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### Agriculture Main statistics 2005-2006





### Agriculture

### Main statistics 2005-2006

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#### Introduction

The pocketbook Agricultural Statistics presents selected tables and graphs providing an overview on developments and the situation in the agricultural sector of the European Union. The most recent data are presented here (reference years 2005 and 2006, mostly) showing the situation in the 27 Member States (including Bulgaria and Romania) and at the European level (EU-27 and EU-25 aggregates).

More particularly, this edition provides a good insight into the complete results of the Farm Structure Survey conducted in 2005. Country reports were published regularly on the Eurostat website under the form of 'Statistics in Focus' as soon as the data were available at Eurostat. This publication is the only one showing the results at the European level.

This pocketbook, intended for both generalists and specialists, is divided into five parts.

Chapter 1 focuses on the results of the Farm Structure Survey 2005;

Chapter 2 covers the economy of the agricultural industry and presents data on output and input volumes, income indicators and main price trends;

Chapter 3 presents the most recent data on agricultural production i.e. meat and milk production, cereals, main crops, fruit and vegetable production and also some data on wine production;

Chapter 4 gives some important indicators related to agrienvironment;

Finally, chapter 5 presents some indicators used in rural development policies.

More detailed data as well as methodological information can be found on the Eurostat website at:

http://epp.eurostat.ec.europa.eu/portal/

This website offers free access to Eurostat's dissemination database, predefined tables, methodological documents and other publications of Eurostat.



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### Units, abbreviations and symbols used

#### Units

hectare = $10.000 \text{ m}^2$
kilogram
metric tonne
Euro

#### Abbreviations

AWU EAA ESA ESU EU-SILC	annual work unit Economic accounts for agriculture European System of Accounts European Size Unit European Survey on Income and Living Conditions
FAO	Food and Agriculture Organization of the
FSS	United Nations Farm Structure Survey
GIP	gross indigenous production
GVA	gross value added
ISCED LAU	International standard classification of education local administrative unit
LAU	livestock unit
LFS	Labour Force Survey
n.m.e.	Not mentioned elsewhere
NUTS	Nomenclature of territorial units for statistics
OECD	Organisation for Economic Co-operation and
OGA	Development other gainful activity
UAA	utilized agricultural area
	5
EU	European Union
EU-27	European Union (27 Member States)
EU-25 EU-15	European Union (25 Member States) European Union (15 Member States)
L0-13	Lulopean onion (15 Member States)
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK DE	Denmark
EE	Germany Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY LV	Cyprus Latvia
LT	Lithuania
LU	Luxembourg
	-

HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
RO	Romania
PT	Portugal
SI	Slovenia
SK	Slovak Republic
FI	Finland
SE	Sweden
UK	United Kingdom

### **Symbols**

-	Not applicable
0.0	Less than half the unit used
:	Not available or extremely unreliable
()	Small sample size may affect the reliability of
	the data
Italic figures	Estimated values



### The agricultural holdings Structural data



#### 1 The agricultural holdings – Structural data

The purpose of the Community surveys on the structure of agricultural holdings, also referred to as farm structure surveys (FSS), is to obtain reliable data, at regular intervals, on the structure of agricultural holdings in the European Union, in particular on land use, livestock and farm labour force. Farm structure surveys are carried out at intervals of two to three years. Approximately every ten years (the last time was in 1999/2000), a full survey is carried out in the form of an agricultural census. In the period between censuses, the farm structure surveys are carried out as sample surveys in most of the Member States.

The latest data come from the survey conducted in 2005. It was the second FSS to be carried out in all Member States of EU-27 after that of 2003. This chapter of the agricultural pocketbook presents the main results of the survey at EU-27 level with a brief analysis of some key indicators, a description of certain trends and some useful figures in the form of summary tables and graphs.

The national FSS has to cover 99% of the agricultural activity; the thresholds are expressed as simple measurements and each Member State defines its own set of thresholds. The various thresholds make the FSS results most relevant at national level. Because these thresholds differ across the 27 Member States as regards the coverage of units with an economic size of less than 1 ESU<sup>1</sup>, this analysis focuses **on holdings of at least 1 ESU**. This methodological limit became more important following the last two enlargements. The analysis of small holdings is essential as there are huge numbers of very small units in some of the new Member States. In section 1.5 we try to give a brief overview of these units and their means of production.

The table below presents the main indicators for the whole population of the FSS in the 27 Member States, and broken down into two groups based on the abovementioned 1 ESU threshold.

<sup>&</sup>lt;sup>1</sup> For each activity ("enterprise") on a holding, or farm, (e.g. wheat, dairy cow or vineyard), a standard gross margin (SGM) is estimated, based on the area (or the number of heads) and a regional coefficient. The sum of all margins, for all activities of a given farm, is referred to as the economic size of that farm. The economic size is expressed in European Size Units (ESU), 1 ESU being equal to 1200 Euro of SGM.



	Total	< 1 ESU	>= 1 ESU	< 1 ESU	>= 1 ESU
	ab	solute fig	ures	% of total	
Regular Labour force (1000 person)	29 706.2	11 746.9	17 959.4	39.5	60.5
Regular labour force (1000 AWU)	11 744.2	2 842.8	8 901.4	24.2	75.8
Holders with (1000)	14 222.0	6 633.7	7 588.3	46.6	53.4
at least 65 years	4 722.1	2 523.4	2 198.7	53.4	46.6
another major gainful activity	4 988.3	2 875.3	2 113.0	57.6	42.4
Number of sole holdings (1000)	14 478.6	6 662.6	7 816.0	46.0	54.0
using a tractor	9 210.2	3 045.8	6 164.4	33.1	66.9
SGM (1000 ESU)	151 801.5	2 527.1	149 274.4	1.7	98.3
Agricultural area (1000 ha)	171 878.3	10 260.4	161 617.9	6.0	94.0
own farmed	97 519.0	9 434.6	88 084.4	9.7	90.3
Livestock (1000 LU)	137 088.9	3 577.9	133 511.0	2.6	97.4

#### Table 1: Main results of the FSS 2005, EU-27

Source: FSS

The data presented in this chapter can be different than those reported under certain other statistical areas (e.g. agricultural labour input, crop statistics) due to differences in the methods used.

To make this publication as readable as possible, only a summary of the FSS results is presented here. More detailed results can be found in the EUROFARM database, which can be accessed via the free database<sup>2</sup> on Eurostat's website (theme 5: agriculture, forestry and fisheries) http://europa.eu.int/comm/eurostat.



<sup>&</sup>lt;sup>2</sup> Among the free data, however, the option to choose the 1 ESU thresholds is not available.

#### **Methodological Notes**

The methodological notes help the reader to understand the specific concepts and assumptions used, and explain the limits of the figures provided. For methodological information in greater depth, please check the legal basis and/or the national methodological reports provided by Member States.

The basic unit underlying the farm structure survey (FSS) is the **agricultural holding**. A holding is defined as a technical-economic unit under single management engaged in agricultural production. FSS covers all agricultural holdings with a utilised agricultural area (UAA) of at least 1 ha and those holdings with a UAA of less than 1 ha if their market production exceeds certain natural thresholds.

The **utilised agricultural area** (UAA) is the total of arable land, permanent pasture and meadow, land used for permanent crops and kitchen gardens. The UAA excludes unutilised agricultural land, woodland and land occupied by buildings, farmyards, tracks, ponds, etc.

For certain purposes, various categories of livestock, e.g. piglets, breeding sows and other pigs have to be aggregated. The measure used for this is known as a **Livestock Unit** (LU). LUs are related to the feed requirements of each individual animal category.

The **farm labour force** includes all persons having completed their compulsory education (i.e. having reached school-leaving age) who carried out farm work on the holding covered by the survey during the 12 months up to the date of the survey. The figures include the holders, even when not working on the holding; their spouses, on the other hand, are only accounted for if they are actually engaged in farm work on the holding. Persons of retiring age who continue to work on the holding are also included.

Taking into account the considerable degree of part-time work in agriculture and opportunities for part-time work in other sectors of the economy, information on employment in agriculture is also given in annual work units. An **Annual Work Unit (AWU)** is equivalent to full-time employment. One AWU corresponds to the work performed by a person engaged in full-time agricultural work on the holding over a 12-month period. The annual working time of such a worker is 1800 hours (225 working days of 8 hours per day), unless there are different specific national provisions governing contracts of employment.



#### 1.1 Farm labour force

The results of the Farm Structure Survey 2005 for EU-27 show that 17.9 million persons were working on a regular basis on the 7.8 million agricultural holdings of at least 1 ESU.

This total covers all the persons providing (even small volumes of) labour input to the agricultural holdings, and it also includes persons whose main occupation is not farming. Thus, agricultural employment is measured not only in persons, but also in Annual Work Units (AWU) – the equivalent of the work of one person employed full time.

The volume of agricultural labour input (including non-regular labour force) in 2005 was 9.8 million AWU.



#### Table 1.1.1: Agricultural labour force, EU-27, 2005

EU Farm Labour Force <sup>1</sup>						
pe of	mily labour for rsons: 16.1 milli which 42% wom AWUs: 7.4 millior	Non family labour force AWUs: 2.3 million				
Holders			Regular non family labour force	Non regular labour force		
persons:	persons:	persons:	persons:			
7.6 million	4.2 million	4.3 million	1.8 million			
of which	of which	of which	of which			
23% women	80% women	36% women	28% women			
AWUs:	AWUs:	AWUs:	AWUs:	AWUs:		
4.2 million	1.9 million	1.4 million	1.5 million	0.9 million		

Source: FSS

1) Labour Force of holdings of less than 1 ESU not included

The bulk of labour input on the farms of at least 1 ESU – 76% of the total AWU in EU–27 – was provided by the holder and his/her family; seven out of eight persons working in agriculture (88%) were family labour force. The percentage of family labour force varied significantly across Member States. Whilst Poland, Ireland, Slovenia and Austria had the vast majority of the labour input in this labour category (each with over 90% of the total AWU), the Czech Republic and Slovakia had much lower percentages (20% and 16% respectively). These differences (i.e. self-employed: family labour force vs. hired workforce) reflect the structure of ownership in agriculture.



# Table 1.1.2: Farm labour force<sup>1</sup> by Member State, EU-27, 2005

	Total labour force <sup>2</sup>		force labour regularly no		Non regular non family labour force		
	1000 AWU	1000 persons	1000 AWU	1000 persons	1000 AWU	1000 AWU	
EU-27	9 782.4	16 125.3	7 442.8	1 834.0	1 458.7	881.0	
BE	68.8	78.9	55.2	13.7	10.7	2.9	
BG	246.4	259.8	168.1	56.1	52.6	25.7	
cz	142.1	43.5	28.5	115.7	103.9	9.7	
DK	58.4	69.2	36.4	23.3	20.0	2.1	
DE	634.7	771.6	441.4	168.3	141.0	52.3	
EE	28.1	34.1	14.8	14.1	12.3	1.0	
IE	148.0	226.1	137.4	13.8	6.9	3.6	
EL	576.3	1 272.3	470.1	24.6	18.3	87.9	
ES	949.2	1 796.4	609.3	194.8	156.0	183.9	
FR	844.4	667.4	413.5	424.4	339.3	91.7	
ΙТ	1 271.2	2 594.7	1 025.7	150.1	104.7	140.9	
СҮ	25.9	54.1	18.5	5.2	4.5	2.9	
LV	81.8	99.5	65.6	17.7	14.1	2.1	
LT	152.7	285.9	125.5	26.3	22.1	5.1	
LU	4.0	5.0	3.3	0.6	0.6	0.1	
HU	229.4	319.3	137.4	93.8	82.6	9.4	
МТ	3.7	12.2	3.3	0.5	0.4	0.0	
NL	173.9	160.5	109.7	76.9	50.9	13.4	
AT	152.3	354.1	137.7	17.1	10.4	4.2	
PL	1 727.0	2 671.0	1 608.3	63.6	57.5	61.2	
РТ	317.3	536.1	251.6	48.3	40.1	25.7	
RO	1 355.1	3 000.2	1 180.2	71.2	53.4	121.4	
SI	82.9	167.6	75.3	3.5	3.3	4.3	
SK	66.7	26.7	10.4	59.8	53.3	3.0	
FI	83.3	139.4	70.1	14.0	8.3	4.8	
SE	66.7	117.7	49.2	20.9	14.4	3.1	
UK	292.4	362.1	196.5	115.7	77.2	18.6	

Source: FSS

1) Labour Force of holdings of less than 1 ESU not included

2) Non-regular family labour force (seasonal workers) is excluded in the calculation of AWU



# Table 1.1.3: Agricultural holdings by labour input size, EU-27, 2005

Tetel		Holdings with labour force (in terms of AWU)					
	Total	<0.5	0.5 - <1	1 - <1.5	1.5 - <2	2 - <3	≥3
Total number of holdings (1000) of which:	7816	2174	1659	1776	886	956	370
Holdings where holder is the manager (% of total)	91.3	91.8	93.9	93.9	93.7	88.1	67.0
Holdings with regular non-family labour force (% of total)	7.6	2.1	2.1	4.5	6.3	17.6	77.8
Average AWU per person working on the holding <sup>1</sup>	0.5	0.14	0.32	0.54	0.63	0.74	0.84
Agricultural area per holding (ha)	20.7	8.2	9.4	20.4	19.8	33.6	115.1
Average economic size (ESU)	19.1	5.0	6.7	16.7	18.5	33.9	133.5
Regular labour force (pers.)	100.0	19.2	18.9	20.4	12.3	16.3	13.0
Labour force (AWU)	100.0	5.2	11.4	21	14.6	23.2	24.5
Agricultural area (ha)	100.0	10.1	8.9	22.6	10.9	20.6	27.2
Livestock (LSU)	100.0	2.8	5.3	22.9	12.8	26.6	29.3
SGM of the holding (ESU)	100.0	6.5	7.1	20.1	11.1	22.4	33.3
Family farms - sole holder's holdings	100.0	27.5	21.2	23.6	11.1	12.8	3.9
Holdings without regular employees	100.0	28.2	21.7	24.0	11.0	12.3	2.7

Source: FSS

1) Non-regular family labour force (seasonal workers) is excluded in the calculation of AWU



Of the 7.8 million holdings surveyed, almost one half made use of less than 1 AWU (1 fulltime worker), 33% used 1 to 2 AWU, and 19% of holdings 2 or more AWU.

However, this latter group of holdings, accounted for half of the agricultural labour force (AWU), almost half of agricultural land and more than half of livestock. More than half (56%) of the total SGM originated from these holdings. The farms with a labour input of 2 or more AWU were also significantly bigger in terms of both physical and economical size. The workers on these holdings were more frequently working full time (on average: 0.8 AWU per person).

In contrast, the smaller-sized holdings in terms of labour input (i.e. using less than 1 AWU) were the place of work for 38% of the persons working on agricultural holdings. These persons mainly belong to the family labour force and were working part-time (one fifth of a full-time equivalent– on average).

The average volume of labour input per person in EU-27 was equal to half of a full-time equivalent (0.50 AWU).

Sole holders were the most involved in work on the holding, with an average of 0.58 AWU/person. Their spouses worked on average less than half time (0.46 AWU/person), and the work of the other family members amounted to an average 0.34 AWU per person.



# Figure 1.1.1: Family labour force by category and gender, EU-27, 2005



In family farms, holders and their spouses were the main labour force. Three out of four persons working in agricultural holdings were either holders or spouses of the holder.

Men made up 58% of the family labour force. The majority of men working on the holding (62%) were holders (only 9% of them were spouses of the holder). Among the women working on agricultural holdings, half were recorded as spouses of the holders.





# Figure 1.1.2: Age structure of sole/main holders by economic size of the holding, EU-27, 2005

More than half of the holders in EU-27 were older than 55 years.

One in five holding managers in EU-27 was a woman. However, the rate varies across Member States, from over 30% in the three Baltic States and Austria, to around 10% in Ireland, Finland, Malta, Sweden, Denmark, Germany, and the Netherlands.

Women as managers were more frequently found on small holdings.





# Figure 1.1.3: Share of persons with an other gainful activity by economic size of the holding, EU-27, 2005

Nearly one third of the family labour force (holders, their spouses and other family members) in the EU-27 had another gainful activity, besides work in the agricultural holding.

For most of the holders<sup>3</sup> and their spouses the work on the agricultural holdings was the only activity: in 2005, almost 70% of them had no other gainful activity (OGA) apart from agriculture. Having another gainful activity was more frequent among the members of the family working on the holding than among the holders and their spouses. Where another gainful activity is performed, this activity is usually the main activity. For 25% of the family labour force, the OGA was more important than work on the farm. The OGA was the secondary activity for only 5%.

Work on the farm was more often the only occupation for female holders than for male holders. Every second man who is the spouse of the holder had another gainful activity, whereas this was the case for only one in five women spouses. The share of people having an other gainful activity was significantly higher among the population aged under 54.



<sup>&</sup>lt;sup>3</sup> Only holders being also farm managers

# Table 1.1.4: Labour force in agriculture by Member State, EU-27, 2005

	Labour force <sup>1</sup>	Family labour Regular noi force family labou force force		Family labour force (AWU) – share in the total LF
		AWU per person		%
EU-27	0.5	0.5	0.8	76.1
BE	0.7	0.7	0.8	80.3
BG	0.7	0.7	0.9	68.2
cz	0.8	0.7	0.9	20.0
DK	0.6	0.5	0.9	62.3
DE	0.6	0.6	0.8	69.5
EE	0.6	0.4	0.9	52.6
IE	0.6	0.6	0.5	92.8
EL	0.4	0.4	0.7	81.6
ES	0.4	0.3	0.8	64.2
FR	0.7	0.6	0.8	49.0
ІТ	0.4	0.4	0.7	80.7
СҮ	0.4	0.3	0.9	71.4
LV	0.7	0.7	0.8	80.2
LT	0.5	0.4	0.8	82.2
LU	0.7	0.7	0.9	83.4
HU	0.5	0.4	0.9	59.9
МТ	0.3	0.3	0.7	90.0
NL	0.7	0.7	0.7	63.1
AT	0.4	0.4	0.6	90.4
PL	0.6	0.6	0.9	93.1
РТ	0.5	0.5	0.8	79.3
RO	0.4	0.4	0.8	87.1
SI	0.5	0.5	1.0	90.8
SK	0.7	0.4	0.9	15.6
FI	0.5	0.5	0.6	84.2
SE	0.5	0.4	0.7	73.8
UK	0.6	0.5	0.7	67.2

Source: FSS

1) Non-regular family labour force (seasonal workers) is excluded in the calculation of AWU



#### 1.2 The agricultural holdings

# Table 1.2.1: Some important characteristics of agricultural holdings

	2003*		2005			
Agricultural holdings	EU-25 EU-27		EU-25 EU-27			
Total number (1000)	6 559.4	7 928.5	6 461.9	7 816.0		
By legal personality of the holder (%)						
sole holder	96.1	96.5	95.6	96.2		
legal person	2.9	2.6	3.4	3.0		
group holders	1.1	0.9	1.1	0.9		
By employed labour force (%)						
under 1 AWU	59.7	57.8	48.4	49.0		
from 1 to less than 2 AWU	33.4	34.2	33.3	34.1		
from 2 to less than 3 AWU	14.0	13.3	13.1	12.2		
3 AWU and over	5.5	5.1	5.2	4.7		
By utilised agricultural area (%)						
< 5 ha	45.4	51.6	45.0	50.2		
5 - < 20 ha	32.2	29.5	32.5	30.8		
20 - < 50 ha	12.4	10.4	12.2	10.3		
50 - < 100 ha	6.0	5.0	6.0	5.0		
100 =< ha	4.1	3.6	4.3	3.7		
By economic size (%)						
from 1 to less than 8 ESU	61.2	67.5	59.8	66.3		
from 8 to less than 16 ESU	13.7	11.5	14.1	12.0		
from 16 to less than 40 ESU	12.4	10.4	13.1	11.0		
from 40 to less than 100 ESU	8.4	7.0	8.5	7.1		
100 ESU and over	4.3	3.6	4.4	3.7		
By farming methods (%)						
organic farming	:	:	1.9	1.6		
with crops under glass	2.7	2.5	3.0	2.8		
By machinery (%)						
using a tractor	:	:	80.7	78.9		
with their own tractor	:	:	64.4	55.0		
using a combined harvester	:	:	40.3	40.2		
Holdings with gainful activity other						
than agricultural production (%)	9.1	9.2	9.9	13.3		
Tourism	1.4	1.2	1.5	1.3		
Handicraft	0.1	0.1	0.1	0.1		
Processing of farm products	3.9	4.7	3.8	6.8		
Wood processing	0.3	0.3	0.3	0.3		
Aquaculture <sup>2</sup>	0.0	0.0	0.2	0.2		
Renewable energy production	0.3	0.2	0.5	0.4		
Contractual work <sup>1</sup>	1.6	1.4	2.0	2.1		
Other gainful activities n.m.e <sup>2</sup>	3.2	2.8	3.4	5.3		

Source: FSS

\* Data refers to 2002 in PL and RO

<sup>1</sup> No data for HU and PL in 2003

<sup>2</sup> No data for PL in 2003



#### Utilised agricultural area (UAA)

# Table 1.2.2: Number of agricultural holdings by UAA size classes, 2005

	Total	<5 ha	5-<20 ha	20-<50 ha	50-<100 ha	>=100 ha		
in 1000								
EU-27	7 816.0	3 921.0	2 405.7	808.3	393.4	287.6		
BE	49.6	11.8	15.0	14.3	6.7	1.8		
BG	118.1	96.1	13.7	2.9	1.5	3.8		
cz	26.8	8.9	7.2	4.3	2.1	4.3		
DK	48.1	1.5	18.4	12.2	8.6	7.4		
DE	371.1	70.6	127.5	88.4	54.2	30.4		
EE	13.4	2.5	5.9	2.8	0.9	1.3		
IE	125.5	6.0	45.1	50.8	19.6	4.0		
EL	678.1	481.1	161.8	28.2	5.5	1.5		
ES	959.0	472.0	281.0	109.4	49.3	47.2		
FR	527.4	112.5	105.7	109.3	112.9	86.9		
т	1 380.3	928.6	332.1	81.0	25.6	12.9		
СҮ	29.9	24.3	4.5	0.8	0.3	0.1		
LV	44.9	6.2	25.1	9.3	2.5	1.9		
LT	128.6	28.4	79.8	14.6	3.4	2.5		
LU	2.4	0.5	0.4	0.4	0.8	0.4		
HU	155.4	83.8	46.1	13.8	5.6	6.0		
МТ	7.2	7.0	0.2	0.0	0.0	0.0		
NL	81.8	23.6	24.8	22.8	8.9	1.8		
AT	137.0	30.7	64.7	32.9	7.0	1.7		
PL	1 082.7	382.1	583.4	96.5	13.5	7.2		
РТ	219.3	142.4	54.3	12.3	4.6	5.6		
RO	1 236.0	918.2	289.6	14.9	4.6	8.6		
SI	60.9	31.0	27.1	2.4	0.2	0.1		
SK	12.9	6.4	2.8	1.1	0.6	2.0		
FI	70.0	6.0	24.6	26.2	10.6	2.7		
SE	66.3	7.5	23.6	16.6	10.8	7.9		
UK	183.4	31.1	41.4	40.2	33.1	37.6		

Source: FSS

The FSS for 2005 reports that – according to the definition of the statistical unit used – there were 7.8 million agricultural holdings in EU-27. About one fifth of these holdings are located in the 10 new Member States of the EU and almost the same proportion in Bulgaria and Romania alone. The farm sector of the EU shows great variety in terms of type of farming and farm size. For example, more than half of all farms surveyed in the EU-27 have an area of less than 5 ha, whereas farms with an area of 20 ha and over account for 20% of all farms. 84% of these latter farms are located in the old Member States.



### Figure 1.2.1: Number of agricultural holdings by UAA size classes, EU-27

The general trend in the concentration of UAA continued between 2003 and 2005, although significant changes can only be observed only in the lowest UAA size classes: about 4% of the holdings "became" a bit larger. *Figure 1.2.2* below provides a detailed overview of these changes: the farm structure is quite stable in EU-15; on the other hand, the "engines" of concentration are the newly acceded Member States – in particular, Bulgaria and Romania.

# Figure 1.2.2: Change in the number of agricultural holdings by UAA size classes between 2003 and 2005



#### Livestock Units (LU)

# Table 1.2.3: Number of agricultural holdings bylivestock unit size classes, 2005

	Total	0	0-<5 LU	5-<50 LU	50-<100 LU	>=100 LU		
	in 1000							
EU-27	7 816.0	2 988.9	2 606.9	1 648.9	288.3	282.9		
BE	49.6	12.1	4.2	13.1	8.1	12.1		
BG	118.1	13.2	73.5	30.0	0.7	0.6		
cz	26.8	6.9	9.0	7.6	0.9	2.3		
DK	48.1	17.8	6.5	10.7	2.8	10.3		
DE	371.1	101.9	46.4	130.3	45.8	46.7		
EE	13.4	3.4	6.1	3.2	0.2	0.4		
IE	125.5	3.3	5.5	77.7	24.8	14.2		
EL	678.1	314.8	280.9	74.0	6.3	2.1		
ES	959.0	673.8	117.8	113.3	26.3	27.8		
FR	527.4	186.6	74.2	125.5	76.7	64.4		
т	1 380.3	1 109.3	136.2	100.1	18.5	16.1		
СҮ	29.9	19.9	7.5	1.8	0.3	0.4		
LV	44.9	5.7	25.4	13.1	0.4	0.3		
LT	128.6	7.4	58.6	61.7	0.5	0.4		
LU	2.4	0.4	0.2	0.5	0.5	0.6		
HU	155.4	46.1	75.2	30.9	1.2	2.0		
МТ	7.2	4.8	1.8	0.3	0.1	0.1		
NL	81.8	25.9	6.7	18.6	12.1	18.6		
AT	137.0	29.2	24.9	72.3	7.3	3.3		
PL	1 082.7	172.1	477.3	413.3	13.1	6.9		
РТ	219.3	52.8	127.2	32.2	3.7	3.4		
RO	1 236.0	72.0	977.6	183.2	2.3	0.9		
SI	60.9	7.2	28.9	23.9	0.6	0.2		
SK	12.9	2.9	7.0	1.7	0.2	1.0		
FI	70.0	40.2	4.1	19.9	3.8	1.9		
SE	66.3	30.3	8.6	17.9	5.4	4.2		
UK	183.4	28.9	15.5	72.0	25.4	41.6		

Source: FSS







# Figure 1.2.3: Agricultural holdings by livestock unit size classes, EU-27, 2005

The distribution by LU size categories also shows the specialisation of the holdings. Holdings with at least 50 LU represent only 8% of the EU-27 holdings; they can be considered as specialised live-stock producers. On the other hand, the 38% of holdings without livestock are the crop producers. Some 11% of the EU-15 holdings have significant numbers of livestock; on the other hand, 60% of the holdings in the Member States that joined the EU more recently belong to the category of 0 to less than 5 LU (*Figure 1.2.4*).



# Figure 1.2.4: Agricultural holdings by livestock unit classes, 2005



#### Legal personality of the holdings



Figure 1.2.5: Legal personality of the agricultural holdings by UAA size classes, EU-27, 2005





While the percentage of holdings in EU-27 that are legal entities or group holdings is relatively small (3% and 1% respectively), such holdings tend to be frequent among the larger units. The proportion of the units with legal personality is significantly higher in France (18%), Slovakia (13%), and Czech Republic (10%), while group holdings are important mostly in Finland (7%) and Germany (5%).

There are significant numbers of holdings with legal personality in the upper size classes (at least 100 ha/100 LU) in Romania (75%/51%), Slovakia (66%/91%), Bulgaria (52%/48%), Czech Republic (48%/79%), Estonia (38%/79%) and Hungary (44%/62%).



#### Economic size and type of farming

In the Community typology, each holding is classified by its economic size and its type of farming. The economic size is expressed in European Size Units (ESU).



### Figure 1.2.7: Distribution of agricultural holdings by economic size, EU-27, 2005

In 2005, two out of three holdings were in the category 1-<8 ESU, while 4% of the holdings had an economic size of 100 ESU or more. Generally, the smaller units are to be found in the new Member States, with the highest proportions (over 90%) being in Romania, Lithuania, Latvia and Bulgaria. The largest units are more commonly found in the Netherlands (32%), Belgium (23%) and Denmark (23%).



# Figure 1.2.8: The agricultural holdings by main type of farming, EU-27, 2005



The type of farming is determined on the basis of the relative importance of the individual activities carried out by a given farm. For practical reasons only the five most frequently occurring types are shown in *Figure 1.2.8*. The geographical distribution of the types is quite heterogeneous. Generally the less specialised "mixed" holdings are peculiar to the newer Member States (especially Romania and Lithuania). Holdings specialising in olives are typical of the Mediterranean area (Greece 26%, Spain 20% and Italy 19%).

Holdings specialised in cereals, oil seed and protein crops are representative in Slovakia (54%), Denmark (39%) and Finland (38%). In Sweden, 39% of the holdings are engaged in general field cropping. Horticulture is the principal activity for holdings in the Netherlands (12%), Malta (11%) and Belgium (9%). Fruit-growing farms are important in Cyprus (33%) and Spain (18%), while holdings specialised in wine growing are common in Luxembourg (15%), France (14%), Portugal (12%) and Italy (12%).

Dairy farms are more significant in Luxembourg (29%), Austria (27%) and the Netherlands (25%). Farms specialising in rearing and fattening cattle are a feature of Ireland (50%) and the United Kingdom (20%).


### Other gainful activities of the holdings

# Table 1.2.4: Other gainful activities of the holdings,2005

	Total holdings with other gainful activity	Tourism	Handi- craft	Process- ing of farm prod- ucts	Wood process- ing	Aqua- cul- ture	Renew- able energy produc- tion	Con- tractual work	Others
				% of t	total hole	dings			
EU-27	13.3	1.3	0.1	6.8	0.3	0.2	0.4	2.1	5.3
BE	4.2	0.9	0.3	0.9	0.1	0.0	0.0	1.1	1.7
BG	5.7	0.1	0.1	0.2	0.0	0.0	0.0	4.6	0.9
cz	13.9	1.1	0.4	3.7	2.5	0.0	0.1	0.0	7.6
DK	18.3	0.9	1.6	0.6	0.0	0.0	2.2	8.1	7.8
DE	23.1	3.9	0.3	9.0	0.7	0.4	4.3	4.7	5.6
EE	10.2	1.4	0.9	1.7	2.7	0.3	0.1	4.1	1.4
IE	4.5	0.9	0.2	0.2	0.1	0.1	0.1	1.5	2.0
EL	2.0	0.1	0.0	0.7	0.0	0.0	0.0	1.1	0.0
ES	3.3	0.4	0.0	1.5	0.0	0.0	0.0	0.4	1.0
FR	25.8	3.3	0.4	9.5	0.8	0.0	0.1	4.4	18.4
ІТ	6.8	0.9	0.1	5.6	0.1	0.0	0.0	0.2	0.4
СҮ	7.6	0.1	0.0	7.0	0.0	0.0	0.0	0.5	0.0
LV	12.1	1.0	0.2	0.3	0.7	0.2	0.0	2.9	9.0
LT	1.2	0.1	0.1	0.2	0.2	0.0	0.0	0.2	0.4
LU	15.3	2.6	0.4	4.0	1.2	0.1	7.9	2.1	0.7
HU	13.3	0.3	0.1	8.0	0.1	0.2	5.8	0.0	0.7
МТ	6.5	0.0	0.0	6.3	0.0	0.0	0.0	0.8	0.0
NL	22.5	3.5	0.0	1.3	0.0	0.1	2.6	4.4	15.8
AT	24.7	8.3	0.2	11.1	0.8	0.2	1.6	7.4	0.0
PL	5.9	0.4	0.1	0.3	0.3	0.8	0.0	1.6	2.6
РТ	10.6	0.3	0.1	9.1	0.3	0.0	0.1	0.7	0.5
RO	32.3	0.1	0.1	23.2	0.2	0.0	0.0	1.9	15.8
SI	4.8	1.0	0.2	1.3	0.6	0.0	0.1	1.3	1.0
SK	10.4	0.8	0.6	2.1	0.6	0.1	0.1	3.8	5.6
FI	29.0	2.9	0.4	1.3	1.5	0.1	2.1	16.3	11.6
SE	13.5	3.0	0.6	1.4	1.3	0.3	1.2	6.6	2.8
UK	27.1	12.0	0.4	1.4	0.5	0.1	0.2	10.4	10.0

Source: FSS



# Figure 1.2.9: Holdings with other gainful activities, EU-27, 2005



Besides their work on the farm, the holders or the members of the holder's family may carry out other gainful activities which are directly related to the holdings – using their resources or the products of them – and the results of these activities have an economic impact on the holdings.



### 1.3 Land use

# Table 1.3.1: Land area of the holdings by UAA size classes, EU-27, 2005

UAA size classes	Total	<5 ha	5-<20 ha	20-<50 ha	50-<100 ha	>=100 ha		
	1000 ha							
Total area of agricultural holdings	198 042.7	12 515.4	30 835.8	31 704.8	31 733.0	91 253.7		
Other area	36 424.7	3 728.0	7 063.1	6 196.7	4 227.8	15 209.1		
Wooded area	26 764.4	2 429.2	5 188.7	4 683.2	3 105.5	11 357.9		
Agricultural area	161 617.9	8 787.4	23 772.7	25 508.0	27 505.2	76 044.6		
Arable land	100 117.3	4 559.6	13 933.6	15 350.0	17 802.6	48 471.5		
Cereals	56 576.0	2 885.2	8 837.4	8 347.5	9 138.2	27 367.7		
Dried pulses	1 832.1	45.6	155.1	184.4	288.0	1 159.0		
Root crops	4 190.5	306.9	708.5	668.7	727.3	1 779.1		
Industrial crops	9 850.2	277.8	790.4	879.5	1 227.7	6 674.8		
Fresh vegetables, melons, strawberry	1 732.1	302.5	386.7	290.5	247.0	505.4		
Open air	1 628.7	248.3	359.5	280.7	241.5	498.7		
Under glass	102.7	54.1	27.1	9.6	5.2	6.7		
Flower and orna- mental plants	88.1	32.2	19.7	15.2	9.8	11.1		
open air	65.1	15.5	15.3	14.3	9.3	10.6		
under glass	23.1	16.7	4.4	0.9	0.5	0.5		
Forage plants	17 685.2	529.5	2 302.2	3 826.0	4 520.7	6 506.7		
Fallow land	7 707.4	168.0	694.8	1 085.3	1 565.5	4 193.8		
Permanent pasture and meadows	50 806.5	1 413.9	6 375.0	8 288.7	8 662.5	26 066.4		
Permanent crops	10 498.2	2 706.4	3 402.1	1 854.8	1 033.6	1 501.2		
Fruit and berry plantation	2 377.8	567.5	890.9	413.9	204.0	301.5		
Olive trees	4 137.5	1 278.9	1 242.9	601.6	355.1	659.0		
Vineyard	3 310.3	611.8	1 083.3	749.8	421.0	444.5		

Source: FSS

The land area reported under certain land use categories can be different from the figures published in other statistical areas (e.g. crop statistics) owing to the different methods used. This is particularly the case for permanent pastures, as the commonly used pastures and meadows are not linked to one holding, and so their area is "missing" from the scope of the FSS. (For example, in Bulgaria in 2005 about 1.8 million ha of pasture are not represented in these figures.)



Chapter 1.3 Land use

82% of the total area of the holdings in the EU-27 is reported as utilised agricultural area in 2005. The majority of the UAA (62%) is used as arable land, 31% is covered by permanent grassland and 6% is given over to permanent crops (orchards, vineyards, olive plantations) [*Figure 1.3.1*].



# Figure 1.3.1: Structure of the utilised agricultural area used by the holdings, 2005

The structure of the UAA shows quite a heterogeneous picture among the Member States, depending on the agro-climatic conditions. The largest proportion of arable land can be observed in Finland (99%), Denmark (93%), Sweden (85%) and Hungary (85%). Over half of the UAA is covered by permanent grassland in Ireland (72%), the United Kingdom (59%), Slovenia (56%) and Luxembourg (52%). The biggest proportion of permanent crops is in Greece (27%), Cyprus (26%), Spain (18%), Italy (18%) and Portugal (17%).





### Figure 1.3.2: Structure of arable land, EU-27, 2005

# Figure 1.3.3: Structure of permanent crops, EU-27, 2005





## Table 1.3.2: Utilised agricultural area by MemberState, 2005

		Utilised agri	cultural area		Average
	Total	arable land	permanent pastures	permanent crops	UAA/ holding
1000 ha					ha
EU-27	161 617.9	100 117.3	50 806.5	10 498.2	20.7
BE	1 383.7	844.9	517.7	21.0	27.9
BG	2 487.6	2 369.0	59.0	55.4	21.1
cz	3 522.9	2 634.4	847.3	39.1	131.7
DK	2 588.3	2 398.4	180.6	9.3	53.8
DE	16 975.3	11 897.1	4 877.4	196.1	45.7
EE	763.8	562.5	197.0	1.9	57.0
IE	4 160.4	1 142.4	3 015.9	1.8	33.2
EL	3 905.8	2 027.2	821.4	1 045.1	5.8
ES	23 741.0	11 855.4	7 663.4	4 218.3	24.8
FR	27 490.4	18 330.9	8 042.4	1 103.0	52.1
т	12 405.9	6 891.3	3 254.2	2 233.1	9.0
СҮ	142.1	105.2	0.4	36.4	4.8
LV	1 301.5	916.8	367.7	16.3	29.0
LT	2 338.2	1 680.2	635.0	23.0	18.2
LU	128.7	59.9	67.2	1.5	54.5
HU	4 045.3	3 445.5	454.6	140.5	26.0
МТ	8.9	7.0	0.0	1.1	1.2
NL	1 958.1	1 117.0	808.7	32.3	23.9
AT	2 690.2	1 383.8	1 235.3	67.9	19.6
PL	13 132.3	10 290.5	2 510.4	293.5	12.1
РТ	3 502.9	1 171.6	1 727.3	590.1	16.0
RO	10 337.1	6 626.5	3 369.3	278.5	8.4
SI	448.1	169.2	250.6	26.7	7.4
SK	1 840.4	1 300.0	515.4	23.8	143.0
FI	2 261.5	2 231.2	25.6	4.7	32.3
SE	3 095.9	2 616.4	477.9	3.8	46.7
UK	14 961.6	6 042.9	8 884.9	33.8	81.6

Source: FSS

In 2005, the average UAA per holding was 20.7 ha for the EU-27 Member States, and 23 ha for the EU-25. In 2003, the respective figures were 20.4 ha and 22.6 ha, which points to a slight increase. The farms in the Czech Republic and Slovakia have significantly higher average figures than holdings in any other Member States; however, in both cases, the figure had fallen compared to the 2003 data (by 8% in the Czech Republic and 17% in Slovakia).

The next three charts show certain Member States and their share in arable land, permanent pasture or permanent crops. In general, four Member States account for nearly half of this land use category in 2005.



Figure 1.3.4: Arable area by Member State, 2005















In 2005 the arable land area under glass or accessible cover was about 126 thousand ha in EU-27. Vegetables, melons and strawberries were grown on 81% of this area, while the remainder was taken up by flowers and ornamental plants. Spain and Italy had 67% of the vegetable, melon and strawberry fields under glass. As for flowers and ornamental plants, the Netherlands and Italy accounted for 46% of the total area under cover.





54.5% of the UAA is cultivated as own-farmed area. Naturally, the ratio between the owner-farmed and tenant-farmed area is significantly different, not only by UAA category (*see Figure 1.3.8*) but also by Member State. While the tenant-farming type of tenure is characteristic in Slovakia (92.4% of UAA), followed by the Czech Republic (86.3%) and Bulgaria (81.6%), owner-farmers dominate agriculture in Ireland (81.6%), Poland (76.6%), Denmark (75.2%) and Italy (73.3%).



### 1.4 Livestock

Livestock are the other major means of production in agriculture. In the interests of better comparability and overview, livestock units are used here to summarise the different animal categories.



Figure 1.4.1: Number of holdings with livestock by livestock unit category, EU-27

In 2005, about 4.8 million holdings in EU-27 had livestock. This figure was 3% down compared to the 2003 data. Most of the holdings with less than 5 LU are in Romania (978 000), Poland (477 000) and Greece (281 000). In the category of 100 LU and over, France has 64 400 holdings, followed by Germany (46 700) and the United Kingdom (41 600 (*see also Table 1.2.3*).



# Table 1.4.1: Livestock on the holdings by LU size classes, EU-27, 2005

	Livestock Unit size classes					
	Total	>0-<5	5-<50	50-<100	>=100	
Total livestock (1000 LU)	133 511.0	5 534.9	27 473.5	20 392.7	80 109.8	
Grazing livestock (1000 heads	s)					
Equidae	3 193.2	821.4	1 723.2	325.7	323.0	
Bovine animals	88 838.6	2 839.4	23 047.3	20 730.3	42 221.8	
Under 1 year	25 241.3	696.1	6 272.1	5 547.9	12 725.1	
From 1 to less than 2 years	18 312.7	336.6	4 503.5	4 229.4	9 243.2	
Dairy cows	24 455.4	1 495.4	6 443.9	5 686.8	10 829.4	
Other cows	12 224.1	184.3	3 761.5	3 027.9	5 249.4	
Other bovine animals 2 years and older	8 605.2	126.0	2 066.3	2 238.3	4 174.7	
Sheep	103 289.7	4 420.8	36 079.5	20 915.0	41 874.4	
Goats <sup>1</sup>	11 680.1	1 191.7	6 931.4	2 247.5	1 309.2	
Granivores						
Pigs (1000 heads)	151 988.8	4 533.6	17 350.7	8 915.9	121 188.7	
Piglets < 20 kg	44 675.2	1 233.0	5 947.4	3 249.4	34 245.4	
Breeding sows	16 333.6	530.5	2 137.8	1 120.8	12 544.5	
Other pigs	90 980.1	2 770.1	9 265.6	4 545.7	74 398.7	
Poultry (million heads)	1 453.5	55.0	58.1	55.1	1 285.2	
Broilers	770.2	11.1	20.4	35.0	703.7	
Laying hens	478.6	31.2	26.2	15.0	406.2	
Other poultry	204.7	12.7	11.6	5.1	175.4	
Rabbits, breeding females (1000 heads) <sup>2</sup>	4 656.9	1 365.9	2 397.9	413.3	480.3	
Beehives (1000) <sup>3</sup>	5 586.4	1 809.5	517.5	29.9	32.8	

Source: FSS

<sup>1</sup> no data for DE and SE

<sup>2</sup> no data for DE and UK

<sup>3</sup> no data for DE, MT, SE and UK



### Table 1.4.2: Total livestock by Member State, 2005

	2003*	2005	change
	in 1	000 LUs	2003/2005
EU-27	:	133 511.3	:
BE	3 953.1	3 882.9	0.98
BG	992.0	871.1	0.88
cz	2 262.1	2 059.4	0.91
DK	4 541.1	4 523.5	1.00
DE	18 635.8	18 121.7	0.97
EE	312.2	306.6	0.98
IE	6 349.4	6 203.4	0.98
EL	2 602.2	2 462.7	0.95
ES	14 107.2	14 397.8	1.02
FR	23 263.6	22 656.1	0.97
IT	9 959.4	9 537.3	0.96
СҮ	255.4	243.1	0.95
LV	411.2	412.7	1.00
LT	870.7	1 122.9	1.29
LU	159.1	157.7	0.99
HU	2 242.4	2 104.5	0.94
МТ	48.7	45.6	0.94
NL	6 154.2	6 388.1	1.04
AT	2 496.3	2 437.4	0.98
PL	10 748.9	10 147.5	0.94
РТ	2 307.4	2 023.0	0.88
RO	4 939.6	4 932.1	1.00
SI	566.7	505.4	0.89
SK	902.5	739.0	0.82
FI	1 183.1	1 157.4	0.98
SE	1 818.6	1 798.1	0.99
UK	14 380.7	14 273.8	0.99

Source: FSS

\* Data refers to 2002 in PL and RO



### Table 1.4.3: Average herd size by holding, EU-27

2003*	2005
(head/h	olding**)
2.7	3.0
28.7	29.6
10.8	11.1
17.9	18.2
98.6	105.3
57.7	65.1
18.2	18.3
38.8	45.9
0.2	0.2
0.9	0.8
	(head/h 2.7 28.7 10.8 17.9 98.6 57.7 18.2 38.8 0.2

Source: FSS

\* Data refers to 2002 in PL and RO

\*\* Only the holdings with the specified animal kind are taken into account

# Figure 1.4.2: Average herd size by holding and by main type of livestock, 2005





# Figure 1.4.3: Distribution of main types of livestock among the Member States, 2005





### EU-27 dairy cows, 2005









### EU-27 goats, 2005



### EU-27 pigs, 2005



### EU-27 Breeding sows, 2005







### EU-27 poultry, 2005





### 1.5 Small units

The number of **holdings below 1 ESU in economic size** in the frame of the FSS depends on the thresholds applied in each Member State. There are no such units in the Netherlands and their numbers are also rather small in certain other Member States (*Table 1.5.2*). However, in the recently acceded countries they still account for a significant share of the holdings. Because of their importance in these latter Member States – in terms of agricultural production, and/or social aspects – it is essential to give a brief overview of these holdings.

At EU-27 level, 46% of the surveyed holdings were considered as small units in 2005 a fall of 1% on the 2003 figure. These units – compared to the total population – are producing on a relatively small utilised agricultural area, and also keep only a small proportion of livestock; consequently their contribution to the total output of agriculture is not significant. However, they still use 40% of the total regular farm labour force (expressed in persons) and 24% of the total farm labour work (in AWU).

The following table shows the distribution of these small holdings among the Member States, together with some of their main characteristics.



# Table 1.5.1: Significance of small units by MemberState, 2005

	Number of sole holdings	Regular Iabour force (person)	Regular Iabour force (AWU)	Agricultural area (ha)	Livestock (LU)
			% of total		
BE	3.7	2.5	1.2	0.1	0.0
BG	77.9	70.7	63.0	8.9	34.4
cz	36.7	13.3	6.9	1.0	0.7
DK	0.3	0.2	0.1	0.1	0.0
DE	4.8	3.1	1.4	0.4	0.2
EE	51.7	40.6	24.5	7.9	3.0
IE	5.4	3.9	2.9	1.4	0.3
EL	18.6	15.0	4.3	2.0	0.7
ES	11.2	8.9	5.3	4.5	0.4
FR	7.0	4.4	1.4	0.4	0.2
т	20.1	16.3	8.2	2.4	0.3
СҮ	33.8	29.2	9.5	6.2	0.3
LV	65.1	55.1	40.5	23.5	9.5
LT	49.2	41.9	31.4	16.3	13.0
LU	3.5	2.1	0.8	0.3	0.1
HU	78.3	71.0	51.3	5.2	15.6
мт	34.8	30.3	8.6	13.5	1.1
NL	0.0	0.0	0.0	0.0	0.0
AT	19.7	15.4	8.4	17.6	0.7
PL	56.3	46.5	24.5	11.0	3.9
РТ	32.3	27.6	21.3	4.8	2.3
RO	71.0	63.9	48.8	25.7	25.3
SI	21.1	17.6	12.8	7.7	3.5
SK	81.2	60.7	33.5	2.1	5.6
FI	0.8	0.5	0.2	0.1	0.0
SE	12.5	10.1	6.4	3.0	2.0
UK	36.1	26.2	14.2	6.2	0.4

Source: FSS





# Figure 1.5.1: Share of small units producing mainly for own consumption, 2005

A useful indicator of their role in agriculture is own consumption, e.g. whether these units are producing agricultural products mainly for supply of the holder's family<sup>4</sup>.

<sup>4</sup> According to the definition a holding is considered producing mainly for own consumption if more than 50% of the value of the final production of the holding is consumed by the holder's household.



### Table 1.5.2: Holders of small units by Member State,2005

	Но	lders
	65 years old and older	with OGA as major activity
		%
BE	55.6%	27.8%
BG	46.6%	32.5%
cz	23.4%	54.5%
DK	0.0%	100.0%
DE	19.7%	67.0%
EE	33.6%	42.0%
IE	33.3%	59.7%
EL	48.3%	28.2%
ES	54.7%	26.6%
FR	46.1%	36.1%
т	49.1%	30.5%
СҮ	26.3%	58.6%
LV	31.7%	38.1%
LT	37.8%	27.0%
LU	0.0%	0.0%
HU	29.7%	38.9%
мт	30.8%	43.6%
NL	:	:
AT	22.4%	48.0%
PL	24.5%	45.7%
РТ	57.0%	27.8%
RO	42.3%	48.2%
SI	41.7%	87.7%
SK	31.5%	43.1%
FI	20.0%	60.0%
SE	23.2%	69.5%
UK	36.4%	44.4%

Source: FSS

Over 38% of the holders responsible for a small unit were at least 65 years old in the EU-27 in 2005 and 43% of them had another gainful activity as their major occupation (i.e. their main activity was not the one related to the farm.) [The corresponding figures for the holdings of at least 1 ESU were 29% and 28% respectively.]





### Figure 1.5.2: Land area of the small units, 2005

As already mentioned, these units are producing on a small utilised agricultural area relative to the total. A more qualified overview is shown in *Figure 1.5.2*, where the share of these units in the land area is presented for those Member States where this phenomenon is significant.

Regarding the utilised agricultural area in Romania, almost 26% of UAA was cultivated by small units. In the case of permanent pastures and permanent crops, this percentage is even higher in some countries: for example, 34% of pastures in Latvia or 36% of permanent crops in Estonia.

A closer inspection of permanent crops reveals that 38% of fruit orchards in Estonia and 35% in Latvia are divided among small units. A similarly scattered structure is characteristic of Bulgarian vineyards (small units are producing on 36% of the total vineyard area), as well as Romanian and Hungarian vineyards (27% and 22% respectively).

As far as livestock are concerned, the importance of small units is more visible. In Bulgaria, 34% of the total livestock (expressed in LU) were kept on small units. In 2005 this figure was also high in Romania (25%) and in Hungary (16%). The following figures (1.5.3 - 1.5.9) present an overview of the share of small units for each type of livestock in the Member States which have the largest shares. The contribution of small units is significant, particularly for goats and rabbits.





# Figure 1.5.3: Share of small units for cattle, % of total cattle, 2005

# Figure 1.5.4: Share of small units for sheep, % of total sheep, 2005







# Figure 1.5.5: Share of small units for goats, % of total goats, 2005

# Figure 1.5.6: Share of small units for pigs, % of total pigs, 2005







# Figure 1.5.7: Share of small units for poultry, % of total poultry, 2005

Figure 1.5.8: Share of small units for breeding female rabbits , % of total breeding female rabbits, 2005







# Figure 1.5.9: Share of small units for beehives, % of total beehives, 2005

# Figure 1.5.10: Other gainful activities on small units, EU-27



*Table 1.5.2* shows the other gainful activities (as major occupation) of the holders; however, the other gainful activities can be related also to the unit itself. *Figure 1.5.10* illustrates this kind of activity. Between 2003 and 2005 the number of small units engaged in any of these activities increased by 340%.



# Agricultural accounts and prices



### 2 Agricultural accounts and prices

This chapter gives an overview on indicators of agricultural output and income and the development of agricultural prices in the EU. The data are extracted from the collections of Eurostat's agricultural statistics: Economic accounts for agriculture (EAA) and agricultural price indices (API).

The EAA is a satellite account of the European System of Accounts (ESA 1995). It covers the agricultural products and services produced over the accounting period sold by agricultural units, held in stocks on farms, or used for further processing by agricultural producers. The concepts of the EAA are adapted to the particular nature of the agricultural industry: for example, the EAA includes not only the production of grapes and olives but also the production of wine and olive oil by agricultural producers. The EAA includes information on the intra-unit consumption of crop products used in animal feed, as well as output accounted for own-account production of fixed capital goods and own final consumption of agricultural units. Based on the EAA data, income indicators for the agricultural sector can be calculated.

The agricultural price statistics provide information on the development of producer prices of agricultural products as well as of the purchase prices of the goods and services consumed by agriculture in the production process. Price data are available for single commodities and for larger aggregates in the form of absolute prices and price indices. The annual as well as quarterly time series are published in the free dissemination database on the Eurostat website.

### 2.1 Agricultural income

### Introduction

The so-called indicator A is the real net value added at factor cost of agriculture per annual work unit (AWU). The net value added at factor cost (factor income) is calculated by subtracting from gross value added at basic prices the consumption of fixed capital and adding the value of the (other) subsidies less taxes on production. The AWU is defined as the work volume corresponding to one full-time employed worker.

The output of the agricultural industry comprises the output of agricultural production and the output of non-agricultural secondary activities which are inseparable from the principal agricultural activity.



### Long term trends



### Figure 2.1.1: Agricultural income indicator, 1997-2006

In most EU Member States the trend of the income indicator A has been positive in the 1990s. Recent data show that this overall trend is continuing. However, the average increase in income is significantly higher in the new Member States than in EU-15.

For the EU-27, the recent increase brings Indicator A to a level of 112.1 (2000 = 100), after a significant increase of 8.2% in 2004 and a drop of 3.9% in 2005. For the EU-15 the level of Indicator A becomes slightly higher in 2006 than in 2000 (+0.9%), after falling to 98.1% in 2005.

According to the evolution of Indicator A, Member States can be divided into two groups.

The first group includes those countries for which agricultural income in 2006 is above the level recorded for 2000. This group comprises all Member States having joined EU in 2004 and 2007 (except Cyprus) as well as the United Kingdom, Portugal, Germany, Austria and Denmark.

The second group includes the other eleven Member States where agricultural income in 2006 is below the level recorded for 2000. Within this group of countries, the sharpest falls are recorded in Greece, Ireland and Italy.



#### **Recent trends**

Indicator A is estimated to have increased by 3.8% in the European Union (EU-27) in 2006, following a decrease of 7.2% in 2005. For the EU-25, agricultural income increased by 3.5% in 2006, following a decrease of 3.9% in 2005.

In 2006, agricultural income evolved differently across the Member States of the EU-27. The largest increase was observed in the Netherlands, where Indicator A grew by 15.1%, mainly owing to higher producer prices and subsidies. The largest decrease was recorded in Ireland (-13.3%), mainly the result of lower subsidies.

In Bulgaria, Indicator A increased by 6.4%, mainly because of the sharp fall in labour input. In Romania, the increase (+7.7%) was mainly driven by the drop in intermediate consumption (especially feeding stuff) volumes and the slight fall in agricultural labour input.



# Figure 2.1.2: Agricultural income (indicator A) in the EU, % 2006/2005



# Figure 2.1.3: Main components of agricultural income, EU-27, % 2006/2005



The value of the agricultural industry's output at producer prices remained unchanged (+0.1%) in real terms. Output values of both crop and animal production remained stable (+0.2% and -0.1%respectively). In the case of crop production, the fall in the average output volume (-2.7%) was offset by changes in average prices (+3.0%). In the case of animal production, the average output volume fell by 0.6\%, while producer prices increased by 0.5%.

The output value of agricultural services grew by 0.9% and that of inseparable non-agricultural secondary activities remained at the 2005 level.

The value of intermediate consumption of goods and services decreased by 0.3% in 2006. This reduction is explained by lower intermediate consumption volumes (-1.8%) and higher prices (+1.5%).

Consumption of fixed capital ('depreciation') was slightly higher (+0.1%) than in 2005. The value of overall subsidies (product-specific subsidies and other subsidies on production net of taxes) showed an increase of 0.8%.

As a consequence of these developments, agricultural factor income, the basis of Indicator A, increased by 1.1% compared to 2005. With the continuous reduction in agricultural labour input (-2.6%), Indicator A shows an increase of 3.8%.



	ø 1996-2000	ø 2001-2005	2006
		index year 2000 = 100	
EU-27	:	109.8	112.1
EU-15	100.8	101.2	100.9
BE	75.8	87.9	94.1
BG	:	95.5	104.3
cz	:	119.2	152.3
DK	76.6	92.6	103.2
DE	65.7	111.6	119.7
EE	79.0	168.9	224.7
IE	73.0	95.9	90.3
EL	84.5	92.0	86.2
ES	81.0	107.7	97.4
FR	81.4	95.0	94.8
IT	82.0	95.1	90.9
СҮ	:	104.7	96.8
LV	:	156.0	224.2
LT	:	123.4	199.5
LU	85.5	97.2	92.5
HU	:	119.0	160.5
мт	:	111.9	109.2
NL	107.3	84.6	97.2
AT	98.3	109.9	114.6
PL	:	131.8	180.7
РТ	108.7	120.4	131.1
RO	:	192.2	167.4
SI	96.1	115.6	141.2
SK	103.9	114.3	123.0
FI	83.4	99.3	100.0
SE	98.5	110.1	99.6
UK	118.3	123.4	133.9

### Table 2.1.1: Agricultural income indicator A

Source: Eurostat - Economic accounts for agriculture



### Impact of subsidies

	GVA a	t producer j	orices	Ov	erall subsidi	es
	1995	2000	2006	1995	2000	2006
			milli	on €		
EU-27	:	132 013.0	136 823.0	:	38 640.8	50 581.5
EU-15	115 418.9	117 201.4	117 081.1	34 186.3	37 491.5	44 748.2
BE	2 428.2	2 484.0	2 413.5	334.0	351.2	509.2
BG	1 427.7	1 634.1	1 574.0	:	5.4	79.4
cz	:	831.4	954.4	:	170.1	880.4
DK	3 145.9	2 688.5	2 676.2	796.1	788.8	999.3
DE	12 006.4	13 521.1	13 115.8	5 704.1	5 600.7	6 397.2
EE	93.4	137.5	156.7	2.9	22.2	119.7
IE	2 405.5	1 997.7	1 716.8	911.1	1 284.0	1 950.2
EL	6 584.9	6 239.8	5 949.8	1 944.1	2 134.0	3 085.0
ES	15 838.6	19 483.8	20 959.3	4 242.0	4 895.2	6 404.7
FR	23 923.0	23 889.7	22 645.7	8 029.5	8 152.3	9 964.1
IT	23 546.7	24 526.8	24 894.0	2 937.8	4 794.1	4 388.2
СҮ	:	324.6	344.8	:	3.0	0.0
LV	:	202.1	224.5	:	15.1	235.3
LT	310.1	394.1	370.8	:	17.8	283.7
LU	115.3	102.9	101.3	33.6	48.4	65.2
HU	:	1 794.4	1 945.5	:	172.2	1 000.4
МТ	:	64.5	43.8	:	1.0	19.6
NL	9 301.8	9 052.8	8 624.8	565.5	408.4	995.6
AT	2 224.9	2 238.6	2 345.1	2 034.6	1 422.4	1 760.1
PL	:	4 597.5	5 447.0	:	214.4	2 406.6
РТ	2 337.6	2 159.9	2 358.6	740.2	663.7	865.9
RO	:	4 121.3	7 888.2	:	228.3	303.3
SI	428.5	399.4	398.8	23.3	64.4	220.3
SK	510.4	310.7	393.3	164.5	235.4	284.4
FI	740.1	669.7	444.5	2 289.4	1 967.3	2 092.6
SE	1 208.2	1 093.5	1 168.8	704.3	881.9	1 020.5
UK	9 611.9	7 052.6	7 667.0	2 920.0	4 099.1	4 250.4

# Table 2.1.2: Agricultural gross value added atproducer prices and subsidies

Source: Eurostat - Economic accounts for agriculture




## Figure 2.1.4: Share of agricultural subsidies within agricultural income, 1998-2006



In 2006, the gross value added (GVA) at producer prices amounts to  $\in$  137 billion in the EU-27. Less than 90% of this value is generated in the old 15 Member States (EU-15). Around 60% of the GVA of the agricultural industry in EU-27 are produced by France, Italy, Spain and Germany.

The value of all agricultural subsidies (product subsidies and other production subsidies) recorded in the EAA amounts to  $\notin$  51 billion in the EU-27.

The proportion of subsidies within agricultural income has been growing steadily in recent years. The share of subsidies in factor income increased in the EU-27 from 29 percent in 1998 to 38 percent by 2006. In the case of entrepreneurial income, the share of subsidies increased from 44 percent in 1998 to 66 percent by 2006. The entrepreneurial income is calculated by subtracting from the factor income the compensation of employees, the rents and any interest paid, adding to it the interest received. The 'net' factor income from agricultural activity without subsidies has been declining across the EU-27: a 7% decrease took place during the period between 1998 and 2006.

The income from agricultural activity in the ten new Member States increased dramatically after their accession to the EU while that of farmers in the old Member States declined somewhat. Consequently, the profitability of production drew closer to that of farms in the old Member States in terms of proportions. However, the level of average income per unit of labour input is still way below the levels observed in the old Member States. Trends in income processes were influenced primarily by the weather, but agricultural subsidies have also had a substantial impact. The increase of the level of subsidies stabilised the income levels in the new Member States in the wake of accession.



#### 2.2 Output

## Table 2.2.1: Output value at producer prices of theagricultural industry

	1995	2000	2006	2000	2006
		million €		% of EU-15	% of EU-27
EU-27	:	294 910.9	317 282.0	-	100.0
EU-15	245 686.9	258 472.8	269 564.6	100.0	85.0
BE	7 090.1	6 844.6	6 901.1	2.6	2.2
BG	2 818.8	3 389.3	3 467.1	-	1.1
cz	:	2 819.1	3 528.4	-	1.1
DK	7 913.2	7 723.6	7 981.1	3.0	2.5
DE	40 520.3	39 154.0	39 955.7	15.1	12.6
EE	312.0	365.5	482.0	-	0.2
IE	5 167.1	5 153.3	5 388.2	2.0	1.7
EL	9 847.1	9 847.8	9 936.0	3.8	3.1
ES	25 744.0	32 693.5	36 004.1	12.6	11.3
FR	54 328.4	56 607.1	57 631.6	21.9	18.2
т	35 865.8	40 995.9	43 186.1	15.9	13.6
СҮ	:	579.5	612.9	-	0.2
LV	:	467.1	752.0	-	0.2
LT	849.2	1 140.4	1 375.3	-	0.4
LU	246.6	237.9	252.8	0.1	0.1
HU	:	4 834.5	5 748.1	-	1.8
мт	:	130.9	112.5	-	0.0
NL	19 366.8	19 638.7	21 597.1	7.6	6.8
AT	5 219.0	5 189.2	5 557.4	2.0	1.8
PL	:	12 406.3	15 101.9	-	4.8
РТ	5 771.8	5 996.8	6 124.0	2.3	1.9
RO	:	7 971.5	13 899.1	-	4.4
SI	963.6	952.3	1 001.4	-	0.3
SK	1 567.6	1 381.7	1 636.6	-	0.5
FI	3 349.5	3 349.7	3 451.0	1.3	1.1
SE	4 014.7	4 392.3	4 165.4	1.7	1.3
UK	21 242.6	20 648.5	21 433.2	8.0	6.8

Source: Eurostat - Economic accounts for agriculture



## Table 2.2.2: Development of main elements of outputvalue at producer prices of the agricultural industry

	VOLUME (at producer prices)	VALUE (real, at producer prices)	VALUE (real, at basic prices)	Share in EU-27 overall output value (producer prices, 2005)
	2	006 / 2005 (%	»)	%
Cereals	-5.6	5.0	-8.1	9.2
Oilseeds	5.7	14.3	0.4	1.5
Sugar beet	-17.8	-32.1	-30.1	1.9
Fresh vegetables	-2.6	-0.7	-0.7	9.1
Plants and flowers	0.7	-0.4	-0.4	6.2
Potatoes	-4.8	29.2	28.6	2.3
Fruits	3.6	1.8	1.7	6.7
Wine	-0.9	-2.1	-2.1	4.8
Olive oil	-12.7	-3.6	-25.4	1.7
Crop output	-2.7	0.2	-4.3	51.3
Cattle	0.7	6.5	-1.0	8.1
Pigs	0.7	3.3	3.3	9.7
Sheep and goats	-0.4	-0.4	-8.1	1.7
Poultry	-4.3	-6.3	-6.2	4.4
Milk	-1.0	-4.5	-5.3	14.1
Eggs	-2.3	2.1	2.1	1.8
Animal output	-0.6	-0.1	-2.2	41.6
Agricultural services	+0.1	+0.9	+0.9	4.4
Secondary activities	-0.2	+0.0	+0.0	2.8

Source: Eurostat - Economic accounts for agriculture



According to the EAA the output value at producer prices (the producer price excludes subsidies less taxes on the products) of the agricultural industry is  $\notin$  317 billion in 2006 for the EU-27. The new Member States contribute with a share of 15% to this value. With an output value of  $\notin$  58 billion France is the largest agricultural producer in value terms in the EU-27 followed by Italy, Germany and Spain which each report an output value between  $\notin$  36 and  $\notin$  43 billion.

According to the EAA EU-27 agricultural output (at producer prices in real value terms) in 2006 remained stable, due to a small increase in crop production (+0.2%) and a small decrease in animal production (-0.1%). In crop production the fall in output volume (-2.7%) was compensated by growth in producer prices (+3.0%). The sharpest reductions in crop volumes were recorded for sugar beet (-17.8%) and olive oil (-12.7%). Producer prices of potatoes (+35.7%), olive oil (+10.4%), cereals (+11.2%) and oil seeds (+8.2%) rose significantly. Despite the drop in production volume, the producer price of sugar beet fell by 17.4%.

The slight decrease in the value of animal output in 2006 is the result of a fall in production volumes (-0.6%) and a rise in producer prices (+0.5%). The increase in the output volume of cattle (+0.7%) was accompanied by growth in producer prices (+5.8%). On the other hand, in the case of poultry, both production volumes (-4.3%) and producer prices (-2.1%) decreased significantly. The real value of pig production grew, mainly due to a rise in producer prices (+2.6%).

Please note that the concept of producer prices in EAA is somewhat different from the agricultural price statistics (API). The price indices in EAA are related to previous year, while API is based on the weighting structure of 2000. There are also differences in the values taken into account in the weighting scheme and the reference period.

#### 2.3 Inputs

Share of product specific inputs in						
	crop pro	duction <sup>1</sup>	animal pr	oduction <sup>2</sup>		
	2000	2006	2000	2006		
		9	6			
EU-27	16.4	17.7	51.0	51.9		
EU-15	16.3	17.5	49.6	51.7		
BE	21.7	22.5	61.1	60.2		
BG	18.1	16.4	27.7	47.5		
cz	18.8	22.6	81.5	66.9		
DK	17.4	24.7	55.3	52.5		
DE	18.5	20.2	57.8	58.0		
EE	9.8	15.0	71.2	68.7		
IE	34.7	37.7	35.8	47.3		
EL	8.9	9.5	51.9	51.8		
ES	12.7	12.9	51.5	51.9		
FR	20.6	22.3	53.1	57.0		
IT	9.0	10.2	50.4	53.2		
СҮ	:	18.8	:	53.3		
LV	16.7	28.4	51.3	56.7		
LT	23.8	35.6	66.6	50.0		
LU	23.0	32.9	36.3	39.6		
HU	20.2	24.6	59.1	54.4		
МТ	10.0	15.4	51.2	49.4		
NL	16.1	14.8	40.7	43.0		
AT	13.9	14.3	45.2	46.7		
PL	17.0	19.8	63.3	44.3		
РТ	9.6	9.5	67.1	55.1		
RO	11.8	13.4	64.4	65.1		
SI	16.4	16.3	66.3	63.2		
SK	41.6	33.6	55.4	53.1		
FI	20.2	26.6	55.9	61.1		
SE	23.8	30.4	49.1	40.7		
UK	28.5	33.0	29.9	34.7		

## Table 2.3.1: Intermediate consumption value bycrop and animal production

Source: Eurostat - Economic accounts for agriculture

1) Inputs in crop production: seeds, fertilisers, plant protection products

2) Inputs in animal production: feedingstuffs and veterinary costs



## Figure 2.3.1: Composition of the value of intermediate inputs consumed by the agricultural industry in EU-27, 2006



In the EU-27, intermediate consumption eats up almost 55% of the output value at producer prices of the agricultural industry. The most important intermediate input to agriculture in value terms is animal feed, which accounts for 35% of total intermediate consumption. Energy and lubricants contribute with 12% to the value of intermediate inputs consumed by the agricultural industry. The most important intermediate input items to crop production are fertilisers, plant protection and seeds and plantings which together have a share of 17% in total agricultural intermediate consumption.



#### 2.4 Agricultural Labour Input

	1995	2000	2006	2006/2005
		1000 AWU		%
EU-27	:	14 957	12 225	97.4
EU-15	7 325	6 529	5 708	98.1
BE	84	75	70	97.4
BG	:	771	564	90.0
cz	:	166	148	94.3
DK	90	76	63	96.7
DE	792	685	571	98.0
EE	70	65	37	98.8
IE	232	172	167	100.0
EL	645	586	600	98.9
ES	1 102	1 101	973	95.6
FR	1 137	1 028	927	98.3
IT	1 579	1 383	1 157	99.8
СҮ	:	24	22	99.1
LV	:	149	133	96.0
LT	:	187	139	92.1
LU	5	4	4	96.9
HU	780	676	512	98.4
мт	5	5	4	100.0
NL	221	220	191	97.3
AT	198	176	161	97.8
PL	:	2 495	2 236	97.6
РТ	619	503	368	99.5
RO	:	3 645	2 537	97.7
SI	111	104	90	98.9
SK	203	143	96	96.7
FI	141	111	93	96.8
SE	90	77	75	98.7
UK	391	334	289	96.9

#### Table 2.4.1: Agricultural labour input

Source: Eurostat - Agricultural Labour input





#### Figure 2.4.1: Agricultural labour input, 1995-2006

Agricultural labour input (ALI) data is the second element of the calculation of indicator A besides factor income. The data presented here is somewhat different from the FSS data in chapter 1.1. AWU data from ALI statistics is usually higher than FSS data, because it covers also the labour input of agricultural units below the threshold of FSS and agricultural work used for agricultural services, inseparable secondary activities and hunting.

Over the period between 2000 and 2006, the agricultural labour input has declined by 18.3% in the EU-27. This rate of change has been slower in the EU-15 (-12.6%) than in other parts of the EU.

In 2006, total agricultural labour input has continued to fall in all Member States, with the exception of Ireland and Malta where it was stable. The strongest falls are estimated for Bulgaria (-10.0%), Lithuania (-7.9%), the Czech Republic (-5.7%), Spain (-4.4%) and Latvia (-4%). Overall, EU agricultural labour input is down by 2.6% in 2006.



#### 2.5 Price indices

## Table 2.5.1: Deflated agricultural price indices, cropand animal output

Crop output*			A	nimal outpu	ıt	
	1998	2003	2006	1998	2003	2006
			index year	2000 = 100		
EU-27	108.0	104.2	98.0	101.7	92.3	91.5
BE	109.1	102.8	108.5	98.8	90.9	91.0
BG	106.8	92.7	73.8	125.9	88.4	74.1
cz	110.6	100.2	88.5	109.5	86.3	84.6
DK	102.1	95.7	89.4	96.7	83.1	88.8
DE	109.8	106.8	106.2	98.5	90.8	92.0
EE	:	:	:	:	:	:
IE	112.9	102.4	110.2	104.6	85.6	84.7
EL	101.8	117.1	112.9	98.8	95.8	97.9
ES	106.6	99.0	89.1	102.1	92.5	91.7
FR	106.9	101.8	92.1	101.2	93.0	89.5
т	110.7	111.5	96.1	100.0	95.3	91.9
СҮ	:	:	119.5	:	:	102.0
LV	111.7	98.9	115.2	112.6	96.3	116.7
LT	103.7	113.9	145.2	119.7	86.7	105.1
LU	110.4	113.6	101.0	106.3	89.4	91.0
HU	84.5	94.6	83.2	112.8	89.1	85.3
МТ	:	116.6	85.2	:	87.4	83.9
NL	105.6	102.4	106.9	99.8	85.0	84.9
AT	105.7	108.7	99.5	100.8	91.0	94.5
PL	112.5	95.8	101.4	104.4	82.7	91.0
РТ	109.5	106.6	99.6	99.5	91.7	86.8
RO	105.3	96.3	94.7	:	106.2	96.7
SI	115.9	102.3	94.6	109.9	87.5	85.9
SK	119.6	90.5	74.9	117.1	82.4	72.3
FI	111.6	98.3	96.1	102.6	90.9	94.7
SE	107.3	99.1	99.4	103.3	91.0	87.6
UK	114.1	106.6	107.3	106.1	105.3	103.0

Source: Eurostat - Agricultural prices and price indices

\* Crop output, including fruits and vegetables



## Figure 2.5.1: EU-25 output price indices of agricultural goods, 1998-2006

2006 data for EE are missing

In 2006 the level of agricultural prices for EU-27 was 2.0% lower for crop output comparing with 2000 as well as for animal output by 8.5%.

The output indices of agricultural goods for European Union (EU-27) went up by 12.3% in nominal terms compared to 2000. When adjusted to the inflation (deflated by means of the implicit price index of GDP) this becomes in fact a 5.3% decrease.

The decline in producer prices that has been affecting the sector for years is having a negative impact on income from production in almost all of the Member States.





## Figure 2.5.2: Deflated price indices of agricultural output, % change 2000-2006

% change 2000-2005

Real price indices of agricultural output developed differently across Member States. The available data shows that only five countries registered an increase. The largest increases were observed in Lithuania 26.4%, Latvia 16.1% and Cyprus 11.1%. The largest decrease was observed in Slovakia where the output price indices decreased by 27% in the period between 2000 and 2006.

The available data shows that in 2006 comparing with 2005 the real price indices of agricultural output for EU-27 registered an increase of 2.9% following a decrease of 4.2% in 2005 compared with 2004.







<sup>%</sup> change 2000-2005

Among the 20 Member States for which information is available for 2006, in 8 countries was observed a negative rate of change between -11.6% in Slovakia and -0.1% in Austria, in comparison with 2000. In contrast, the other 10 countries have positive rate of change ranging from 35.8% in Cyprus to 0.9% in Denmark and Germany.

The data available for EU-27 in 2006 shows a slight decrease of the deflated index of the purchase prices of the goods and services currently consumed in agriculture (input1) by 1.3% comparing to the previous year.



# Main agricultural products



#### 3 Main agricultural products

Eurostat's database includes a collection "agricultural products" with three subcollections on animal products:- poultry farming, milk and milk products, and animal production. The animal production subcollection contains statistics on meat production, livestock, the structure of rearing, and a table on the meat balance sheet. Data on meat production, and milk and milk products, which are summarised on the following pages, are gathered by Member States using surveys of farms, slaughterhouses or dairies, and using administrative sources.

In addition to the data in this chapter, Tables 1.4.1, 1.4.2 and 1.4.3 display information on livestock in the context of the structure of agricultural holdings. Table 2.2.2 shows that the share of animal output in overall output value was 41.6% for EU-27 in 2005. Table 2.5.1 contains deflated price indices for animal output.

The statistical subcollection "crop products" (within the collection "agricultural products") in the Eurostat database relates to the areas under cultivation (expressed in hectares), the harvested production (expressed in tonnes) and the yield per hectare (expressed in 100kg/hectare).

The data are obtained by sample surveys, which are supplemented by estimates based on expert observations and administrative data. The sources are not the same for each Member State; they are adapted according to national conditions and statistical practices.

As mentioned in chapter 1 (see figure 1.3.2) the principal crops grown on arable land are cereals. In 2005, EU-27 accounted for more than 12.5 % of the world's cereal harvest.

Fruit and vegetables are important crops in value terms. They represent 30% of the total crop output (see table 2.2.2). Their production distribution among the EU-27 countries can be both very wide (for example, apples) and highly concentrated for example, eggplant). In general, climatic conditions in the south of Europe are favour the production of fruit and vegetables.



#### 3.1 Meat

#### Table 3.1.1: Slaughter by species, 1000t, 2006

	Cattle	Pigs	Sheep	Goats	Equidae	Poultry
			100	00 t		
EU-27	7941.5	21529.4	984.1	75.0	:	:
BE	268.9	1006.2	1.4	0.0	3.0	:
BG <sup>1</sup>	29.8	74.5	17.7	6.7	:	98.4
cz	79.7	358.5	1.5	0.1	0.1	230.6
DK	128.7	1748.6	1.7	0.0	0.0	169.7
DE	1193.0	4662.2	43.4	0.4	2.5	1008.9
EE	14.5	35.1	0.5	0.0	:	:
IE	572.2	209.0	70.3	0.0	0.0	:
GR	60.7	122.8	75.4	39.0	0.0	153.7
ES	671.2	3229.6	226.6	11.7	5.3	1256.7
FR	1509.5	2262.8	121.4	7.8	5.6	:
IT	1110.6	1556.1	63.0	3.0	41.3	628.5
СҮ	4.0	52.5	3.0	3.9	:	:
LV	20.7	37.8	0.4	0.1	0.1	20.6
LT	47.3	106.2	0.3	0.3	0.0	65.7
LU	9.3	9.8	0.1	0.0	0.0	0.1
HU	33.5	487.6	0.9	0.3	0.0	384.2
МТ	1.4	8.2	0.0	0.0	0.1	3.9
NL	355.0	1229.8	5.3	0.1	0.2	:
AT	214.6	505.3	0.0	0.0	0.0	101.6
PL	355.3	2071.4	1.1	0.4	10.1	1058.0
РТ	105.3	338.6	11.8	0.8	0.2	247.3
RO <sup>1</sup>	25.3	91.8	2.6	0.0	0.0	155.1
SI	37.9	33.6	0.1	0.0	0.3	48.1
SK	21.4	122.3	0.9	0.3	0.0	94.2
FI	87.1	208.1	0.6	0.0	0.3	87.2
SE	137.4	264.4	4.2	0.0	0.9	102.2
UK	847.1	696.5	330.1	0.1	0.0	1533.2

Source: Eurostat - agricultural products

1) BG, RO: 2005 data



Figure 3.1.1: Trend in slaughter by species, EU-15

The number of pigs slaughtered rose rapidly between 1997 and 1999, fell back moderately between 1999 and 2001, and then slowly picked up again from 2001 to 2006. The slaughter of cattle declined between 1995 and 2001, recovered partially in 2002, and fell moderately in 2006. Slaughter of sheep fell sharply between 2000 and 2001 and has remained relatively stable since then. The number of goats slaughtered has been decreasing since 1997, and especially since 2002.



#### Figure 3.1.2: Slaughter weight, percent of EU-27, 2006

One effect of the enlargement of the European Union from 15 to 25 Member States in 2004 was to increase the Union's production of meat from pigs, cattle and goats. The further enlargement to 27 Member States also led to a significant increase in goatmeat production. Recent enlargements have not led to a large increase in sheepmeat production.





#### Figure 3.1.3: Slaughter of cattle and pigs by Member State, 2006

Cattle and pigs are by far the most important species of animals reared for meat in the European Union. Five Member States - Germany, Spain, France, Italy and Poland - contributed more than 63% of the total for these two species.



#### Table 3.1.2: Cattle slaughter by type of animal, 2006

	Total cattle <sup>1</sup>	Calves	Heifers	Cows	Bullocks	Bulls
			100	00 t		
EU-27	7941.4	789.9	1224.1	2224.5	804.7	2898.3
BE	268.9	54.1	5.3	126.7	0.3	82.5
BG	29.8	:	:	:	:	:
cz	79.7	0.5	5.9	32.2	0.1	41.0
DK	128.7	1.7	13.8	55.6	1.7	55.9
DE	1193.0	43.1	141.0	422.8	12.2	573.8
EE	14.5	0.5	1.5	6.4	0.2	5.8
IE	572.2	0.0	138.8	107.9	284.7	40.4
GR	60.7	14.7	7.4	6.5	0.0	32.1
ES	671.2	31.9	193.0	103.6	0.0	342.7
FR	1509.5	239.3	157.7	628.1	99.4	385.1
т	1110.6	142.4	154.6	133.1	1.0	676.3
СҮ	4.0	0.0	:	:	:	:
LV	20.7	2.2	1.9	6.0	0.0	10.6
LT	47.3	1.4	7.8	17.5	0.0	20.6
LU	9.3	0.6	1.4	2.8	0.4	4.2
HU	33.5	0.2	4.2	18.9	0.1	10.2
МТ	1.4	0.0	0.1	0.6	0.0	0.8
NL	355.0	206.0	2.3	125.2	0.0	21.6
AT	214.6	8.7	27.9	62.2	8.7	107.2
PL	355.3	7.3	56.6	131.6	0.3	159.7
РТ	105.3	20.3	14.5	15.7	1.6	53.2
RO	25.3	:	:	:	:	:
SI	37.9	2.2	3.8	6.0	0.2	25.8
SK	21.4	0.1	1.6	11.4	0.0	8.4
FI	87.1	0.8	8.6	28.1	0.0	49.6
SE	137.4	4.5	12.5	46.2	15.4	58.8
UK	847.1	1.4	252.2	112.0	372.1	109.4

Source: Eurostat - agricultural products

1) Total cattle: 2005 data for BG and RO





#### Figure 3.1.4: Carcass weight for cattle, 2006

There was considerable variation between Member States in the weight of cattle slaughtered. For adult cattle, i.e. heifers, cows, bullocks and bulls, carcass weight ranged from 214 kg for Latvia to more that twice that weight, 430 kg, for Belgium.



#### 3.2 Milk

## Table 3.2.1: Cow's milk collected and productsobtained, 2006

	Cow's milk collected	Drinking milk	Cream for direct consumption	Skimmed milk powder	Butter	Cheese
			1000 t			
EU-27	132186.4	35162.0	2601.5	1035.6	1936.0	8039.3
BE	2836.9	638.1	136.9	65.3	104.3	65.0
BG	789.1	55.6	1.3	:	:	74.9
cz	2392.6	608.0	42.4	18.9	41.1	113.1
DK	4492.1	466.8	56.1	27.0	37.6	335.1
DE	26821.2	5971.4	562.3	191.2	438.5	1994.8
EE	605.9	82.6	27.5	7.3	8.1	32.8
IE	5233.7	539.6	11.4	68.5	143.2	136.8
GR	731.4	427.9	7.5	0.0	0.7	12.5
ES	5759.2	3551.2	95.5	1.1	45.3	134.7
FR	22850.2	3761.5	387.0	266.8	405.1	1685.5
ΙТ	9936.3	2913.6	114.9	:	111.8	1033.0
СҮ	138.4	78.7	3.6	0.0	0.5	1.6
LV	592.3	80.3	23.4	:	5.4	19.7
LT	1296.8	80.7	34.1	:	14.4	69.5
LU	254.6	:	:	0.0	:	:
HU	1445.5	502.9	8.9	:	7.9	70.5
мт	41.3	27.6	0.4	0.0	0.0	0.4
NL	10655.2	0.0	:	:	105.7	711.5
AT	2672.0	786.0	60.0	4.0	32.0	148.0
PL	8813.0	1346.7	241.2	124.4	158.8	584.0
РТ	1850.9	953.8	17.2	6.8	28.6	55.7
RO	1107.0	191.3	39.4	5.3	7.7	61.4
SI	511.0	156.2	13.8	:	:	20.4
SK	961.6	235.7	33.6	5.7	8.8	43.5
FI	2347.6	732.7	42.7	17.5	56.9	99.9
SE	3130.3	951.7	90.4	13.0	30.0	118.9
UK	13920.2	6822.4	321.2	:	118.1	397.3

Source: Eurostat - agricultural products



Figure 3.2.1: Trend in collection of cows' milk and products made from cows' milk, EU-15

The quantity of cows' milk collected remained remarkably stable in the EU-15 between 1995 and 2006, due to the milk quota system. As for the products obtained, there was a notable increase in the production of cheese and (to a lesser extent) cream for direct consumption. Production of butter has shown a moderate decline, especially since 2003, while the production of skimmed milk powder, which is a residual product, registered a marked fall.



## Figure 3.2.2: Cows' milk and products, 2006, percent of EU-27

The enlargement of the European Union from 15 to 25 Member States in 2004 resulted in a significantly larger volume of cows' milk collected and of milk products obtained. The further enlargement to 27 Member States in 2007 produced a much smaller increase. Nevertheless, the 15 Member States which made up the



EU between 1995 and 2004 still contribute more than 80% of the cows' milk collected and products obtained from cows' milk.



#### Figure 3.2.3: Cows' milk collected, %, 2006

Six Member States - Germany, France, the United Kingdom, the Netherlands, Italy and Poland - together contributed more than 70% of the cows' milk collected in the EU.



#### Figure 3.2.4: Utilization of milk, %, 2005

Of the milk collected, almost one third was used to produce fresh products. Drinking milk and cream for direct consumption each accounted for about 13% of the milk. Other fresh products, such as yoghurt and milk-based drinks, made up about 5%. Over two thirds of the milk was used for manufactured products, with butter and cheese each representing about 30% of the total milk volume.



#### 3.3 Main crops

## Table 3.3.1: Harvested production of some of themain crops, million tonnes, 2006

	Cereals total (including rice) <sup>1</sup>	Potatoes <sup>2</sup>	Sugar beet <sup>3</sup>	Rape <sup>4</sup>	Sunflower
		1	000 t		
EU-27	271 300	57 310	126 750	15 820	6 745
EU-25	50 100	52 900	125 570	15 620	4 069
BE	2 617	2 593	5 334	32	0
BG	5 513	386	25	22	1 119
cz	6 550	692	3 1 3 8	880	101
DK	8 615	1 361	2 300	430	0
DE	43 484	10 031	20 647	5 316	66
EE	619	153	0	85	0
IE	1 945	0	:	14	0
EL	3 574	855	1 600	0	12
ES	19 080	2 502	6 873	9	552
FR	61 750	6 347	29 765	4 131	1 441
т	20 260	1 783	14 156	6	325
СҮ	635	125	0	0	0
LV	1 159	517	456	130	0
LT	1 856	409	640	171	0
LU	161	16	0	16	0
HU	14 674	574	2 271	331	1 248
мт	0	18	0	0	0
NL	1 975	0	5 931	13	0
AT	4 460	655	2 493	137	85
PL	21 776	8 982	9 696	1 584	6
РТ	1 167	577	319	0	3
RO	15 670	4 016	1 154	179	1 556
SI	494	107	246	7	0
SK	3 133	263	1 371	260	229
FI	3 790	576	952	148	0
SE	4 181	773	2 189	223	0
UK	20 830	5 815	8 500	1 706	2

Source: Eurostat - agricultural products

1) Cereals: 2005 data for IE

2) Potatoes: 2005 data for UK

3) Sugar beet: 2005 data for BG, DE, IT, NL and UK

4) Rape: 2005 data for BG, IE, IT and UK





## Figure 3.3.1: Trend in the production of cereals, potatoes and sugar beet, EU-27





Knowing that 2003 and 2004 were years with a strong influence of the weather, cereals production remain quite stable.

Whereas an average decrease in the EU-27 production of potatoes (-32%) and sugar beet (-8%) was observed between 2000 and 2006, there was an average increase in the production of rape (+41%) and sunflower (+18%).

The policy of encouraging the production and use of biofuels such as biodiester, which is produced using rape and sunflower seed, has probably contributed to this increase.





#### Figure 3.3.3: Share of main crops production between Member States, 2006

Poland is the third largest producer of cereals in EU-27.

The two main producers of potatoes, Germany and Poland, represent more than 33% of the EU-27 production.

The two main producers of sugar beet and rape - France and Germany - together account for more than 40% and almost 60%, respectively, of the EU-27 production of these crops.

Romania - the biggest producer, and Bulgaria the fourth largest producer of sunflower seeds together make up 40% of the EU-27 production.



#### 3.4 Cereals

## Table 3.4.1: Harvested production of the maincereals, 2006

	Wheat	Barley	Grain maize <sup>1</sup>	Rye	Rice
			1000 t		
EU-27	126454	56111	55750	6532	2780
EU-25	117626	54792	45180	6484	2750
BE	1719	367	576	0	0
BG	3302	546	1588	13	20
cz	3506	1898	606	75	0
DK	4802	3270	0	130	0
DE	22428	11967	3220	2644	0
EE	220	303	0	18	0
IE	768	1096	0	0	0
EL	1380	188	1710	23	181
ES	5576	8318	3461	159	762
FR	35432	10404	12853	122	99
т	7092	1282	9671	9	1564
СҮ	9	54	0	0	0
LV	598	307	0	117	0
LT	810	742	5	90	0
LU	76	50	2	6	0
HU	4379	1081	8441	95	10
мт	0	0	0	0	0
NL	1207	269	253	12	0
AT	1396	914	1472	94	0
PL	7060	3161	1261	2622	0
РТ	260	94	536	25	150
RO	5526	773	8985	36	19
SI	134	62	276	2	0
SK	1343	642	838	30	0
FI	684	1972	0	51	0
SE	2001	1112	0	118	0
UK	14747	5239	0	43	0

Source: Eurostat - Agricultural products

1) Grain maize: 2005 data for NL





## Figure 3.4.1: Trend in the production of wheat, barley and grain maize, EU-27

Except in 2003 and 2004, when the climatic conditions had a strong influence on cereals production, the trend for wheat, barley, grain maize and rice production has been quite stable, while rye production has decreased.

🗕 Rice

- Rye





## Figure 3.4.3: Share of cereal production between Member States, 2006

France and Germany, the two main producers of wheat and barley, together account for 46% of wheat and 40% of barley production in EU-27.

Romania and Hungary, the third and fourth largest producers of grain maize, account for more than 31% of EU-27 production. Germany and Poland have a share of over 80% of EU-27 rye production.

Only eight countries in the European Union produce rice; of these, Italy accounts for over 56 % of the EU-27 rice production.





## Figure 3.4.4: Harvested production of cereals by type, EU-27, 2006

Wheat, barley and grain maize are the main cereal types grown in the European Union.

Out of the harvested production of cereals of over 271 million tonnes, wheat production makes up more than 125 million tonnes (i.e. 45% of total cereals production). Barley and grain maize achieve similar production levels and, at around 56 million tonnes, represent 42% of the harvested production of cereals.


#### 3.5 Fruits and vegetables

	Tomatoes <sup>1</sup>	Carrots <sup>2</sup>	Onions <sup>3</sup>	Apples <sup>4</sup>	Pears <sup>5</sup>	Oranges <sup>6</sup>
			100	0 t		
EU-27	15828.69	5255.27	5033.60	11771.13	2762.96	6820.07
BE	229.61	239.40	53.02	317.21	229.15	0.00
BG	212.97	13.27	20.27	26.13	:	0.00
cz	15.01	22.77	50.61	134.09	:	0.00
DK	17.64	69.10	55.67	31.78	9.02	0.00
DE	53.24	504.16	337.27	857.03	:	0.00
EE	1.22	9.96	0.20	4.29	:	0.00
IE	:	:	:	:	:	0.00
EL	1550.00	36.90	199.10	262.93	55.39	880.00
ES	3679.80	:	1151.20	660.70	590.00	3210.90
FR	750.74	614.83	337.04	2246.35	224.71	0.65
IT	6357.22	640.08	361.09	2164.32	897.81	2470.66
СҮ	34.50	1.80	7.00	10.80	1.10	28.80
LV	0.31	31.64	13.57	33.90	1.31	0.00
LT	0.84	33.46	7.57	75.05	0.06	0.00
LU	0.07	0.28	0.04	3.82	0.21	0.00
HU	204.56	83.80	94.74	537.35	32.84	0.00
МТ	15.91	1.24	7.29	0.10	0.19	1.09
NL	675.00	541.00	920.00	365.00	222.00	0.00
AT	39.11	77.20	99.74	509.14	117.24	0.00
PL	246.66	833.22	590.20	2304.89	59.30	0.00
РТ	:	:	:	239.67	168.98	227.97
RO	571.54	193.87	251.26	579.44	60.06	0.00
SI	4.61	2.95	5.39	119.18	11.45	0.00
SK	35.56	12.97	13.12	30.78	0.52	0.00
FI	38.74	56.65	17.68	3.26	:	0.00
SE	18.26	100.61	:	19.23	1.69	0.00
UK	83.09	632.54	373.35	234.70	29.14	0.00

### Table 3.5.1: Harvested production (1000 t) of some fruit and vegetables, 2006

Source: Eurostat - Crop production

1) Tomatoes: 2005 data for BE, CZ, EE

2) Carrots: 2005 data for BE, EE

3) Onions: 2005 data for BE, EE

4) Apples: 2005 data for BE, BG, CZ, EE, FR

5) Pears: 2005 data for BE, FR SE

6) Oranges: 2005 data for FR

In the European Union, the most important vegetables in terms of production are tomatoes (around 15.8 millions tonnes), carrots (around 5.3 millions tonnes) and onions and Carrots (around 5.2 millions tonnes) whereas the most important fruits are apples (around 11.8 millions tonnes), oranges (around 6.87 millions tonnes) and pears (around 2.8 millions tonnes).

While apple and pear production is spread among the Member States, orange production is located in the Mediterranean countries.





### Figure 3.5.1: Trends in the production of some vegetables, EU-27

Whereas the onion and carrot productions remain quite stable over years, tomato production is varying considerably (-10 % between 2000 and 2002, +17% between 2002 and 2004 and -15% between 2004 and 2006).

### Figure 3.5.2: Trends in the production of certain fruits, EU-27



While pear production seems to be stable, apple production is decreasing on average. For oranges, 2006 seems to have been the best crop year.





### Figure 3.5.3: Percentage share of certain vegetables in total vegetable production, EU-27, 2005

Tomato is clearly the main vegetable produced in EU-27 with a share of nearly one third of the total EU-27 vegetable production.





### Figure 3.5.4: Share of carrot, tomato and onion production between Member States, EU-27, 2006

More than 60% of the tomatoes produced come from Italy and Spain, while more than 50% of carrot production comes from Poland, United Kingdom, France and Spain; half of the onions are grown in Spain, the Netherlands and Poland.



### Figure 3.5.5: Share of apple, pear and orange production between Member States, EU-27, 2006

As for fruit, almost 60% of apples come from Italy, France and Poland; over 50% of pears and over 80% of oranges come from Italy and Spain.



# Agriculture and environment



### 4 Agriculture and environment

In a Communication from 2006, the Commission adopted a list of 28 agri-environmental indicators to be maintained and further developed<sup>5</sup> which will:

- Provide information on the farmed environment;
- · Track the impact of agriculture on the environment;
- Assess the impact of agricultural and environmental policies on the environmental management of farms;
- Inform agricultural and environmental policy discussions;
- Illustrate agri-environmental relationships to the wider public.

These agri-environmental indicators are necessary:

- To assess the impact of policy decisions;
- To identify shortcomings in current measures and needs for new policy initiatives;
- Where appropriate, to improve the targeting and tailoring of the measures to local conditions.

<sup>5</sup> COM(2006) 508 final



#### 4.1 Pesticides and fertilisers

### Table 4.1.1: Spendings on fertilisers and soil improvers

	2000	2005
	€/ha	(UAA)
EU-27	64.2	58.5
BE	164.6	155.7
BG*	76.8	41.8
CZ*	31.2	26.1
DK	74.2	63.5
DE	102.2	72.7
EE*	9.9	13.1
IE	76.2	61.8
EL	64.7	50.2
ES	43.7	38.3
FR	98.5	92.3
ΙТ	68.7	76.9
СҮ	:	:
LV	12.2	:
LT*	34.2	35.8
LU	77.0	75.3
HU	36.0	49.3
MT*	117.1	123.3
NL	128.6	125.9
AT	33.3	32.5
PL*	39.2	39.5
РТ	32.4	40.5
RO*	13.6	32.8
SI	64.9	53.3
SK	24.7	33.5
FI	99.1	91.8
SE	71.5	64.7
UK	76.6	56.9

Source: Eurostat, Economic accounts for agriculture and Farm Structure Survey

\* = 2003 UAA

EU27 = estimate

Values are at constant prices at 2000 level



Bought fertilisers are mainly mineral (inorganic) fertilisers. The application of fertilisers is a major contributory factor to increased potential losses through leaching of nitrate and phosphate. The intensity of fertiliser use has implications for agricultural production and for the environment. In particular, problems arise when more fertilisers are used than needed. On the other hand, fertilisers and soil improvers are important inputs for agricultural production.

The price of nitrogen fertilisers, which represent an important share of all fertilisers purchased, can show very large fluctuations linked to the price of energy. Increased spending does not necessarily represent a rise in the volume of fertilisers bought.

UAA is used instead of the combined area of arable land and permanent crops because in many countries mineral fertilisers are regularly used on permanent grasslands. In some countries, such as Hungary, permanent grasslands are farmed very extensively.

Spending/UAA on fertilisers is the highest in Belgium, Netherlands and Malta. The reasons may be either the high share of horticulture and permanent crops, generally intensive farming throughout the country or higher prices of fertilisers.



#### Table 4.1.2: Spendings on plant protection products

	2000	2005
		€/ha (UAA)
EU-27	75.3	76.5
BE	218.3	218.0
BG	:	:
CZ*	36.0	72.0
DK	62.0	74.2
DE	111.6	131.7
EE*	5.2	10.3
IE	60.6	67.1
EL	72.1	79.2
ES	51.9	44.0
FR	144.0	137.7
т	71.0	65.2
СҮ	:	0.0
LV	9.1	:
LT*	24.2	18.8
LU	76.5	92.1
HU	39.2	49.1
MT*	83.5	96.9
NL	299.7	274.5
AT	67.0	59.6
PL*	29.8	27.6
РТ	37.9	70.6
RO*	11.3	17.5
SI	98.7	90.7
SK	54.6	61.8
FI	22.6	29.8
SE	37.9	30.3
UK	147.6	147.6

Source: Eurostat, Economic accounts for agriculture and Farm Structure Survey

\* = 2003 UAA

EU27 = estimate

Values are at constant prices at 2000 level

Plant protection products (PPP) include insecticides, pesticides, herbicides and fungicides



Plant protection products (PPP) are very important in agriculture to preserve the crops, but they can also have negative impacts on environment. Although there is no absolute relationship between the use of PPP and the potential threat to the environment and health, indicators of the intensity of PPP use can be a first step towards a risk evaluation.

PPP represent a broad variety of commercial products and active ingredients. Data are collected on the amounts sold and the application rates of commercial products. However, comparison can be difficult since some products are measured in litres, others in kilograms and the active ingredient content can vary markedly from one product to another. Therefore the intensity is presented here as a relationship between spending and hectares. Prices are also very dependant on the product, from cheap older products requiring high dosages to more expensive modern products which require only a few grams per hectare. More detailed analysis would require additional data on prices and application rates.

Still, high intensity does not necessarily mean a threat to the environment if the products are used properly. To analyse the possible pressures on the environment, data on the PPP content of the soil and the water courses are also needed.

#### 4.2 Irrigation



### Figure 4.2.1: Share of irrigable area by country, % of total arable area + permanent crops, 2005

Irrigable area is the area that is equipped for irrigation. The areas actually irrigated depend on the weather conditions of a particular year while irrigable area refers to the irrigation potential. Data are from the FSS.



Source: Eurostat, Farm Structure Survey

Water availability problems occur when the demand for water exceeds the amount available during a certain period. Apart from causing problems providing water for users, overexploitation of water has lead to the drying-out of natural areas in western and southern Europe, and to salt-water intrusion in costal aquifers. (EEA 1995).

The main types of environmental water impact arising from irrigation are, according to Institute for European environmental policy (2000):

- water pollution from nutrients and pesticides due to increased run-off
- damage to habitats and aquifer exhaustion by abstraction of irrigation water
- salinisation, or contamination of water by minerals, of groundwater sources
- ecological effects of large-scale water transfers associated with irrigation projects

In the EU-25 (excluding Germany) the irrigable area was around 15.6 million ha in 2005, which is approximately 13.5% of the total agricultural area.

The share of irrigable area is the highest in the Mediterranean countries: Greece (51%), Italy (43%), Portugal, Malta and Cyprus (approx. 30%) and Spain (23%). In these countries the irrigation is an essential element of many types of agricultural production. In the other areas of the EU, supplementary irrigation is used improve production in dry summers, with the Netherlands having the highest share of irrigable area (approx. 36%).

The intensity of water use does not only depend on the irrigable area but also on the type of equipment used. Sprinkler and drop irrigation are less water intensive than gravity irrigation, which is still predominant in Spain, Portugal and Italy. Drop irrigation is more expensive than other irrigation methods and it tends to be concentrated in areas with high value crops. Before intensive water use can be considered to have a negative impact on environment, additional information is needed, for example, on the amount used for irrigation compared to the total amount of water available.



#### 4.3 Livestock density

#### Figure 4.3.1: Livestock density index by country, 2005



Source: Eurostat, Farm Structure Survey

Livestock density is the number of livestock units (LU) per utilised agricultural area (UAA). Livestock numbers are converted into livestock units using standard coefficients. The UAA is the sum of arable land, permanent grassland and permanent crops.



The agri-environmental indicators related to cropping and livestock patterns provide an insight into environmentally important farming trends in the EU. Cropping and livestock patterns determine land use intensity in agriculture and its influence on, for example, soil, water and habitat diversity.

One of the most important indicators of livestock patterns is livestock density. The livestock density is highest in the Netherlands, Malta and Belgium. In most Member States the livestock density is below 1 LU/UAA. Livestock density at a country level is a very rough estimate, especially in large countries. A regional breakdown down would give a better picture. It is also necessary to count the livestock density of each category of livestock, as they each have different effects on the environment.

A high livestock density may indicate that livestock farming in an area is creating some pressures on the environment. It most probably signals intensive farming associated with the use of external feed, greater use of inputs like fertilisers and pesticides, and might also indicate problems with manure. But it is also possible that an intensive farm is managed environmentally well. On the other hand, a low livestock density is not necessarily environmentally positive, as it may indicate greater use of mineral fertilisers or a lack of grazing areas. More information is needed to evaluate the situation correctly.

#### 4.4 Greenhouse gas emissions of agriculture



### Figure 4.4.1: Greenhouse gas emissions by sector, EU-25, 2004

*Source:* European Environment Agency / European Topic Centre on Air and Climate Change, UN Framework Convention on Climate Change.



Climate change and the need to avoid its potential consequences is an issue of high priority within the EU. Parties to the Kyoto Protocol agreed an 8% emission reduction target to be achieved in 2008-2012. However, the target is for the EU as a whole and without any specific targets for each type of gas.

Greenhouse gases are:

- Carbon dioxide (CO2), 82.7% of total greenhouse gas emissions. The main emission source is fossil fuel combustion.
- Methane (CH4), 7.9% of total greenhouse gas emissions. The main sources are waste, agriculture and fugitive emissions from fuels.
- Nitrous oxide (N2O), 8.1% of total greenhouse gas emissions. The main sources are agriculture, industrial processes and car catalysts.
- Industrial fluorinated gases (hydrofluorocarbons, perfluoro-carbons, sulphurhexafluoride), 1.4% of total greenhouse gas emissions. They are mainly used in refrigeration and air conditioning applications, magnesium casting and aerosols.

Agriculture contributed 9.2% of the total EU-25 emissions of greenhouse gases in 2004. The main sources of agriculture-related greenhouse gas emissions are enteric fermentation, manure management and agricultural soil management.

Methane emissions mainly occur from enteric fermentation in ruminant animals (cattle and sheep) and from the decomposition of manure under anaerobic conditions. Nitrous oxide emissions are generated during manure storage and by the conversion of nitrogen in soils. Methane and nitrous oxide emissions are thus closely related to the livestock production.



### Population structure, education and employment in thinly populated areas



#### 5 Population structure, education and employment in thinly populated areas

This chapter presents some statistics based on the degree of urbanisation concept dividing the EU territory in thinly populated areas, intermediate areas and densely populated areas.

The definition of the "degree of urbanisation" is based on the following criteria:

- *densely populated area*: contiguous set of local areas each of having a density >500 inhabitants per km<sup>2</sup> and a population of at least 50.000 inhabitants for the whole set,
- *intermediate area*: contiguous set of local areas not belonging to a densely populated area each having a density >100 inhabitants per km<sup>2</sup> and either a population of at least 50.000 inhabitants for the whole set or located adjacent to a densely populated area.
- *thinly populated area*: contiguous set of local areas neither belonging to a densely populated area nor to an intermediate area.

A set of local areas totalling less than 100 km<sup>2</sup> and not reaching the required density but entirely enclosed within a densely-populated or intermediate area, is considered to form part of that area. If it is enclosed within a densely populated area and an intermediate area it is considered to form part of the intermediate area.

It is noted that a "local area" corresponds to the commune or municipality in most of the Member States. This concept is also used for the Labour Force Survey (LFS), the Survey on Income and Living Conditions (EU-SILC).

Data presented in this publication are extracted from the Labour Force Survey collections (2005 and 2006) of Eurostat.

Data from the following Member States were not available for 2005:

Bulgaria, Poland, Romania and Slovakia. Therefore, the terms EU-15 and EU-23 are used. Swedish data in relation to population structure could not be used because data on the age group 0-14 years were not available. For population data the terms EU-14 and EU-22 are used.

2006 data were not available for Bulgaria, Romania and Slovakia.

#### 5.1 Old age dependency ratio

### Table 5.1: Old age dependency ratio by degree of urbanisation, EU-22, 2005

	Densely populated area	Intermediate area	Thinly populated area
	Retirement a	ge to working age popu	lation (in %) <sup>1</sup>
EU-22	24	25	29
EU-14	24	26	30
BE	27	25	25
cz	21	19	20
DK	22	22	26
DE	28	28	28
EE	25	:	24
IE	15	:	17
EL	22	29	48
ES	22	20	31
FR	22	24	32
IT	28	29	33
СҮ	18	11	21
LV	25	:	24
LT	19	:	24
LU	22	19	19
HU	24	22	22
МТ	18	19	-
NL	19	21	26
AT	21	22	25
РТ	21	23	37
SI	26	22	22
FI	18	24	27
UK	22	26	29

Source: Labour Force Survey

1) Population aged 65 years and over related to the population between 15 and 64. These are rough estimations of the real retirement and working ages.



## Figure 5.1: Ratio of retirement age to working age population (in %) by degree of urbanisation, by Member State\*, 2005



\* Data not available for Bulgaria, Poland, Romania and Slovakia





The ratio population of retirement age to population of working age is also called the "old age dependency ratio" and gives an impression of the age of a given population.

From an EU-wide perspective the youngest populations live in densely populated areas, the oldest ones in thinly populated areas. However, remarkable differences between Member States exist e.g. while the old age dependency ratio in densely populated areas in Ireland is only 15, in Belgium, Germany and Italy this value is almost double.

In thinly populated areas these differences are even larger: in the southern Member States (Spain, France, Italy, Portugal and Greece) the old age dependency ratio reaches values from 31% to 48%, while corresponding values in Ireland and Luxembourg are below 20%.

On the Member State level, big differences exist between the different area types only in the southern countries and in Finland and the United Kingdom. In the other Member States the differences are not large.



### 5.2 Education

## Table 5.2: Percentage of population with high education level (ISCED 5-6) by age group and by degree of urbanisation, 2005

	2	5-34 yea	rs	5	5-64 yea	rs	2	5-64 yea	rs
	Densely popu- lated area	Inter- mediate area	Thinly popu- lated area	Densely popu- lated area	Inter- mediate area	Thinly popu- lated area	Densely popu- lated area	Inter- mediate area	Thinly popu- lated area
					%				
EU-24	34.5	24.5	23.6	20.3	15.1	14.7	27.9	19.7	18.2
EU-15	34.4	23.8	22.1	20.5	14.7	14.0	27.8	20.2	19.1
BE	41.5	39.4	30.0	23.4	19.4	13.9	31.9	30.0	25.4
cz	23.4	12.6	9.8	18.9	8.1	8.0	22.6	10.7	9.6
DK	50.7	35.3	24.2	36.7	22.9	21.7	45.1	31.5	23.2
DE	26.2	18.5	17.5	24.0	20.8	20.0	27.2	22.1	21.5
EE	47.8	:	18.2	43.3	:	22.5	44.3	:	23.8
IE	48.8	:	34.8	21.2	:	14.7	36.2	:	24.9
EL	30.3	15.8	8.2	14.7	8.9	3.1	25.7	13.9	6.6
ES	45.8	34.5	31.4	19.3	10.2	7.5	34.4	24.4	18.9
FR	46.2	33.3	25.8	21.5	12.5	8.7	32.3	20.5	14.8
ΙТ	17.8	13.8	11.9	10.1	6.1	5.1	14.8	9.9	8.3
СҮ	47.6	29.4	27.4	17.4	-7.4	11.6	34.5	18.0	18.1
LV	28.7	:	15.8	29.6	:	11.6	29.0	:	14.3
LT	54.1	:	25.1	26.2	:	11.6	38.3	:	18.1
LU	43.4	37.0	23.2	20.8	18.8	-14.3	31.5	26.0	19.2
HU	30.3	19.6	10.7	23.5	14.2	7.6	28.0	16.9	8.8
МТ	18.9	:	-	8.3	:	-	11.8	:	-
NL	38.9	27.1	24.6	25.8	22.4	21.6	33.5	24.3	24.5
AT	27.8	16.2	13.1	16.8	12.9	12.0	23.1	17.5	13.2
РТ	23.7	13.3	14.9	11.3	4.3	3.7	18.0	8.5	8.0
SI	32.1	24.8	22.3	29.0	17.2	(10,0)	31.7	18.9	16.4
FI	41.3	39.9	33.3	36.8	30.6	21.8	42.5	37.9	29.2
SE	47.6	33.7	32.1	36.4	26.5	21.4	41.2	29.8	25.1
UK	35.3	33.8	30.4	21.7	25.5	28.3	28.3	31.1	30.3

Source: Labour Force Survey



Table 5.2 illustrates the level of education in the Member States by age group. The indicator chosen is the percentage of people with a high educational level, i.e. who graduated from a university or similar establishment or who finished post university graduation (ISCED 5-6). The age groups 25-34 y and 55-64 y have been chosen to illustrate the trend in the 3 area types by Member State over the last 30 years. The age group 25-64 y shows the present educational level of the workforce.

In general, the percentage of people with a high level of education increased in EU-23 over the last 30 years, whereas in some Member States (e.g. Germany) the level remained almost unchanged.

The Scandinavian and some Baltic Member States are at the top in the age groups (25-34y, 55-64y) in almost all types of areas, whereas some southern Member States (Italy, Portugal, Greece) show the lowest share of highly educated people in both age groups.

However, the situation clearly improved over time in some Member States (Ireland, Cyprus, Spain).

The difference between densely populated areas and intermediate and thinly populated areas was and still is very clear, with a gap of about 10 percentage points. This situation has not changed.

In almost all Member States (with the exception of the United Kingdom) the percentage of people with high education level is clearly higher in densely populated areas than in intermediate and thinly populated areas.

### 5.3 Employment

### Table 5.3: Employment rate by age group and by degree of urbanisation, 2005

		15-64 years			15-24 years	
	Densely populated area	Inter- mediate area	Thinly populated area	Densely populated area	Inter- mediate area	Thinly populated area
			9	6		
EU-22	64.2	65.1	65.2	37.3	38.0	39.2
EU-14	64.2	65.4	66.1	38.0	39.1	42.0
BE	58.9	63.7	61.8	24.3	30.1	24.7
cz	66.4	63.3	65.7	23.2	27.1	29.0
DK	74.3	76.7	75.6	61.2	59.2	65.0
DE	63.4	67.1	67.0	38.7	42.4	45.6
EE	70.0	:	60.9	38.0	:	24.3
IE	67.3	:	67.0	48.8	:	44.7
EL	59.6	60.8	62.7	22.7	28.1	34.0
ES	64.8	62.2	60.9	36.9	38.4	39.1
FR	60.1	64.8	66.3	26.1	31.8	34.8
IT	58.0	58.2	56.0	24.5	27.7	26.3
СҮ	68.4	68.1	69.6	33.9	37.1	43.2
LV	66.2	63.9	60.2	34.3	:	27.8
LT	65.7	:	60.5	23.0	:	19.6
LU	66.2	61.8	62.7	27.2	22.6	25.8
HU	62.8	56.8	52.3	20.8	20.3	22.4
МТ	53.5	54.5	-	45.5	(37.9)	-
NL	72.8	73.8	74.7	63.1	69.3	68.9
AT	65.8	68.5	68.6	46.3	52.1	56.9
РТ	65.9	68.7	69.4	33.2	39.8	35.5
SI	64.1	64.8	67.4	24.6	30.2	35.2
FI	72.7	68.3	67.5	49.8	41.3	41.4
SE	72.8	72.1	72.6	41.0	35.7	41.1
UK	69.8	75.7	74.2	50.9	57.4	56.5

Source: Labour Force Survey



	25-54 years		55-64 years				
Densely populated area	Inter- mediate area	Thinly populated area	Densely populated area	Inter- mediate area	Thinly populated area		
		9	6				
77.1	78.8	78.2	44.0	41.6	45.2	EU-22	
76.9	78.8	78.4	43.8	41.8	46.4	EU-14	
75.3	82.0	81.0	32.8	30.6	35.1	BE	
83.3	80.8	83.3	51.2	41.0	43.7	cz	
81.6	85.4	85.0	61.1	63.8	55.6	DK	
75.5	79.6	78.4	44.1	46.2	45.1	DE	
82.3	:	77.4	62.3	:	52.5	EE	
77.7	:	78.2	51.5	:	51.7	IE	
74.5	73.1	74.3	37.7	45.7	49.4	EL	
76.6	72.8	71.5	44.3	41.6	41.8	ES	
77.0	81.2	82.9	39.5	37.2	35.1	FR	
72.9	73.2	70.0	32.0	29.7	32.4	IT	
82.3	81.8	81.9	49.2	51.2	52.5	СҮ	
81.3	79.3	77.4	50.5	:	44.4	LV	
83.7	:	78.7	52.8	:	48.8	LT	
82.0	80.2	79.3	33.1	31.1	30.6	LU	
80.7	73.7	68.4	41.9	32.0	25.6	HU	
61.6	65.1	-	31.8	:	-	МТ	
82.0	84.3	83.8	46.8	45.0	51.0	NL	
80.4	83.3	81.7	30.9	29.9	30.5	AT	
80.1	81.2	82.2	43.9	53.4	61.0	PT	
84.0	83.5	84.5	31.8	29.2	32.3	SI	
83.5	81.0	81.4	59.2	52.1	49.9	FI	
82.3	84.4	84.3	69.2	69.6	68.7	SE	
79.4	85.5	84.6	55.8	60.0	58.0	UK	

Source: Labour Force Survey

(): small sample size may affect the reliability of the data



A comparison of EU-23 averages on densely, intermediate and thinly populated areas shows no differences as regards employment rates of the total workforce (15-64 y).

This also holds true for the selected age groups (15-24 y, 25-54 y, 55-64 y).

If one looks at the figures for the individual countries it is clear that employment rates in some Member States (United Kingdom, Finland, Sweden, Ireland, Cyprus, The Netherlands, Denmark) for the total workforce are high i.e. around and above 70% in all 3 different areas.

In general, regardless of the type of area, the employment rates are highest in the 25-54 y age group (around 80% for most Member States). Employment rates in the 15-24 y group vary widely among the Member States (from 20% to 69%) and also in the 55-64 y group (from 26% to 70%).

When comparing the 3 different types of areas of individual Member States, differences in employment rates may be seen in some Member States with higher employment rates in densely populated areas versus thinly populated areas in some Member States but the inverse in others.



#### 5.4 Youth unemployment ratio

	Densely populated area	Intermediate area	Thinly populated area	Total
		ç	%	
EU-24	8.1	7.0	7.9	7.8
EU-15	8.2	6.9	7.5	7.7
BE	8.1	5.8	8.3	7.1
cz	6.3	5.8	5.5	5.9
DK	5.5	4.6	5.8	5.4
DE	7.3	6.2	7.2	6.9
EE	3.7	:	4.7	4.3
IE	4.8	:	4.7	4.7
EL	7.4	10.0	10.3	8.2
ES	8.9	8.8	8.0	8.6
FR	9.0	8.2	7.6	8.6
ΙТ	7.6	6.4	7.0	7.0
СҮ	4.1	(4.1)	(4.3)	4.1
LV	5.0	:	5.0	5.0
LT	2.4	:	2.7	2.6
LU	(5.6)	(4.0)	(4.0)	4.5
HU	3.7	4.6	6.3	5.1
мт	8.9	:	-	8.6
NL	5.0	3.8	(4.9)	4.6
AT	7.9	4.3	4.0	5.4
PL	9.3	10.0	10.9	10.2
РТ	8.0	6.1	6.3	6.9
SI	(4.6)	6.4	5.4	5.6
FI	9.3	10.1	9.8	9.7
SE	10.2	11.2	11.3	11.0
UK	9.3	7.3	6.8	8.7

### Table 5.4: Youth unemployment ratio by degree ofurbanisation, 2006

Source: Labour Force Survey

The youth unemployment ratio represents the unemployed aged 15-24 years as a percentage of the total population of this age group.

EU-22 data suggest that the problem of youth unemployment is almost equally distributed across the different types of areas. Significant differences by degree of urbanisation can not be detected. The youth unemployment ratio is significantly higher in thinly populated areas than in the other areas in only four Member States (Belgium, Greece, Cyprus and Hungary). It is the other way round, i.e. lowest ratios can be found in thinly populated areas in most Member States.



**European Commission** 

#### Agriculture - Main statistics 2005-2006

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### Agriculture Main statistics 2005-2006

The pocketbook *Agriculture* presents selected tables and graphs providing an overview on developments and the situation in the agricultural sector of the European Union. The most recent data are presented here (reference years 2005 and 2006, mostly) showing the situation in the 27 Member States and at the European level (EU-27 and EU-25 aggregates).

More particularly, this edition provides a good insight into the complete results of the Farm Structure Survey conducted in 2005. Country reports were published regularly on the Eurostat website under the form of 'Statistics in Focus' as soon as the data were available at Eurostat. This publication is the only one showing the results at the European level.

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