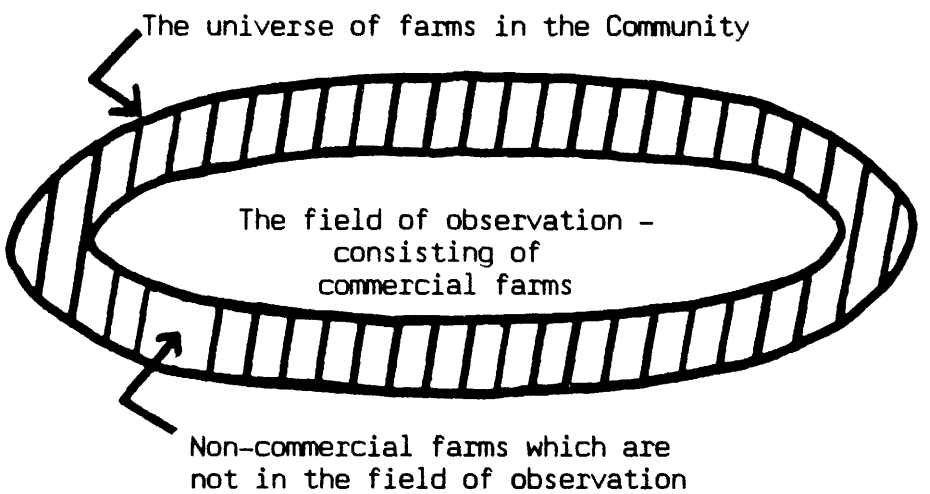
2.1 The universe of farms

The term "universe" is a statistical term which is used to define the set of units under enquiry. In the present context, the universe of farms is that set of farms in the Community of at least 1 hectare and those of less than 1 hectare provided the latter market a certain proportion of their output or produce more than a specified amount of output(1).

2.2 The field of observation consists of "commercial" farms

In the universe there are some farms which produce little output and from this point of view do not warrant inclusion in the FADN sample. Thus, in defining FADN's field of observation, the Commission follows the guidelines specified in Regulation 79/65/EEC of 15 June 1965(2) and subsequent amendments(3) and adopts a pragmatic approach by including only those farms deemed to be commercial (see Figure A).

Figure A The universe and the field of observation



The extent to which the field of observation covers the universe is described in section 2.6. For many products and farm types coverage is greater than 90% (see Table 3).

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(1) For more details of which farms are included in the universe see the Eurostat publication: Farm structure - methodology of Community surveys. Theme 5 Series E. Published by the Statistical Office of the European Communities, 1986.

(2) OJ No 109, 23.6.1965, p. 1859/65.

(3) A list of all legislative instruments pertaining to the FADN is given in Annex II together with the serial numbers of the Official Journals in which they are published.

A commercial farm is defined as a farm which is large enough to provide a main activity for the farmer and a level of income sufficient to support his or her family. In order to be classified as commercial, a farm must exceed a minimum economic size. The calculation of economic size is explained in sections 2.3 and 2.4.

2.3 The economic size of farms: Standard Gross Margins and European Size Units

2.3.1 Standard Gross Margins

The concept of Standard Gross Margin (SGM) is used to determine the economic size of farms, which is expressed in terms of European Size Units (ESU). This concept is also used in the Farm Structure Survey organised by the Statistical Office of the European Communities (Eurostat).

DEFINITION

The Standard Gross Margin (SGM) of a crop or livestock item

is defined as

the value of output from one hectare or from one animal

less

the cost of variable inputs required to produce

that output.

For each region all crop and livestock items are accorded an SGM. The SGM is calculated by Liaison Agencies themselves on the basis of empirical data collected from farms. To avoid bias caused by fluctuations e.g. in production (due to bad weather) or in input/output prices, three year averages are taken (1). SGMs are expressed in Commission publications in European Currency Units (ECU).

SGMs are updated every two years(2) and are calculated on a regional basis for a total of 91 separate crop and livestock items. This large number of items not only reflects the diversities of agriculture within the Community but also indicates the level of detail that is required to ensure that the results of FADN and other surveys are both comprehensive and reliable.

---

(1) To denote the average of a three-year period, inverted commas are used. For example, "1973" denotes the average for the period of 1972 to 1974.

(2) SGMs for "1982" are given in Notice No: 86/C 191/02, OJ No C 191, 29.7.1986, p. 2. SGMs for "1984" are given in Notice No: 88/C 133/01, OJ No C 133, 24.5.1988, p. 1.

2.3.2 European Size Units

The economic size of farms is expressed in terms of European Size Units (ESU). The value of one ESU is defined as a fixed number of ECU of Farm Gross Margin. Over time the number of ECU per ESU changes to reflect inflation. Table 1 shows the value of one ESU according to the set of SGMs that are used.

Table 1 The value of 1 ESU according to the set of SGMs that are used

SGM	1 ESU is equivalent to:
"1973"	1000 ECU (SGM "1973")(1)
"1980"	1000 ECU (SGM "1980")
"1982"	1100 ECU
"1984"	1200 ECU

2.4 Procedure for determining farm size in ESU

There are five steps in the determining of farm size in ESU. These are shown in Figure B.

2.5 Delimitation of the field of observation

As stated above, those farms which exceed a certain economic size in ESU are defined as commercial, and thus fall into the field of observation. But, because of the different farm structures in the Community, it is necessary to specify separate thresholds for each Member State. The thresholds in recent accounting years are shown in Table 2.(2)

2.6 The extent to which FADN's field of observation covers the universe

The proportion of the universe that is covered by the field of observation in each Member State is, in most instances, substantial as Table 3 indicates.

---

(1) In order to convert SGM "1973" to SGM "1980", the former should be multiplied by a coefficient of 1.7. In other words, 1000 ECU of SGM "1973" are equivalent to 1700 ECU of SGM "1980".

(2) In certain cases a maximum threshold is applied. This is to ensure the confidentiality of information from very large holdings.

Figure B Procedure for deriving the economic size of farms in ESU.

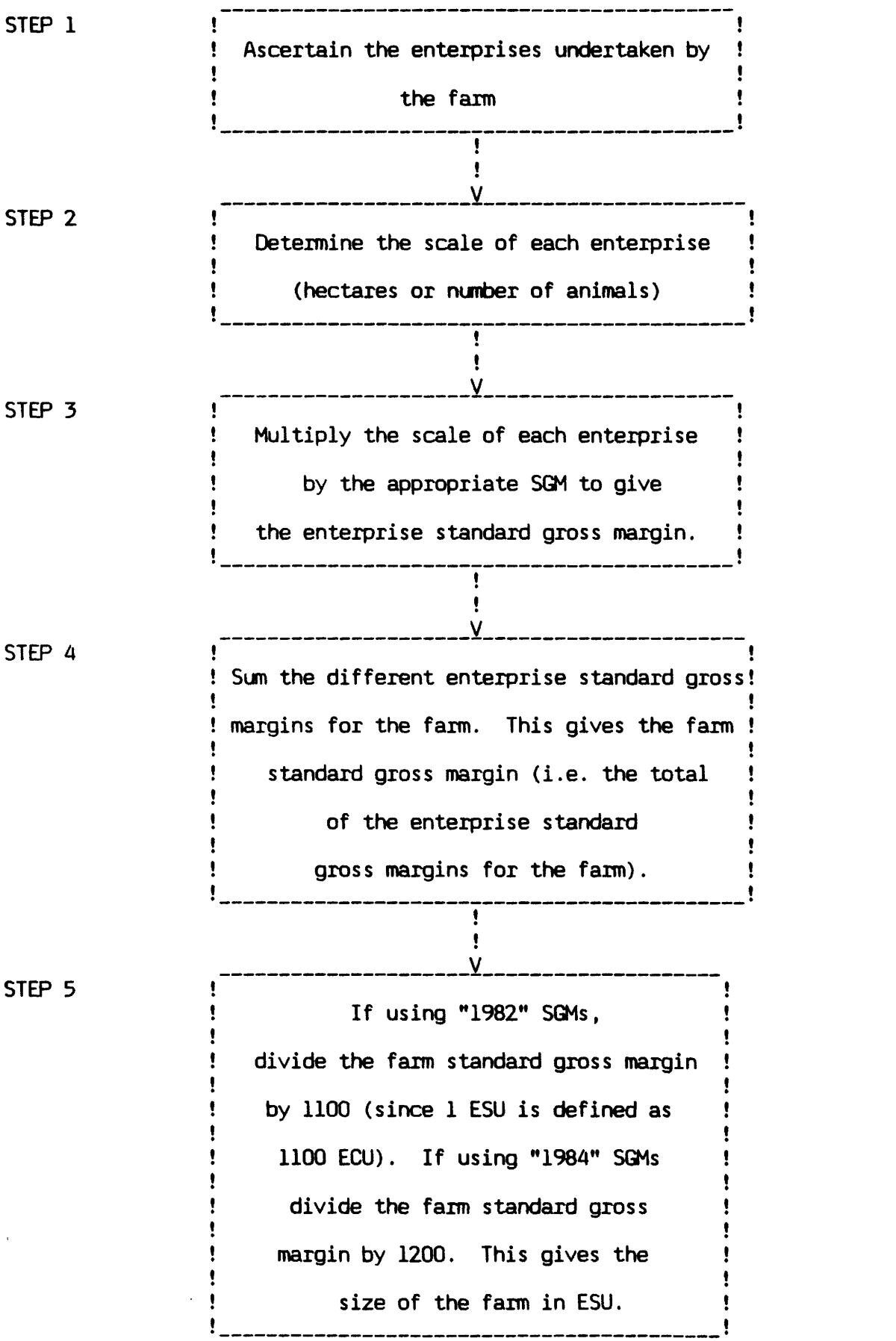

Table 2 Economic size thresholds applied by the Commission (in ESU)

	For 1982/3 - 1985/6 accounting years (1)	For 1986/7 accounting year and following (2)
Value of 1 ESU	1000 ECU of SGM "1973"	1100 ECU of SGM "1982"
Belgi(qu)e	6	12
Danmark	4	8 (4)
Deutschland	4	8
Ellas	1	2
España	- (3)	2
France	4	8
Ireland	2	2
Italia	1	2
Luxembourg	4	8
Nederland	6	16
Portugal	- (3)	1 (4)
United Kingdom (England, Wales and Scotland)	4	8
Northern Ireland	2	4

---

(1) Size thresholds up to 1985 accounting year are specified in Commission Regulation 1859/82/EEC of 12 July 1982, OJ L 205, 13.7.1982, p. 1
(2) Size thresholds for 1986 and following accounting years are specified in Commission Regulation 3548/85/EEC of 16 December 1985, OJ L 338, 17.12.1985, p. 16.
(3) Spain and Portugal joined the Community FADN survey in 1986.
(4) In practice, a threshold of 4 ESU is used for Denmark and 2 ESU for Portugal.

Table 3 The degree (%) to which FADN's field of observation covers the universe in each Member State and in the Community (EUR10 - 1985) (1)

	BEL	DAN	DEU	ELL	FRA	IRE	ITA	LUX	NED	UKI (2)	EUR10
Standard gross margin	93	97	92	92	95	97	95	94	95	100	95
Number of holdings(3)	57	79	55	55	63	67	54	64	72	62	57
Utilised agricultural area	89	94	88	86	92	87	90	92	91	91	90
Labour force (Annual Work Units)	78	94	78	79	84	82	81	82	86	83	81
Area under permanent pasture and meadow	84	90	84	94	85	85	90	92	89	86	86
Area under permanent crops	92	97	85	74	92	93	86	83	91	97	85
Area under arable land	93	94	90	88	96	95	92	92	93	97	94
Area under vineyards	-	-	87	78	92	-	86	85	-	-	88
Number of dairy cows	94	99	93	93	96	100	99	99	98	100	96
Number of sheep	49	68	66	96	87	98	98	34	69	95	95
Number of pigs	96	99	93	98	99	100	98	95	94	98	96

Source: derived from Eurostat: Farm Structure 1985 survey: main results Theme 5, Series C, published by Statistical Office of the European Communities, Luxembourg.

(1) Figures have been rounded to the nearest whole percent.

(2) The degree of coverage for the UK has been calculated using a threshold of 8 ESU. This threshold is, in fact, used only for England, Wales and Scotland. A lower threshold of 4 ESU is used for Northern Ireland. This means that the figures given in the above table understate to a certain degree the extent to which the field of observation covers the universe.

(3) The term "holding" is broadly equivalent to the term "farm".

3. SELECTING THE SAMPLE OF FARMS FROM FADN'S FIELD OF OBSERVATION

3.1 Introduction

This chapter describes how farms are selected and the techniques that are used to achieve as high a degree of representativity as possible.

3.2 Member States conduct their own selection

Before the creation of FADN, several Member States were already conducting agricultural surveys based on farm accounts. Some of these surveys were based on a selective sample of farms - as opposed to the entire population of farms. To select a sample of farms, these Member States had established their own selection plans.

Most Liaison Agencies of the Member States continue to conduct national surveys and have thus retained their own selection plans. The current practice is for Liaison Agencies to design their own selection plans for the Community survey. The plans are submitted to the FADN Community Committee for approval. They vary in technical sophistication from one Member State to another.

3.3 Stratification

3.3.1 The use of stratification

Within FADN's field of observation, there is a great diversity of farming. Some farms are very large (in terms of their economic size) while others may be very small. Some farms concentrate on crop production, others specialise in livestock rearing while still others practice mixed farming; that is, both crop and livestock production. On these two criteria - economic size and type of farming - alone, the field of observation of Community farms is highly heterogeneous.

To ensure that the sample of farms adequately reflects this heterogeneity, Liaison Agencies stratify the field of observation before the sample of farms is selected. If this were not done, there would be a greater risk that particular categories of farm (say, large dairy farms in one region, or small fruit farms in another region) would not be represented adequately (or even at all) by the sample.

Stratification is a statistical technique which is used to increase sampling efficiency (i.e. to minimise the number of farms required to represent the variety of farms in the field of observation). The Commission makes extensive use of this technique and uses three criteria for stratification; region, economic size and type of farming, as described in the following section (3.4).

3.3.2 Region

For FADN purposes the Community is divided into 91 regions. These are shown in Figure C. Table 4 shows how the regions in each Member State correspond to those defined by the Statistical Office of the European Communities (Eurostat), published as the Nomenclature of Territorial Units for Statistics (NUTS). FADN regions are specified in Commission Regulation 1859/82/EEC of 12 July 1982(1) and, for Spain and Portugal, in Commission Regulation 3122/85/EEC of 6 November 1985(2).

3.3.3 Economic size

Section 2.3 describes the concept of economic size and its calculation. All farms in FADN's field of observation are classified under the "new typology" into one of nine size classes, these being defined in Annex III of Commission Decision 85/377/EEC of 7 June 1985(3) and given in Table 5.

3.3.4 Type of farming

The third and final criterion used for stratification of the FADN field of observation is type of farming - this being defined in economic terms and not in physical terms. A detailed typology has been created for use by various bodies at the Community level. It is sufficiently broad to encompass the many different types of farming that are found in the Community. This typology is described in Commission Decision 85/377/EEC of 7 June 1985(3).

The typology identifies 17 principal types of farming, as shown in Table 6, which are further broken down into 50 particular types. How are farms allocated to a specific type? In other words, what are the definitions of the different types of farming?

Types of farming are defined in terms of the relative importance of the different enterprises on the farm. Relative importance is itself measured quantitatively as a proportion of each enterprise's SGM to the farms' total SGM. An example of classifying a farm is given after Table 6.

For the purposes of computing Standard Results, the Commission uses nine groups of farming types, which are given in Table 29, page 71. For more information on how these Standard Results are calculated and published, readers are referred to Chapter 7.

3.4 The universe and field of observation represented as a matrix of cells

The 3-way stratification of the universe allows it to be represented as a 3-dimensional matrix of cells. Each cell corresponds to a specific category of farms. Figure D illustrates this.

(text continues on page 17)

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(1) OJ No L 205, 13.7.1982, p. 5
(2) OJ No L 297, 09.11.1985, p. 1
(3) OJ No L 220, 17.08.1985, p. 1

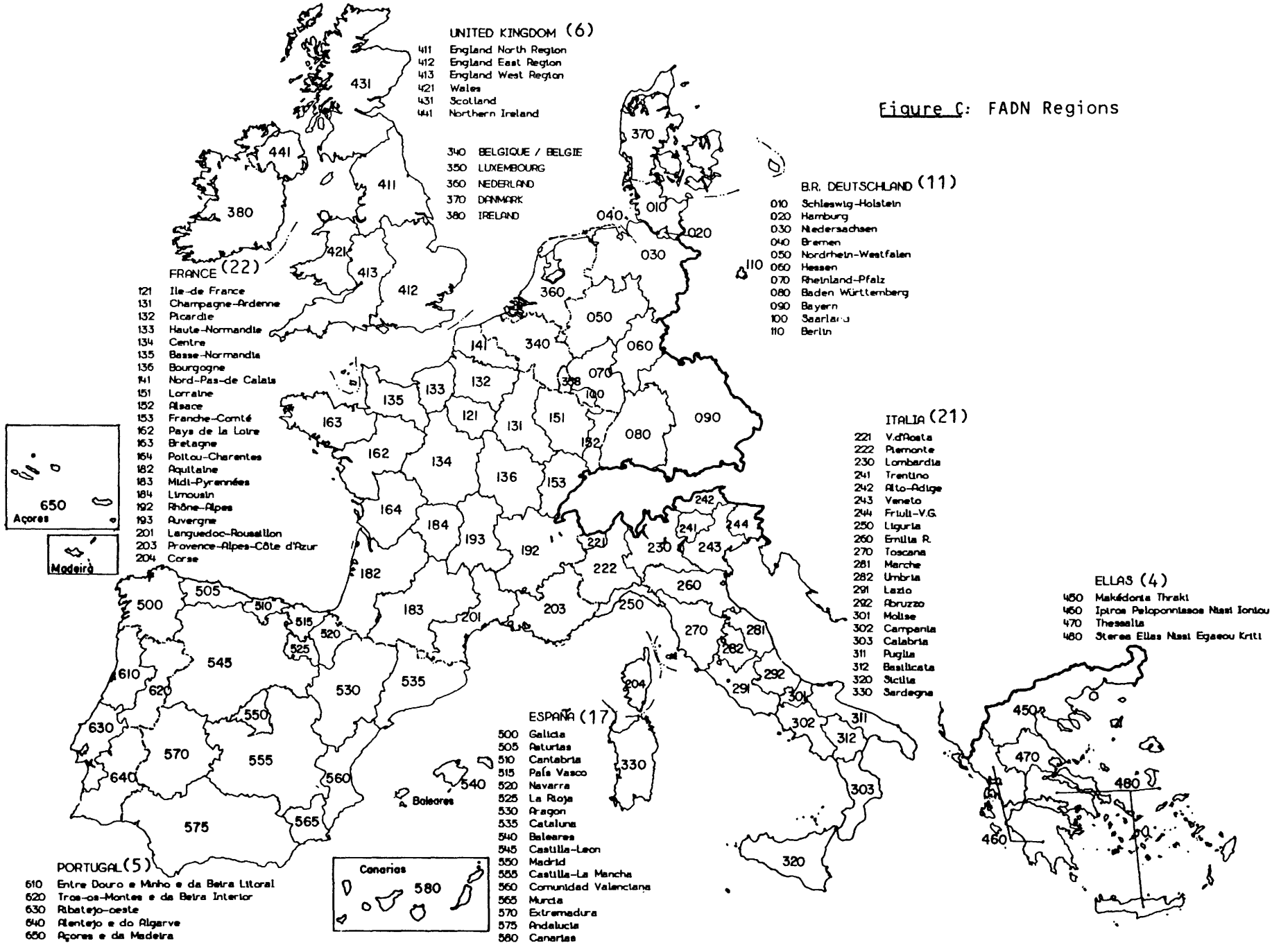

Figure C: FADN Regions

Table 4: The number of FADN regions in each Member State

Member States	Number of regions for FADN purposes	Correspondence with NUTS Level(1)
Belgi(qu)e	1	Member State
Danmark	1	I (Member State)
Deutschland	11 (2)	I (Länder)
Ellas	4	groups of NUTS II (development regions)
España	17	NUTS II (Comunidades Autonomas, except Ceuta y Melilla)
France	22	NUTS II (Regions) (3)
Ireland	1	NUTS I (Member State)
Italia	21	NUTS II (Regions) (4)
Luxembourg	1	NUTS I (Member State)
Nederland	1	Member State
Portugal	5	groups of NUTS III
United Kingdom	6	groups of NUTS I
Community (EUR12)	91	

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(1) NUTS (Nomenclature of Territorial Units for Statistics) see Eurostat: Regions Rapid Report Theme I, Series F, August 1986.
(2) For the analyses and presentation of the Standard Results, the three urban regions in Germany are considered as a single region.
(3) Île de France and Nord-Pas-de-Calais are NUTS I as well.
(4) For FADN purposes, Trentino and Alto Adige are separated.

Table 5 Economic size classes used for stratification of the field of observation

Economic size class	Definition in ESU (1)	Names of size classes used up to 1982/3 (2)	Names of size classes used since 1983/4 (3)
I	< 2	Minimal	Very small
II	2 - < 4	Very small	
III	4 - < 6	Small	Small
IV	6 - < 8		
V	8 - < 12	Medium	Medium low
VI	12 - < 16		
VII	16 - < 40	Large	Medium high
VIII	40 - < 100	Very large	Large
IX	≥ 100		Very large

(1) the value of 1 ESU changes over time to reflect inflation (see 2.3.2 for further details)
(2) as defined in Commission Decision 78/463/EEC of 7 April 1978, OJ No L 148, 05.06.1978.
(3) as defined in Commission Decision 85/377/EEC of 7 June 1985, OJ No L 220, 17.08.1985.

Table 6 Principal types of farming as specified in the Community typology of agricultural holdings

	Principal type	Usual regrouping used in FADN Standard Results(1)
11	Specialist cereal	A
12	General field cropping	B
60	Mixed cropping	B
20	Specialist horticulture	C
31	Specialist vineyards	D
32	Specialist fruit and citrus fruit	E
33	Specialist olives	E
34	Various permanent crops combined	E
41	Specialist dairying	F
42	Specialist cattle-rearing and fattening	G
43	Cattle-dairying, rearing and fattening combined	G
44	Sheep, goats and other grazing livestock	G
50	Specialist granivores	H
71	Mixed livestock, mainly grazing livestock	I
72	Mixed livestock, mainly granivores	I
81	Field crops-grazing livestock, combined	I
82	Various crops and livestock, combined	I

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(1) See also Table 29, page 71.

EXAMPLE: CLASSIFYING A FARM ACCORDING TO THE COMMUNITY TYPOLOGY (1)

Assume: a farm with 50 dairy cows and 10 breeding sows.
From the list in Table 6, two principle types of farming would appear to be suitable descriptions of this farm, viz.:

41 Specialist dairying
71 Mixed livestock, mainly grazing livestock

To which type of farming does this farm belong?

Enterprise	SGM	Size of enterprise	Enterprise SGM	Enterprise SGM as proportion of farm's total SGM
Dairying	700	50 dairy cows	35,000	92%
Breeding sows	300	10 breeding sows	3,000	8%
		Farm's total SGM	38,000	100%

The definition of the two principal types of farming are as follows:

41 - specialist dairying: Dairy cattle contribute > 2/3 of farm's total SGM

71 - Mixed livestock, mainly grazing livestock: Grazing livestock contribute between 1/3 and 2/3 of farm's total SGM.

Since dairying contributes > 2/3 of farm's total SGM, this farm is classified as 'specialist dairying'

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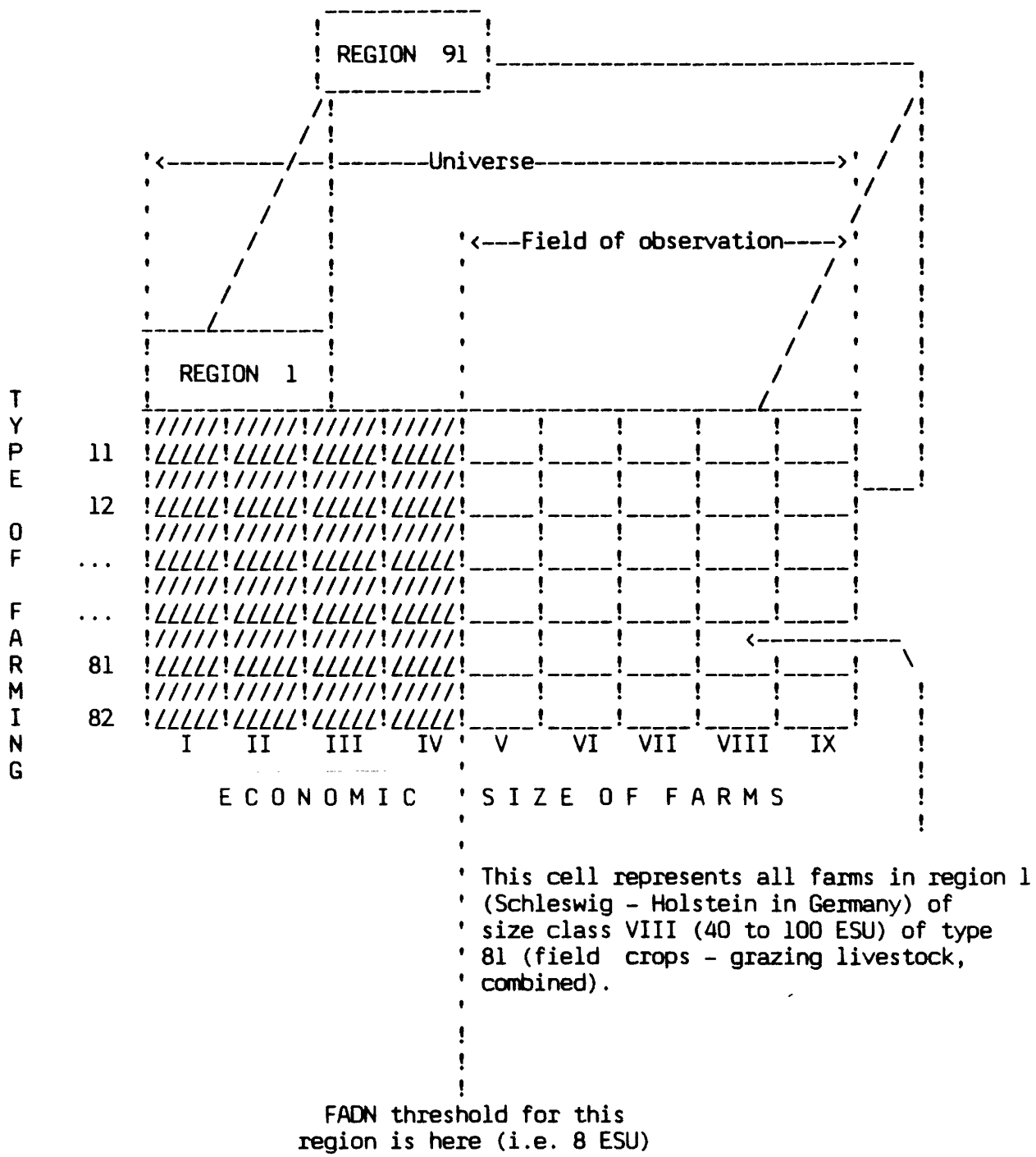
(1) The typology is described in Commission Decision 85/377/EEC of 7 June 1985, and is published in OJ No L 220, 17.8.1985, p. 1.

Figure D The universe and field of observation as a matrix of cells



Notes: For the names of regions see Figure C
For the definitions of economic size of farms see Table 5
For the definition of types of farms see Table 6

Some cells represent a large number of farms: for instance there are approximately 20 000 farms of 2 - < 4 ESU in the cell for Irish farms that practise farming type 42 - specialist cattle (rearing and fattening).(1) Other cells represent very few farms: in Denmark for example, there are only about 50 farms of size 6 - < 8 ESU which practise farming type 50 - granivores (pigs and poultry). Needless to say, some cells are empty - such as those representing vineyards, big or small, in Scotland.

The Commission and the Liaison Agencies select the sample of farms not from the field of observation as a whole but from the cells which make up the field of observation. Sample farms are thus selected from each cell - in this way all the cells are, in principle, represented in the sample. Thus the FADN sample of farms reflects the heterogeneity in the field of observation. (See Chapter 6 for further details concerning the extent to which the sample represents the field of observation).

The remainder of this chapter discusses the number of farms that are selected and the degree of randomisation in the selection procedures.

3.5 Determining the optimal size of the sample

Sampling fractions vary from cell to cell. In some Member States, the Liaison Agencies have sufficient data on the variability of farms within the field of observation to compute optimal sampling fractions. In other cases, this is not possible and sampling fractions are set according to the number of farms in the cell. More details are given in Table 7.

After the selection plan is drawn up, farms can shift from one cell to another if there is a change in their economic size or type of farming. This and other similar factors influencing the sampling fraction are discussed in 3.9.

3.6 The extent to which the sample is random

Ideally, farms are selected at random from the field of observation. However, various factors prevent full randomisation:

i) Availability of farm accounts. To complete the Community FADN Farm Return, a suitable set of farm accounts (or similar financial information such as receipts, invoices, etc.) must be readily available. Some farmers do not have the necessary information at hand, and in these instances it is impractical to attempt to complete the Farm Return. In some countries, the Liaison Agencies assist farmers to keep accounts if these would not otherwise be kept.

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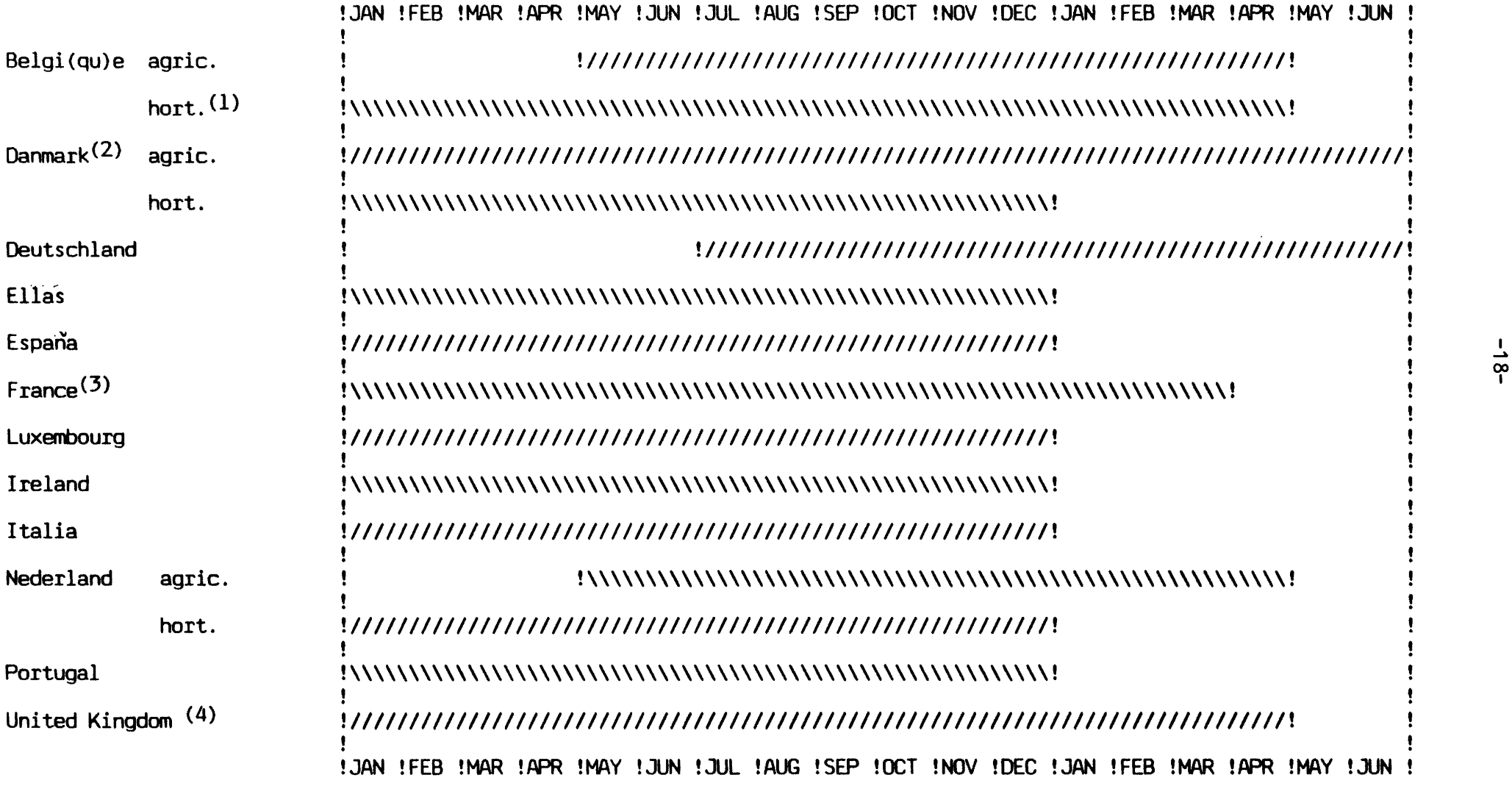
(1) The number of farms in each cell is derived from the Farm Structure Survey (FSS) which employs the same typology as that used for FADN. The FSS is organised by the Statistical Office of the European Communities (Eurostat).

Figure E - Accounting years for Member States

In some Member States the beginning of the accounting year is not the same for all farms. This has the effect that the period for the Member State as a whole (as indicated in the figure below) extends to more than 12 months.



Source: Liaison Agencies of the Member States.

Footnotes to Figure E

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(1) In Belgium, some horticultural holdings have accounting years from 1 January to 31 December whilst others have accounting years running from 1 May to 30 April.
(2) In Denmark, the accounting year for horticulture begins on 1 January and ends 31 December. For half of the agricultural accounts the accounting year starts on 1 January and ends 31 December. For the remainder, the accounting year starts on either 1 April, 1 May or 1 June and ends 12 months later.
(3) In France, the beginning of the accounting year for a small number of farms falls between 1 October and 31 December of the preceding year (comptabilités fiscales).
(4) The accounting year in the United Kingdom runs from 31 December to 30 of April.

Overall, the number of farmers keeping accounts is gradually increasing. One reason for this is the stipulation under Council Regulation 797/85/EEC of 12 April 1985(1) (on the modernisation of farms) that farmers receiving capital aid must keep farm accounts.

ii) Voluntary participation. The participation of farmers is on a voluntary basis. Some of those farms initially selected for the sample may not want to participate. In this case, the farm will be replaced by drawing another farm from the same cell in the field of observation.

As a result, the sample is, effectively, drawn at random from the subset of farms within the field of observation that fulfill the above two conditions.

3.7 Selection plans

Before the beginning of each accounting period, Liaison Agencies are obliged to draw up a selection plan(2), which they then submit to the Commission for approval. In considering the selection plans, the Commission takes account of the opinion of the FADN Community Committee. The selection plan details the intended size of the sample, the distribution of the sample between different cells and the method by which farms are selected from the field of survey.

Liaison Agencies subsequently report on the extent to which it has been possible to implement the selection plan(2). Problems in implementation may mean that there are not enough farmers who are willing to participate from particular cells and that the actual sample may fall short of the intended size and distribution.

3.8 Selection procedures in Member States

A variety of procedures are used as summarised in Table 7.

3.9 The size of the FADN sample

3.9.1 The reasons why the intended sample size may not be attained in practice.

There are several reasons why the intended sample size may not be attained or, indeed, may be surpassed. For example, it may be difficult to find sufficient farmers in a particular cell who are both willing to participate and who have the necessary information available (see 3.6). Another explanation may be that a participating farmer may give up farming before the completion of the accounting year. A further reason may be that the Community FADN Farm Return is incorrectly completed and unable to be corrected, thus failing at the control stage. (See Chapter 5 for further details on data validation and control).

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(1) OJ No L 93, 30.03.1985.
(2) In accordance with article 6 of Council Regulation 79/65/EEC of 15 June 1965, OJ No 109, 23.6.1965, p.1859/65 and subsequent amendments.

Table 7 Determination of sample size and method of selection(1) of the FADN sample, by Member State

	Determination of sample size			Method of selection(1)
	A fixed number of farms from each cell in the field of observation	A fixed proportion of farms from each cell in the field of observation	A variable proportion-taking account of variability in the field of observation	
Belgi(qu)e			Yes	Non-random
Danmark			Yes	Random
Deutschland			Yes (Neymann-Tschuprow)	Random
Ellas	Yes			Non-random
Espana		1% (except for large cells where sample is increased)		Non-random
France			Yes	Random
Ireland	Yes			Random
Italia			Yes (Neymann-Pearson)	Non-random
Luxembourg		Yes		Random
Nederland			Yes	Non-random
Portugal		Yes		Non-random
United Kingdom			Yes	Random

Source: Liaison Agencies of the Member States.

(1) Since farmers participate in the FADN survey on a voluntary basis, Liaison Agencies do not randomly select the sample of farms from the population of all farms in the field of observation but rather from that sub-population of all farms whose farmers agree to participate (see 3.6 for more details).

Figure F The number of farms at different stages in the selection process

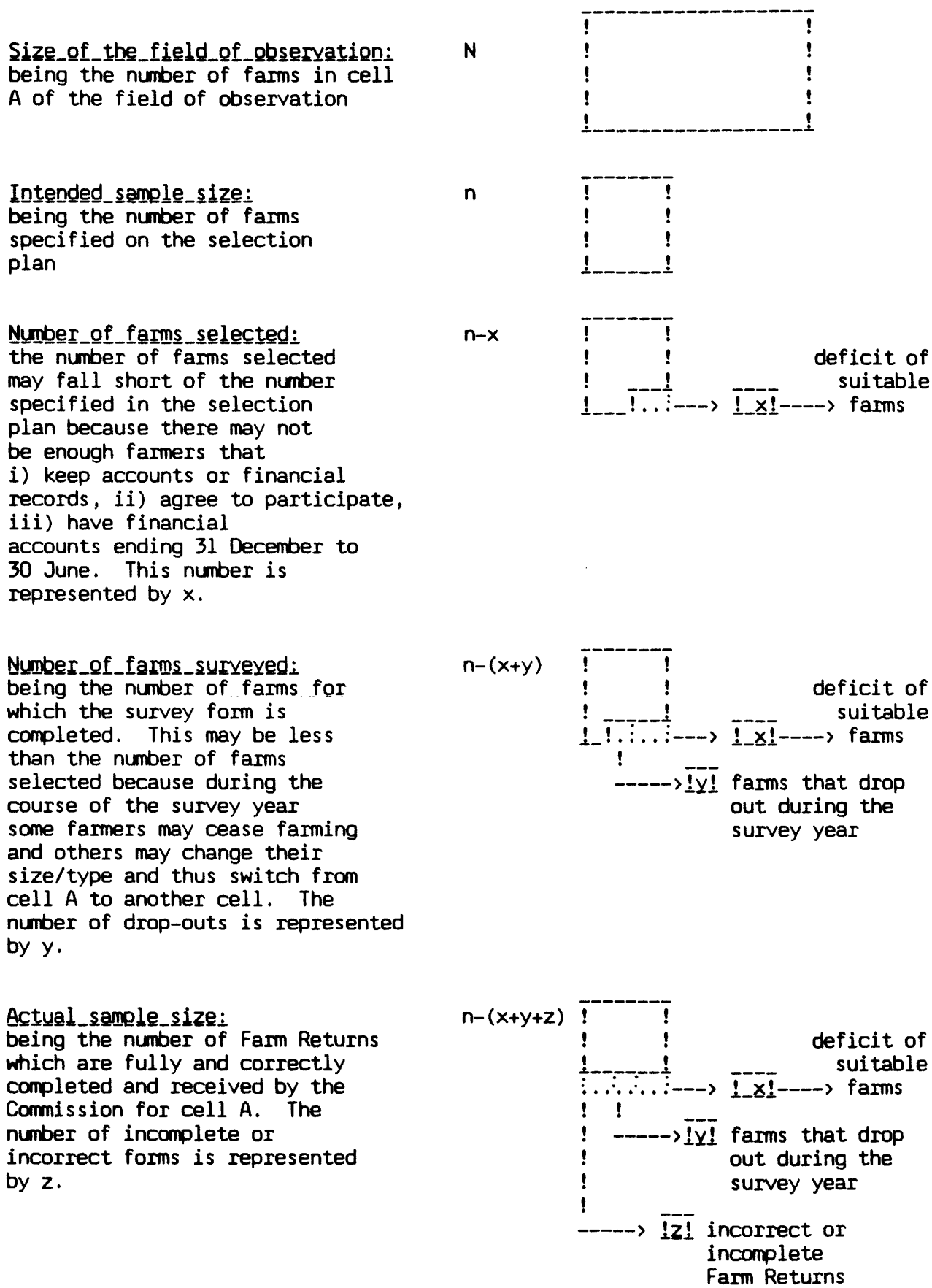
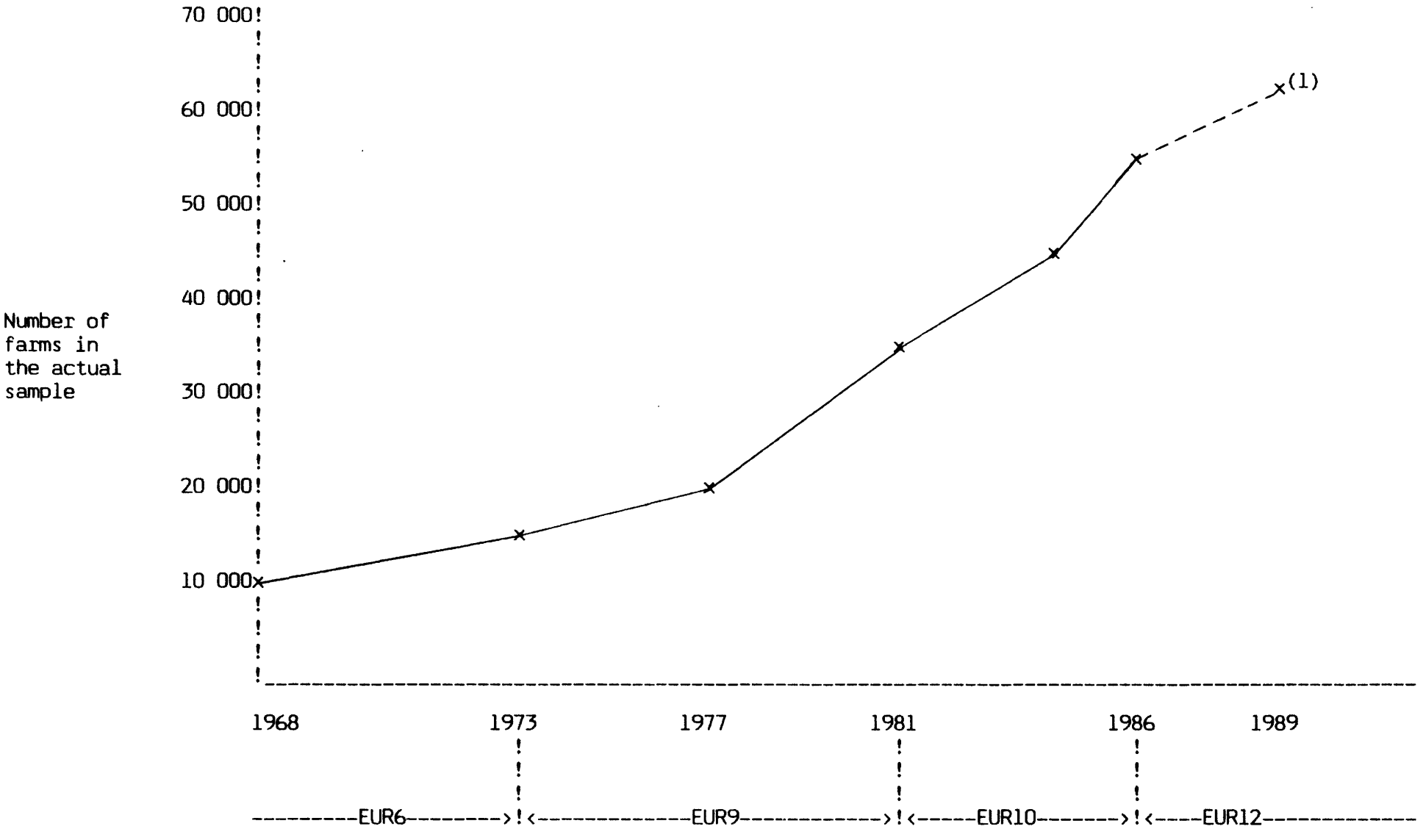


Figure G: The size of the actual sample since 1968



(1) The intended sample size for 1989 is 62,400. See Commission Regulations 1859/82/EEC of 12 July 1982, OJ No L 205, 13.07.1982; 3368/84/EEC of 30 November 1984, OJ No L 313, 01.12.1984; 3122/85/EEC of 6 November 1985, OJ No L 297, 09.11.1985.

Figure F illustrates the various stages during the selection process at which farms may be lost from the intended sample. It should be noted, of course, that not all farms are strictly 'lost' - those farms that change from one cell to another will remain in the field of observation and thus in the FADN sample.

3.9.2 Actual sample size in recent years

The FADN sample size which is constantly increasing is shown in Figure G. Sample sizes and average weights of a sample farm differ between Member States as Table 8 shows. The data are for 1986 and those for Spain are provisional. Tables 9 to 21 give details on the dispersion of the sample over the different cells. In some of the tables which follow, a number of classes of types of farming and/or economic size have been combined.

Table 8 Actual sample size and average weight of a sample farm for Member States and for the Community (1986)

	Actual sample size	Number of farms represented in the field of observation	Average weight of a sample farm
Belgi(qu)e	1,022	55,185	54
Danmark	2,278	85,402	37
Deutschland	5,224	374,431	72
Ellas	6,927	538,723	78
España	5,921	519,444(1)	88
France	5,953	594,857	100
Ireland	1,346	145,118	108
Italia	16,710	1,108,077	66
Luxembourg	328	2,453	7
Nederland	1,510	95,187	63
Portugal	1,908	258,866 (2)	136
United Kingdom	2,988	146,951	49
Community	58,036	3,920,862	67

Source: Calculations by FADN from FSS or National Surveys

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(1) 1982
(2) 1979

Table 9 Sampling fractions (%) by size class and type of farming in Belgi(gu)e (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16- <40	40-<100	≥ 100	TOTAL
Cereals	////	////	0	0	0	0	0
General cropping	////	////	0.35	1.22	2.39	3.06	1.72
Horticulture	////	////	0.27	1.48	3.12	2.46	1.88
Vineyards	////	////	0	0	0	0	0
Fruit and other permanent crops	////	////	3.09	2.66	3.80	3.55	3.18
Dairying	////	////	0.46	1.23	2.16	1.72	1.33
Drystock	////	////	0.31	1.45	2.89	0	1.54
Pigs and Poultry	////	////	1.20	2.39	3.65	0.88	2.58
Mixed	////	////	0.52	1.55	3.34	4.19	2.15
TOTAL	////	////	0.52	1.47	2.93	2.72	1.84

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 12 ESU. In the above table this area is hatched.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 10 Sampling fractions (%) by size class and type of farming in Denmark (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	///////	0.53	1.31	1.51	4.75	8.75	1.26
General cropping	///////	0.62	1.55	1.68	4.56	8.56	2.14
Horticulture	///////	3.13	5.76	9.68	13.16	22.61	11.05
Vineyards	///						
Fruit and other permanent crops	///////	3.33	9.58	10.00	12.50	18.33	9.78
Dairying	///////	0.56	1.13	1.64	4.71	8.57	2.80
Drystock	///////	0	0	2.00	3.33	0	1.18
Pigs and Poultry	///////	0	1.60	1.89	4.05	6.20	3.41
Mixed	///////	0.62	1.20	1.79	4.83	9.53	2.79
TOTAL	///////	0.62	1.52	1.94	4.96	9.69	2.63

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 4 ESU. In the above table this area is hatched. Those cells that are hatched above the threshold contain no farms at the level of the field of observation and thus are not covered by FADN.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 11 Sampling fractions (%) by size class and type of farming in Deutschland (1986)

Type of farming	Size class (ESU)					
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	////////	////////	1.05	1.37	1.86	0.89	1.27
General cropping	////////	////////	0.88	1.42	2.65	1.62	1.62
Horticulture	////////	////////	0.94	2.01	3.02	3.69	2.19
Vineyards	////////	////////	0.21	0.98	1.54	0.38	0.78
Fruit and other permanent crops	////////	////////	0.34	1.67	3.00	0.95	1.47
Dairying	////////	////////	0.32	1.18	2.35	2.01	1.06
Drystock	////////	////////	0.61	1.28	2.44	2.86	1.18
Pigs and Poultry	////////	////////	0.04	1.07	1.32	0.60	0.81
Mixed	////////	////////	0.46	1.64	2.69	2.09	1.45
TOTAL	////////	////////	0.47	1.39	2.49	1.83	1.29

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 8 ESU. In the above table this area is hatched.

Table 12 Sampling fractions (%) by size class and type of farming in Ellas (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	0.37	1.41	2.82	3.50	4.17	0	1.26
General cropping	0.38	1.12	2.15	4.36	14.24	5.00	1.48
Horticulture	0.10	0.34	0.86	0.97	0	0	0.56
Vineyards	0.30	1.32	2.88	5.73	0	0	1.38
Fruit and other permanent crops	0.52	1.30	2.43	4.71	5.91	0	1.17
Dairying	2.65	1.58	1.25	0	0	0	1.96
Drystock	1.46	2.01	3.02	3.72	0.75	0	2.32
Pigs and Poultry	2.00	0.41	1.43	1.52	1.32	1.25	1.25
Mixed	0.49	1.14	1.72	1.45	0	0	1.04
TOTAL	1.49	1.24	2.24	3.83	7.97	0.77	1.38

Note 1: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 13 Sampling fractions (%) by size class and type of farming in España (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	1.02	1.00	1.22	1.20	1.30	2.60	1.09
General cropping	0.62	1.16	1.61	1.11	0.60	0.62	1.02
Horticulture	0.43	0.32	0.04	0.02	0	0	0.28
Vineyards	0.56	0.45	0.19	0.12	0.35	1.35	0.45
Fruit and other permanent crops	0.49	0.58	0.72	0.41	0.26	0.31	0.54
Dairying	0.69	1.80	2.66	1.93	1.12	0	1.74
Drystock	0.23	0.40	0.55	0.63	0.29	0	0.41
Pigs and Poultry	0.60	0.43	0.51	0.32	0.29	0.66	0.44
Mixed	0.09	0.17	0.24	0.22	0.11	0	0.15
TOTAL	0.44	0.67	0.92	0.70	0.38	0.33	0.63

Note 1: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 14 Sampling fractions (%) by size class and type of farming in France (1986)

Type of farming	Size class (ESU) < 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	////	////	0.36	0.86	0.98	0.54	0.76
General cropping	////	////	0.50	1.11	1.19	0.61	0.94
Horticulture	////	////	0.25	0.69	1.61	1.80	0.94
Vineyards	////	////	0.31	0.92	1.15	0.24	0.79
Fruit and other permanent crops	////	////	0.47	1.50	1.43	0.73	1.17
Dairying	////	////	0.59	1.04	1.16	0	0.91
Drystock	////	////	0.69	1.19	0.77	0.19	0.96
Pigs and Poultry	////	////	0.64	1.03	0.72	0.47	0.81
Mixed	////	////	0.56	1.27	1.02	0.36	1.00
TOTAL	////	////	0.55	1.10	1.10	0.63	0.92

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 8 ESU. In the above table this area is hatched.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 15 Sampling fractions (%) by size class and type of farming in Ireland (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	0.30	0.26	0.71	1.56	3.76	13.89	1.17
General cropping	0.30	0.27	1.24	1.68	4.69	7.69	1.87
Horticulture	0	0	0	0	0	0	0
Vineyards	////	////	////	////	////	////	////
Fruit and other permanent crops	0	0	0	0	0	0	0
Dairying	0.42	0.47	0.66	1.02	2.36	6.20	0.85
Drystock	0.49	0.72	1.34	2.10	3.93	0	0.85
Pigs and Poultry	0	1.49	0	0	1.27	0.92	0.65
Mixed	0.30	0.66	1.16	2.09	5.28	3.41	1.47
TOTAL	0.47	0.62	0.96	1.34	3.07	4.74	0.92

Note 1: Those cells that are hatched contain no farms at the level of the field of observation and thus are not covered by FADN.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 16 Sampling fractions (%) by size class and type of farming in Italia (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	0.22	0.53	1.06	1.49	2.51	2.97	0.66
General cropping	0.27	0.97	2.09	2.67	2.11	1.29	1.12
Horticulture	1.48	1.46	1.67	2.24	3.80	3.66	2.42
Vineyards	0.14	0.75	1.84	2.15	2.04	0.20	0.73
Fruit and other permanent crops	0.18	0.58	1.26	1.96	1.93	1.62	0.70
Dairying	0.79	1.63	3.18	4.31	4.47	3.98	2.62
Drystock	0.43	1.15	1.82	2.92	2.94	3.39	1.61
Pigs and Poultry	0.14	0.12	0.81	0.65	0.60	0.77	0.54
Mixed	0.37	1.29	2.87	4.27	4.79	4.49	1.86
TOTAL	0.27	0.90	1.95	2.75	2.92	2.57	1.18

Table 17 Sampling fractions (%) by size class and type of farming in Luxembourg (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	////	////	0	16.67	0	0	6.67
General cropping	////	////	4.76	15.00	0	0	8.70
Horticulture	////	////	0	0	0	0	0
Vineyards	////	////	0.64	9.77	16.67	0	5.85
Fruit and other permanent crops	////	////	0	0	0	0	0
Dairying	////	////	1.45	18.44	26.56	0	18.14
Drystock	////	////	0.64	5.07	24.31	0	7.90
Pigs and Poultry	////	////	0	0	0	0	0
Mixed	////	////	1.52	11.02	24.05	0	9.40
TOTAL	////	////	1.14	12.39	24.70	0	11.75

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 8 ESU. In the above table this area is hatched.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 18 Sampling fractions (%) by size class and type of farming in Nederland (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals				0	0	16.67	1.44
General cropping				0.77	1.86	4.80	1.82
Horticulture				0.75	2.16	5.08	2.41
Vineyards							
Fruit and other permanent crops				1.79	3.64	6.12	2.85
Dairying				0.88	1.26	2.93	1.21
Drystock				0.10	0.72	3.28	0.42
Pigs and Poultry				0.56	1.52	4.87	1.35
Mixed				0.74	1.72	4.98	1.48
TOTAL				0.78	1.59	4.51	1.55

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 16 ESU. In the above table this area is hatched. Those cells that are hatched above the threshold contain no farms at the level of the field of observation and thus are not covered by FADN.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 19 Sampling fractions (%) by size class and type of farming in Portugal (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	0.20	3.55	3.83	5.93	9.77	7.14	2.20
General cropping	0.07	0.47	1.05	1.80	3.76	2.84	0.23
Horticulture	0.03	0.38	1.53	4.50	9.13	7.46	0.33
Vineyards	0.14	0.74	1.64	2.59	1.64	1.68	0.47
Fruit and other permanent crops	0.20	1.12	2.26	4.22	6.15	2.73	0.97
Dairying	0.56	14.91	37.74	57.45	8.33	s	5.94
Drystock	0.40	1.71	6.88	7.58	7.76	5.41	1.57
Pigs and Poultry	0.12	0.86	0.89	2.16	3.93	2.55	0.70
Mixed	0.11	0.66	1.48	2.60	3.03	2.45	0.30
TOTAL	0.10	0.76	1.92	3.24	4.74	3.18	0.42

Table 20 Sampling fractions (%) by size class and type of farming in United Kingdom (1986)

Type of farming	Size class (ESU)					
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	////////	////////	0.04	0.65	2.33	3.67	1.95
General cropping	////////	////////	0.04	0.71	1.46	3.57	1.95
Horticulture	////////	////////	0.94	1.29	1.39	1.37	1.20
Vineyards	////////	////////	0	0	0	0	0
Fruit and other permanent crops	////////	////////	0.14	1.43	4.31	4.46	2.16
Dairying	////////	////////	0.46	1.35	2.02	3.74	1.86
Drystock	////////	////////	0.52	1.51	3.54	6.45	1.87
Pigs and Poultry	////////	////////	0.65	2.17	1.81	2.14	1.69
Mixed	////////	////////	0.36	1.44	3.12	3.59	2.35
TOTAL	////////	////////	0.44	1.31	2.42	3.79	1.93

Note 1: The use of minimum thresholds means that the FADN sample does not include farms below 8 ESU (a threshold of 4 ESU applies to Northern Ireland). In the above table this area is hatched.

Note 2: a zero (0) in a cell indicates that although there may be farms in the field of observation, none has been selected for the sample.

Table 21 Sampling fractions (%) by size class and type of farming in the Community (1986)

Type of farming	Size class (ESU)						
	< 4	4- <8	8- <16	16-<40	40-<100	≥ 100	TOTAL
Cereals	0.46	0.82	1.10	1.23	1.74	2.73	0.96
General cropping	0.27	1.00	1.66	1.95	2.08	2.40	1.08
Horticulture	0.24	0.55	0.83	1.56	2.93	3.91	1.20
Vineyards	0.22	0.79	1.03	1.26	1.27	0.31	0.75
Fruit and other permanent crops	0.33	0.75	1.33	1.89	2.12	1.76	0.81
Dairying	0.73	1.54	1.07	1.43	2.22	3.64	1.46
Drystock	0.44	0.85	1.03	1.49	2.42	3.87	1.08
Pigs and Poultry	0.36	0.48	0.59	1.04	1.44	1.77	0.99
Mixed	0.18	0.76	1.04	1.68	2.41	2.85	1.07
TOTAL	0.30	0.88	1.20	1.59	2.17	2.73	1.06

4. THE COLLECTION OF DATA FROM FARMS

4.1 Responsibility rests with Liaison Agencies of the Member States

The responsibility for FADN data collection rests with the Liaison Agencies, often together with agricultural research institutes. These either employ their own staff to visit the sample farms and collect the data, or they contract this work to accountants, universities, farmers' cooperatives or other organisations.

4.2 Confidentiality is maintained

Council Decision 79/65/EEC of 15 June 1965(1) - the basic legal instrument establishing FADN - clearly states that data supplied to the Commission are treated in the strictest confidence.

4.3 Time period for data collection

The Community FADN Farm Return relates to a period of twelve months. Member States have accounting years starting on different dates (see Figure E).

4.4 The Farm Return

The Farm Return is specified in Commission Regulation 2237/77/EEC of 23 September 1977(2) and subsequent amendments. These same regulations contain detailed instructions on how the Farm Return is to be completed and provides definitions of the terms used. The Farm Return and associated regulations are published as Section III of "Handbook of Legislation Instructions, Notes for Guidance" by the Commission. The main tables of the return are now briefly described:

Table A: General information - code number of the farm together with farm type and economic size.

Table B: Type of occupation - the proportion of the farm area that is owned, rented or sharecropped.

Table C: Labour - quantity of labour and type of labour (paid or unpaid, regular or casual, etc.).

Table D: Number and value of livestock - opening and closing valuations of all farm livestock, together with the average numbers of livestock.

Table E: Livestock purchase and sales - the value of such transactions together with the value of any farmhouse consumption of livestock.

Table F: Costs - the costs of labour and machinery upkeep, feedingstuffs, crop variable costs, overheads, land charges and interest paid.

Table G: Land and buildings, deadstock and circulating capital - valuations, investment, sales and depreciation (at replacement cost).

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(1) OJ No L 109, 23.6.1965, p. 1859/65.
(2) OJ No L 263, 17.10.1977, p. 1.

Table H: Debts - opening and closing valuations of short-, medium- and long-term loans.

Table I: Value Added Tax (VAT) - the VAT system applying and in certain cases VAT payments and receipts.

Table J: Grants and subsidies - the value of the above on all farm inputs and outputs (except investment items).

Table K: Production of crops and animal products - the area, quantity and value of all crops, animal products and other activities.

Production of live animals is covered in Table E.

4.5 The source of data at the farm level

The required data are extracted from the appropriate inventory, cash book, ledger or journal kept by the farmer or field officer. In some Member States, the Liaison Agencies have drawn up special entry books for farmers to complete periodically.

4.6 Organisational structure for data collection

National committees comprise representatives of both the Liaison Agency and the bodies responsible for completing the Farm Return. They give guidance on the methodological aspects of the survey, such as the application of the Community typology of farms, the selection of farms from the field of observation and the interpretation of terms.

In some Member States, equivalent committees exist also at regional level.
The different structures for data collection are shown for each Member State in Figures H.1 to H.12.

Figure H.1 Belgi(qu)e: Organisational structure for collecting FADN data

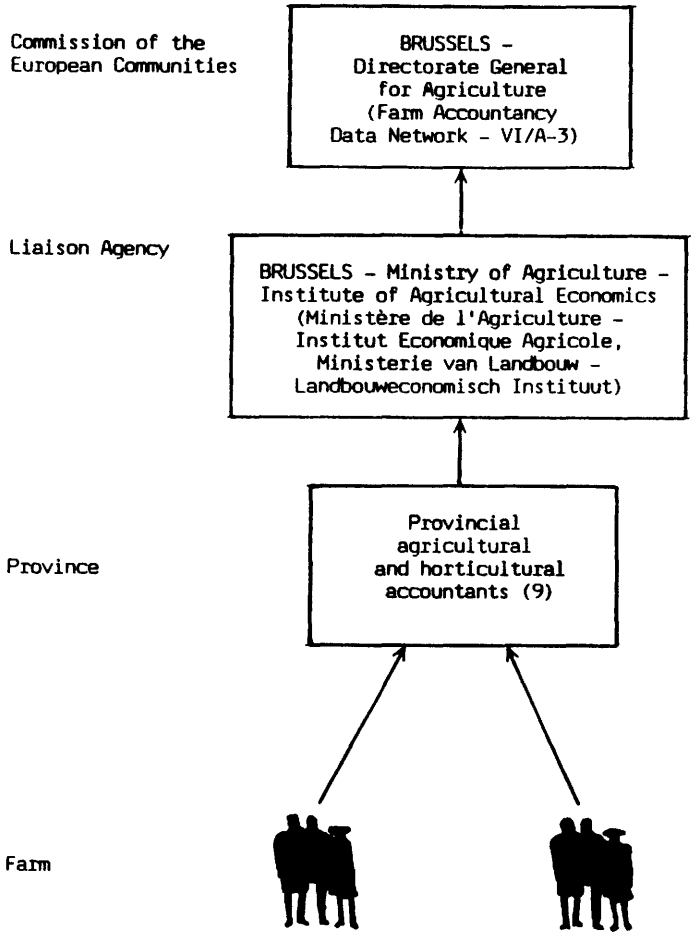
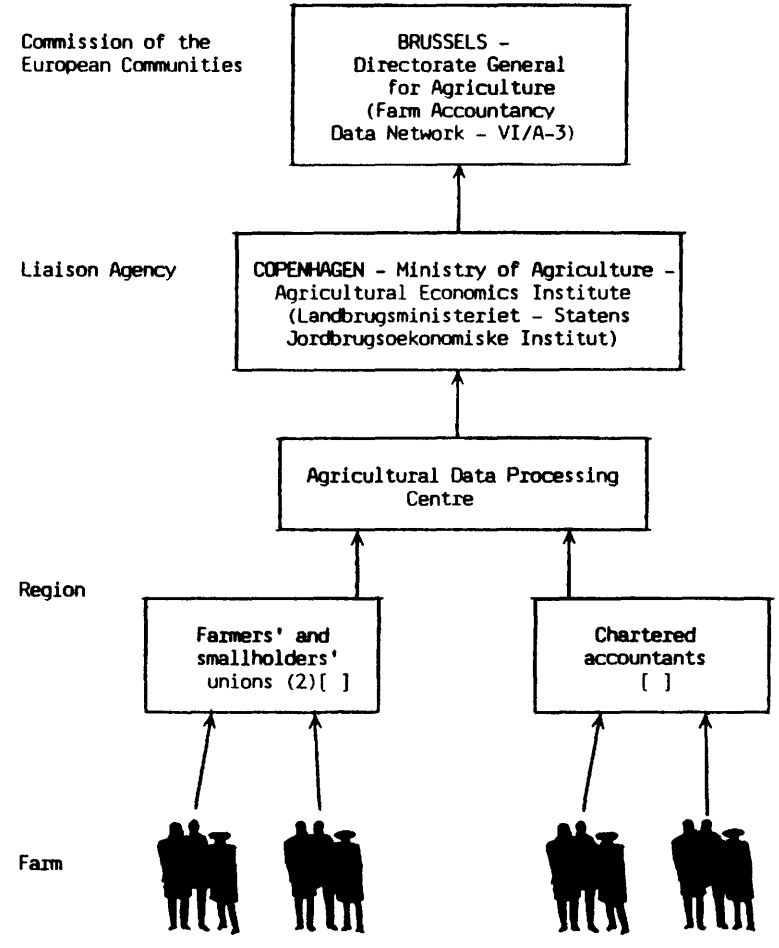


Figure H.2 Denmark: Organisational structure for collection of FADN data (1)



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(1) All agricultural accounts are collected by the farmers' and smallholders' unions. Horticultural accounts are collected by both the farmers' and smallholders' unions and the chartered accountants.
(2) Accountancy offices exist within the farmers' and smallholders' unions.

Figure H.3 **Deutschland:** Organisational structure for collection of FADN data.

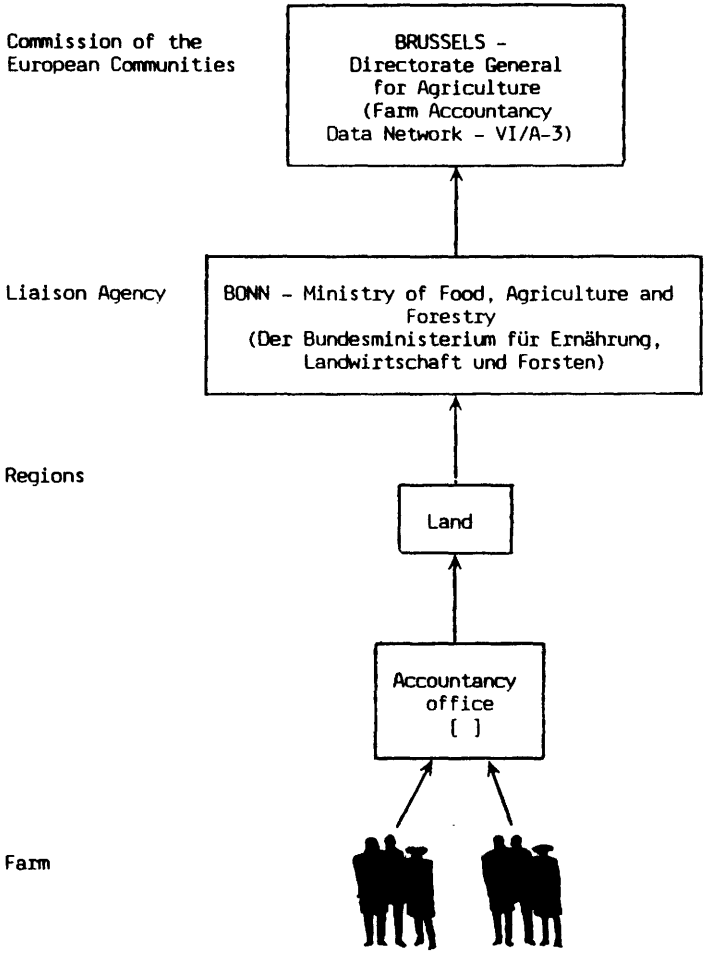


Figure H.4 **Ellas:** Organisational structure for collection of FADN data.

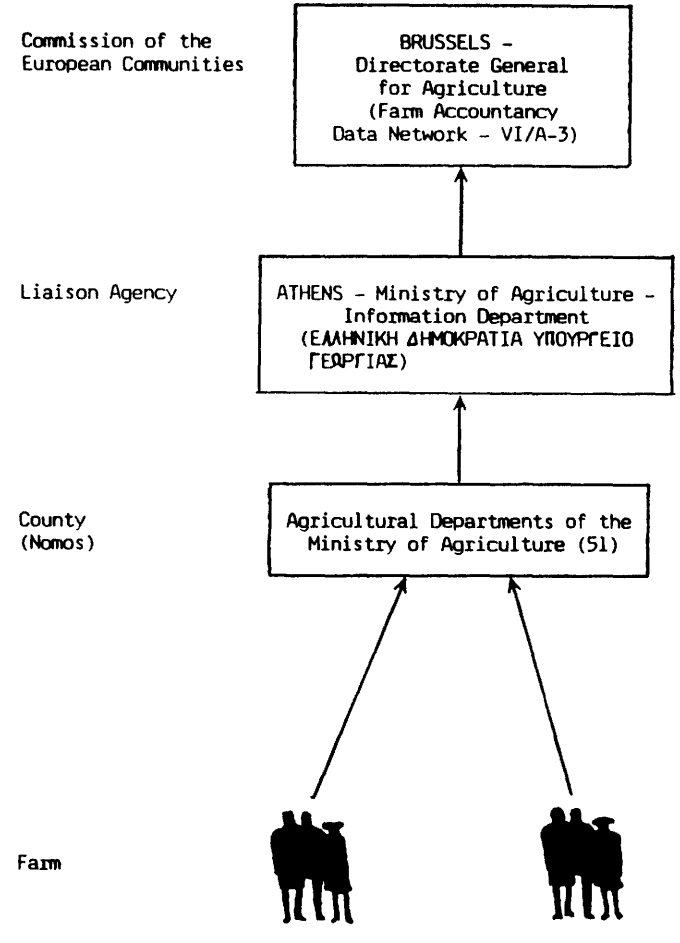


Figure H.5 España: Organisational structure for collection of FADN data

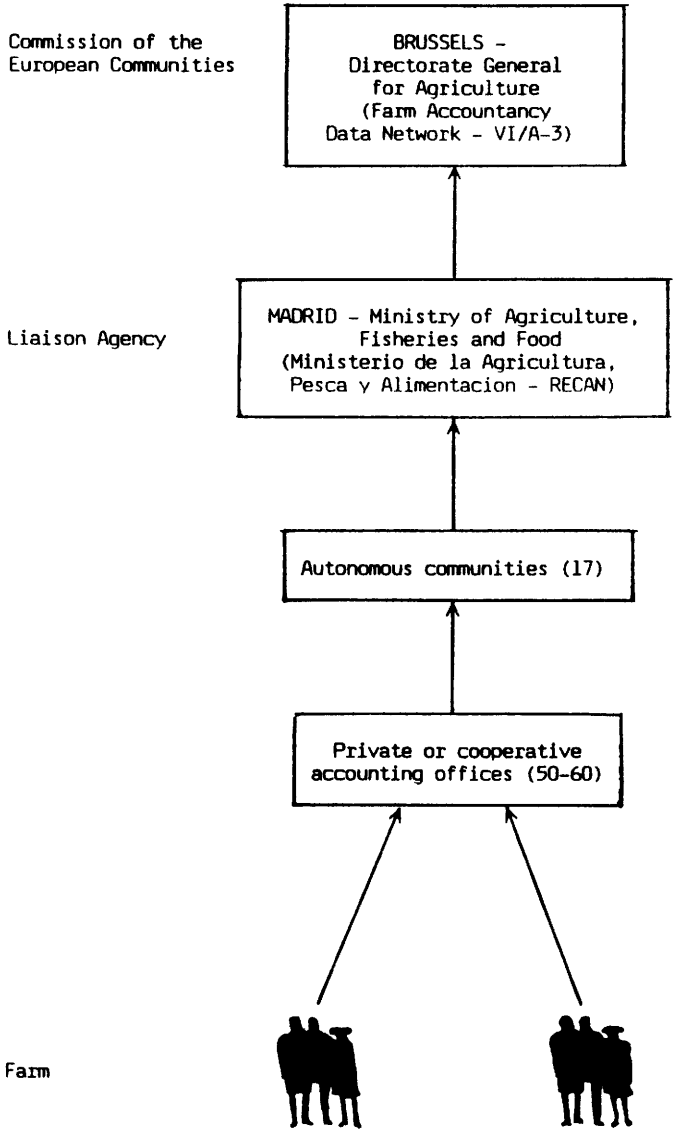
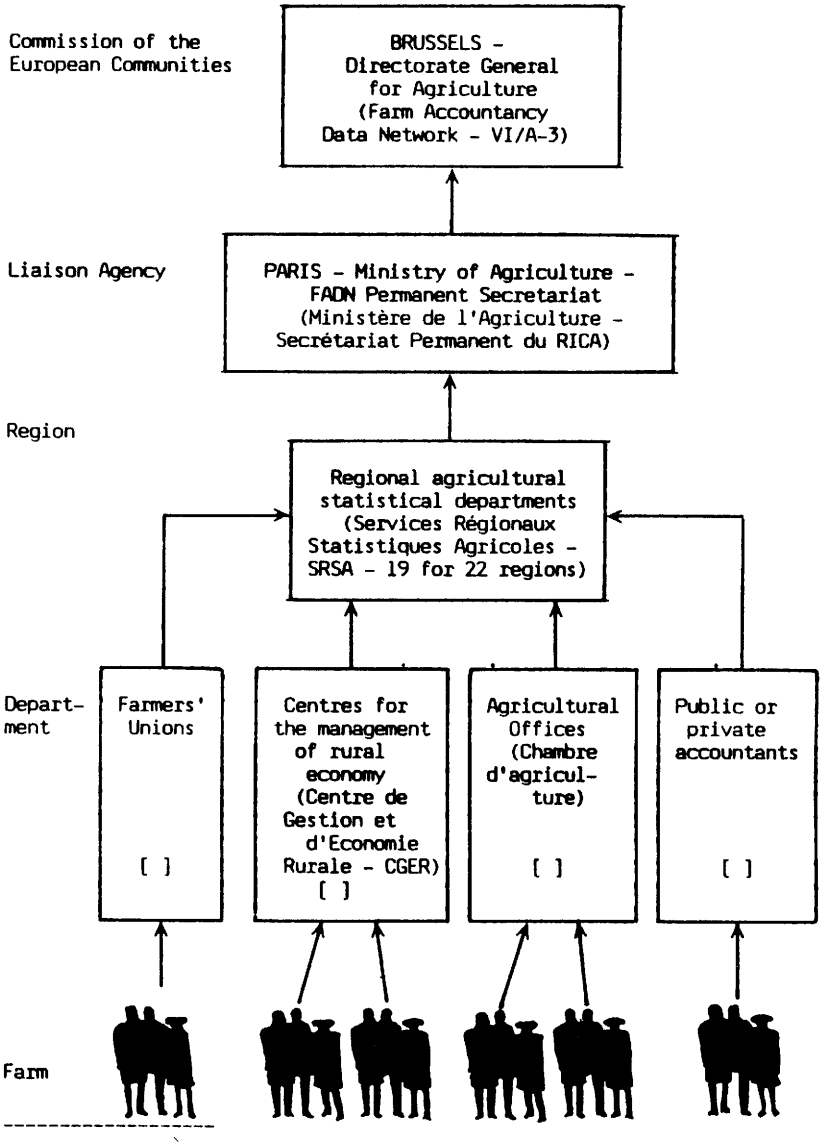


Figure H.6 France: Organisational structure for collection of FADN data



Note: at the department level, 80% of Farm Returns are completed by CGER, 15% by Chambres d'agriculture and agricultural unions and 5% by accountants.

Figure H.7 **Ireland:** Organisational Structure for collection of FADN data.

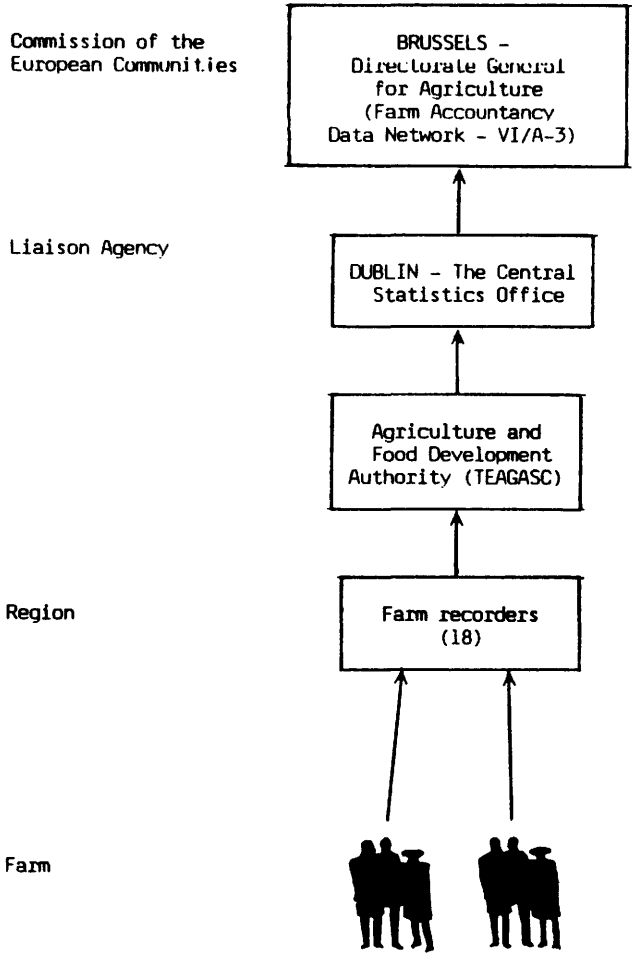


Figure H.8 **Italia:** Organisational structure for collection of FADN data

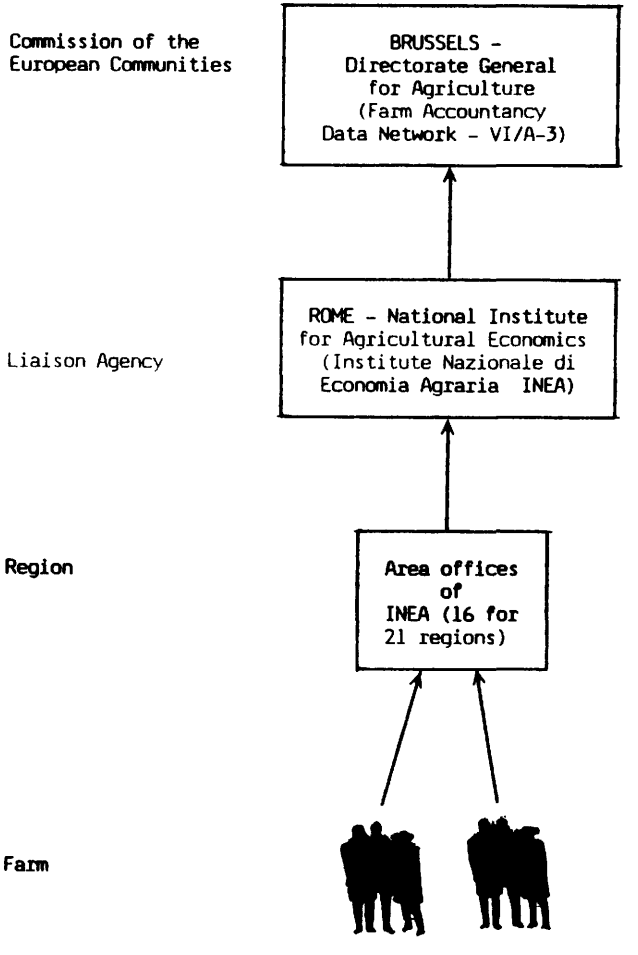


Figure H.9 Luxembourg: Organisational structure for collection of FADN data

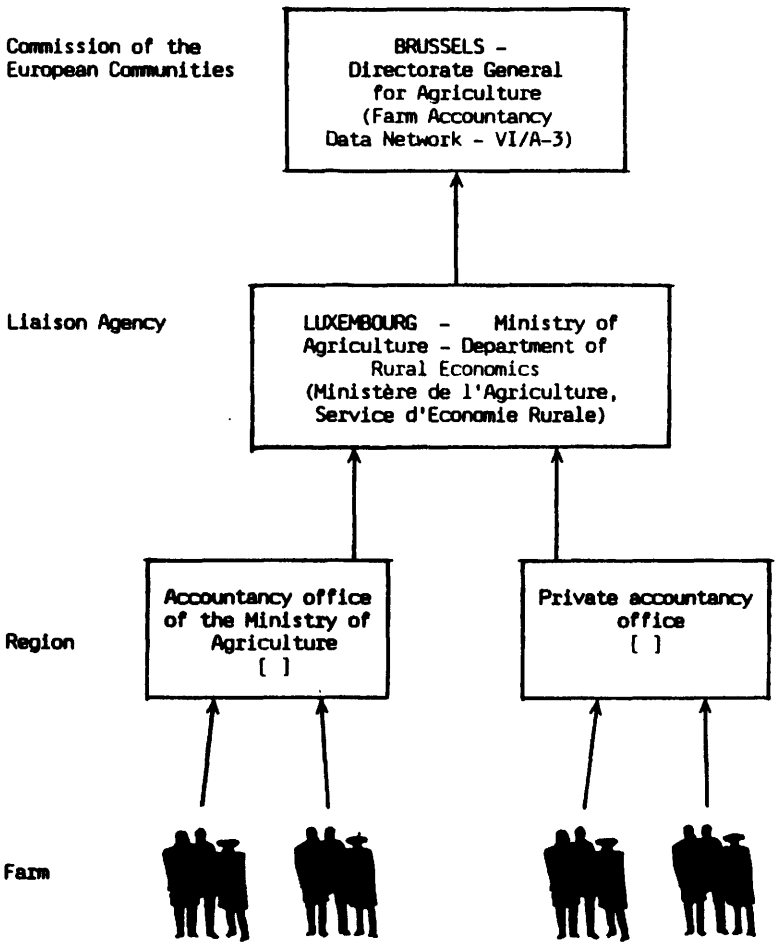
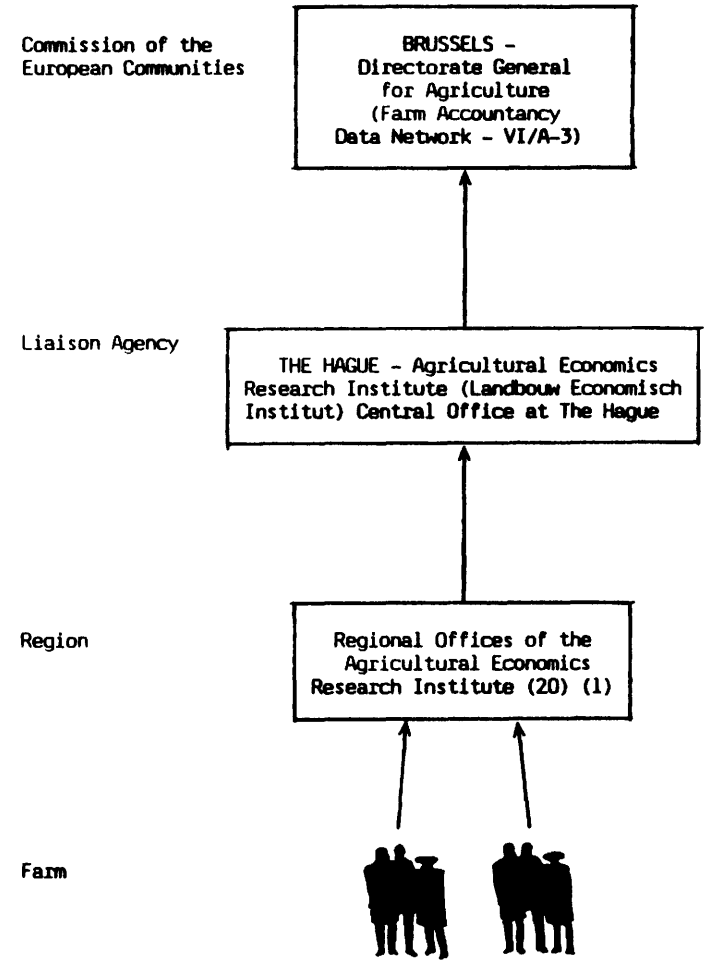


Figure H.10 Nederland: Organisational structure for collection of FADN data



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(1) The 20 regional offices comprise one head office, 3 offices which collect both agricultural and horticultural accounts, 15 offices which collect agricultural accounts only and 3 offices which collect horticultural accounts only.

Figure H.11 **Portugal:** Organisational structure for collection of FADN data.

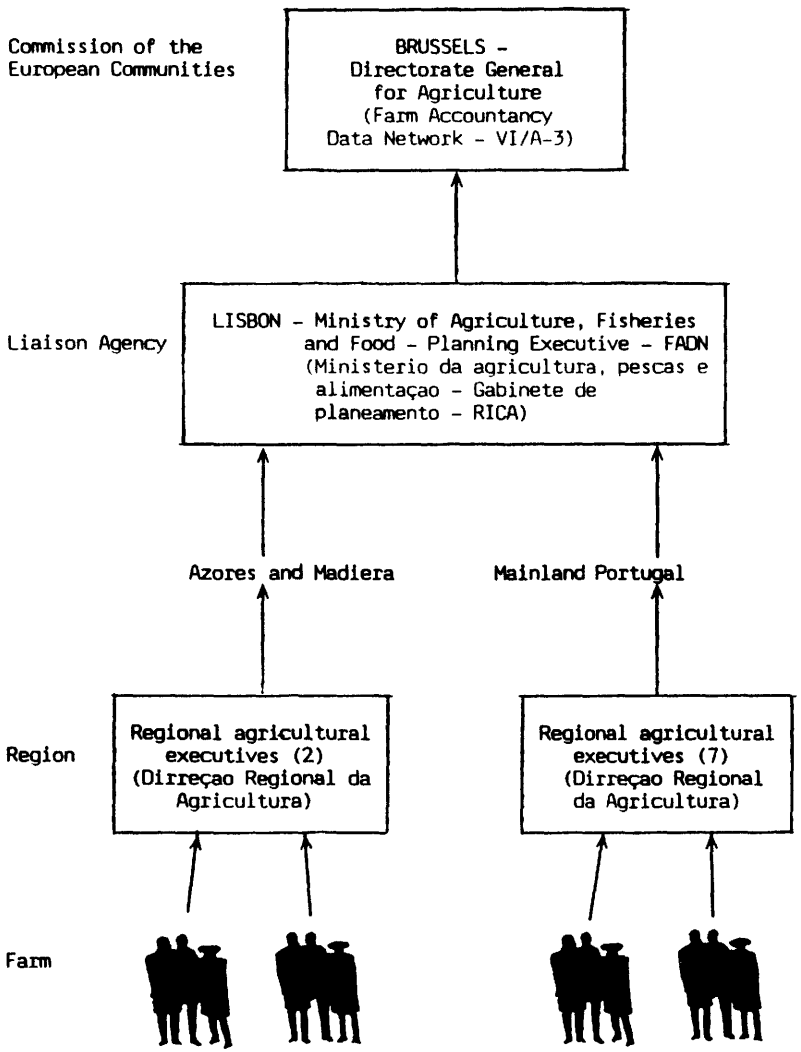
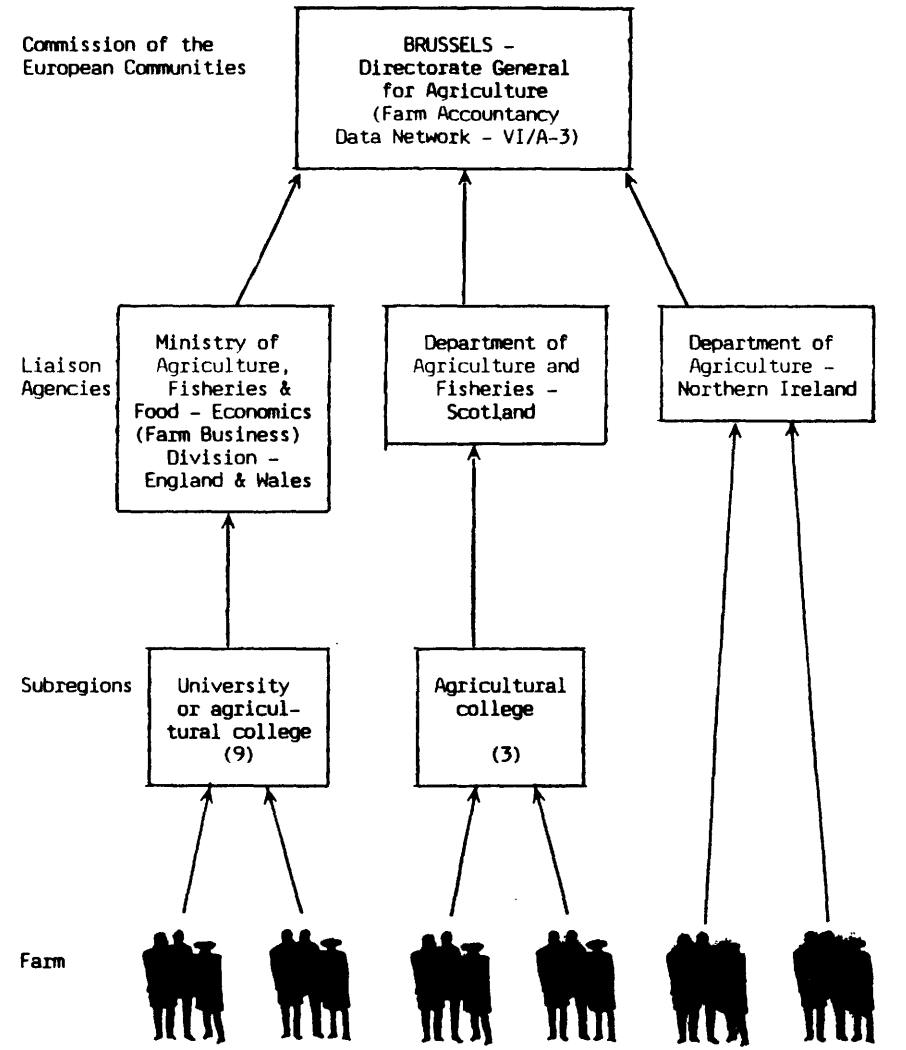


Figure H.12 **United Kingdom:** Organisational structure for collection of FADN data



5. ENSURING THE HIGH QUALITY OF FADN DATA

5.1 The need for quality control

Decisions regarding agricultural policy in the Community must be based on sound and accurate analyses. This means that FADN data themselves must be as sound and accurate as possible. The Liaison Agencies and the Commission take great care to ensure that any errors in FADN data are identified and corrected.

This chapter describes the procedures for ensuring a high quality of accounting data. Those procedures used by the Liaison Agencies, before the data are received by the Commission in Brussels, are first outlined (5.2). This is followed by a description of the procedures used by the Commission (5.3). The final section (5.4) discusses the timetable for these exercises.

5.2 Quality control procedures followed by Liaison Agencies

Liaison Agencies invariably use one or more regional or national farm returns rather than the Community FADN Farm Return. This situation has arisen because before the creation of a European network, many Member States were already running farm business/management surveys and had thus designed their own farm returns. Over time, the original farm returns may have been improved and adapted to suit the changing needs of users. They provide data for first, the Member States' own purposes and secondly for FADN purposes. The objectives of the Member States may be different from those of the Commission. The Community FADN Farm Return is narrower in its coverage of farming activities than many of the regional and national farm returns.

Liaison Agencies use their own control programmes to maintain a level of data quality which may be higher or lower than the standard required by the Commission. When the data are error-free, the Liaison Agencies convert their national data to the Community FADN Farm Return as specified in Commission Regulation 2237/77/EEC of 23 September 1977[1] and subsequent amendments. Having done this, they may opt to run the Commission's control programmes on their own computers. When the Liaison Agencies are satisfied that the data are error-free, they send the data tape to Brussels. These procedures are summarized in Figure J.

5.3 Quality control procedures followed by the Commission

5.3.1 Quality control procedures at the level of the individual farm

i) Standard tests. The procedures followed by the Commission for ensuring the quality of data at farm level are shown in the upper half of Figure K. The first procedure is that of classification: all farms are classified according to the Community typology (see Section 3.3.4).

As detailed in Chapters 2 and 3, for farm classification Standard Gross Margins (SGMs) must be applied to each of the farm's enterprises. Farms must be classified by region, size and type before the data control programme can run. During this stage, farms may slip from the cell in which they were originally classified for selection purposes to another cell. Such a situation may arise because, for instance, the size of an enterprise may have changed between the time the farm was sampled and the end of the accounting year.

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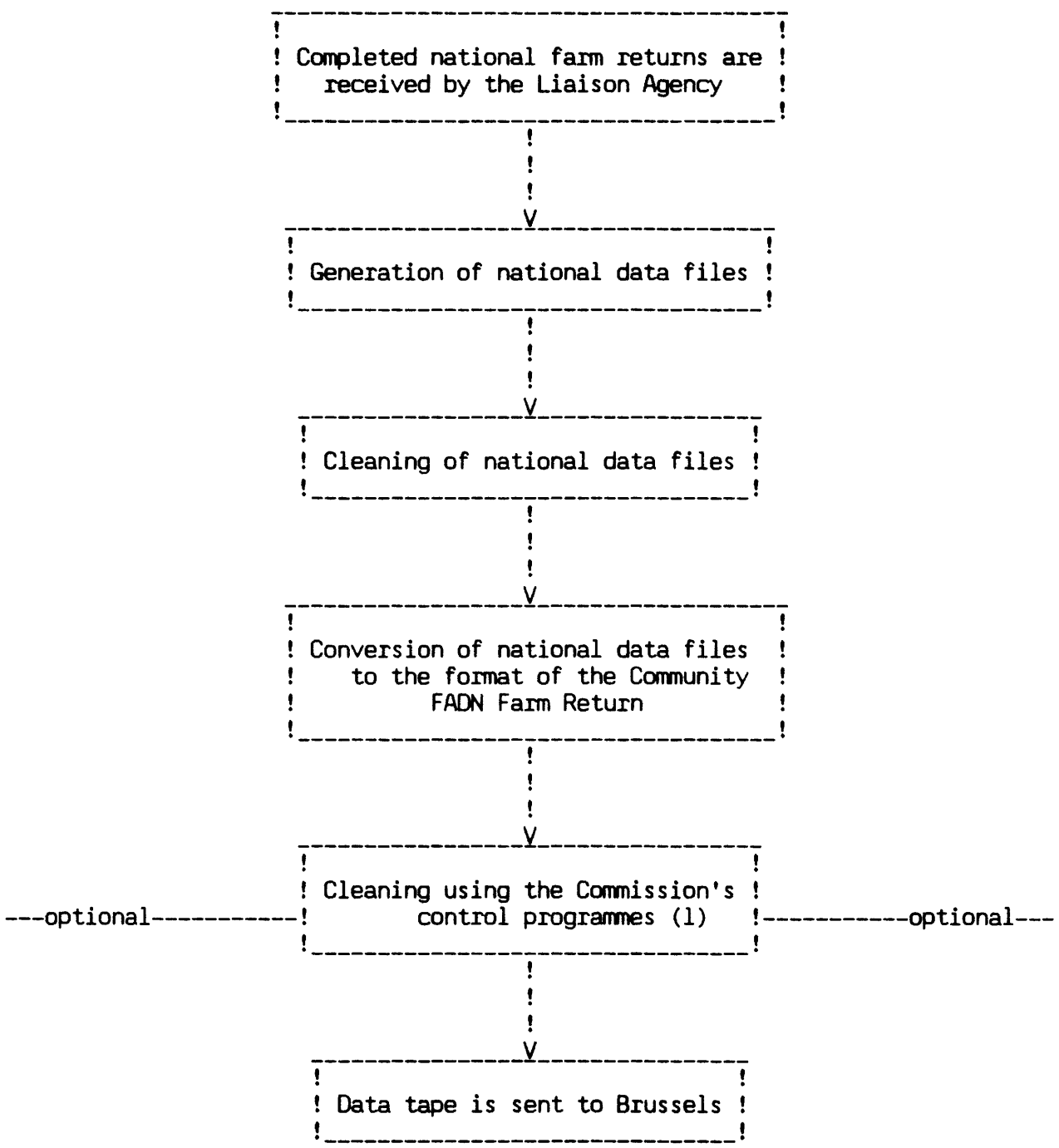
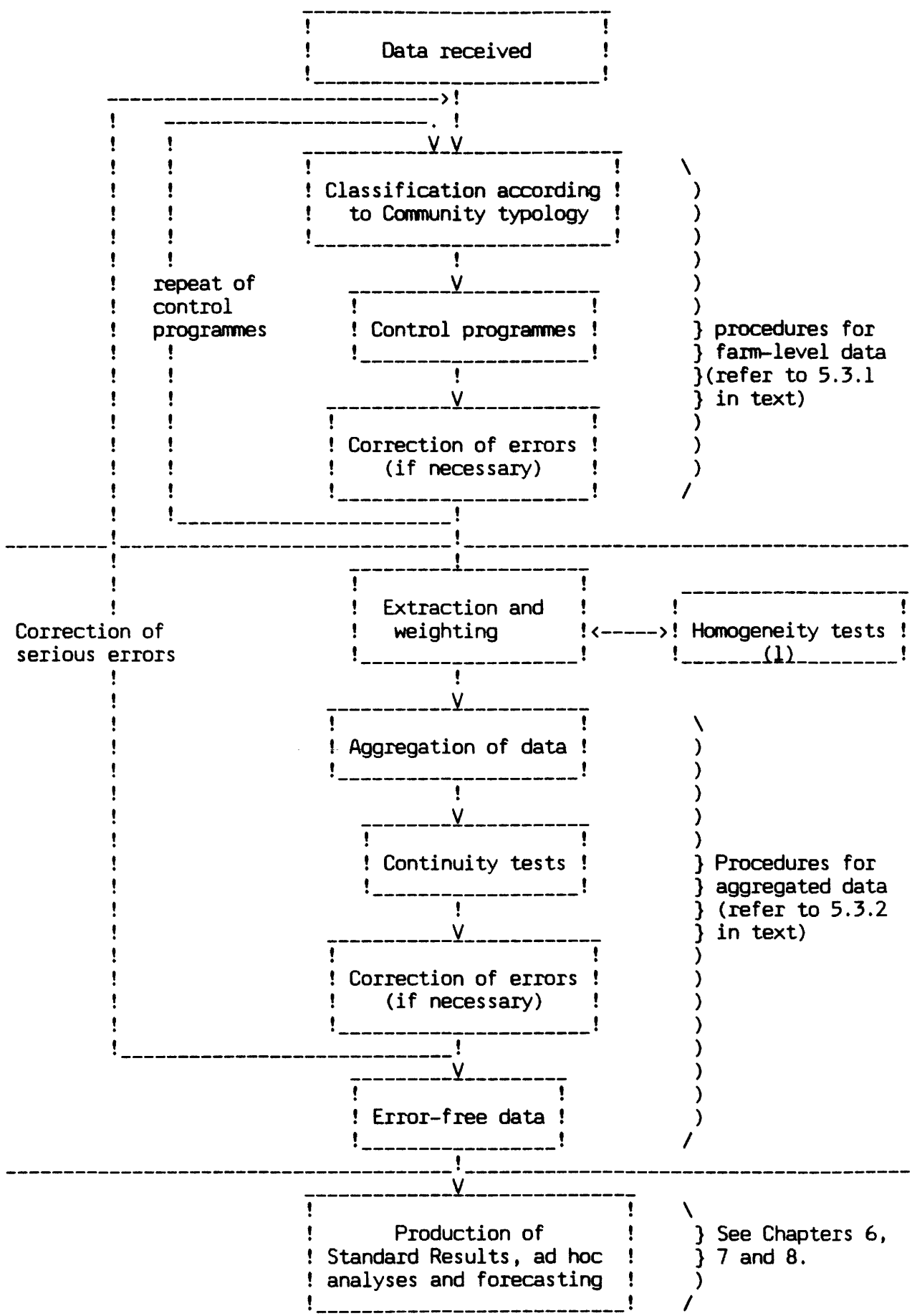
(1) OJ No L 263, 17.10.1977, p. 1.

Figure J: Quality control procedures followed by Liaison Agencies



(1) recommended by the Commission

Figure K Quality control procedures followed by the Commission



(1) Homogeneity tests are performed for some special applications (see 5.3.1).

The second procedure is the running of the control programmes. These consist of several hundred tests which search for and try to identify possible errors, inconsistent data and improbable values. Three levels of error are defined according to severity (see Annex IV for further details).

Errors can be of four types:

a) Coding errors - due to operator's mistake
b) Computational errors - due to mistakes in computer programmes
c) Errors due to missing data \ due to mistakes by the office
d) Unlikely values / completing the Farm Return

Type d) errors - unlikely values - are identified by likelihood tests which compare the value of a variable, as given in the Community FADN Farm Return, to the expected value. For instance, Liaison Agencies invariably have a good knowledge of crop yields in each region; a minimum and a maximum yield can thus be specified. The yield for each farm is compared to these expected limits. Those Farm Returns with values that fall outside the limits are then identified and examined.

Two different lists of errors are printed:

a) For each test a print-out of those Farm Returns with errors or warnings. Table 22 is an example of such a print-out.
It enables accountants and programmers in Liaison Agencies to locate:
- errors that have arisen during the conversion of the national Farm Return to the Community FADN Farm Return.
- errors due to misinterpretation of headings in the Community FADN Farm Return.
- errors and omissions made during data collection.

b) For each Farm Return, a print-out listing those tests which have located errors. Table 23 is an example of such a print-out. It enables corrections to be made to individual Farm Returns and also identifies those returns that have a large number of errors and that may thus be rejected from the sample.

The third procedure is the correction of errors. Farm Returns which need to be corrected are returned to the Liaison Agencies and may have to be referred back to the regional level or to the original accounting office. However, some Farm Returns may be replaced because, in certain cases, national samples are larger than those required by the Commission for FADN purposes and, rather than correcting a Farm Return, it may be easier for the national Liaison Agency to replace it with another from the Member State's own sample.

ii) Optional tests. In addition to the standard tests described above, the Commission may opt to run homogeneity tests. These tests help to create sub-samples that are appropriate for special analyses. They identify outlyers - i.e. farms for which the value of one or more variables is significantly different from the mean value for the category to which the farm belongs. This may point to an error in data collection or data coding that was not found by the standard tests.

TABLE 22 AN EXAMPLE OF A PRINT-OUT OF ERRORS/WARNINGS BY FARM RETURN

NO. OF RETURN		NO. OF TEST			
350	0	9	209	ECONOMIC SIZE CLASS CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 SIZE CLASS CODE OF M.S. 7 CODE OF VI-A-3 8 SGM TOT.= 45054 ECU	
350	0	40	3808	PHYSICAL PRODUCTION OF RYE TABLE K(COL.5) SEEMS HIGH 40 ARES RYE 12000 KG/HA FOR MARKET VALUE 7525 UKL/T.	
350	0	75	208	THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 TYPE OF FARMING OF M.S. 8140 AND T.F. CALCULATED BY VI-A-3 4310	
350	0	77	2103	INCOHERENCE BETWEEN INTEREST PAID (TABLE F) AND DEBTS(TABLE H) TOTAL DEBTS IN 390= 209534 WITH NO INTEREST PAID 289=0	?
350	0	81	2103	INCOHERENCE BETWEEN INTEREST PAID (TABLE F) AND DEBTS(TABLE H) TOTAL DEBTS IN 390= 1025031 WITH NO INTEREST PAID 289=0	?
350	0	88	1332	TABLE D COLUMNS 1-3-5 ANIMALS AT VALUATIONS AND AT AVERAGE NUMBER NBR OF FATT. PIGS IN 201= 50 IN 203= 0 AND IN 205= 600	?
350	0	90	208	THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 TYPE OF FARMING OF M.S. 8140 AND T.F. CALCULATED BY VI-A-3 4310	
350	0	92	208	THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 TYPE OF FARMING OF M.S. 8120 AND T.F. CALCULATED BY VI-A-3 7110	
350	0	123	209	ECONOMIC SIZE CLASS CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 SIZE CLASS CODE OF M.S. 6 CODE OF VI-A-3 7 SGM TOT.= 17918 ECU	
			412	THE COST OF INPUT "LAND" SEEMS HIGH TF.= 4110 RENTAL VALUE(286) 117629 UAA 191 ARES : 61585 UKL/HA	
350	0	125	3903	VALORIZATION OF COMMON WHEAT TAB.K(COL.7+8+9+10-6)SEEMS LOW 164 ARES COMMON WHEAT 3963 KG/HA FOR MARKET VALUE 4086 UKL/T.	
350	0	126	209	ECONOMIC SIZE CLASS CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 SIZE CLASS CODE OF M.S. 7 CODE OF VI-A-3 8 SGM TOT.= 47593 ECU	
350	0	147	208	THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 TYPE OF FARMING OF M.S. 4310 AND T.F. CALCULATED BY VI-A-3 4120	
350	0	165	1039	INCOHERENCE BETWEEN TABLES D AND E (ANIMALS) (SALES AND PURCHASES) NBR OF BULLS 113= 28 FOR 0 BULLS WITHOUT PURCHASES IN 234=0	?
350	0	175	208	THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3 TYPE OF FARMING OF M.S. 4310 AND T.F. CALCULATED BY VI-A-3 4120	

TABLE 23 AN EXAMPLE OF A PRINT-OUT OF ERRORS/WARNINGS BY TEST

(26X) TEST 208 THE TYPE OF FARMING CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3

	EXPL		OTE	UDE	SAU						
350	0	75	4310	7	5855	TYPE OF FARMING	OF M.S.	8140	AND T.F. CALCULATED BY VI-A-3		4310
350	0	90	4310	7	3855	TYPE OF FARMING	OF M.S.	8140	AND T.F. CALCULATED BY VI-A-3		4310
350	0	92	7110	7	2759	TYPE OF FARMING	OF M.S.	8120	AND T.F. CALCULATED BY VI-A-3		7110
350	0	147	4120	7	4080	TYPE OF FARMING	OF M.S.	4310	AND T.F. CALCULATED BY VI-A-3		4120
350	0	175	4120	7	4455	TYPE OF FARMING	OF M.S.	4310	AND T.F. CALCULATED BY VI-A-3		4120

+

(23X) TEST 209 ECONOMIC SIZE CLASS CODE CALCULATED BY M.S. DIFFERS FROM CODE VI-A-3

	EXPL		OTE	UDE	SAU								
350	0	9	4120	8	5016	SIZE CLASS CODE OF M.S.	7	CODE OF VI-A-3	8	SGM TOT.=	45054	ECU
350	0	123	4110	7	2475	SIZE CLASS CODE OF M.S.	6	CODE OF VI-A-3	7	SGM TOT.=	17918	ECU
350	0	126	4120	8	6600	SIZE CLASS CODE OF M.S.	7	CODE OF VI-A-3	8	SGM TOT.=	47593	ECU
350	0	210	4120	8	6500	SIZE CLASS CODE OF M.S.	7	CODE OF VI-A-3	8	SGM TOT.=	44126	ECU
350	0	231	3110	7	425	SIZE CLASS CODE OF M.S.	6	CODE OF VI-A-3	7	SGM TOT.=	33396	ECU

+

(3X) TEST 412 THE COST OF INPUT "LAND" SEEMS HIGH

	EXPL		OTE	UDE	SAU								
350	0	123	4110	7	2475	TF.=	4110	RENTAL VALUE(286)	117629	UAA	191	ARES :	61585 UKL/HA
350	0	378	4310	8	7683	TF.=	4310	RENTAL VALUE(286)	3626995	UAA	5627	ARES :	64456 UKL/HA
350	0	510	4120	8	4800	TF.=	4120	RENTAL VALUE(286)	1171645	UAA	1980	ARES :	59173 UKL/HA

Some farms may be outlyers for logical reasons. For instance, in some regions pig farms generally operate on a small area of land because the pigs are permanently housed. But, it may be that within a category of such farms there is one with an unusually large area of land because the pigs are 'free-range' (allowed to forage in the fields and housed only at night). Such a farm will be identified as an outlyer by the appropriate homogeneity test. When it is examined, the farm's special character will be revealed.

5.3.2 Quality control procedures at the aggregate level.

The above section outlines the procedures applied by the Commission to individual farm data. When these have been completed, the procedures shown in the bottom half of Figure K are initiated. First the data are weighted and aggregated at the level of region, Member State, size class and type of farming. Continuity tests are then run. These compare the computed mean values of the standard set of variables(1) to the expected mean values, i.e. the mean values that would be expected on the basis of previous trends.

For example, if the average land area of farms has been steadily increasing over the last 5 years, then it would be reasonable, other things being equal, to expect farm area to continue to grow at a similar rate. Thus for the current accounting year, mean farm area can be predicted (X ha) and compared to the observed value (Y ha).

The continuity test then computes the percentage deviation between X and Y. If this exceeds a predetermined threshold, then the computer programme generates a message giving both the percentage deviation and the absolute deviation. The data are then examined to see if there is a logical explanation for the apparent abnormality. If not, the data are corrected at the level of the individual farm.

5.4 Timetable for quality control and calculation of results

Once the data are accepted as error-free, the Commission can produce the Standard Results, perform other analyses and make forecasts (see Chapters 7 and 8).

The completion of all the procedures needed to produce the Standard Results should take no more than 15 months after an accounting year has finished (see Table 24). In practice, some national Liaison Agencies have not always been capable of respecting the timetable set out in the legislation. Consequently, there have been considerable delays in the publication of aggregates for the Community as a whole. It is hoped that this will improve in future.

Table 24 shows the timetable that should apply for results for the 1988/9 accounting year:

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(1) See 7.1.2 for further information on the standard set of variables.

Table 24 Proposed 15-month timetable for the control of data and the production of Standard Results (accounting year 1988/9 is taken as an example)

By 30 June 1989: last Member States to have finished its accounting year(1).
9 months for Liaison Agencies to correct data errors at the national level
By 31 March 1990: all Liaison Agencies to have sent data to the Commission (in accordance with Commission Regulation 1915/83/EEC(2)).
1 month for the Commission to check data and produce provisional Standard Results
By 30 April 1990: Commission to have presented provisional Standard Results to the Community FADN Committee.
2 months for Liaison Agencies to check provisional Standard Results
By 30 June 1990: Liaison Agencies to have sent comments to the Commission.
3 months for Commission to make final corrections and produce definitive Standard Results
By 30 September 1990: Commission to have presented definitive Standard Results henceforth available to users.

Time required for all the above stages: 15 months

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(1) as Figure E shows, most Member States finish the accounting year on 31 December. This means that data correction and the preparation of Standard Results can begin before the deadlines specified above.

(2) OJ No L 190, 14.07.1983.

6. THE WEIGHTING SYSTEM

6.1 The need for a weighting system

An individual weight is applied to each farm in the sample, this being calculated as the number of farms in the cell of the field of observation divided by the number of farms in the corresponding cell in the sample. A weighting system is used in the calculation of results to accommodate different sampling fractions.

6.2 Information on the field of observation

To calculate weighting factors it is necessary to have accurate and up-to-date knowledge concerning the field of observation. The Farm Structure Surveys (FSS), conducted biennially by the Statistical Office of the European Communities, and national surveys conducted by Liaison Agencies are used to derive the weighting factors. Since information on the field of observation is not available every year, the Commission uses the most recent information available.

6.3 The aggregation of cells

Every effort is made by Liaison Agencies to ensure that all categories of farms - that is, all cells that contain farms in the field of observation - are represented in the sample. However, the intended sample may not be attained and some cells may have no farms. Therefore such cells in the field of observation will not be represented in the sample.

From its knowledge of the field of observation and selection method, the Commission, assisted by the relevant Liaison Agency, is able to judge for which farm types cells in the sample may be empty. In such cases, the Commission aggregates farm types and size classes. Table 25 shows the types of farming and size classes that the Commission and the Liaison Agencies have agreed should be aggregated as a matter of routine. An example of the mechanics of aggregation is now given.

In the Community typology of agricultural holdings, two similar types of mixed livestock farms are distinguished: 71 (mixed livestock, mainly grazing livestock) and 72 (mixed livestock, mainly granivores). In some Member States there are a large number of both types of such farms in the field of observation and it can be expected that the cells representing these types of farming at the level of the sample will be full. But in other Member States - for instance Belgium and Denmark - there are comparatively few farms of each of these types.

There is thus a risk that one or other of these types will not be represented in the sample. To counter this risk, the two farm types are aggregated in order to represent a single broader farm type at a higher level in the typology: for instance, type of farming 71 and type of farming 72 would be aggregated to form one cell representing type of farming 7, as illustrated in Figure L.

As well as increasing the extent to which the field of observation is represented by the sample, aggregation also serves to reduce the standard error of the sampling means of variables for those types of farming that are grouped together. Thus if there are several types of farming with similar characteristics, these may be aggregated and treated as a single type.

6.4 Minimum weighting factors

As stated in 6.1, information on the field of observation is obtained from Farm Structure Surveys and from National Surveys. It may arise that according to the above sources of information, a particular cell at the level of the field of observation is empty. But at the level of the sample it may be that the same cell contains one or more farms.

This apparent anomaly is rare and is of lesser importance than the existence of empty cells described in 6.3. It can arise, for example, because in some cases the FSS is a sample survey producing results which are raised sample statistics. As a consequence there may be one or more farms in Cell X in reality but according to the raised samples of the FSS there are no such farms.

This means that it is impossible to calculate a weighting factor that reflects the real situation. From its knowledge of the situation in each Member State, the Commission applies a weighting factor of either 1 or 10. Figure M illustrates this situation and its resolution.

6.5 Maximum weighting factors

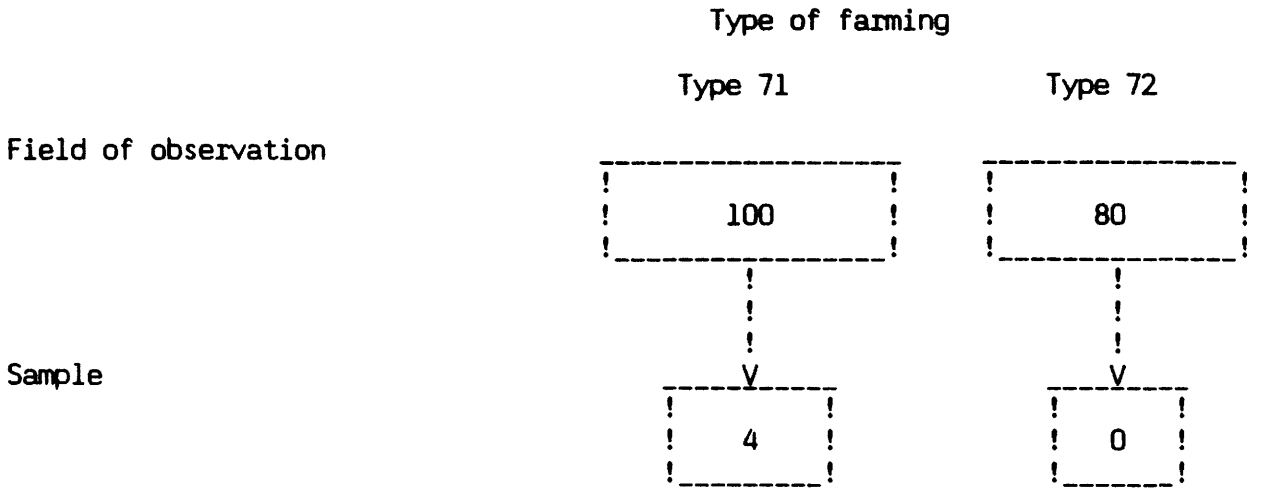
In the field of observation, some cells may contain a large number of farms. In contrast, at the level of the sample, the same cells may contain a very small number of farms. The reason for this may be that there are few farms willing to participate in the survey or that there is a high drop out rate during the course of the survey. The consequence is a low sampling fraction.

This may introduce some bias in the results for such cells, because the small number of farms in the sample may be atypical of the large number that they are supposed to represent.

To reduce possible distortion, a maximum weighting factor of 500 is applied to each farm in those cells with very low sampling fractions (and consequently high weighting factors). This means, in effect, that no sample farm can represent more than 500 farms in the field of observation. Figure N illustrates this, and shows how farms are lost from the field of observation.

The use of a maximum weighting factor is a short-term solution to this problem and has the disadvantage that it results in an artificial reduction in the field of observation represented by the sample. In the medium-term, the Commission hopes that low sampling fractions will be avoided when the Liaison Agencies have improved their selection methods.

Figure 1 Aggregation of cells - similar cells with one empty at sample level



Problem: Two similar types of farming are distinguished at the level of the field of observation. Type 71 is "mixed livestock, mainly grazing livestock" and type 72 is "mixed livestock, mainly granivores". A problem arises because farms of the latter type are not represented in the sample.

Solution: Because the two types of farming are similar, the two cells can be aggregated to form a single cell which represents type of farming 7 "mixed livestock holdings".

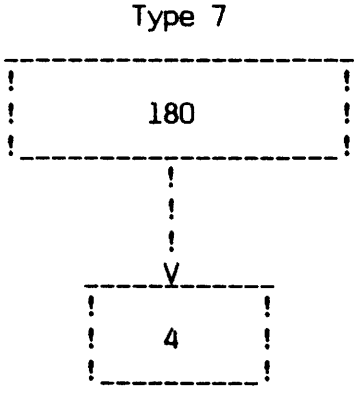


Table 25 Those types of farming(1) and size classes that are aggregated for the calculation of weighting factors (2)

Member States	Types of farming aggregated into a single class	Size classes aggregated into a single class
Belgi(qu)e	(11 + 12 + 60) (2011 + 2012 + 2013 + 203) (2021 + 2022 + 2023) (502 + 503), (71 + 72) (811 + 812 + 82), (813 + 814)	none
Danmark	(31 + 32 + 33 + 34) (42 + 43 + 44), (502 + 503), (71 + 72)	none
Deutschland	(11 + 12 + 60), (32 + 33 + 34) (42 + 43 + 44), (71 + 72), (81 + 82)	VIII + IX
Ellas	(33 + 34), (41 + 42 + 43 + 44 + 71 + 72)	VIII + IX
España	none	none
France	(2011 + 2013 + 2021 + 2023 + 203) (2012 + 2022), (312 + 313 + 314) (32 + 33 + 34), (42 + 43) (71 + 72), (811 + 813), (812 + 814)	VIII + IX
Ireland	(11 + 12 + 60) (31 + 32 + 33 + 34) (41 + 43 + 711), (42 + 444 + 712) (441 + 442 + 443), (50 + 72 + 821) (811 + 812), (813 + 814 + 822 + 823)	VIII + IX
Italia	(2011 + 2021 + 203) (2012 + 2013 + 2022 + 2023) (42 + 43), (71 + 72)	VIII + IX
Luxembourg	(11 + 12 + 60), (42 + 43 + 44) (71 + 72 + 81 + 82)	VIII + IX
Nederland	(11 + 12 + 60), (2011 + 2021 + 2031) (2012 + 2022 + 2032), (2013 + 2023 + 2033) (31 + 32 + 33 + 34), (42 + 43 + 44) (502 + 503)	none
Portugal	(20 + 601), (32 + 33 + 34) (41 + 42 + 43 + 44 + 71 + 72) (602 + 603 + 604 + 605 + 606), (81 + 82)	VII + VIII + IX
United Kingdom	(31 + 32 + 33 + 34), (42 + 43) (50 + 821), (71 + 72), (811 + 812) (813 + 814 + 822 + 823)	VIII + IX for regions 421 and 441, for other regions - none

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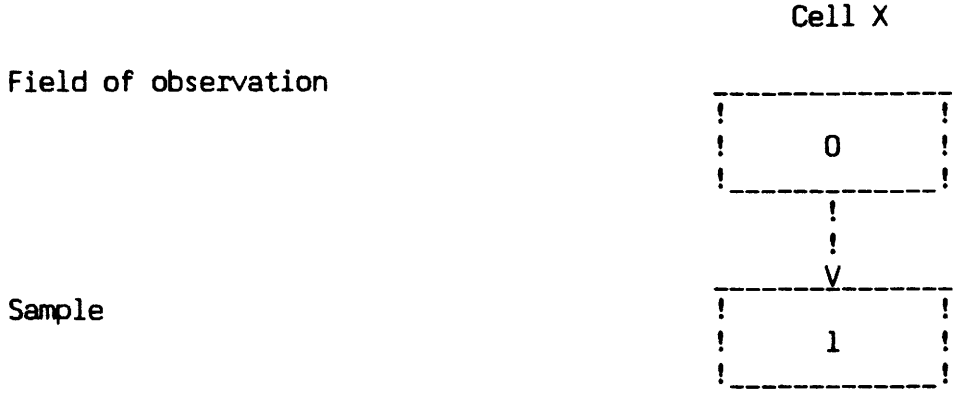
(1) For an explanation of the codes, see Commission Decision 85/377/EEC of 7 June 1985, OJ No L 220, 17.08.1985, p. 1.

(2) This aggregation scheme was first used for the 1983/4 accounting year.

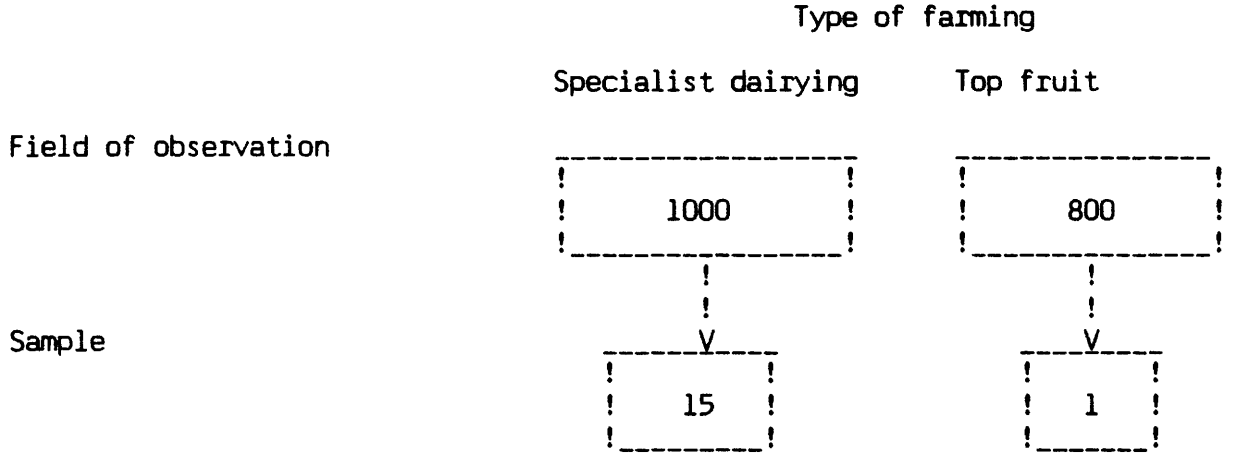
Figure M The problem of empty cells in the field of observation



Problem: According to the FSS/National Survey there are no farms in Cell X in the field of observation. However, in the sample there is one farm in this cell. It is therefore impossible to calculate a weighting factor - i.e. to know how many farms the single sample farm actually represents.

Solution: A minimum weight is fixed, in general, at 1. This assumes that the farm that has fallen into the sample is the only one of its category in the field of observation.

Figure N The problem of low sampling fractions and dissimilar cells



Problem: Specialist dairy farms are well represented and do not constitute a problem. However, top fruit farms are poorly represented. If this sample farm happens to be atypical of the field of observation, then the high weighting factor (in this case 800) will cause a serious distortion. Top fruit farms cannot be aggregated with specialist dairy farms because the two types of farms are very dissimilar.

Solution: Apply a maximum weighting factor of 500. This means that the one sample farm represents 500 top fruit farms in the field of observation. The other 300 farms are thus not included in the field of observation represented by the sample. As a result, the sample represents 5/8 of the farms in the field of observation.

7. STANDARD RESULTS AND AD HOC ANALYSES

7.1 Standard Results

7.1.1 What are Standard Results?

The Standard Results are a set of statistics, computed from the Farm Returns, that are periodically produced and published by the Commission. They describe in considerable detail the financial situation of farmers by different groups throughout the Community. An example of Standard Results for 1986/7 is given in Table 26 (pages 62 to 65). As well as producing Standard Results, the unit responsible for FADN within the Commission performs specific economic analyses. This second activity is described in 7.2.

7.1.2 The definition of variables

The Commission has defined each variable in the Standard Results, attempting to ensure a close correspondence between the definitions of its own variables and those of other organisations producing agricultural statistics. The list of definitions is available in French and English as a separate publication (RI/CC/882 rev. 3)

Figures P, Q and R (pages 66 to 68) show how the main income and capital variables are derived.
Table 27 (page 70) gives the coefficients that are used to convert livestock species and classes to a common unit - the Livestock Unit (LU).

7.1.3 Financial variables expressed in ECU

All results are given in European Currency Units (ECU). This enables the results for individual Member States to be aggregated to the level of the Community and the results of two or more Member States to be compared.

A conversion rate (national currency --> ECU) is calculated for each Member State for each FADN accounting year and is the average of the monthly exchange rates. These monthly exchange rates are calculated by the Statistical Office of the European Communities (Eurostat) and made available as part of the CRONOS data bank. Table 28 (page 71) gives the exchange rates used by the Commission for FADN purposes for the accounting years 1983/4 to 1986/7.

7.1.4 Standard groupings

Table 26 gives an example of Standard Results at the level of Member State. The unit responsible for FADN within the Commission has established a set of standard groupings for which the Standard Results are computed, as follows:

i) 9 different types of farming at the level of the Community which are shown in Table 29 (page 71). An example of the Standard Results grouped according to these types of farming is given in Table 31 (page 73).
ii) regions - Table 30 (page 72) gives an example for the regions of Portugal. Figure C (page 11) gives a map of the regions used.

(text continues on page 69)

TABLE 26 AN EXAMPLE OF STANDARD RESULTS FOR 1986/7

ECU

	EUR12	BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	POR	UKI	EUR10
Farms represented	3984051	55185	85402	374431	528365	585157	596168	145118	1108077	2453	95187	261557	146951	3137337
Sample farms	53806	1022	2278	5224	6927	7605	5953	1346	16710	328	1510	1915	2988	44286
Exchange rate	.	43.359	7.860	2.085	137.425	137.460	6.800	0.733	1.462	43.359	2.366	147.088	0.688	.
Economic size unit - ESU	21.5	43.2	37.2	33.6	7.9	9.4	32.4	14.5	14.5	34.6	70.9	8.4	77.7	24.9
Labour input - AWU	1.57	1.66	1.11	1.68	1.30	1.29	1.59	1.27	1.60	1.73	1.91	2.10	2.54	1.58
Unpaid labour input- FWU	1.31	1.51	0.83	1.40	1.22	0.87	1.44	1.17	1.49	1.61	1.46	1.45	1.36	1.39
Paid labour input	0.26	0.15	0.28	0.27	0.08	0.41	0.15	0.10	0.11	0.12	0.45	0.65	1.18	0.20
Util. Agric. Area - ha	24.2	24.2	32.7	27.9	6.3	30.1	38.5	35.2	10.5	47.2	21.4	17.0	98.4	23.6
Rented U.A.A. - ha	9.6	18.8	6.1	10.8	1.7	7.3	24.6	3.0	3.0	21.3	9.7	6.7	42.4	10.3
cereals - ha	7.79	6.13	18.36	11.32	2.70	10.95	12.51	2.82	3.61	11.12	1.79	3.33	28.17	7.58
other field crops - ha	2.04	3.49	6.10	2.64	0.89	2.19	3.60	0.49	0.75	0.55	4.76	0.68	6.75	2.13
market gard.& flow.-ha	0.06	0.21	0.15	0.05	0.01	0.05	0.05	0.00	0.03	0.00	0.43	0.06	0.25	0.06
vineyards - ha	0.70	0.00	0.00	0.18	0.25	1.26	1.44	0.00	0.70	0.37	0.00	0.82	0.00	0.58
orcharding - ha	0.37	0.20	0.10	0.10	0.27	0.68	0.27	0.00	0.49	0.00	0.18	0.44	0.28	0.31
olive groves - ha	0.76	0.00	0.00	0.00	1.16	2.54	0.00	0.00	0.56	0.00	0.00	1.13	0.00	0.39
other perm. crops - ha	0.02	0.04	0.04	0.02	0.01	0.00	0.01	0.00	0.02	0.00	0.05	0.08	0.01	0.02
Forage crops - ha	11.96	14.02	7.92	13.54	0.99	9.71	20.62	31.91	4.25	35.14	13.37	10.38	62.58	12.51
woodland area - ha	0.96	0.00	0.00	2.96	0.00	0.36	1.09	0.00	0.74	3.18	0.04	3.02	1.62	0.90
Total livestock units-LU	22.4	59.6	48.9	43.1	4.1	10.2	33.9	39.3	6.9	74.3	79.1	8.6	95.1	25.8
dairy cows - LU	6.14	16.65	10.67	13.60	0.47	1.64	9.75	11.85	2.33	25.71	25.95	1.75	22.07	7.35
other cattle - LU	8.10	19.44	10.05	13.66	0.85	3.49	15.51	21.40	2.61	42.10	14.08	2.46	36.83	9.43
sheep and goats - LU	2.05	0.10	0.05	0.08	2.39	2.63	2.01	3.01	0.52	0.02	0.45	1.49	18.33	1.99
pigs - LU	4.70	19.51	26.83	15.04	0.19	1.92	3.79	2.09	1.11	6.45	26.31	1.82	11.61	5.46
poultry - LU	1.33	3.89	1.17	0.64	0.14	0.46	2.75	0.80	0.31	0.00	12.30	0.92	6.23	1.53
yield of wheat - qn/ha	43	75	62	62	29	22	55	52	43	46	80	17	71	49
yield of maize - qn/ha	68	93	0	66	105	59	64	0	89	0	0	43	17	72
graz.livest./forage ha	1.4	2.6	2.6	2.0	2.9	0.5	1.3	1.1	1.2	1.9	2.9	0.5	1.2	1.7
milk yield - kg/cow	4088	4244	5724	4950	3010	3390	4407	3932	4144	4583	6053	3692	5393	4251

TABLE 26 CONT.

	EUR12	BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	POR	UKI	EUR10
Farms represented	3984051	55185	85402	374431	528365	585157	596168	145118	1108077	2453	95187	261557	146951	3137337
Sample farms	53806	1022	2278	5224	6927	7605	5953	1346	16710	328	1510	1915	2988	44286
Total output	39539	84078	82216	72092	11875	19702	56345	27651	25669	75510	146087	13247	118841	45430
Crops output % total	48.4	35.1	37.2	33.8	77.7	67.5	50.2	13.0	64.7	20.6	37.0	47.8	43.4	46.9
- cereals	6842	7997	16034	11728	2147	5373	11734	2062	4093	8479	2656	2252	27815	7499
- protein crops	330	111	1922	177	87	204	472	33	281	27	908	97	1396	373
- potatoes	798	1580	1065	1121	287	303	494	438	209	691	7507	399	5735	924
- sugar beets	1025	5779	1797	2651	263	597	1001	440	585	0	4179	0	2892	1191
- oil seed crops	731	123	2965	1201	65	725	2056	0	119	314	35	67	2483	787
- industrial crops	485	245	26	396	1629	422	364	0	350	0	78	82	181	530
- vegetables & flowers	2948	9324	4827	3464	976	941	2830	45	2111	2	31278	791	8429	3502
- fruit	1084	1529	300	486	595	994	1463	0	1669	7	1123	465	1217	1152
- citrus fruit	337	0	0	0	432	586	23	0	661	0	0	92	0	311
- wine and grapes	2266	0	0	1869	728	696	6972	0	2828	5775	0	893	0	2674
- olives & olive oil	576	0	0	0	1161	1343	2	0	728	0	0	331	0	453
- forage crops	1108	0	238	207	641	1042	487	396	2448	107	581	532	758	1168
- oth. crop output	601	2836	1434	1056	218	66	397	173	515	188	5769	329	671	724
animal output % total	48.6	64.1	60.0	57.8	21.9	31.3	47.3	85.2	34.4	76.8	61.6	48.9	53.6	50.0
of wh. change in value	-150	565	-1854	-818	95	37	340	-866	-81	-239	-2872	195	7	-213
- cows milk & prods.	8369	18077	19074	19911	412	1487	11760	10868	4094	32696	48276	1776	26610	10203
- beef + veal	4751	17432	6761	9647	458	939	8456	9361	2529	19911	8760	1458	17136	5736
- pigmeat	3645	14439	21917	11276	161	1468	2885	1218	1117	5352	19737	1683	8294	4214
- sheep + goats	768	36	14	35	693	1179	932	908	232	1	250	376	6274	724
- poultrymeat	451	1057	366	131	80	133	1302	937	103	0	2128	577	1091	500
- eggs	567	2430	653	614	39	96	280	131	169	1	8959	213	3280	685
- sheeps & goats milk	285	2	0	0	730	0	588	0	322	0	0	167	0	348
- other livestock + prod	397	385	554	38	30	871	472	129	270	10	1842	222	971	324
other output % total	3.0	0.8	2.8	8.4	0.4	1.2	2.4	1.9	0.9	2.6	1.4	3.4	3.0	3.1
(of wh.farmhouse cons.)	1.3	0.3	0.3	0.6	5.7	0.1	1.1	1.9	2.2	0.9	0.2	5.5	0.8	1.2
(of wh. farm use %tot)	5.6	3.6	7.3	8.4	5.5	6.1	3.3	3.1	9.5	8.7	0.8	6.9	3.1	5.5

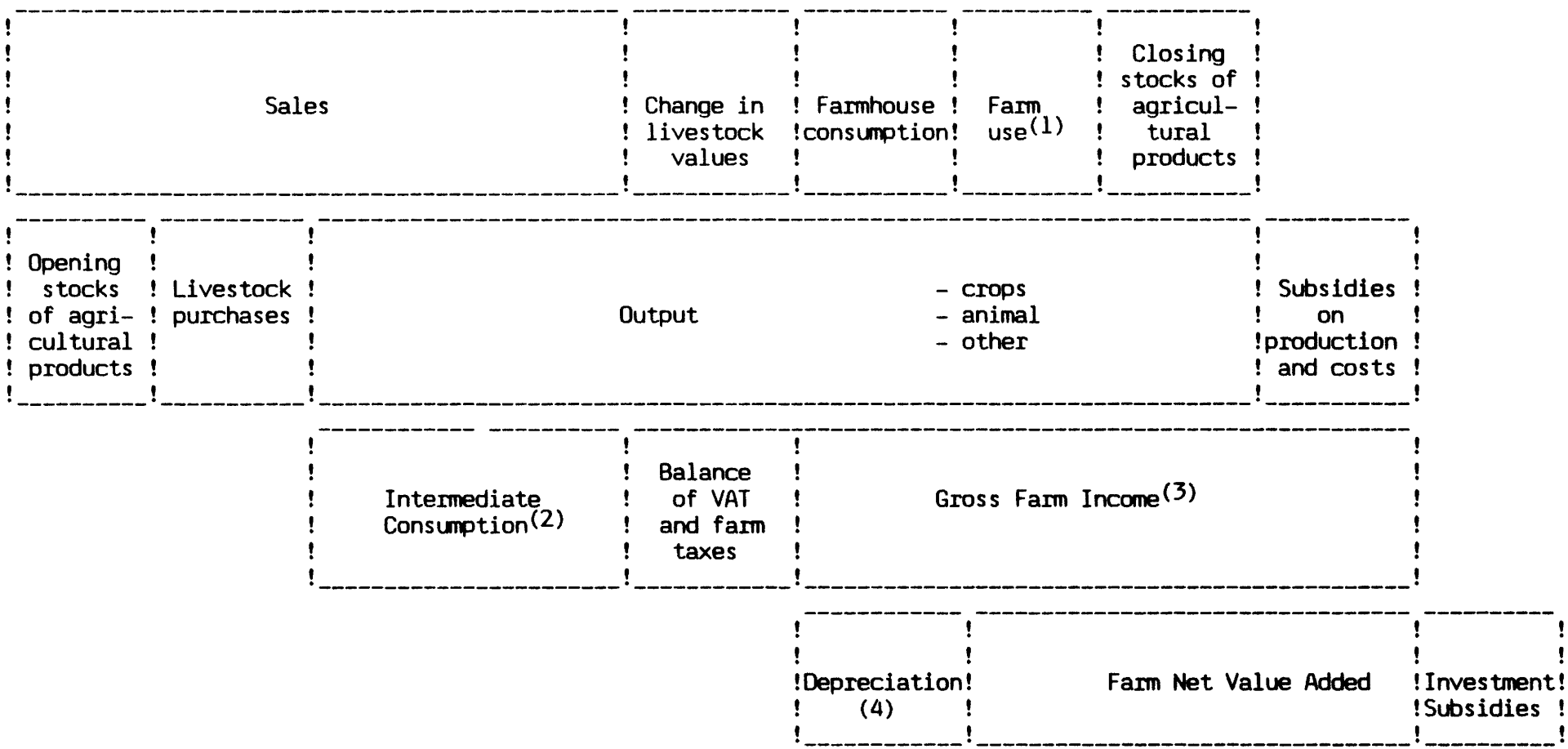
TABLE 26 CONT.

	EUR12	BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	POR	UKI	EUR10
Farms represented	3984051	55185	85402	374431	528365	585157	596168	145118	1108077	2453	95187	261557	146951	3137337
Sample farms	53806	1022	2278	5224	6927	7605	5953	1346	16710	328	1510	1915	2988	44286
Total Inputs	29862	57553	76758	61255	6339	12811	44913	21814	14565	57469	117511	9718	105533	34721
Intermediate consumpt.	20556	44677	50459	42916	4049	9382	29713	16537	10466	41864	83461	6806	67254	23786
Specif.costs % in.cons.	69.9	79.6	73.6	65.5	71.0	72.4	64.5	72.0	75.4	67.9	72.1	76.2	71.5	69.6
- seeds and plants	1251	2179	2647	2125	313	675	1964	397	691	1515	6399	450	3791	1425
(of which home-grown)	118	108	124	230	77	77	125	45	48	121	560	127	405	124
- fertilizers	2557	4525	4565	3865	387	1857	5097	2870	1159	4663	5469	636	9321	2847
- crop protection	1014	2012	1915	1558	304	406	2153	277	576	854	2386	207	3650	1194
- other crop specific	636	1016	1424	1304	400	94	702	313	350	992	3092	126	2850	779
- feed grazing livestck	4802	10481	8781	8603	1182	2437	5057	4713	3951	14501	17145	1783	15793	5495
(of which home-grown)	1522	2225	1099	2711	561	652	1349	797	2337	5709	555	696	2693	1753
- fdgstfs, pigs+poultry	3349	13290	16005	8792	193	1173	3205	1721	982	3652	22494	1846	8708	3880
(of which home-grown)	516	573	4779	3103	4	89	358	2	56	774	57	84	641	631
- other livestock spec.	764	2060	1780	1850	94	150	976	1610	186	2232	3169	142	3976	931
Overheads % in.cons.	30.1	20.4	26.4	34.5	29.0	27.6	35.5	28.0	24.6	32.1	27.9	23.8	28.5	30.4
- machinery + bldg.costs	2051	2520	6546	6494	171	521	3147	2170	698	6378	5929	469	6657	2468
- energy	1548	2816	2119	3236	300	761	2393	839	760	2232	7309	635	5144	1770
- contract work	1300	2707	2731	1533	602	699	2568	1134	653	1820	6391	286	2642	1496
- other direct inputs	1285	1071	1947	3555	101	609	2452	493	460	3024	3678	226	4722	1500
Depreciation	4473	6243	8384	10943	1230	1108	7430	2420	2415	11661	15323	978	14738	5392
External factors	4833	6633	17915	7396	1061	2320	7770	2856	1684	3944	18727	1933	23541	5543
- wages paid	2040	1484	4672	2694	335	1858	1882	900	1194	979	6340	1337	12530	2132
- rent paid	1131	2332	1698	2100	440	347	2666	513	322	2525	2975	236	4352	1352
- inter. pd.(less subs.)	1661	2817	11544	2603	286	114	3223	1443	167	440	9412	360	6659	2059
current grants and taxes	323	1184	-502	1371	547	-148	-292	1097	196	3092	-590	341	2069	409
- taxes(except VAT)	520	261	855	719	26	314	1862	75	166	236	896	23	825	600
- VAT balance	50	635	0	404	0	0	-4	0	0	145	171	-1	-1	64
- subs. on prod. + costs	793	810	353	1687	573	166	1574	1171	362	3184	135	366	2895	945
Investment grants+subs.	177	18	35	18	35	5	552	129	69	0	1155	4	928	223

TABLE 26 CONT.

	EUR12	BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	POR	UKI	EUR10
Farms represented	3984051	55185	85402	374431	528365	585157	596168	145118	1108077	2453	95187	261557	146951	3137337
Sample farms	53806	1022	2278	5224	6927	7605	5953	1346	16710	328	1510	1915	2988	44286
Gross Farm Income	19306	40585	31255	30548	8373	10172	26340	12210	15398	36739	62036	6783	53656	22053
Farm Net Value Added	14832	34342	22871	19604	7143	9063	18910	9790	12983	25078	46712	5804	38918	16661
Family Farm Income	10176	27727	4992	12226	6117	6749	11692	7063	11369	21134	29140	3874	16305	11341
Farm Net Value Added/AWU	9431	20632	20622	11692	5505	7053	11861	7689	8125	14460	24468	2765	15331	10528
Family Farm Income/FWU	7741	18361	6035	8712	5009	7736	8112	6020	7637	13092	19918	2670	11961	8185
Total assets	149757	163321	265027	245599	52727	78322	165554	165909	139464	260015	436609	54377	446491	171033
Fixed assets % total	80.3	79.6	82.7	82.1	92.7	75.8	72.1	85.4	78.5	75.3	84.4	84.3	86.2	80.6
- land & permanent crops	73280	50290	47714	112074	39692	45184	55235	109066	79168	70642	196660	34276	213575	81771
- buildings	18605	32285	126172	44098	2851	4240	18769	9771	15385	58426	100597	6472	0	22296
- machinery	17971	18613	31655	45103	4856	5208	28227	10153	12200	42843	44207	6258	51693	21328
- breeding livestock	9012	28854	13597	14254	1495	3921	17936	12663	3934	32542	27723	3752	28177	10400
Current assets % total	19.7	20.4	17.3	17.9	7.3	24.2	27.9	14.6	21.5	24.7	15.6	15.7	13.8	19.4
- non-breeding livestock	6938	22526	13871	14896	1047	1128	11116	14521	3105	23457	19374	2666	24840	8378
- stock agric.products	4703	2764	5409	1520	2049	1002	15934	2050	3180	5848	4567	1849	11088	5631
- other circ. capital	17851	7989	26609	27536	738	16812	19131	7685	23663	34904	44219	4000	25753	19199
Liabilities	22933	42284	117471	56368	2368	1077	48375	9746	2114	44167	145663	2138	60443	28743
- long & med. term loans	17129	42237	81677	45779	1724	629	35478	7201	1930	36805	133659	1555	20158	21505
- short-term loans	5804	47	35794	10589	644	448	12897	2545	184	7362	12003	584	40285	7238
Net worth	126825	121037	147556	189231	50359	77245	117179	156163	137350	215848	290947	52238	386048	142290
change in Net Worth	-1502	2843	8008	-17031	696	2856	1355	-869	-2011	-1177	2667	-2253	-4102	-2252
Av. farm cap.(exc.land)	79125	113600	215863	150433	22038	31432	114125	59616	67341	198555	250775	29371	141712	92169
Gross Inves.(Deadstock)	3351	5608	9260	7905	551	441	7157	1803	1200	11564	16717	1571	5795	4042
Net Invest.(Deadstock)	-1122	-635	876	-3038	-679	-667	-273	-617	-1215	-97	1394	593	-8943	-1350
Cash-Flow	10889	25489	5463	13445	6703	7742	12531	8163	12060	19833	27685	2869	20068	12144
F.F.I. % Net Worth	8.0	22.9	3.4	6.5	12.1	8.7	10.0	4.5	8.3	9.8	10.0	7.4	4.2	8.0
C.F. % Net Worth	8.6	21.1	3.7	7.1	13.3	10.0	10.7	5.2	8.8	9.2	9.5	5.5	5.2	8.5

Figure P - The derivation of income indicators I



(1) farm production used as inputs to other production activities
(2) including farm use
(3) equivalent to Gross Added Value
(4) on the basis of replacement value

Figure Q - The derivation of income indicators II

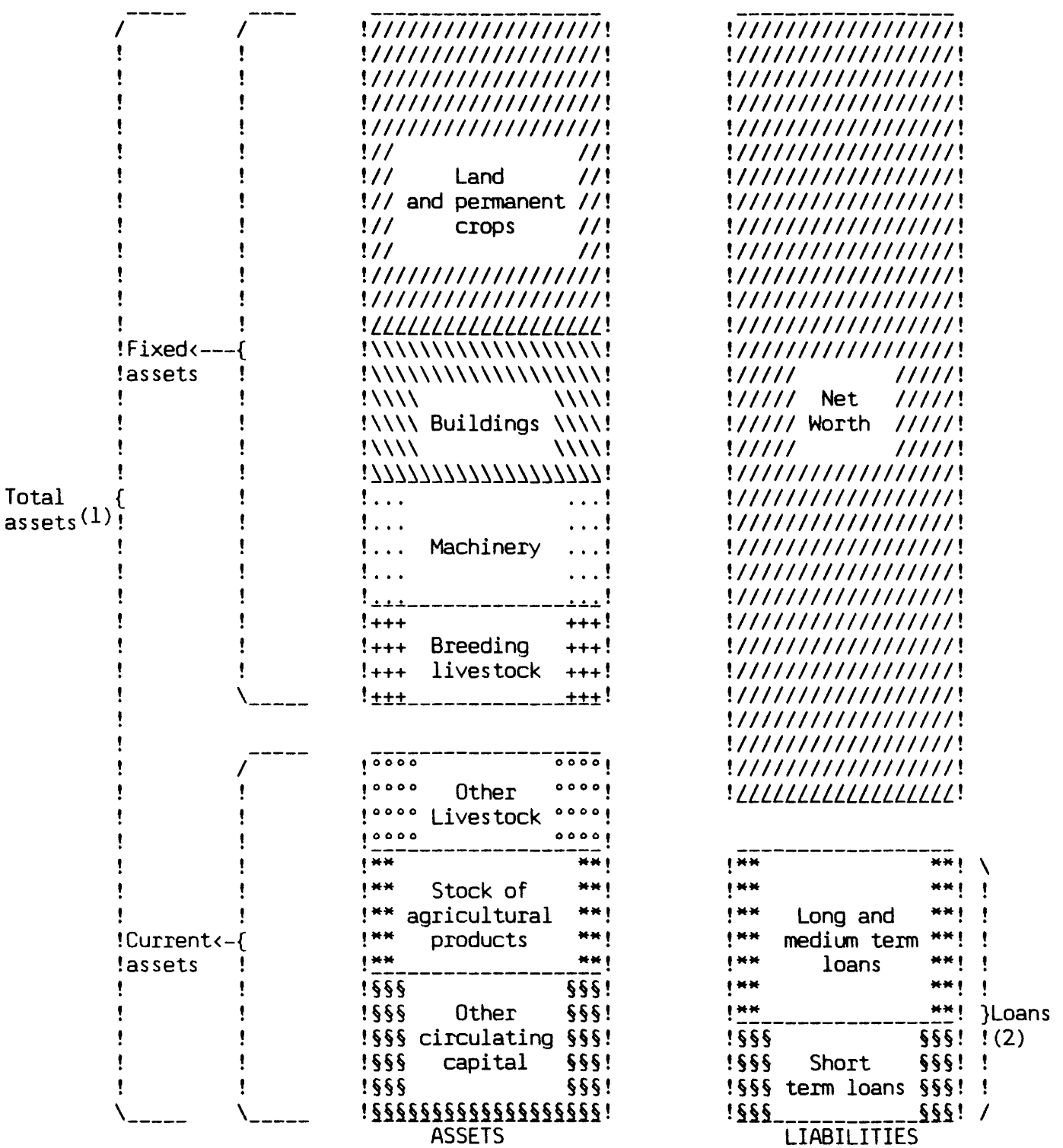
sales of assets (1)	closing valuation of debts	depreciation	starter stock of agricultural products	correction of livestock valuation	Family Farm Income

Investments (1)	opening valuation of debts	final stock of agricultural products	Cash-flow (2)	

(1) land, buildings, machinery and equipment, circulating capital

(2) Cash-flow = receipts - expenses of the accounting year.
= sales of products + miscellaneous receipts + sales of livestock + subsidies ± VAT balance
- all real costs - purchases of livestock - taxes
± balance of operations on assets (including land)
± balance of refunds of loans and new debts.

Figure R - The derivation of capital indicators



(1) evaluated at the replacement cost at the end of the accounting year.
(2) at end of accounting year

iii) 6 different economic size classes, at the level of the Community and for each Member State (Table 32 - page 74)
iv) different land area classes, at the level of the Community and for each Member State. Farms practising intensive livestock production and horticulture are excluded from this classification (Table 33 - page 75)
v) different income classes, at the level of the Community and for each Member State (Table 34 - page 76)

7.1.5 Selective printing

Values for a total of 110 variables can be computed. This set is known as "Level I" and a reduced set of 34 variables, known as "Level II", is often used.
In order to maintain confidentiality of information, the Commission does not publish results for classes with fewer than 10 sample farms.

7.2 The execution of ad hoc analyses

In addition to producing Standard Results, the unit responsible for FADN within the Commission performs specific consultations. These are requested by various units, divisions and directorates of the Commission and other Community institutions. Such consultations are undertaken for those responsible for the management of agricultural markets, those concerned with the structure of agriculture and those engaged in the design of policy.

The demand for ad hoc studies is continually growing and has included the following topics:

- the economics of wine production
- the economics of farming in Less Favoured Areas
- the production costs of cereals
- the incomes of farmers by age and level of debt
- net margins of dairy production
- the effects of the set-aside policy
- the costs of milk and beef production
- the use of fertilizers in dairying

Table 27 Coefficients used to convert species and classes of livestock to Livestock Units (LU)

Code in Table D of Farm Return[1]	Class or species	No. of livestock in this class equal to 1 LU
22	Equines	0.6
23	Calves for fattening	0.4
24	Other cattle < 1 year[2]	0.4
25	Male cattle 1 - <2 years	0.6
26	Female cattle 1 - <2 years	0.6
27	Male cattle >= 2 years	1.0
28	Breeding heifers	0.8
29	Heifers for fattening	0.8
30	Dairy cows	1.0
31	Cull dairy cows	1.0
32	Other cows	0.8
40	Ewes	0.1
41	Other sheep	0.1
42	Goats	0.1
43	Piglets	0.027
44	Breeding sows	0.5
45	Pigs for fattening	0.3
46	Other pigs	0.3
47	Table chickens	0.007
48	Laying hens	0.014
49	Other poultry	0.03
50	Other animals	no LU applied

(1) Ref. Commission Regulation 2237/77/EEC of 23 September 1977 (OJ No L 263, 17.10.1977 p. 1) including amendments before July 1987.
(2) Buffalo are included in the appropriate category of cattle.

Table 28 Mean rates applied for FADN purposes to convert national currencies to ECU

1 ECU equals the following units of national currency:

Member State	1983/4	1984/5	1985/6	1986/7
BELGI(QU)E (BFR)	45.7473	45.0821	44.7506	43.3588
DANMARK (DKR)	8.18226	8.05392	8.00261	7.86013
DEUTSCHLAND (DM)	2.25403	2.23440	2.19092	2.08533
ELLAS (DRA)	78.0883	88.3403	105.7390	137.4246
ESPAÑA (PTA)	127.5026	126.5693	129.1645	137.4563
FRANCE (FF)	6.77078	6.87165	6.79502	6.79976
IRELAND (IRL)	0.714956	0.725942	0.715167	0.733526
ITALIA (LIT)	1349.924	1381.381	1447.987	1461.874
LUXEMBOURG (LFR)	45.7473	45.0821	44.7506	43.3588
NEDERLAND (HFL)	2.53679	2.52085	2.48571	2.36628
PORTUGAL (ESC)	89.6886	115.6801	130.2515	147.0884
UNITED KINGDOM (UKL)	0.580592	0.598295	0.591871	0.688453

Table 29 Nine types of farming groups used by the Commission for the Standard Results

			Principal type
A	-	Cereals	11
B	-	General cropping	12 + 60
C	-	Horticulture	20
D	-	Vineyards	31
E	-	Fruit	32
F	-	Dairying	41
G	-	Grazing livestock	42 + 43 + 44
H	-	Pigs and poultry	50
I	-	Mixed (crops and livestock)	71 + 72 + 81 + 82

TABLE 30 AN EXAMPLE OF STANDARD RESULTS FOR DIFFERENT REGIONS
(IN THIS CASE THE REGIONS OF PORTUGAL)

1986/87 - ECU

	DOUR.MIN BEIR.LIT	TR.MONT. BEIR.INT	RIBATEJO OESTE	ALENTEJO ALGARVE	ACORES MADEIRA
Farms represented	106839	44695	73028	26291	10704
Sample farms	520	318	662	309	106
Exchange rate	147.088	147.088	147.088	147.088	147.088
005 Economic size unit - ESU	4.1	5.8	12.0	19.8	9.4
010 Labour input - AWU	2.2	1.7	2.0	2.9	1.6
015 Unpaid labour input- FWU	1.8	1.3	1.2	1.3	1.0
025 Util. Agric. Area - ha	4.1	20.0	14.8	70.6	15.7
080 Total livestock units-LU	5.4	5.1	10.9	15.9	20.0
130 Total output	8752	8607	17952	24835	16919
135 Crops output % total	48	54	41	64	23
205 animal output % total	49	43	55	33	77
255 other output % total	2	3	4	4	0
260 (of wh.farmhouse cons.)	13	7	2	1	4
265 (of wh. farm use %tot)	11	12	3	5	12
270 Total Inputs	5209	5777	14809	20157	10798
275 Intermediate consumpt.	3792	3925	10771	12905	6881
280 Specif.costs % in.cons.	83	70	78	67	80
335 Overheads % in.cons.	17	30	22	33	20
385 current grants and taxes	280	341	378	589	101
410 Gross Farm Income	5240	5023	7559	12518	10139
360 Depreciation	538	888	1381	1838	894
415 Farm Net Value Added	4702	4135	6178	10681	9245
365 External factors	879	964	2657	5414	3023
405 Investment grants+subs.	4	0	3	0	24
420 Family Farm Income	3827	3170	3525	5267	6246
425 Farm Net Value Added/AWU	2132	2381	3152	3721	5754
430 Family Farm Income/FWU	2111	2447	3056	4177	6348
435 Total assets	38107	55036	66080	86352	55643
440 Fixed assets % total	89	92	81	77	78
465 Current assets % total	11	8	19	23	22
485 Liabilities	808	574	3561	6545	1421
500 Net worth	37299	54462	62518	79807	54222
510 Av. farm cap.(exc.land)	18861	24313	38775	54133	30412
515 Gross Inves.(Deadstock)	658	749	2542	3135	3650

TABLE 31 AN EXAMPLE OF STANDARD RESULTS FOR DIFFERENT TYPES OF FARMING

1986/87 - EUR12 - ECU

		ALL TYPES	(A) CEREALS	(B) GENERAL CROPPING	(C) HORTI-CULTURE	(D) VINE-YARDS	(E) OTH.PERM CROPS	(F) DAIRYING	(G) DRYSTOCK	(H) PIGS/ POULTRY	(I) MIXED
	Farms represented	3984051	284202	1085093	115145	212716	545949	583140	494558	60582	599966
	Sample farms	53806	3523	14303	2782	2186	5721	8889	6444	914	9037
005	Economic size unit - ESU	21.5	21.7	19.5	49.4	18.0	11.0	29.3	17.5	45.7	24.0
010	Labour input - AWU	1.57	1.19	1.59	2.55	1.50	1.34	1.66	1.54	1.64	1.71
015	Unpaid labour input- FWU	1.31	0.99	1.31	1.58	1.15	1.00	1.52	1.41	1.24	1.50
025	Util. Agric. Area - ha	24.2	41.4	22.1	3.2	8.9	8.6	28.3	38.2	10.1	29.3
080	Total livestock units-LU	22.4	3.8	5.7	0.3	0.4	0.4	49.2	40.7	169.1	37.7
130	Total output	39539	36900	30964	75528	30977	16278	61054	30825	142575	49568
135	Crops output % total	48	88	83	97	96	95	9	16	6	33
205	animal output % total	49	9	14	0	1	2	88	81	93	64
255	other output % total	3	3	3	3	3	3	2	3	1	4
260	(of wh.farmhouse cons.)	1	1	2	0	3	3	1	2	0	1
265	(of wh. farm use %tot)	6	3	4	0	0	1	7	10	2	10
270	Total Inputs	29862	28558	22037	58370	18579	9256	46617	24416	124588	40626
275	Intermediate consumpt.	20556	18559	13953	35782	9130	4808	33694	17605	106730	29922
280	Specif.costs % In.cons.	70	62	64	53	48	55	72	74	90	75
335	Overheads % In.cons.	30	38	36	47	52	45	28	26	10	25
385	current grants and taxes	323	-471	-40	-71	-226	274	387	1878	-207	380
410	Gross Farm Income	19306	17869	16971	39674	21621	11744	27747	15098	35639	20026
360	Depreciation	4473	4909	3695	8689	4084	1799	6786	3547	8095	5603
415	Farm Net Value Added	14832	12961	13276	30985	17537	9945	20961	11551	27544	14423
365	External factors	4833	5090	4389	13899	5366	2649	6137	3264	9763	5102
405	Investment grants+subs.	177	58	76	1089	270	41	202	371	244	140
420	Family Farm Income	10176	7929	8963	18175	12441	7337	15026	8657	18024	9461
425	Farm Net Value Added/AWU	9431	10920	8357	12150	11664	7439	12601	7496	16834	8455
430	Family Farm Income/FWU	7741	7988	6863	11522	10789	7327	9895	6130	14502	6291
435	Total assets	149757	172467	130479	136822	134560	82679	215352	146293	233678	173889
440	Fixed assets % total	80	82	83	83	74	87	81	76	68	78
465	Current assets % total	20	18	17	17	26	13	19	24	32	22
485	Liabilities	22933	18406	15113	43703	19652	3829	44872	18974	71229	30931
500	Net worth	126825	154061	115366	93119	114908	78850	170480	127319	162450	142958
510	Av. farm cap.(exc.land)	79125	70695	56299	86558	76282	38536	130060	78399	176360	102415
515	Gross Inves.(Deadstock)	3351	2784	2298	7856	3758	1094	5726	2714	8659	4256

TABLE 32 AN EXAMPLE OF STANDARD RESULTS FOR DIFFERENT ECONOMIC SIZE CLASSES

1986/87 - EUR12 - ECU

	ALL Toutes	V Small Tres petite	Small Petite	Med Low Moyenne basse	M. high Moyenne haute	Large Grande	V Large Tres grande	
Farms represented	3984051	943992	817293	817765	935310	399901	69790	Expl.representees
Sample farms	53806	4943	9064	12266	15873	9077	2583	Expl. echantillon
005 Economic size unit - ESU	21.5	3.2	6.4	12.6	29.1	64.9	202.5	Unite de dim.econom.-UDE
010 Labour input - AWU	1.57	1.14	1.33	1.49	1.75	2.25	5.01	Main doeuvre - UTA
015 Unpaid labour input- FWU	1.31	1.05	1.20	1.35	1.50	1.61	1.75	Main doeuvre non-sal.UTF
025 Util. Agric. Area - ha	24.2	6.7	11.2	18.9	33.5	59.7	146.0	Superf. agr. util.- ha
080 Total livestock units-LU	22.4	2.6	5.1	13.6	35.2	71.4	143.6	Cheptel total - UB
130 Total output	39539	7193	12259	23044	54904	121286	315441	Production brute totale
135 Crops output % total	48	71	68	52	41	43	59	prod.br.vegetale % tot.
205 animal output % total	49	26	30	45	56	54	38	prod.br. animale % tot.
255 other output % total	3	3	2	3	3	3	2	autre prod.brute % tot.
260 (of wh.farmhouse cons.)	1	6	4	2	1	0	0	(dont auto-cons. % tot.)
265 (of wh. farm use %tot)	6	7	7	8	6	5	4	(dont auto-util. % tot.)
270 Total Inputs	29862	3988	7194	16365	41762	96677	261083	Charges totales
275 Intermediate consumpt.	20556	2791	5021	11382	29347	67188	165222	Consommat. intermed.
280 Specif.costs % In.cons.	70	68	69	66	69	72	71	Frais specif. % C.int.
335 Overheads % In.cons.	30	32	31	34	31	28	29	Fr. generaux % Cons.In.
385 current grants and taxes	323	186	229	551	520	-6	-158	subv. et taxes dexpl.
410 Gross Farm Income	19306	4587	7467	12213	26077	54092	150061	Revenu Brut dExpl.
360 Depreciation	4473	741	1298	2954	6607	13115	31837	Amortissements
415 Farm Net Value Added	14832	3847	6169	9259	19470	40977	118224	Valeur Aj. Nette dExpl.
365 External factors	4833	456	875	2029	5808	16374	64024	Facteurs exterieurs
405 Investment grants+subs.	177	15	29	188	263	422	1396	Subvent. dequipement
420 Family Farm Income	10176	3405	5323	7419	13925	25025	55595	Revenu dexpl.Familial
425 Farm Net Value Added/AWU	9431	3382	4627	6212	11154	18175	23612	Val.Aj. Net.dexpl/UTA
430 Family Farm Income/FWU	7741	3251	4443	5500	9302	15541	31736	Revenu dExpl. Fam./UTF
435 Total assets	149757	45530	69715	110581	200791	385672	920197	Capitaux totaux
440 Fixed assets % total	80	85	83	81	79	79	80	Capitaux fixes % total
465 Current assets % total	20	15	17	19	21	21	20	Capitaux variab. % tot
485 Liabilities	22933	496	1473	10415	35461	87450	186807	Endettement
500 Net worth	126825	45034	68243	100166	165330	298222	733389	Fonds propres
510 Av. farm cap.(exc.land)	79125	19174	30784	56221	115303	220074	432054	Capital dexpl. moyen
515 Gross Inves.(Deadstock)	3351	315	586	1831	5249	11313	23543	Inv. bruts(chept. mort)

TABLE 33 AN EXAMPLE OF STANDARD RESULTS FOR DIFFERENT LAND AREA CLASSES

1986/87 - EUR12 - ECU

	General TF OTE Gener. 1,3,4,6,7,8	< 5 ha	5-10 ha	10-20 ha	20-30 ha	30-50 ha	> 50 ha	
Farms represented	3805624	1089803	673494	680591	450049	468024	443663	Expl.representees
Sample farms	50103	9437	9299	9594	5965	7081	8727	Expl. echantillon
005 Economic size unit - ESU	20.3	6.2	9.6	16.3	24.0	32.7	60.5	Unite de dim.econom.-UDE
010 Labour input - AWU	1.54	1.31	1.39	1.46	1.57	1.64	2.31	Main doeuvre - UTA
015 Unpaid labour input- FWU	1.31	1.20	1.27	1.30	1.39	1.43	1.42	Main doeuvre non-sal.UTF
025 Util. Agric. Area - ha	25.0	2.8	7.3	14.7	25.0	38.9	107.8	Superf. agr. util.- ha
080 Total livestock units-LU	20.8	3.7	5.7	15.8	30.4	42.4	60.5	Cheptel total - UB
130 Total output	36827	11527	16940	30009	47018	63134	101532	Production brute totale
135 Crops output % total	48	73	67	47	34	35	52	prod.br.vegetale % tot.
205 animal output % total	49	25	31	50	62	62	45	prod.br. animale % tot.
255 other output % total	3	2	2	3	4	3	3	autre prod.brute % tot.
260 (of wh.farmhouse cons.)	1	4	3	2	1	1	1	(dont auto-cons. % tot.)
265 (of wh. farm use %tot)	6	4	8	8	7	6	5	(dont auto-util. % tot.)
270 Total Inputs	27504	6015	10075	21407	36199	49621	83945	Charges totales
275 Intermediate consumpt.	18733	4042	6853	15164	25865	34793	54149	Consommat. intermed.
280 Specif.costs % In.cons.	69	71	69	69	69	69	69	Frais specif. % C.int.
335 Overheads % In.cons.	31	29	31	31	31	31	31	Fr. generaux % Cons.In.
385 current grants and taxes	343	134	219	290	530	533	738	subv. et taxes dexpl.
410 Gross Farm Income	18437	7618	10306	15136	21683	28873	48121	Revenu Brut dExpl.
360 Depreciation	4290	1112	1900	3544	5710	7622	11918	Amortissements
415 Farm Net Value Added	14147	6507	8406	11591	15973	21252	36204	Valeur Aj. Nette dExpl.
365 External factors	4480	861	1322	2699	4623	7206	17878	Facteurs exterieurs
405 Investment grants+subs.	148	19	28	159	260	269	388	Subvent. dequipement
420 Family Farm Income	9815	5665	7113	9051	11609	14315	18714	Revenu dexpl.Familial
425 Farm Net Value Added/AWU	9178	4948	6029	7939	10183	12950	15648	Val.Aj. Net.dexpl/UTA
430 Family Farm Income/FWU	7504	4702	5588	6978	8360	9985	13208	Revenu dExpl. Fam./UTF
435 Total assets	148889	54585	85966	132185	178575	231608	384306	Capitaux totaux
440 Fixed assets % total	81	82	82	80	80	80	81	Capitaux fixes % total
465 Current assets % total	19	18	18	20	20	20	19	Capitaux variab. % tot
485 Liabilities	21549	1938	4282	14419	31558	48195	68610	Endettement
500 Net worth	127340	52647	81685	117766	147017	183413	315696	Fonds propres
510 Av. farm cap.(exc.land)	77388	25480	42185	69915	103494	133186	184449	Capital dexpl. moyen
515 Gross Inves.(Deadstock)	3131	526	1004	2702	4798	6308	8376	Inv. bruts(chept. mort)

TABLE 34 AN EXAMPLE OF STANDARD RESULTS FOR DIFFERENT INCOME CLASSES (FNVA/AWU)

1986/87 - EUR12 - ECU

	ALL FARMS	TOUTES EXPL.	<=4000	>4000-<=8000	>8000-<=12000	>12000-<=24000	>24000	
	Farms represented	3984051	1370023	1004724	587100	737669	284535	Expl.representees
	Sample farms	53806	12953	13116	9115	12772	5850	Expl. echantillon
005	Economic size unit - ESU	21.5	9.5	13.6	22.0	36.8	67.0	Unite de dim.econom.-UDE
010	Labour input - AWU	1.57	1.55	1.50	1.55	1.66	1.76	Main doeuvre - UTA
015	Unpaid labour input- FWU	1.31	1.38	1.30	1.27	1.28	1.22	Main doeuvre non-sal.UTF
025	Util. Agric. Area - ha	24.2	14.5	18.4	26.7	37.0	52.4	Superf. agr. util.- ha
080	Total livestock units-LU	22.4	10.0	14.0	23.9	38.9	65.9	Cheptel total - UB
130	Total output	39539	13227	22763	39854	70917	143462	Production brute totale
135	Crops output % total	48	51	52	48	46	48	prod.br.vegetale % tot.
205	animal output % total	49	46	45	49	50	49	prod.br. animale % tot.
255	other output % total	3	3	3	3	3	3	autre prod.brute % tot.
260	(of wh.farmhouse cons.)	1	4	2	1	1	0	(dont auto-cons. % tot.)
265	(of wh. farm use %tot)	6	9	7	6	5	4	(dont auto-util. % tot.)
270	Total Inputs	29862	12524	16799	29786	52501	100928	Charges totales
275	Intermediate consumpt.	20556	8618	11619	20565	36114	69236	Consommat. intermed.
280	Specif.costs % In.cons.	70	67	69	69	70	73	Frais specif. % C.int.
335	Overheads % In.cons.	30	33	31	31	30	27	Fr. generaux % Cons.In.
385	current grants and taxes	323	228	382	485	372	106	subv. et taxes dexpl.
410	Gross Farm Income	19306	4837	11526	19774	35175	74332	Revenu Brut dExpl.
360	Depreciation	4473	2396	2785	4550	7383	12734	Amortissements
415	Farm Net Value Added	14832	2442	8741	15224	27792	61598	Valeur Aj. Nette dExpl.
365	External factors	4833	1510	2395	4671	9004	18958	Facteurs exterieurs
405	Investment grants+subs.	177	112	95	185	322	383	Subvent. dequipement
420	Family Farm Income	10176	1043	6441	10737	19110	43024	Revenu dexpl.Familial
425	Farm Net Value Added/AWU	9431	1579	5820	9830	16704	34942	Val.Aj. Net.dexpl/UTA
430	Family Farm Income/FWU	7741	756	4949	8444	14899	35269	Revenu dExpl. Fam./UTF
435	Total assets	149757	82066	104921	152645	233068	412061	Capitaux totaux
440	Fixed assets % total	80	83	82	81	79	78	Capitaux fixes % total
465	Current assets % total	20	17	18	19	21	22	Capitaux variab. % tot
485	Liabilities	22933	8670	10409	21651	40816	92111	Endettement
500	Net worth	126825	73397	94512	130994	192252	319950	Fonds propres
510	Av. farm cap.(exc.land)	79125	42310	51869	79035	126929	228887	Capital dexpl. moyen
515	Gross Inves.(Deadstock)	3351	1358	1733	3300	5842	12306	Inv. bruts(chept. mort)

8. The RICA FORECASTING SYSTEM (RFS)

8.1 Objectives

The RFS has two objectives:

i) to bring the Standard Results up to date. Such an exercise is known as an 'updating' and is necessary because there is a lag of normally two years between the reference year and the publication of results (see 8.2).

ii) to enable the Commission to make short-term forecasts and to simulate scenarios. For instance, if the prices of particular inputs increase by X%, then what would be the expected consequences for, say, farmers' income? As another example, if the price of a product changes, what might be the expected effects on farmers' income? Such exercises are considered as 'ad hoc' simulations and are discussed in 8.3.

8.2 Standard updates

8.2.1 How is the updating done?

A questionnaire is sent to Liaison Agencies each year, asking them for information on changes in prices and quantities of farm inputs and outputs in the latest accounting year. These values are introduced as coefficients into the model to calculate changes for a range of variables (the most important being income) for each type of farming. The example on page 78 illustrates the procedure.

8.2.2 Sequence of standard updating exercises

During the year, several updating exercises are done. A first, provisional estimate of income indicators for the current accounting year is made at the beginning of December. Further estimates are made as more information becomes available.

8.2.3 Example of output

Table 35 shows the results of an updating exercise. It gives the percentage change in Net Farm Value Added per Annual Work Unit between 1985/6 and 1986/7.

8.3 Ad hoc updates

The RFS enables the Commission to make projections from the present and to set up and explore scenarios. In this way, the RFS can be used as a model of the financial and economic situation of farms in the Community.

8.4 Limitations of the RFS system: the RFS II Farm Model

The basic RFS model does not take into account substitution which may occur between different agricultural enterprises: for example, a farmer may expand wheat production by reducing forrage-based activities. To take account of changes of this type, a more sophisticated model - the RFS II Farm Model - is under development.

EXAMPLE OF UPDATING

Suppose that the following information is known for year X for a particular farm. Such information will have been derived from the Farm Return:

	Wheat production	Wheat price	Cost of inputs
Year X	5 t	100 ECU/t	300 ECU/ha

From the above, it is possible to compute the farmer's gross output per hectare from growing wheat and his net value added per hectare. Gross output per hectare is the product of wheat production per hectare and price per tonne, i.e. 5 x 100 = 500 ECU/ha. Net value added per hectare is the difference between gross output and costs of inputs, i.e. 500 - 200 = 300 ECU/ha. These figures relate to Year X.

The Liaison Agency supplies its latest estimates, on a national basis, of the percentage change between years X and Y in wheat production, wheat prices and the value of inputs. Suppose these are as follows:

	Wheat production	Wheat price	Cost of inputs
% change Year X to Year Y	5 % increase	2 % increase	4 % increase

The three variables in the data base are now updated as follows :

	Wheat production	Wheat price	Cost of inputs
Year Y	5.25 t	102 ECU/t	312 ECU/ha

It is now possible to calculate the percentage increase in gross output and net value added as shown below:

	Gross output (ECU/ha)	Costs of inputs (ECU/ha)	Net Value Added (ECU/ha)
Year X	500	300	200
Year Y	535.5	312	223.5
% change	7.1% increase	4% increase	11.75% increase

Table 35 An example of a forecasting exercise using RFS: the percentage change in Net Value Added per Annual Work Unit from 1986 to 1987 in real terms.

Type of farming	BEL	DAN	DEU	ELL	ESP	FRA	IRE	ITA	LUX	NED	POR	UK	EUR12
CEREALS		-43	-41	-4	30	12	22	-7			3	-20	5
GENERAL CROPPING	-28	-33	-36	-5	6	13	4	-24		-41	-3	-10	-9
HORTICULTURE	60	24	0	16	32	19		0		17	38	-6	17
VINEYARDS			-34	-5	22	-18		85	-79		33		-14
OTHER PERMANENT CROPS	15	-45	-12	-7	22	-23		5		9	10	-19	-8
DAIRYING	-2	0	-23	-5	4	-10	21	-21	-7	0	2	-7	-4
BEEF	-6		-34	1	4	-4	117	-30		22	40	12	-13
MIXED CATTLE	3		-24		3	-8	24	-1	10		-28	-4	-2
SHEEP AND GOATS			-25	22	4	-7	20	-3			37	12	9
PIGS AND POULTRY	-15	5	-51	14	7	-1		-65		-24	-60	8	-13
MIXED CROPPING	-13	14	-32	1	20	-5		20			0	-10	-5
MIXED LIVESTOCK	-2	33	-33	14	10	-11		7	3	-14	-29	-4	-16
MIXED	-14	-4	-40	7	13	-2	18	-10	-38	-26	-5	-6	-8
ALL	-4	-8	-28	0	14	-5	27	-13	-10	-3	-1	-7	-5

Source : FADN VI/A-3

ANNEX I Bibliography of Publications

1. Farm Return

CEC - FADN (1987)
Farm Accountancy Data Network: Handbook of legislation instructions, notes for guidance. Section II: The Legislation
Document.

CEC - FADN (1988)
Farm Accountancy Data Network: Handbook of legislation instructions, notes for guidance. Revision January 1988. Section III: The Farm Return.
Document.

2. Typology and Farm Structure Survey

Old Typology

CEC - FADN (1984 d)
The Farm Accountancy Data Network: Handbook of legislation, instructions, notes for guidance: Section IV: The Community typology for agricultural holdings.

New Typology

CEC - Eurostat (1986)
Farm structure - methodology of Community surveys: Theme 5 (agriculture, forestry and fisheries) Series E (methods).

3. Some examples of FADN Standard Output

CEC - FADN (1985)
The Farm Accountancy Data Network: Farm Accounts Results 1981/2 - 1982/3.
Document.

CEC - FADN (1986)
The Farm Accountancy Data Network: Farm Accounts Results 1982/3 - 1983/4.
Document.

CEC - FADN (1988)
The Farm Accountancy Data Network: Economic Situation of Agricultural Holdings in the EEC - Report 1987
Document.

4. Other applications of FADN

CEC - Green Europe (1985)
Income disparities in agriculture in the Community.
Green Europe No. 208.

CEC - Green Europe (1986)
Agricultural incomes in the European Community in 1985
Green Europe: Newsflash no. 32 April 1986.

CEC - The Agricultural Situation in the Community (Annual Series)
Report published in conjunction with the annual General Report on the Activities of the European Communities.

5. Other technical documents

Key to variables used in FADN standard outputs	RI/CC/882 rev. 3
Control Programme for the Community Farm Return	RI/CC/988
Weighting system	RI/CC/993 and RI/CC/848
RFS system	RI/CC/952
Continuity test	RI/CC/980

ANNEX II

FADN Legislation

List of instruments in force on 1 October, 1986

1. **Creation of the Farm Accountancy Data Network**

- Council Regulation No 79/65/EEC[1] of 15 June 1965 setting up a network for the collection of accountancy data on the incomes and business operation of agricultural holdings in the European Economic Community.

  OJ No 109, 23.06.1965

  amended by:

. Regulation (EEC) No 2835/72 of 29 December 1972

  OJ No L 298, 31.12.1972

. Council Decision of 1 January 1973 adjusting the instruments concerning the accession of the new Member States to the European Communities.

  OJ No L 2, 01.01.1973

. Regulation (EEC) No 2910/73 of 23 October 1973

  OJ No L 299, 27.10.1973

. Council Regulation (EEC) No 2143/81 of 27 July 1981

  OJ No L 210, 30.07.1981

. Act concerning the conditions of accession of the Hellenic Republic and the adjustments to the Treaties.

  OJ No L 291, 19.11.1979

. Documents concerning the accession of the Kingdom of Spain and the Portuguese Republic to the European Communities.

  OJ No L 302, 15.11.1985

. Regulation (EEC) No 3123/85 of 6 November 1985

  OJ No L 297 09.11.1985

. Regulation (EEC) No 3644/85 of 19 December 1985

  OJ No L 348, 24.12.1985

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(1) The texts of these legal instruments are given in:
CEC - FADN (1987)
Farm Accountancy Data Network: Handbook of legislation instructions, notes for guidance. Revision March 1987. Section II: The Legislation. Document.

. Regulation (EEC) No 3768/85 of 20 December 1985

OJ No L 362, 31.12.1985

. Regulation (EEC) No 1986/87 of 7 July 1987

OJ No L 188, 08.07.1987

2. **Selection of returning holdings**

- Regulation (EEC) No 1859/82(1) of 12 July 1982 concerning the selection of returning holdings for the purpose of determining incomes of agricultural holdings.
This Regulation repeals Regulation No 91/66/EEC of 29 June 1966 (OJ No L 21, 04.07.1966) and the Regulations amending it.

OJ No L 205, 13.07.1982

amended by:

. Regulation (EEC) No 13/84 of 4 January 1984

OJ No L 3, 05.01.1984

. Regulation (EEC) No 1561/84 of 5 June 1984

OJ No L 150, 06.06.1984

. Regulation (EEC) No 3368/84 of 30 November 1984

OJ No L 313, 01.12.1984

. Regulation (EEC) No 3122/85 of 6 November 1985

OJ No L 297, 09.11.1985

. Regulation (EEC) No 3548/85 of 16 December 1985

OJ No L 338, 17.12.1985

3. **Collection, verification and forwarding of accountancy data**

- Commission Regulation (EEC) No 1915/83(1) of 13 July 1983 on certain detailed implementing rules concerning the keeping of accounts for the purpose of determining the incomes of agricultural holdings.

OJ No L 190, 14.07.1983

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(1) The texts of these legal instruments are given in:
CEC - FADN (1987)
Farm Accountancy Data Network: Handbook of legislation instructions, notes for guidance. Revision March 1987. Section II: The Legislation. Document.

4. **The Farm Return**

- Commission Regulation (EEC) No 2237/77 of 23 September 1977 on the form of Farm Return to be used for the purpose of the determining incomes of agricultural holdings.

OJ No L 263, 17.10.1977

amended by:

. Regulation (EEC) No 600/79 of 29.03.1979

OJ No L 78, 30.03.1979

. Regulation (EEC) No 3272/82 of 06.12.1982

OJ No L 347, 07.12.1982

. Regulation (EEC) No 3123/85 of 06.11.1985

OJ No L 297, 09.11.1985

5. **The Community typology for agricultural holdings**

- Commission Decision 78/463/EEC of 7 April 1978 establishing a Community typology for agricultural holdings.

OJ No L 148, 05.06.1978

amended by:

. Commission Decision 84/260/EEC of 29 February 1984

OJ No L 128, 14.05.1984

. Commission Decision 84/542/EEC of 11 October 1984

OJ No L 293, 10.11.1984

. Commission Decision 95/977/EEC of 7 June 1985

OJ No L 220, 17.08.1985

6. **The keeping of accounts in connection with the improvement of the efficiency of agricultural structure**

. Council Regulation (EEC) No 797/85(1) of 12 April 1985 on improving the efficiency of agricultural structures.

OJ No L 93, 30.03.1985

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(1) The texts of these legal instruments are given in:
CEC - FADN (1987)
Farm Accountancy Data Network: Handbook of legislation instructions, notes for guidance. Revision March 1987. Section II: The Legislation. Document.

ANNEX III Multilingual glossary of FADN terms

	ENGLISH	FRANCAIS	DEUTSCH	ITALIANO	ESPAÑOL
002	Farms represented	exploit. représentées	vertretene Betriebe	numero aziende rappres.	explotaciones repres.
003	Sample farms	exploit. échantillon	Auswahlbetriebe	numero aziende selezio.	explotac. de la muestra
004	Exchange rate	taux de change	Umrechnungskurs	tasso d'avvicendamento	tipo de cambio
005	Economic Size	dimension économique	Wirtschaftsgröße	dimensione economica	dimension economica
010	Labour input	main d'oeuvre	Arbeitskräfteeinsatz	manodopera totale	mano de obra
015	Unpaid labour input	main d'oeuvre non-sal.	Familienarbeitskräfte	manodopera non salaria.	mano de obra no asalar.
020	Paid labour input	main d'oeuvre salariée	Lohnarbeitskräfte	manodopera salariata	mano de obra asalariada
025	Utilized Agricult. Area	superficie agric. util.	Landwrt. genutze Fläche	superficie agric. util.	superficia agric. util.
030	Rented U.A.A.	SAU en fermage	gepacht LF	SAU in affitto	SAU arrendada
035	Cereals	céréales	Getreide	cereali	cereales
040	Other field crops	autres cult.plein champ	andere Ackerfrüchte	altre colt. pieno campo	otros cult. extensivos
045	Market gard. & flowers	maraîchage et fleurs	Gartenbau und Blumen	orticoltura e fiori	hortalizas y flores
050	Vineyards	vignes	Rebanlage	vigneti	vinedos
055	Orcharding	arboriculture fruitière	Obstanlagen	arboricoltura fruttale	arboles frutales
060	Olive groves	oliveraies	Olivenhaine	oliveti	olivares
065	Other permanent crops	autres cultures perman.	übrige Dauerkulturen	altre colture perman.	otros cultivos perman.
070	Forage crops	cultures fourragères	Futterbau	colture foraggere	cultivos forrajeros
075	Woodland area	forêts	Wald	foreste	bosques
080	Total livestock units	cheptel total	Gesamtviehbesatz	unità bestiame totale	cabana total
085	Dairy cows	vaches laitières	Milchkühe	vacche da latte	vacas lecheras
090	Other cattle	autres bovins	übrige Rinder	altri bovini	otros bovinos
095	Sheep and goats	ovins et caprins	Schafe und Ziegen	ovini e caprini	ganado ovino y caprino
100	Pigs	porcs	Schweine	suini	ganado porcino
105	Poultry	volailles	Geflügel	pollame	aves de corral
110	Yield of wheat	rendement blé	Weizenertrag	resa del frumento	rendimiento de trigo
115	Yield of maize	rendement maïs	Maisertrag	resa granturco	rendimiento de maiz

	ENGLISH	FRANCAIS	DEUTSCH	ITALIANO	ESPAÑOL
120	Graz.livest./forage ha	UB herbiv./ha SAU four.	VE Rinder/ha Futterfl.	UBG pascolo/ha a for.	UG herb./ha SAU forr.
125	Milk yield - kg/cow	rend. lait - kg/vache	Milchleistung- kg/Kuh	resa di latte-kg/vacca	rend. de leche-kg/vaca
130	Total output	production brute totale	Gesamterzeugung	produzione lorda totale	produccion total
135	Crops output % total	prod.br.végétale % tot.	pflanzliche Erzeugung %	coltiv.e prod.veget. %	produc. vegetal % tot.
140	Cereals	céréales	Getreide	cereali	cereales
145	Protein crops	protéagineux	Eiweißpflanzen	leguminose essiccate	plantas proteaginosas
150	Potatoes	pommes de terre	Kartoffeln	patate	patatas
155	Sugar beets	betteraves sucrières	Zuckerrüben	barbab. da zucchero	remolacha azucarera
160	Oil seed crops	oléagineux	Ölsaaten	oleaginose	semillas oleaginosas
165	Industrial crops	plantes industrielles	Industriepflanzen	piante industriali	plantas industriales
170	Vegetables & flowers	légumes et fleurs	Gemüse und Blumen	ortaggi e fiori	hortalizas y flores
175	Fruit	fruits	Obst	frutta	frutas
180	Citrus fruit	agrumes	Zitrusfrüchte	agrumi	citricos
185	Wine and grapes	vin et raisins de table	Wein und Trauben	vino e uva	vino y uva de mesa
190	Olives and olive oil	olives et huile d'ol.	Oliven und Olivenöl	olive e olio d'oliva	aceitu.y ace. de oliva
195	Forage crops	cult.fourragères	Futterpflanzen	foraggio	cultivos forrajeros
200	Other crop output	aut.pr.brute végétale	übrige pflanzliche Erz.	alt.coltiv.e prod.veg.	otra prod.bruta vegetal
205	Animal output % total	prod.br.animale % tot.	tierische Erzeugung %	animali e prod. anim. %	produc. animal % tot.
210	of wh. change in value	dont variat. d'invent.	dav.Bestandsveränderng	di cui var. valore	var.de inv.(del gan.)
215	Cows' milk & prod.	lait vache & prod.lait.	Milch und Milchprodukte	latte di vacca e prod.	leche vac.y pro.lact.
220	Beef and veal	viande bovine	Rindfleisch	carni bovine	carne de vacuno
225	Pigmeat	viande porcine	Schweinefleisch	carni suine	carne de porcino
230	Sheep and goats	viande ovine et caprine	Schaf- u. Ziegenfleisch	carni ovine e caprine	carne de ovin.y caprin.
235	Poultrymeat	viande de volaille	Geflügelfleisch	carni di pollame	carne de ave de corral
240	Eggs	oeufs	Eier	uova	huevos
245	Sheep's and goats' milk	lait brebis et chevre	Schaf- und Ziegenmilch	latte ovine e caprine	leche de oveja y cabra
250	Other livestock & prod.	autre product. animale	übr. tier. Erzeugung	altri animali e prod.	otra produccion animal
255	Other output % total	autre prod.brute % tot.	sonstige Erzeugung %	altre produzioni %	otra produccion % tot.
260	of wh. farm use % tot.	dont auto-util. % tot.	dav. innerbetr.Verbr.%	di cui reimpieghi %	incl. reempleo. % tot.
265	of wh. farmhouse cons.	dont auto-con. % tot.	dav. Eigenverbrauch %	di cui autocons.% tot.	incl. autocons. % tot.
270	Total inputs	charges totales	Gesamtaufwand	oneri totali	gastos totales
275	Intermediate Consumpt.	consommat. interméd.	Vorleistungen	consumo intermedio	consumo intermedio
280	Specif.costs % In.Cons.	frais spécif. % C.int.	spezifischen Aufwand %	oneri specifici % CI	gastos esp. % con.int.
285	Seeds and plants	semences et plants	Saat- und Pflanzgut	sementi e piante	semillas y plantones
290	of which home-grown	dont auto-utilisés	dav. selbst erzeugte	di cui prod. nell'az.	incl.los de prod.prop.

	ENGLISH	FRANCAIS	DEUTSCH	ITALIANO	ESPAÑOL
295	Fertilizers	engrais	Düngemittel	fertilizzanti	abonos
300	Crop protection	protection des cult.	Pflanzenschutzmittel	prod. difesa colture	proteccion de cultivos
305	Other crop specific	autres spéc. de cult.	übr. Kosten pf.Erzeug	altri spec. per colt.	otr.gastos de los cult.
310	Feed grazing livestock	aliments pour herbiv.	Futtermittel Rinder	alim. best. al pascolo	aliment.para herbivoros
315	of which home-grown	dont auto-utilisés	dav. selbst erzeugte	di cui prod. nell'az.	incl.los de prod.prop.
320	Fdgstfs, pigs & poultry	aliments pour graniv.	Futterm.Schweine & Gef.	alimenti suini e poll.	alim. para por. y aves
325	of which home-grown	dont auto-utilisés	dav. selbst erzeugte	di cui prod. nell'az.	incl.los de prod.prop.
330	Other livestock spec.	aut. fr. spec. d'élev.	übr. Kosten tier. Erz.	altri spec. per best.	otr.gas.de la ganaderia
335	Overheads % In. cons.	fr. généraux % con. in.	Gemeinkosten %	oneri generali % CI	gastos gen.% con.int.
340	Machinery & bldg. costs	entretien bât. & mat.	Unterhtg. Masch.u. Geb.	spese macch. e fabbric.	gastos de maq.y edif.
345	Energy	énergie	Energie	energia	energia
350	Contract work	travaux par tiers	Arbeitsleistung. Dritt.	lavori eseg. da terzi	trabajos por terceros
355	Other direct inputs	autres frais non-spéc.	übr. direkter Aufwand	altri oneri diretti	otros gastos no espec.
360	Depreciation	amortissements	Abschreibung	ammortamenti	amortizaciones
365	External factors	facteurs extérieurs	zugekaufte Faktoren	fattore esterno	factores externos
370	Wages paid	salaires payés	Löhne	retribuzione pagata	salarios pagados
375	Rent paid	fermage payé	Pacht	canoni di affitto pag.	arrendamientos pagados
380	Interest pd. (- subs.)	intér. payés (- subv.)	Zinsen abzgl. Zinsbeihf	inter. pag. netto sovv.	inter. pag. (sin subv.)
385	Current grants & taxes	subv. et taxes d'expl.	Subv. und Steuern	sovv. e imposte	subv. e impuestos
390	Taxes (except VAT)	impôts & tax (TVA exc.)	Steuern auß.MWSt.-Saldo	imposte net. (IVA exc.)	impuestos (excepto IVA)
395	VAT balance	balance TVA	MWSt.-Saldo	imposte netti IVA	saldo de IVA
400	Subs. on prod. & costs	subv. d'exploitation	Beihf.auf Erzg.& Kosten	sovv. alla prod.e costi	sub.a la prod. y costes
405	Investmnt grants & sub.	subvent. d'équipement	Präm.u.Beihf.auf Inv.	sovvenzioni agli inv.	primas y subv.al equip.
410	Gross Farm Income	revenu brut d'expl.	Bruttobetriebseinkommen	reddito lordo aziendale	renta bruta de la expl.
415	Farm Net Value Added	val. aj. nette d'expl.	Betriebseinkommen	prod. netto del.azienda	val.an.net.de la expl.
420	Family Farm Income	revenu d'expl. familial	Familienbetriebseinkom.	reddito cond.e famiglia	Renta Familiar Agraria
425	Farm Net Val. Added/AWU	val.aj.net.d'expl./UTA	Betriebseinkommen/JAE	prod.net.dl.azienda/ULA	V.A.N.E./UTA
430	Family Farm Income/FWU	revenu d'expl.fam./UTF	Familienbetriebs./FJAE	reddito cond.e fam./ULF	Renta Familiar Agr./UTF
435	Total assets	capitaux totaux	Gesamtkapital	capitale totale	capital total
440	Fixed assets % total	capitaux fixes % total	Anlagevermögen %	capitale fisso % totale	activo fijo % total
445	Land & permanent crops	terres et cult. perm.	Boden und Dauerkulturen	terreni e colt. perm.	tierras y cult.perm.
450	Buildings	bâtiments	Gebäude	fabbricati	edificios
455	Machinery	matériel	Maschinen	macchine	maquinaria
460	Breeding livestock	cheptel reproducteur	Zuchtvieh	anim. da riproduzione	ganado reproductor

ENGLISH	FRANCAIS	DEUTSCH	ITALIANO	ESPAÑOL
465 Current assets % total	capitaux variab. % tot.	Umlaufvermögen %	capitale variab. % tot.	activo circul. % total
470 Non-breeding livestock	cheptel non-reproduct.	Mastvieh	best. esc. da riprod.	ganado no reproductor
475 Stock agric. products	stock de produits agr.	landwirt.Prod.auf Lager	stoccaggio di prod.agr.	exist.de productos agr.
480 Other circ. capital	autre capital circul.	and.Umlaufvermögen o.V.	altre capitale circol.	otro capital circul.
485 Liabilities	endettement	Verbindlichkeiten	indebitamente	endeudamiento
490 Long & med. term loans	emp.à long et moy.terme	lang u.mittelfrst.Verb.	prestiti lungo e medio	prest.a lar.y med.plazo
495 Short-term loans	emprunts à court terme	kurzfristige Verbind.	prestiti a breve term.	prestamos a corto plazo
500 Net worth	fonds propres	Eigenkapital	patrimonio netto	fondos propios
505 Change in Net Worth	variation fonds propres	Eigenkapitalveränderung	var. patrimonio netto	var. fondos propios
510 Av.farm cap.(exc. land)	capital d'expl. moyen	Durschn.Betr.Kap.o.Bod.	capitale aziendale med.	capital med. de explot.
515 Gross Inves.(Deadstock)	inv.bruts (chept. mort)	Bruttoinvestit.o.Boden	invest.lordo esc.terr.	invers. brutas (mat.)
520 Net Invest. (Deadstock)	inv. nets (chept. mort)	Nettoinvestit. o. Boden	invest.netto esc.terr.	invers. netas (mat.)
525 Cash-Flow	marge brute d'autofin.	Cash-flow	red.lordo d'autofinan.	cash-flow
530 F.F.I. % Net Worth	R.E.F. % fonds propres	Fam.bet. % Eigenkapital	R.C.F.% patrimonio net.	R.F.A. % fondos propios
535 C.F. % Net Worth	M.B.A. % fonds propres	C.F. % Eigenkapital	R.L.A.% patrimonio net.	C.F. % fondos propios

Accounting year	année comptable	Rechnungsjahr	anno contabile	ejercicio contable
Classes of UAA	classes de SAU	LF-klassen	classe di SAU	clase de SAU
FADN	RICA	INLB	RICA	RICA
Farm Accountancy Data Network	Réseau d'Information Comptable Agricole	Informationsnetz landwirtschaftlicher Buchführungen	Rete d'Informazione Contabile Agricola	Red de Informacion Contable Agricola
Field of observation	champ d'observation	Beobachtungsfeld	campo d'osservazione	campo de observacion
Income class	classe de revenu	Einkommensklasse	classe di reddito	clase de renta
Index	index	Index	indice	indice
Productivity	productivité	Produktivität	produttività	productividad
Sample	échantillon	Stichprobe	campione	muestra
SGM	MBS	SDB	RLS	MBE
Size class	classe de dimension	Wirtschaftsgrössenklass	classe di dimensione	clase de dimension
Standard Gross margin	marge brute standard	Standarddeckungsbeitrag	reddito lordo standard	margen bruto estandar
Summary table	tableau récapitulatif	zusammenfassend.Tabelle	quadro riassuntivo	cuadro resumen
Type of farming - TF	orientation technico-économique - OTE	betriebswirtschaftliche Ausrichtung - BW	orientamento tecnico-economico - OTE	orientacion tecnico-ec. de la explot. - OTE
Weighting	pondération	Gewichtung	ponderazione	ponderacion

ANNEX IV

TEST TYPES I AND II

Type 1 tests : leading to the rejection of the Farm Return unless corrections are made

Test No	Purpose of test
1.01	Farm Returns bearing the same number
1.02 and 1.03	Computing errors rendering the recording useless
1.05	Less-favoured area code
1.06	Table K (production) blank
1.10	The FADN district code is unknown
2.04	It is not the correct accounting year
3.01, 3.02, 37.02	Recording error in respect of area (Tables B and K)
5.00	Non-coherence of Table C (labour)
9.00	Non-coherence of Table D (livestock)
11.00	Livestock products (Table K) without livestock in (Table D)
26.00	Non-coherence of Table G (capital)
33.00	Non-coherence of Table H (debts)
34.00	Non-coherence of Table I (VAT)
35.00	Non-coherence of Table J (subsidies)
36.01	Product code unknown in Table K (production)
36.02	Type of crop unknown in Table K (production)
36.07	Crop in respect of area in Table K
36.08	Error in respect of area for crops in Table K
37.00	Non-coherence in Table K (production) among total, sub-total and detail headings
43.02	lack of sales

Type 2 tests : the correction of errors spotted is essential, but exceptions are possible (to be discussed with the Member States)

N° of test	Purpose of test
1.08	Holding not within FADN field
1.09 and 36.06	Farm Return with negative values
3.03. and 3.07	Error in respect of land and buildings
3.04	Error in respect of rental value
3.05	Absence of rent paid
3.08	Rent paid without rented area
3.10,20.01,20.02,43.02	"Aberrant" level of activity for a commercial farm
8.03	Error in respect of wages paid
10.00	Non-consistency between Tables D and E (livestock, livestock purchases and sales)
13.00	Average livestock number is aberrant
20.03 to 20.10 21.01 to 21.03 22.01 23.01 24.01	))) Non-consistency between costs (Table F)) and farming activities)
20.06	Absence of wages paid
21.03	Absence of interest paid
21.06	Error of "missing value" code for interest paid
21.07 and 21.08	Error of "missing value" code for debts
27.01	Absence of depreciation
27.12 to 27.17	Error of "missing value" code in Table G (capital)
31.01 to 31.03	Holding without machinery or equipment
32.01	Surprising level of debts
36.04 to 36.06	Non-coherence of Table K (production)
42.11	Livestock under contract in Table K (production) without average in Table D (livestock)

ANNEX V

INDEX

A

accounting years 5, 7, 18-20, 39, 47, 53, 54, 58, 61, 67, 68, 77, 91
ad hoc analyses 49, 69, 77
aggregation of cells 52, 53, 55-61
assets 67, 68

B

bias 4, 56

C

capital indicators 61, 68
cash-flow 1, 66
classification 4, 10, 15, 47, 49, 69
collection of data 2, 39-46, 50, 83, 84
Commission (of the European Communities) 1-4, 7, 9, 10, 14, 15, 17, 20, 39, 41-50, 53-56, 58, 61, 69, 71, 77, 84, 85
Community Committee 2, 9, 20, 54
confidentiality (of Farm Return) 1, 5, 39, 69
continuity tests 49, 53, 82
control procedures 1, 47-49, 53
control programme 47-50, 82
conversion (of Farm Returns) 2, 47, 48, 50
conversion rates (ECU - national currencies) 61, 71
CRONOS 61
Community FADN Farm Return 1, 17, 20, 39, 47, 50

D

data control 20, 47, 53, 54
definitions (see variables)
depreciation 39, 66, 67, 92

E

economic size (of farms) 4-7, 9, 10, 13, 16, 17, 24, 39, 69
European Size Unit (ESU) 4-8, 13, 16, 17, 25-37
European Currency Unit (ECU) 4, 5, 7, 61, 71, 78
Eurostat 3, 4, 8, 10, 12, 17, 61, 81

F

Family Farm Income (FFI) 1, 4, 66, 67, 69, 77
Farm Structure Survey (FSS) 4, 8, 17, 24, 55, 56, 59, 81
field of observation 3, 5, 8-10, 13, 16, 17, 20-22, 24-26, 29-31, 33, 34, 36, 40, 55, 56, 57, 59

G

gross farm income 66

H

heterogeneity 9, 17
homogeneity tests 49, 50, 53

I

income classes 69, 76
income indicators 66, 67, 77
investments 39, 40, 66, 67

L

labour 8, 39
land area classes 53, 69, 75
liabilities 68
Liaison Agencies 2, 4, 9, 17, 18, 20, 21, 39-48, 50, 53-56, 77, 78
likelihood tests 50
livestock units 61, 70

M

Member States 1, 2, 5, 8-10, 12, 17, 18, 20, 21, 24, 25, 39-41, 47, 50, 53-55, 58, 61, 69, 71, 83, 92

N

national surveys 9, 24, 55, 56, 59
net value added 66, 77-79
net worth 68
NUTS 10, 12

O

Official Journal (of the European Communities) 2-4, 15, 39
organisational structure (for data collection) 40-46
outlyers 50, 53

P

participation (of farmers in FADN) 2, 20-22, 56

R

randomisation 17, 20, 21
regions 1, 4, 9-12, 16, 40-47, 50, 53, 58, 61, 72
regulations 2, 3, 7, 10, 20, 23, 39, 47, 54, 70, 83-85
RFS 77-79, 82
RFS II farm model 78

S

sample size 17, 20-25
sampling fractions 17, 25-37, 55, 56, 59
selection plan 9, 17, 20-22, 24
selective printing 69
size of sample (see sample size)
SOEC (see Eurostat)
standard gross margin (SGM) 4-7, 10, 15, 47
standard groupings 61
Standard Results 10, 12, 14, 49, 53, 54, 61, 62, 69, 71-77
stratification 9, 10, 13

T

thresholds 5, 7, 8, 16, 25-27, 30-33, 34, 36, 53
type of farming 2, 5, 9, 10, 14-17, 22, 24-39, 47, 53, 55-61, 71, 73, 77, 79
typology 10, 14, 15, 17, 40, 47, 49, 55, 81, 85

U

universe 3, 5, 8, 10, 16
updating 4, 77, 78

V

valuation 4, 5, 7, 13, 39, 40, 67
value added tax (VAT) 40, 66, 67
variables (definition of) 52, 53, 61, 82

W

weighting factors 55, 56, 58, 59
weighting 24, 49, 53, 55, 59, 82

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