



Agriculture, forestry and fisheries

Agriculture

Agriculture was one of the first sectors of the economy (following coal and steel) to receive the attention of EU policymakers. Article 39 of the Treaty of Rome on the EEC (1957) set out the objectives for the first common agricultural policy (CAP); these were focused on increasing agricultural productivity as a way to ensure a fair standard of living for the agricultural community, stabilising markets, and ensuring security of supply at affordable prices to consumers.

As the primary objective of producing more food within Europe was realised, food surpluses accrued, distorting trade and raising environmental concerns. These were the principal drivers for changes in the common agricultural policy, a process that started in the early 1990s and which resulted in a change from support for production towards a market-oriented and a more environment-friendly and sustainable form of agriculture. Further reforms have taken place in recent years, most notably in 2003 and 2008. The 2003 reform introduced a new system of direct payments, known as the single payment scheme, under which aid is no longer linked to production (decoupling). The single payment scheme aims to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. In 2008 further changes were made, building on the reform package from 2003, such that all aid to the agricultural sector will be decoupled by 2012.

The Europe 2020 strategy offers a new perspective on economic, social, environmental, climate-related and technological challenges and future agricultural reform is likely to be made in relation to the goals of developing intelligent, sustainable and inclusive growth, while taking account of the wealth and diversity of the agricultural sector within the EU Member States.



Forestry

Contrary to what is happening in many other parts of the world, forest cover in the EU-27 is slowly increasing. Forests are present in a huge variety of climatic, geographic, ecological and socio-economic conditions. Ecologically, the forests within the EU belong to numerous vegetation zones, ranging from coastal plains to Alpine zones, while socio-economic management conditions vary from small family holdings to large estates belonging to vertically integrated businesses.

Fisheries

Fish are a natural, biological, mobile (sometimes over wide distances) and renewable resource. Aside from fish farming, fish cannot be owned until they have been caught. For this reason, fish stocks continue to be regarded as a common resource, which therefore need to be managed collectively. This has led to policies that regulate the amount of fishing, as well as the types of fishing techniques and gear used to catch fish.

8.1 Agricultural output, price indices and income

One of the principal objectives of the common agricultural policy (CAP) is to provide farmers with a reasonable standard of living. Although this concept is not defined explicitly, one of the measures tracked within the policy is income development from farming activities. Economic accounts for agriculture provide information that allows an analysis of agricultural activity and the income generated by it. This subchapter gives an overview of recent changes in agricultural output, gross value added and prices in the European Union (EU), and their effect on income from agricultural activity.

Main statistical findings

The EU-27's agricultural industry generated EUR 125 400 million of gross value added at producer prices in 2009, which

represented a 14.0 % reduction in relation to the previous year (see Table 8.1). There were large decreases in both the value of crop output (down 13.9 % to EUR 171 000 million in 2009) and animal output (down 10.9 % to EUR 133 000 million); these were partly compensated for by a sizeable reduction in the value of intermediate consumption of goods and services (down 10.5 %).

Changes in the value of agricultural output comprise a volume and price component: one important strand of recent changes in agricultural policy has been to move away from price support mechanisms, so that prices more accurately reflect market forces and changes in supply and demand. During the period 2005 to 2009 (see Figure 8.2) there were considerable differences between the Member States in the development of deflated agricultural

output prices: such deflated prices show the extent to which agricultural prices have changed compared to consumer prices. Deflated prices rose in nine of the 26 Member States (Germany, no information available), the largest increases being recorded for the United Kingdom (average growth of 5.9 % per annum), Cyprus (3.9 % per annum between 2005 and 2008) and Romania (3.2 % per annum), while reductions were posted in 17 of the Member States, the most significant being in Latvia (-6.3 % per annum), Slovakia (-6.2 % per annum) and Estonia (-6.1 % per annum).

The development of deflated agricultural input prices showed a very different picture, as prices rose in 17 of the 25 Member States for which data are available between 2005 and 2009 (Germany and Ireland, no information). As with output prices, Cyprus (4.9 % per annum between 2005 and 2008) and the United Kingdom (4.7 % per annum) reported the highest input price increases, followed by Portugal (3.5 % per annum).

There was an overall 9.4 % increase in EU output prices for agricultural products between 2005 and 2009, with a breakdown between crop output (9.0 %) and animal output (9.8 %) showing prices increasing by a similar magnitude. The overall increase in output prices between 2005 and 2009 did not occur as a stable development, as there was a considerable reduction in prices between 2008 and 2009 when the price of agricultural products fell by 13.9 %. The largest reductions between 2008 and 2009 were recorded for cereals (-30.2 %), eggs, milk, fruits and olive oil (reductions of between 14 % and 17 %).

The real net value added at factor cost of the agricultural activity per unit of labour (expressed in annual work units – equivalent to the work performed by a person employed full-time), also termed as agricultural income indicator A, declined by 11.7 % in the EU-27 in 2009, compared with 2008. There were stark contrasts among the Member States, with decreases in income of more than 20 % in Hungary, Luxembourg, Ireland, Germany and Italy, contrasting with rapidly rising incomes in Malta (7.1 %) and Denmark (4.2 %).

Data sources and availability

Economic accounts for agriculture (EAA) provide key insights into:

- the economic viability of agriculture;
- agriculture's contribution to a Member State's wealth;
- the structure and composition of agricultural production and inputs;
- the remuneration of factors of production;
- relationships between prices and quantities of both inputs and outputs.

These accounts comprise a production account, a generation of income account, an entrepreneurial income account and some elements of a capital account. For the production items, Member States transmit to Eurostat values at basic prices, as well as their components (values at producer prices, subsidies on products, and taxes on products). The data for the production account and for gross fixed capital formation are transmitted in both current prices and the prices of the previous year.



The output of agricultural activity includes output sold (including trade in agricultural goods and services between agricultural units), changes in stocks, output for own final use (own final consumption and own-account gross fixed capital formation), output produced for further processing by agricultural producers, as well as intra-unit consumption of livestock feed products. The output of the agricultural industry is made up of the sum of the output of agricultural products and of the goods and services produced in inseparable non-agricultural secondary activities; animal and crop output are the main product categories of agricultural output.

Gross value added equals the value of output less the value of intermediate consumption, and is shown in producer prices (the producer price excludes subsidies less taxes on products). Intermediate consumption represents the value of all goods and services used as inputs in the production process, excluding fixed assets whose consumption is recorded as fixed capital consumption. The Member States transmit information on intermediate consumption to Eurostat using values at purchaser prices (basic prices).

Eurostat also collects annual agricultural prices (in principle net of VAT) to compare agricultural price levels between Member States and study sales channels. Quarterly and annual price indices for agricultural products and the means of agricultural production, on the other hand, are used principally to analyse

price developments and their effect on agricultural income. Agricultural price indices are obtained by a base-weighted Laspeyres calculation (2005=100), and are expressed both in nominal terms, and deflated using an implicit HICP deflator.

Agricultural income indicators are presented in the form of:

- an index of real income of factors in agricultural activity per annual work unit (indicator A);
- the index of real net agricultural entrepreneurial income, per unpaid annual work unit (indicator B);
- net entrepreneurial income of agriculture (indicator C).

Context

Significant reforms of the common agricultural policy have taken place in recent years, most notably in 2003 and 2008, with the aim of making the agricultural sector more market-oriented. The 2003 reform introduced a new system of direct payments, known as the single payment scheme, under which aid is no longer linked to production (decoupling); the single payment scheme aims to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. In 2008 further changes were made, building on the reform package from 2003, such that all aid to the agricultural sector will be decoupled by 2012.

The Europe 2020 strategy offers a new perspective on economic, social, environmental, climate-related and technological challenges and future agricultural reform is likely to be made in relation

to the goals of developing intelligent, sustainable and inclusive growth, while taking account of the wealth and diversity of the agricultural sector within the EU Member States.

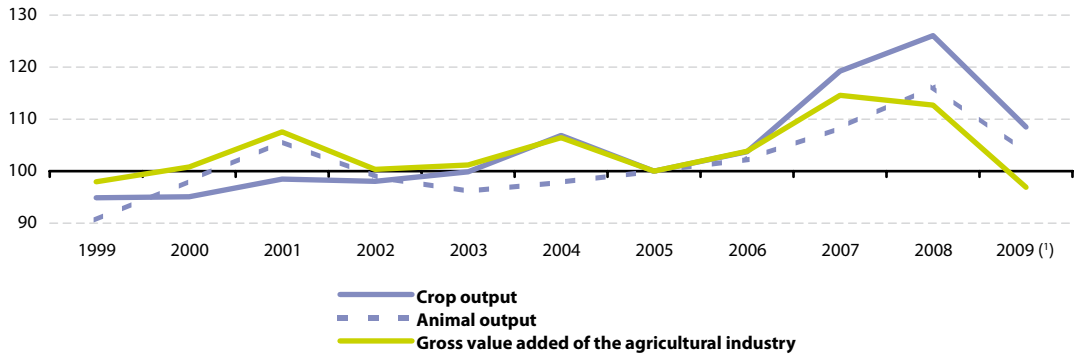
Table 8.1: Agricultural output and gross value added at producer prices (EUR million)

	Gross value added of the agricultural industry			Crop output			Animal output		
	1999	2004	2009	1999	2004	2009	1999	2004	2009
EU-27	126 779	137 761	125 409	149 595	168 482	171 049	116 391	125 698	133 009
Belgium	2 158	2 242	1 914	2 994	2 946	3 019	3 190	3 618	3 764
Bulgaria	1 679	1 589	1 465	1 429	1 763	1 941	1 338	1 088	1 163
Czech Republic	731	1 126	629	1 218	1 881	1 930	1 292	1 467	1 595
Denmark	1 985	2 285	1 571	2 579	2 537	2 988	4 194	4 721	4 673
Germany	12 099	14 451	12 924	18 492	19 579	21 204	17 747	18 789	19 800
Estonia	87	180	157	111	154	203	136	257	270
Ireland	1 825	1 768	937	1 184	1 351	1 340	3 506	3 672	3 393
Greece	6 209	6 036	5 801	6 498	6 741	6 598	2 398	2 564	2 792
Spain	18 193	22 440	21 277	18 377	23 510	22 593	10 469	12 480	12 976
France	23 756	22 411	20 586	30 608	31 093	34 109	21 211	21 390	22 057
Italy	25 470	26 573	22 075	25 300	27 773	24 236	12 818	13 697	14 129
Cyprus	-256	331	302	0	313	316	0	306	309
Latvia	169	218	141	178	268	387	173	254	302
Lithuania	402	366	427	583	568	868	457	608	667
Luxembourg	114	100	87	77	85	116	148	153	153
Hungary	1 862	1 991	1 551	2 301	3 511	3 087	1 795	2 066	2 085
Malta	65	50	52	54	40	48	74	65	67
Netherlands	8 452	7 658	7 396	9 253	10 048	11 188	7 872	7 787	8 659
Austria	2 096	2 164	2 338	2 272	2 369	2 675	2 323	2 420	2 726
Poland	4 126	5 076	5 651	5 439	6 584	7 753	4 878	6 383	8 137
Portugal	2 240	2 279	1 846	3 843	3 910	3 762	2 052	2 311	2 420
Romania	4 140	7 078	5 999	4 901	9 388	8 569	2 683	3 368	3 955
Slovenia	417	413	344	435	539	453	485	463	470
Slovakia	372	388	393	551	757	824	643	731	747
Finland	798	665	699	1 360	1 404	1 550	1 567	1 643	1 766
Sweden	979	1 028	1 200	1 644	1 617	1 677	2 185	2 134	2 076
United Kingdom	6 612	6 857	7 646	7 917	7 755	7 612	10 758	11 262	11 861
Norway	935	905	878	1 190	1 211	1 303	1 631	1 726	1 983
Switzerland	2 895	2 789	2 657	3 030	3 055	2 996	3 093	3 341	3 369
FYR of Macedonia	365	474	:	563	769	:	187	201	:

Source: Eurostat (aact_eaa01)



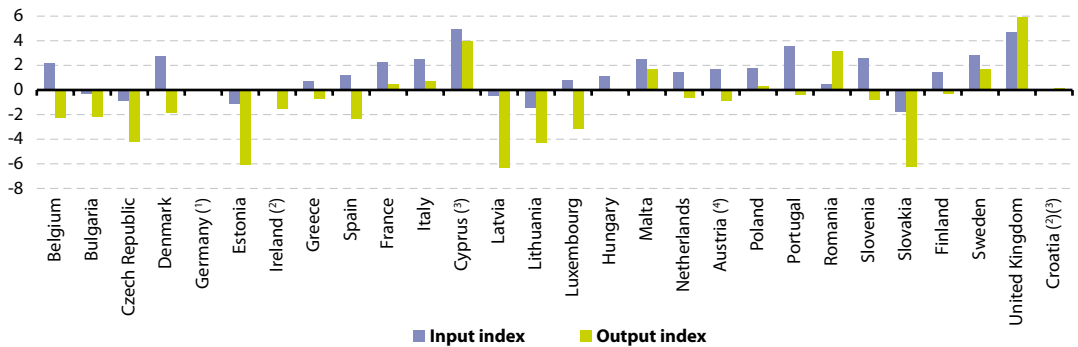
Figure 8.1: Agricultural output and gross value added at producer prices, EU-27 (2005=100)



(*) Crop output and animal output, estimates.

Source: Eurostat ([aact_eaa01](#))

Figure 8.2: Change in deflated price indices of agricultural input and output, 2005-2009 (average annual rate of change, %)



(*) Not available.

(*) Input index, not available.

(*) 2005-2008.

(*) Provisional.

Source: Eurostat ([apri_pi05_ina](#) and [apri_pi05_outa](#))



Table 8.2: Price indices of agricultural output (nominal), EU ⁽¹⁾
(2005=100)

	2005	2006	2007	2008	2009
CROP OUTPUT	100.0	107.0	123.7	126.7	109.1
Cereals	100.0	114.0	176.0	179.2	125.2
Industrial crops	100.0	99.3	113.7	119.3	106.0
Forage plants	100.0	99.6	118.9	134.7	131.1
Vegetables and horticultural products	100.0	102.6	107.1	107.6	102.9
Potatoes	100.0	154.5	149.5	133.2	124.7
Fruits	100.0	102.2	114.8	122.1	103.2
Wine	100.0	99.7	107.5	116.4	110.6
Olive oil	100.0	110.2	92.0	88.3	75.7
Other crop products	100.0	99.8	115.9	121.8	114.1
ANIMAL OUTPUT	100.0	102.8	106.0	116.2	109.5
Animals	100.0	104.5	102.8	111.6	110.7
Cattle	100.0	108.7	106.5	110.5	110.8
Cattle (excluding calves)	100.0	107.8	104.4	111.5	111.9
Calves	100.0	112.6	115.5	105.7	105.3
Pigs	100.0	104.2	95.6	107.2	104.6
Equines	100.0	110.9	113.0	141.7	144.3
Sheep and goats	100.0	100.0	95.6	103.6	113.8
Poultry	100.0	99.8	114.6	124.9	120.5
Other animals	100.0	104.7	95.2	104.8	109.7
Animal products	100.0	100.2	110.8	123.2	107.6
Milk	100.0	98.5	108.9	122.2	102.5
Eggs	100.0	109.3	128.7	136.6	147.9
Other animal products	100.0	107.8	96.8	102.7	95.5
AGRICULTURAL GOODS	100.0	105.0	115.4	121.8	109.3

⁽¹⁾ EU estimates excluding Germany.

Source: Eurostat ([apri_pi05_outa](#))



Table 8.3: Index of income from agricultural activity (indicator A)
(2005=100)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU-27	:	94.7	104.0	99.5	101.5	110.1	100.0	104.2	115.4	112.8	99.6
Belgium	105.9	119.3	109.4	96.5	106.3	108.3	100.0	120.4	129.5	92.5	93.0
Bulgaria	:	101.1	113.0	91.9	86.4	84.5	100.0	96.0	98.5	152.2	136.9
Czech Republic	55.2	66.5	85.1	68.7	59.2	93.2	100.0	102.7	118.7	123.5	102.5
Denmark	81.7	105.4	127.2	90.1	88.2	99.3	100.0	105.0	104.0	54.4	56.7
Germany	69.5	90.0	110.9	81.7	75.4	111.9	100.0	108.6	134.5	127.6	101.5
Estonia	29.1	40.5	53.2	51.6	57.6	94.8	100.0	101.1	143.5	113.7	93.9
Ireland	73.2	95.7	90.6	79.0	75.6	80.1	100.0	84.1	94.2	87.4	66.8
Greece	116.6	116.7	116.4	113.1	103.4	98.3	100.0	98.3	103.8	96.6	96.9
Spain	99.8	104.3	112.4	108.9	123.1	113.2	100.0	95.6	107.4	103.8	101.9
France	112.9	111.4	112.4	108.8	106.8	105.3	100.0	111.8	124.1	110.6	88.8
Italy	124.4	117.9	115.4	113.5	113.8	114.6	100.0	96.4	94.2	95.5	75.7
Cyprus	125.4	95.1	105.9	107.3	98.7	96.6	100.0	90.4	91.3	86.7	87.7
Latvia	39.2	41.2	53.4	52.5	57.6	95.9	100.0	130.7	134.9	115.7	98.6
Lithuania	64.3	60.8	56.4	52.3	58.7	92.5	100.0	89.0	133.4	123.5	102.2
Luxembourg	110.2	104.3	105.5	105.5	99.2	99.1	100.0	95.8	103.9	90.3	67.2
Hungary	76.8	74.3	78.5	62.3	65.1	98.2	100.0	112.0	114.8	146.2	99.2
Malta	103.9	92.8	107.2	105.7	99.4	96.8	100.0	97.5	93.8	87.8	94.0
Netherlands	123.3	124.5	116.2	100.0	108.6	101.1	100.0	122.5	121.2	98.6	89.6
Austria	84.5	90.8	106.7	98.1	97.5	102.4	100.0	110.4	124.4	119.1	96.2
Poland	60.0	61.0	70.1	63.3	58.5	110.3	100.0	110.4	134.3	127.2	126.1
Portugal	112.2	95.2	102.1	97.4	98.4	108.8	100.0	104.3	100.0	103.8	100.1
Romania	80.9	66.9	114.2	106.7	121.2	175.1	100.0	99.2	76.8	112.3	91.8
Slovenia	63.3	71.6	62.1	81.9	64.5	99.5	100.0	97.4	109.5	98.3	83.4
Slovakia	85.6	82.5	93.8	88.7	82.8	107.3	100.0	122.1	128.9	143.4	125.1
Finland	76.4	89.6	90.4	90.3	89.2	86.2	100.0	98.6	106.0	89.3	91.6
Sweden	77.9	85.5	91.1	101.9	100.9	91.6	100.0	113.6	134.4	128.1	119.8
United Kingdom	82.8	80.0	85.0	94.6	108.4	101.1	100.0	104.7	112.0	144.7	137.0
Norway	141.4	124.1	120.4	126.1	122.8	121.5	100.0	93.8	104.7	99.3	106.4
Switzerland	99.9	103.0	95.7	102.1	94.9	105.9	100.0	97.0	102.5	107.9	100.5
FYR of Macedonia	83.1	77.5	51.3	74.9	87.3	121.4	100.0	112.6	97.1	:	:

Source: Eurostat ([aact_eaa06](#))

8.2 Farm structure

The structure of agriculture in the Member States of the European Union (EU) varies as a function of differences in geology, topography, climate and natural resources, as well as the diversity of regional activities, infrastructure and social customs. The survey on the structure of agricultural holdings, also known as the farm structure survey (FSS), helps assess the agricultural situation across the EU, monitoring trends and transitions in the structure of agricultural holdings, while also modelling the impact of external developments or policy proposals.

This subchapter presents some statistics from the last farm structure survey that was conducted in 2007. The next census (2009/10) is in the process of being conducted and first results should be available in the summer of 2011.

Main statistical findings

There were 7.3 million commercial agricultural holdings in the EU-27 in 2007, with a further 6.4 million small holdings (those below a threshold of one European size unit (ESU)). Almost half (48 %) of the small holdings in the EU-27, principally being subsistence in nature, were found in Romania. A little over one third of the EU-27's commercial agricultural holdings (that were greater than one ESU) were located in Poland (15.4 %) and Italy (18.9 %), while Spain (12.9 %), Romania (11.9 %) and Greece (9.7 %) also contributed about a third of the total commercial holdings were located in 2007.

Among most Member States and across the EU-27 as a whole, there was a steady decline in the number of agricultural holdings during the period between 2003 and 2007. In this four-year period, the number of agricultural holdings in the EU-27 declined by 1.3 million (or 8.8 %), of which almost half were commercial holdings. There were particularly fast structural changes in Estonia, where the number of holdings declined by more than one third (-36.7 %), as well as in Bulgaria (-25.9 %), Portugal (-23.4 %) and Hungary (-19.0 %).

The total farm labour force in the EU-27 was the equivalent of 11.7 million full-time workers, of which 9.0 million worked on commercial holdings. Agriculture remains very much a family-oriented activity in the majority of Member States; almost four fifths (78 %) of the total agricultural labour force were farm holders or members of their family. The main exceptions were Slovakia (44 %) and the Czech Republic (27 %), where there is a different ownership structure compared with the majority of Member States. Just over one third (34 %) of the regular agricultural labour force in the EU-27 was female, although in the Baltic Member States this share was closer to half, reaching 50 % in Latvia. There were relatively few (6.1 %) agricultural holders in the EU-27 under the age of 35 years, but a relatively large proportion (34.1 %) were aged 65 years or over.

Figure 8.3 indicates the proportion of farm holdings with other gainful economic activity. Besides agricultural activity, other gainful activities were also conducted by about one in every ten



(9.9 %) of the EU's agricultural holdings in 2007, this proportion being slightly higher (13.5 %) among commercial holdings. A little over one quarter (27.6 %) of all holdings in Finland reported another gainful activity in 2007, with rates above 20 % also being recorded in Austria, Germany, Sweden, the United Kingdom, Denmark and France.

Two fifths (an estimated 40.1 %) of the total land area of the EU-27 was utilised agricultural area (UAA) in 2007. This proportion rose to two thirds (an estimated 66.3 %) of the land area of the United Kingdom, but was less than one tenth of the total in Sweden and Finland. Arable land (which includes cereals and other arable land) accounted for a little less than one quarter (24.2 %) of the total land area of the EU-27, with permanent grassland (which is composed of pasture, meadow and rough grazing) accounting for 13.2 %. During the ten years through until 2007, the make-up of land use in the EU-27 did not change very much.

Data sources and availability

A comprehensive farm structure survey is carried out by Member States every ten years (the full scope being the agricultural census) and intermediate sample surveys are carried out three times between these basic surveys. The Member States collect information from individual agricultural holdings. The information collected covers:

- land use;
- livestock numbers;
- rural development (for example, other gainful activities);

- management and farm labour input (including age, gender and relationship to the holder).

The survey data are aggregated to different geographic levels (Member States, regions, and for basic surveys also districts) and arranged by size class, area status, legal status of holding, objective zone and farm type.

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

Other gainful activity is any activity other than that relating to farm work, including activities carried out on the holding itself (camp sites, accommodation for tourists, etc.) or that use its resources (machinery, etc.) or products (such as processing farm products, renewable energy production), and which have an economic impact on the holding. Other gainful activity is carried out by the holder, his/her family members, or one or more partners on a group holding.

The farm labour force is made-up of all individuals who have completed their compulsory education (having reached school-leaving age) and who carried out farm work on the holding under survey during the 12 months up to the survey day. The figures include the holders, even when not working on the holding, whereas their spouses are counted only if they carry out farm work on the holding. The holder is

the natural person (sole holder or group of individuals) or the legal person (for example, a cooperative or other institution) on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding – in other words, the entity or person that takes the economic risks of the holding. For group holdings, only the main holder (one person) is counted. The regular labour force covers the family labour force (even those who were working accidentally on the holding) and permanently employed (regular) non-family workers. The family labour force includes the holder and the members of his/her family who carried out farm work (including all persons of retiring age who continue to work on the holding). One annual work unit (AWU) corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. Full-time means the minimum hours required by the national provisions governing contracts of employment. If these provisions do not explicitly indicate the number of hours, then 1 800 hours are

taken to be the minimum (225 working days of eight hours each).

Context

Rural development policy aims to improve: competitiveness in agriculture and forestry; the environment and countryside; the quality of life in rural areas; and the diversification of rural economies. As agriculture has modernised and the importance of industry and services within the economy has increased, so agriculture has become much less important as a source of jobs. Consequently, increasing emphasis is placed on the role farmers can play in rural development, including forestry, biodiversity, the diversification of the rural economy to create alternative jobs and environmental protection in rural areas. The farm structure survey continues to be adapted with the aim of trying to provide timely and relevant data to help analyse and follow these developments.



Table 8.4: Agricultural holdings

	Number of agricultural holdings (1 000)			Holdings with dairy cows (1 000)			Holdings with irrigable area (% of holdings)		
	2003	2005	2007	2003	2005	2007	2003	2005	2007
EU-27	15 021.0	14 482.0	13 700.4	3 199.4	2 821.4	2 486.7	:	:	:
Belgium	54.9	51.5	48.0	16.6	15.2	13.3	4.2	4.2	4.6
Bulgaria	665.6	534.6	493.1	195.0	152.6	120.8	20.5	14.3	14.8
Czech Republic	45.8	42.3	39.4	8.5	6.8	5.6	4.5	4.6	5.2
Denmark	48.6	51.7	44.6	8.0	6.6	5.4	19.4	17.9	15.0
Germany	412.3	389.9	370.5	121.8	110.4	101.1	:	:	:
Estonia	36.9	27.8	23.3	12.4	9.2	6.1	:	:	:
Ireland	135.6	132.7	128.2	28.1	23.8	21.3	0.0	0.0	0.0
Greece	824.5	833.6	860.2	11.6	9.8	8.0	64.1	64.8	62.3
Spain	1 140.7	1 079.4	1 043.9	51.0	42.4	37.3	47.5	46.1	45.3
France	614.0	567.1	527.4	113.9	103.9	93.1	17.3	17.8	18.0
Italy	1 963.8	1 728.5	1 679.4	67.5	61.0	62.8	36.2	37.6	40.4
Cyprus	45.2	45.2	40.1	0.3	0.2	0.2	74.5	76.8	78.0
Latvia	126.6	128.7	107.8	63.7	50.9	43.7	0.1	0.3	0.2
Lithuania	272.1	253.0	230.3	193.4	170.8	123.2	0.0	0.1	0.0
Luxembourg	2.5	2.5	2.3	1.0	1.0	1.1	0.0	:	0.0
Hungary	773.4	714.8	626.3	22.0	16.3	12.2	4.0	2.3	0.2
Malta	11.0	11.1	11.0	0.2	0.2	0.2	34.2	27.5	25.0
Netherlands	85.5	81.8	76.7	25.0	23.5	24.5	22.2	23.5	25.5
Austria	173.8	170.6	165.4	65.1	54.6	49.5	3.6	4.4	4.4
Poland	2 172.2	2 476.5	2 391.0	873.8	727.1	651.1	0.7	1.0	1.1
Portugal	359.3	323.9	275.1	27.1	15.9	13.5	62.1	62.0	62.0
Romania	4 484.9	4 256.2	3 931.4	1 204.9	1 134.4	1 012.4	5.6	3.4	2.6
Slovenia	77.2	77.2	75.3	17.2	19.7	19.2	1.5	2.3	2.3
Slovakia	71.7	68.5	69.0	14.2	13.5	11.5	5.9	10.2	2.2
Finland	75.0	70.6	68.2	19.4	16.9	14.4	10.6	8.1	8.5
Sweden	67.9	75.8	72.6	9.7	8.6	7.1	7.7	6.0	5.2
United Kingdom	280.6	286.8	299.8	28.2	26.3	28.1	1.7	1.4	13.5
Norway	58.2	53.0	49.9	17.5	15.9	13.7	16.5	16.7	17.4

Source: Eurostat (tag00001, ef_r_nuts and ef_ov_lusum)

**Table 8.5:** Farm labour force, 2007

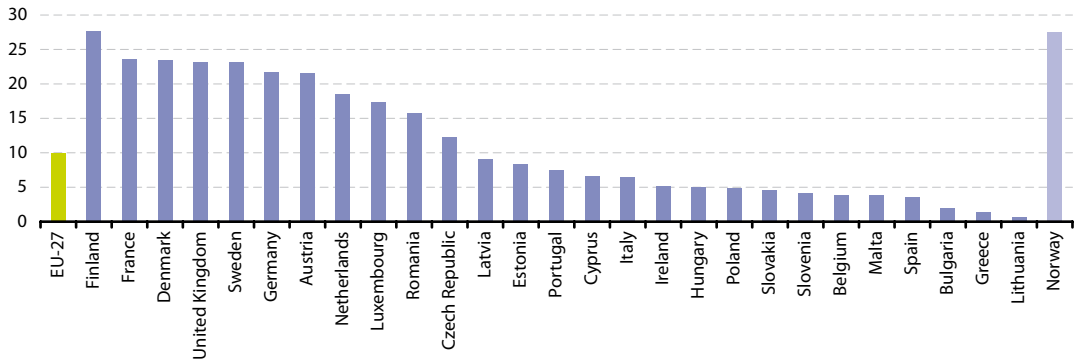
	Total farm labour force (1 000 AWU) ⁽¹⁾	Regular farm labour force (% of total)	Full-time regular farm labour force (% of total)	Female regular farm labour force (% of total)	Family farm labour force (% of total)	Agric. holders being a natural person (1 000)	Agric. holders <35 years old (1 000)	Agric. holders >=65 years old (1 000)
EU-27	11 693	92	34	34	78	13 441	823	4 584
Belgium	66	95	71	29	79	44	3	9
Bulgaria	491	95	38	39	85	490	15	222
Czech Republic	137	98	68	32	27	36	4	7
Denmark	56	96	70	23	61	44	3	9
Germany	609	91	50	28	69	365	28	27
Estonia	32	98	46	46	61	22	1	7
Ireland	148	98	60	21	93	128	9	32
Greece	569	86	22	29	82	860	60	321
Spain	968	82	42	20	65	988	44	361
France	805	89	67	25	47	428	34	66
Italy	1 302	90	37	30	84	1 664	49	741
Cyprus	26	94	31	32	75	40	1	12
Latvia	105	99	30	50	84	108	8	32
Lithuania	180	98	14	48	85	230	10	93
Luxembourg	4	98	63	27	85	2	0	0
Hungary	403	97	25	37	77	619	47	172
Malta	4	99	41	14	88	11	0	3
Netherlands	165	91	56	26	61	73	3	13
Austria	163	97	53	41	88	161	16	18
Poland	2 263	97	34	42	95	2 387	294	388
Portugal	338	93	35	41	82	269	5	130
Romania	2 205	93	4	42	90	3 914	167	1 762
Slovenia	84	96	21	41	92	75	3	26
Slovakia	91	96	40	32	44	67	2	22
Finland	72	94	56	30	83	67	6	4
Sweden	65	97	42	26	76	68	4	15
United Kingdom	341	93	55	23	67	283	7	92
Norway	56	94	32	25	80	50	4	4

(¹) AWU: annual work unit.

Source: Eurostat (tag00020, tag00021, ef_so_lfwtime, ef_so_lfaa, tag00029 and tag00030)

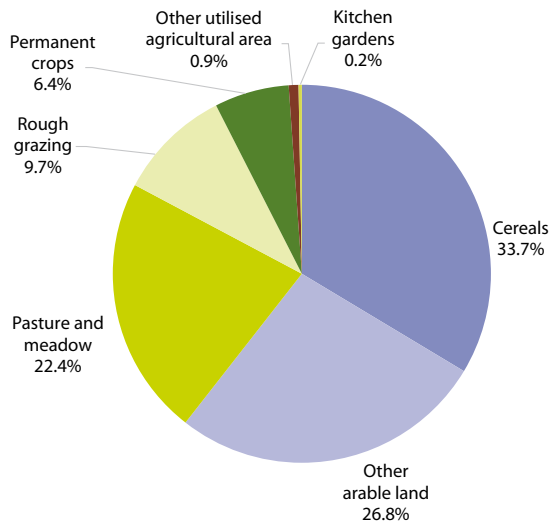


Figure 8.3: Agricultural holdings with another gainful activity, 2007 (%)



Source: Eurostat (tag00096)

Figure 8.4: Utilised agricultural area by land use, EU-27, 2007 (¹)
(% share of utilised agricultural area)



(¹) Figures do not sum to 100 % due to rounding.

Source: Eurostat (ef_lu_ovcropsu)



Table 8.6: Land use, 2007

	Total land area (km ²) (1)	Share of total land area (%) (2)						Wooded area (3)	Other land (excluding wooded area) (3)	
		Utilised agricultural area	of which:				Permanent grassland & meadow			Permanent crops
			Arable land	Kitchen garden						
EU-27	4 303 401	40.1	24.2	0.1	13.2	2.5	7.2	2.8		
Belgium	30 328	45.3	27.8	0.0	16.9	0.7	0.2	0.8		
Bulgaria	111 002	27.5	24.0	0.2	2.5	0.8	8.6	0.8		
Czech Republic	77 246	45.5	33.3	0.0	11.8	0.5	18.9	0.7		
Denmark	43 098	61.8	56.9	0.0	4.7	0.2	4.8	2.5		
Germany	357 108	47.4	33.3	0.0	13.5	0.6	3.8	1.1		
Estonia	43 432	20.9	14.4	0.1	6.3	0.1	5.3	1.9		
Ireland	68 394	60.5	14.7	0.0	45.8	0.0	1.9	2.1		
Greece	130 822	31.2	16.2	0.1	6.3	8.6	0.5	2.0		
Spain	505 987	49.2	23.5	0.0	17.1	8.6	9.6	6.7		
France	632 834	43.4	28.9	0.0	12.8	1.7	1.5	0.8		
Italy	295 114	43.2	23.5	0.1	11.7	7.9	12.9	4.3		
Cyprus	9 250	15.8	11.7	0.0	0.2	3.9	0.2	3.4		
Latvia	62 290	28.5	17.8	0.1	10.3	0.3	11.4	5.9		
Lithuania	62 678	42.3	28.9	0.0	13.1	0.3	2.6	1.5		
Luxembourg	2 586	50.6	23.6	0.0	26.4	0.6	2.5	0.3		
Hungary	93 029	45.5	38.2	0.2	5.4	1.7	14.7	4.4		
Malta	316	32.7	25.4	3.1	0.0	4.2	0.0	4.3		
Netherlands	33 756	56.7	31.4	:	24.3	1.0	0.3	4.5		
Austria	83 214	38.3	16.7	0.1	20.8	0.8	32.9	11.1		
Poland	312 685	49.5	37.6	0.2	10.5	1.2	3.8	4.5		
Portugal	92 118	37.7	11.7	0.2	19.3	6.5	7.8	2.3		
Romania	229 973	59.8	37.8	0.8	19.7	1.5	4.7	1.9		
Slovenia	20 141	24.3	8.6	0.1	14.3	1.3	18.8	2.7		
Slovakia	49 035	39.5	27.7	0.1	11.2	0.5	21.4	1.4		
Finland	304 086	7.5	7.4	0.0	0.1	0.0	10.4	2.8		
Sweden	410 335	7.6	6.4	0.0	1.2	0.0	9.1	0.5		
United Kingdom	243 154	66.3	24.7	0.0	41.5	0.1	2.6	1.2		
Norway	304 280	3.4	2.0	0.0	1.4	0.0	7.7	9.8		

(1) EU-27, Spain, Cyprus, Luxembourg, Malta, Austria and Poland, 2006.

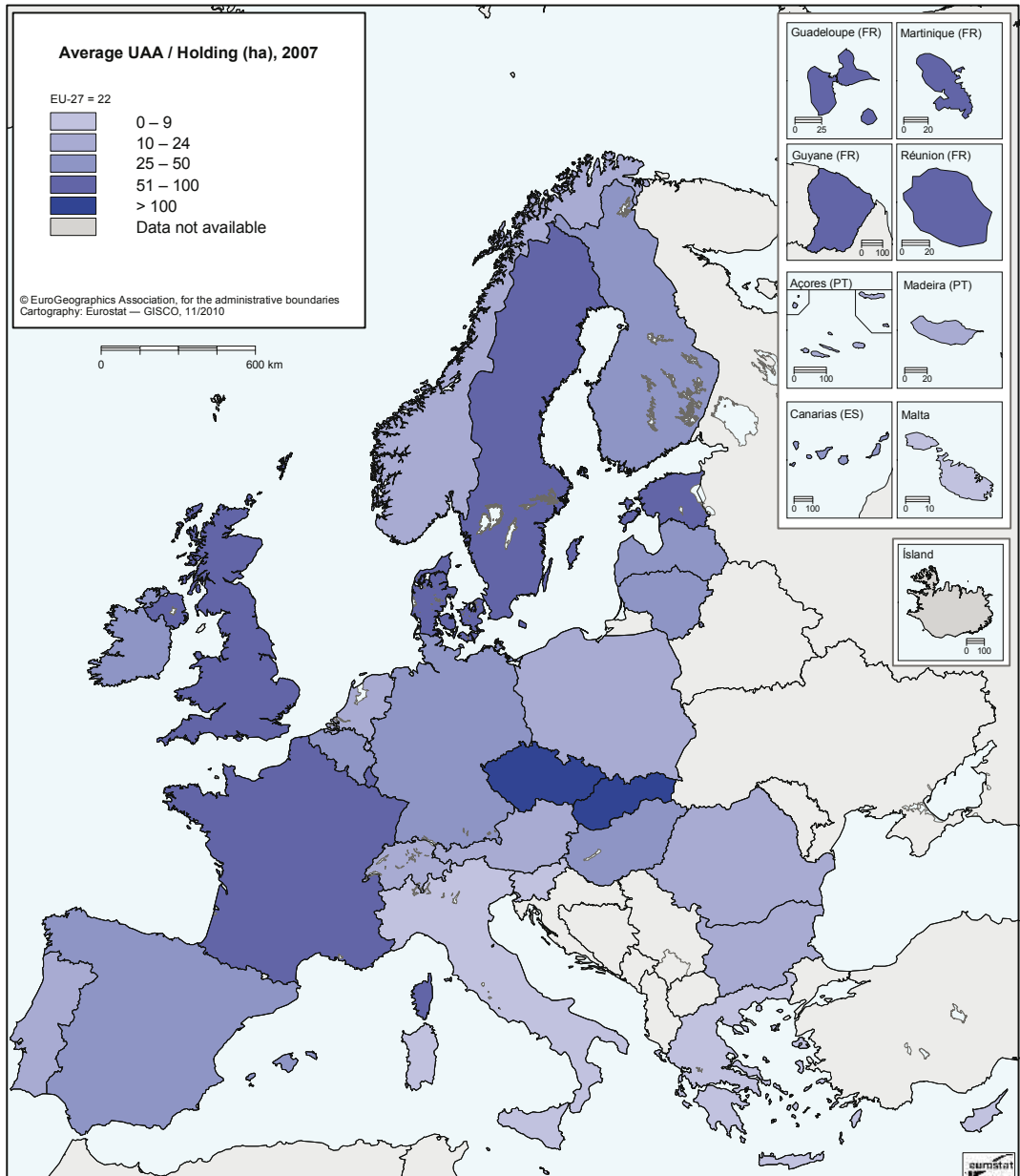
(2) Areas belonging to agricultural holdings.

(3) On agricultural holdings.

Source: Eurostat (demo_r_d3area and ef_lu_ovcropaa)



Map 8.1: Average UAA per holding, 2007
(ha)



Source: Eurostat (ef_ov_kvaesu)

8.3 Agricultural products

Europe has a wide diversity in terms of natural environments, climates and farming practices that feed through into a wide array of food and drink products for human consumption and animal feed, as well as providing inputs for non-food processes. Indeed, agricultural products form a major part of the cultural identity of Europe's people and regions. With this in mind, European Union (EU) legislation has been developed to protect particular food and drink product names which are linked to a territory or to a production method, aiming to provide guarantees as to the origin and authenticity of products.

Main statistical findings

Crops

In 2009, the EU-27 produced 295.8 million tonnes of cereals (including rice). Despite the vagaries of the weather, cereal production in the EU-27 was relatively stable between 2000 and 2007 (see Figure 8.5), albeit with notably higher harvests in 2004. The production of cereals rose again sharply in 2008, to attain a level that was close to that recorded in 2004, before falling somewhat in 2009 (although the production of cereals remained 6.5 % higher than in 2000).

There was a strong rise (48.9 %) in the production of oilseeds between 2000 and 2009, which could be contrasted with a relatively steady decline in the production of potatoes (down by 24.4 % between 2000 and 2009) and a fall in the production of sugar beet (-16.7 % over

the same period, with a marked reduction in 2006).

A comparison between 2008 and 2009 shows that EU-27 production of cereals fell by 6.1 %. Sugar beet and oilseed production increased by 16.5 % and 6.3 % respectively, while there was a modest increase in the production of potatoes (1.4 %).

France and Germany were by far the largest cereal, sugar beet and oilseed producers, together accounting for 40.5 % of the EU-27's cereal production in 2009, 53.0 % of its sugar beet production and 44.7 % of its oilseed production (see Table 8.7). The production of potatoes was more widely spread, with Germany recording the highest production (18.7 % of the EU-27 total in 2009), while Poland, the Netherlands, France and the United Kingdom each accounted for between 10.3 % and 15.5 % of the total. France was, by far, the leading producer of pulses and textile crops in 2009.

Figure 8.6 presents a breakdown of the production of cereals in the EU-27 in 2009. Almost half (47.0 %) of the total production of cereals was accounted for by wheat, while around one fifth of the total was composed of barley (21.0 %) and grain maize (19.5 %); rice production in the EU-27 was considerably lower (1.0 % of EU-27 cereals production).

In the EU-27, the most important vegetables in terms of production were tomatoes, onions and carrots, while the most important fruits were apples, oranges and peaches (see Figures 8.7 and 8.8 respectively). In 2009, Italy and Spain had the



largest vegetable and fruit production among EU Member States. Italy produced around 11.6 million tonnes of vegetables, while Spain produced approximately 9.9 million tonnes. These two Member States jointly produced 19.9 million tonnes of dessert fruit, which equated to more than 56 % of the EU-27's production.

The bulk of fruit and fresh vegetable production was concentrated in a few Member States. For example, some 56.9 % of EU-27 apple production in 2009 was located in Poland, Italy and France, whilst more than 83 % of oranges were produced in Spain and Italy. About two thirds of all the tomatoes produced in the EU-27 originated from Italy and Spain in 2009, whilst 43.6 % of the onions produced in the EU-27 came from the Netherlands and Spain.

Meat and milk

Table 8.8 summarises agricultural production related to animals. The principal meat product in the EU-27 is pig meat (21.3 million tonnes in 2009), where the weight of production was almost three times as high as for beef/veal (7.7 million tonnes); the production of sheep meat in the EU-27 was relatively modest (0.7 million tonnes).

A quarter (24.7 %) of the EU-27's pig meat production came from Germany, the next highest contributions coming from Spain (15.5 %) and France (9.4 %), while the 7.6 % share for Poland and the 7.4 % share for Denmark were also notable. A little under one fifth (19.0 %) of the beef/veal produced in the EU-27 originated from France in 2009, with Germany and Italy the only other Member States to re-

port production in excess of one million tonnes; Ireland reported a relatively high share of the EU-27's production of cattle meat.

Dairy production has a diverse structure across the Member States, in terms of farm and dairy herd sizes, as well as milk yields. The total collection of cows' milk in the EU-27 in 2009 amounted to 133.5 million tonnes. Figure 8.9 shows that over one third (34.8 %) of the milk utilised in the EU-27 in 2009 was converted into cheese, with butter accounting for the next highest proportion (23.7 %); approximately one eighth (12.6 %) of the milk utilised in the EU-27 was used for drinking milk.

Germany recorded the highest share (21.1 %) of EU-27 milk collected in 2009 and also accounted for the highest proportions of EU-27 butter (25.2 %) and cheese (22.8 %) production.

Data sources and availability

Annual statistics on the production of a range of specific crops are covered by Council Regulations, although the data for fresh fruit and vegetables are collected under various informal agreements with the EU Member States.

Agricultural production of crops is harvested production (excluding losses to the harvest). The harvested production includes marketed quantities, as well as quantities consumed directly on the farm, losses and waste on the holding, and losses during transport, storage and packaging. The statistics on crop production in this subchapter relate to harvested production.

Statistics on milk, eggs and meat products are compiled according to Community legislation. Milk production covers farm production of milk from cows, sheep, goats and buffaloes. A distinction is made between milk collected by dairies and milk production on the farm. Milk collection is only a part of the total use of milk production on the farm, the remainder generally includes own consumption, direct sale and cattle feed.

Meat production is based on the carcass weight of meat fit for human consumption. The concept of carcass weight is generally the weight of the slaughtered animal's cold body, although the precise definition varies according to the animal under consideration.

Context

Information on agricultural products may be used to analyse developments within agricultural markets in order to help distinguish between cycles and changing production patterns; these statistics can also be used to study how markets respond to policy actions. Agricultural product data also provides information on the supply side of agriculture, furthering understanding as regards price developments which are of particular interest to agricultural commodity traders and policy analysts.

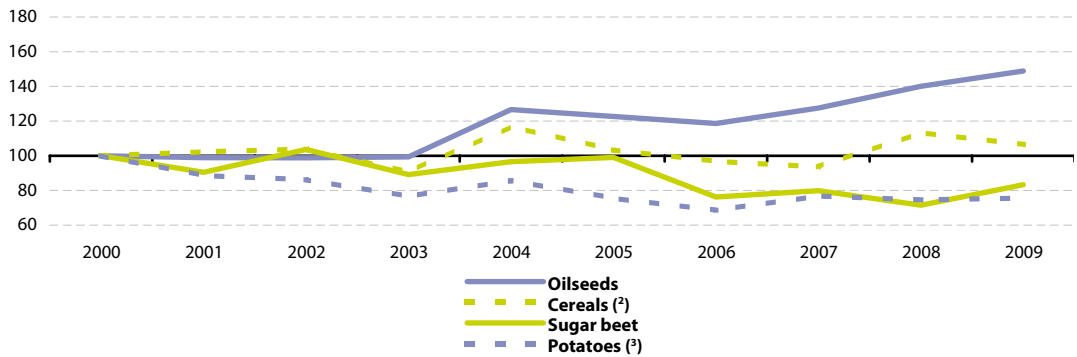
In October 2007, the Council adopted legislation to establish a single common market organisation for agricul-

tural products (Regulation 1234/2007). This was designed to reduce the volume of legislation in the farming sector, to improve legislative transparency, and to make agricultural policy more easily accessible. Between the start of 2008 and the start of 2009, the single common market organisation replaced 21 individual markets for a variety of different products such as fruit and vegetables, cereals, meats, eggs, dairy products, sugar or wine.

Despite reforms of the common agricultural policy (CAP) in 2003 and 2008, farm subsidies consume more than 40 % of the EU's annual spending. During the summer of 2010 a consultation process was organised in relation to the development of future agricultural policy. This identified three key areas for the stakeholders consulted, namely, food security, environmental concerns, and rural diversity. In November 2010 the European Commission released a Communication (COM(2010 672) providing a blueprint for developing agricultural policy, titled 'The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future'. The document details some of the main challenges facing the EU's agricultural sector in the coming decade – for example, how to preserve the EU's food production so as to guarantee long-term food security, while supporting farming communities that provide a diverse range of quality products, and ensuring environmental, water, animal and plant health requirements are met.



Figure 8.5: Indices of the agricultural production of crops, EU-27 ⁽¹⁾
(2000=100)



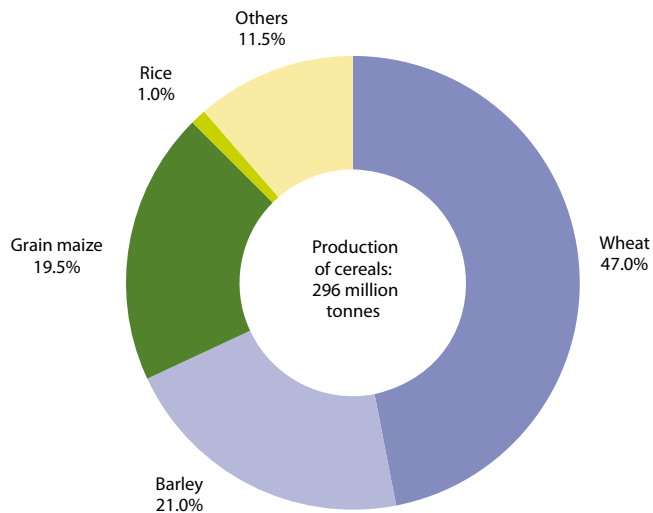
⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

⁽²⁾ Estimate, 2004, 2005; provisional, 2008 and 2009.

⁽³⁾ Provisional, 2007-2009.

Source: Eurostat ([apro_cpp_crop](#))

Figure 8.6: Production of cereals, EU-27, 2009 ⁽¹⁾
(%, based on tonnes)



⁽¹⁾ Provisional; includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat ([apro_cpp_crop](#))



Table 8.7: Agricultural production of crops, 2009
(1 000 tonnes)

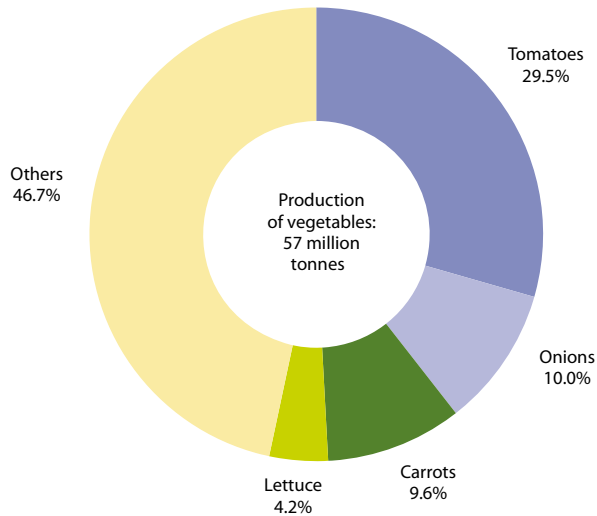
	Cereals	Sugar beet	Potatoes	Oilseeds	Pulses	Textile crops
EU-27 ⁽¹⁾	295 842	114 138	62 595	28 769	:	:
Belgium	3 324	5 185	3 296	42	8	74
Bulgaria	5 273	0	353	1 533	6	1
Czech Republic	7 832	3 038	753	1 280	62	1
Denmark	10 117	2 011	1 417	596	19	0
Germany	49 748	25 550	11 683	5 421	:	:
Estonia	879	:	139	136	8	0
Ireland	2 384	45	363	23	11	0
Greece	4 814	1 600	848	28	30	192
Spain	17 833	4 154	2 481	908	273	27
France	70 000	34 913	7 164	7 428	1 007	586
Italy	15 892	3 308	1 753	801	136	6
Cyprus	57	0	107	1	1	:
Latvia	1 663	0	525	209	5	0
Lithuania	3 807	682	656	418	86	0
Luxembourg	189	0	20	18	1	0
Hungary	13 571	708	536	2 216	49	0
Malta	0	0	10	0	0	0
Netherlands	2 089	5 735	7 181	15	13	21
Austria	5 144	3 083	722	327	49	:
Poland	29 827	10 849	9 703	2 528	272	6
Portugal	1 057	137	519	14	3	0
Romania	14 934	685	4 011	1 753	53	0
Slovenia	533	262	103	13	2	:
Slovakia	3 330	899	216	596	15	0
Finland	4 261	559	755	142	11	:
Sweden	5 249	2 406	854	321	67	:
United Kingdom	22 036	8 330	6 423	2 007	132	37
Croatia	3 407	1 111	230	291	6	:
FYR of Macedonia	567	:	:	:	:	:
Turkey	33 373	16 300	4 328	1 208	1 179	1 725

⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat ([apro_cpp_crop](#))



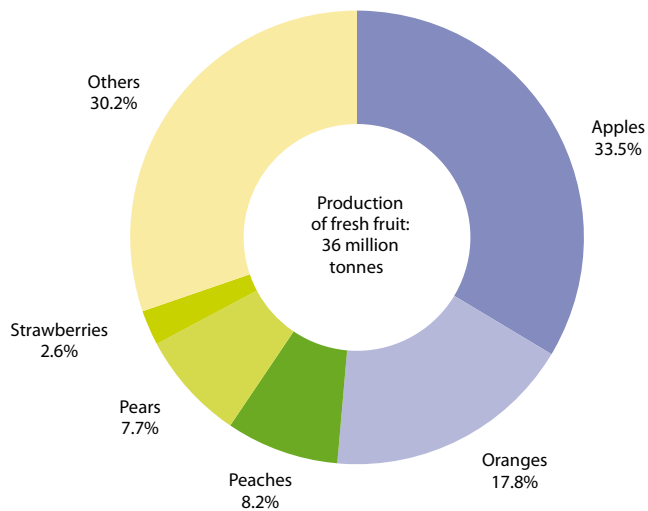
Figure 8.7: Production of vegetables, EU-27, 2009 ⁽¹⁾
(%, based on tonnes)



⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat ([apro_cpp_fruveg](#))

Figure 8.8: Breakdown of production of fruit, EU-27, 2009 ⁽¹⁾
(% of total, based on tonnes)



⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat ([apro_cpp_fruveg](#))



Table 8.8: Agricultural production related to animals, 2009
(1 000 tonnes)

	Collection of cows' milk	Butter	Cheese	Cattle meat	Pig meat	Sheep meat
EU-27 ⁽¹⁾	133 545	1 623	8 750	7 720	21 292	748
Belgium	2 954	22	72	255	1 082	1
Bulgaria	600	1	72	5	38	6
Czech Republic	2 354	27	113	77	285	0
Denmark	4 734	36	321	126	1 583	2
Germany	28 248	410	1 999	1 178	5 254	20
Estonia	612	7	37	10	31	0
Ireland	4 944	120	:	514	196	55
Greece	685	1	195	57	118	72
Spain	5 742	34	306	598	3 291	124
France	22 898	341	1 860	1 467	2 004	83
Italy	10 415	107	1 118	1 055	1 588	40
Cyprus	152	0	14	4	58	3
Latvia	595	4	29	19	25	0
Lithuania	1 274	12	92	44	41	0
Luxembourg	271	:	:	9	9	0
Hungary	1 407	5	75	30	389	0
Malta	:	0	:	2	7	0
Netherlands	11 085	122	722	402	1 275	14
Austria	2 716	29	142	224	533	7
Poland	9 140	120	634	385	1 608	1
Portugal	1 868	29	65	103	373	9
Romania	992	10	69	25	222	1
Slovenia	517	:	18	35	24	0
Slovakia	852	7	34	16	70	1
Finland	2 281	48	105	81	206	1
Sweden	2 933	24	108	150	261	5
United Kingdom	13 237	:	322	850	720	303
Switzerland ⁽²⁾	3 190	6	157	:	:	:
Croatia	675	3	28	49	78	1

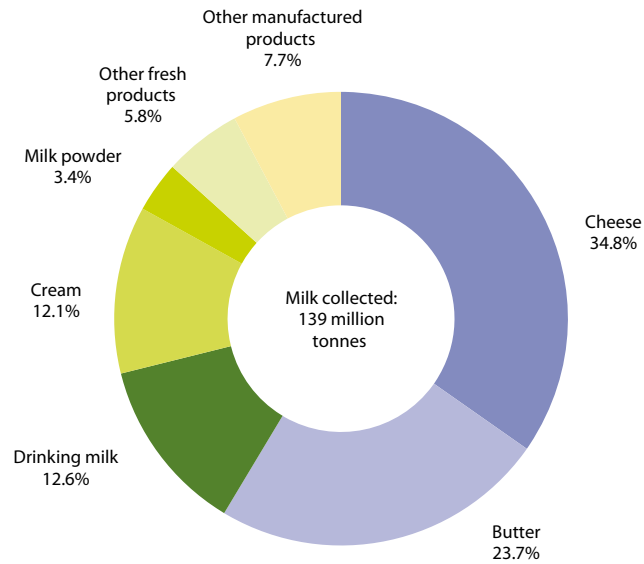
⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

⁽²⁾ 2008.

Source: Eurostat ([apro_mt_pann](#) and [apro_mk_pobta](#))



Figure 8.9: Utilisation of milk, EU-27, 2009 ⁽¹⁾
(%)



⁽¹⁾ Includes Eurostat estimates made for the purpose of this publication.

Source: Eurostat ([apro_mk_pobta](#))

8.4 Agriculture and the environment

This subchapter presents data on agriculture and the environment within the European Union (EU). Around 40 % of the EU-27's land area is farmed, highlighting the importance of farming for the EU's natural environment. Links between the natural environment and farming practices are complex: farming has contributed over the centuries to creating and maintaining a variety of valuable semi-natural habitats within which a wide range of species rely for their survival; on the other hand, inappropriate agricultural practices and land use can have an adverse effect on natural resources, through the pollution of soil, water and air, or the fragmentation of habitats and a subsequent loss of wildlife.

Main statistical findings

Cropping patterns

In 2007, the total utilised agricultural area covered 172 million hectares in the EU-27, of which 60.5 % was composed of arable land, while 32.9 % of the area was accounted for by permanent grassland, and 6.4 % by permanent crops; kitchen gardens covered just 0.2 % of the utilised agricultural area in the EU-27.

Figure 8.10 shows an analysis of the main uses of agricultural land in each Member State in 2007. Several Member States (for example, Finland and Denmark) reported that almost the entirety of their utilised agricultural area was devoted to arable land, while the relative share of arable land in total utilised agricultural area was above 50 % in 20 of the Member States.

Several countries (for example, Greece, Spain, Italy and Cyprus) tended to have a much higher proportion of permanent crops than the corresponding shares recorded in other Member States; this may result from favourable climatic conditions and the commercial importance of crops such as olive trees, vineyards or other fruit trees. In contrast, other Member States had considerable areas of permanent grasslands (for example, Ireland and the United Kingdom), which may be associated with relatively high numbers of grazing animals. Malta was the only Member State to report a relatively high share of its utilised agricultural area devoted to kitchen gardens.

Livestock patterns

In 2007, the total livestock population in the EU-27 amounted to 136 million livestock units (LSU), of which cattle represented 47.7 %, followed by pigs (27.6 %), poultry (13.8 %) and sheep (7.6 %).

Figure 8.11 shows the share of different livestock categories in each Member State in 2007. Cattle were particularly dominant in Luxembourg (85.0 %) and Ireland (81.0 %), and a majority of the livestock population (in LSUs) was composed of cattle in 13 of the Member States. In Denmark, pigs represented 70.6 % of the total livestock population (in LSUs): Denmark was the only Member State where pigs accounted for more than half of the livestock population, although pigs were the largest category of livestock in four other Member States (Cyprus, Hungary, Spain and Malta). More



than one third (38.4 %) of the livestock in Greece was composed of sheep (while goats accounted for a further 19.0 %; goats are included within the residual category of others in Figure 8.11). Greece was the only Member State where sheep were the largest category of livestock, the next highest share being recorded in the United Kingdom (24.2 %).

Map 8.2 shows the regional distribution of livestock densities. EU-27 livestock density averaged 0.78 livestock units per hectare of utilised agricultural area in 2007 – an overall decrease of 4.9 % compared with 2003 (the first reference period for which an EU-27 figure is available). The highest livestock densities were recorded in a number of regions across the north of Belgium and the south of the Netherlands, as well as in Malta (which at the NUTS 2 level is a single region). At the other end of the range, the lowest livestock densities were registered in a range of disparate regions, such as regions with capital cities (for example, Paris and Vienna), tourist destinations (such as the Algarve), remote areas (like the Highlands and islands of the United Kingdom), or more generally the south of Italy (for example, Puglia, Basilicata and Sicily), the east of Austria (Burgenland), Estonia and Latvia.

Data sources and availability

All the data within this subchapter come from farm structure surveys, also referred to as surveys on the structure of agricultural holdings. These surveys are carried out by all EU Member States every ten years (the full scope being the agricul-

tural census), with intermediate sample surveys being carried out three times between the main surveys.

The legal basis for the farm structure survey is Regulation 1166/2008 of 19 November 2008 on farm structure surveys and the survey on agricultural production methods.

The basic unit underlying the farm structure survey is the agricultural holding; a technical-economic unit, under single management, engaged in agricultural production. The survey covers all agricultural holdings with utilised agricultural area of at least one hectare, as well as smaller holdings of less than one hectare if their market production exceeds certain thresholds.

The Member States collect information from individual agricultural holdings; the information covers land use, livestock numbers, rural development, management and farm labour input. The survey data can be summed at different geographic levels to produce aggregates for the Member States, regions, and for main (ten-yearly) surveys also districts. The data can also be arranged by size class, area status, legal status of the holding, objective zone and farm type.

Context

The complex relationship between agriculture and the environment has resulted in environmental concerns and safeguards being integrated within the EU's common agricultural policy (CAP), with particular attention being paid to reducing the risks of environmental degradation through cross-compliance cri-

teria (as a condition for benefiting from direct payments, farmers must comply with certain requirements, some related to environmental protection), incentives and targeted agri-environmental measures, in order to enhance the sustainability of agro-ecosystems.

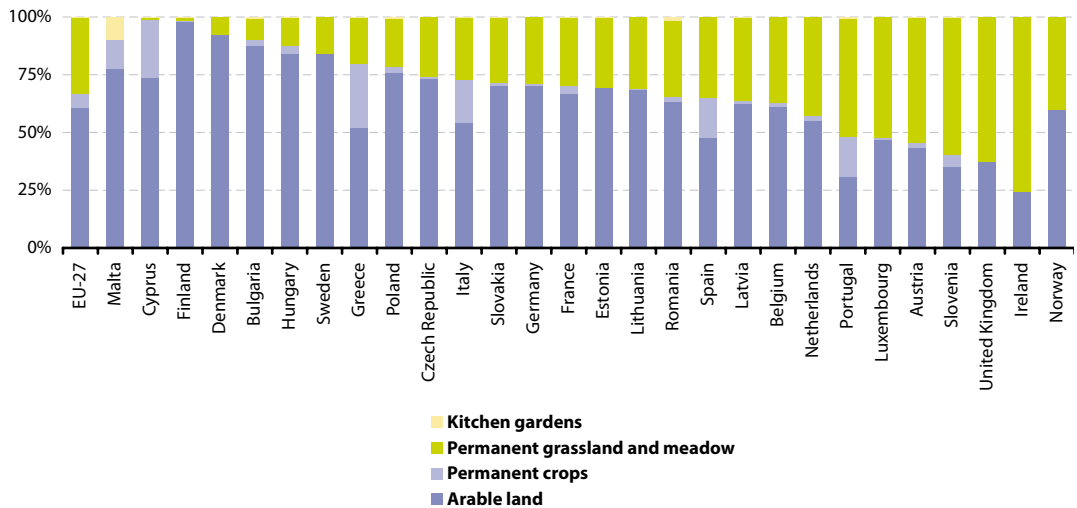
The importance attached to assessing the interaction between agriculture and the environment is underlined by a European Commission Communication COM(2006) 508 'Development of agri-environmental indicators for monitoring the integration of environmental concerns into the common agricultural policy', containing a list of 28 agri-environmental indicators, which are to be used to monitor the integration of environmental concerns into agricultural policy at an EU, national and regional level; the indicators relate to farming practices, agricultural production systems, pressures and risks to the environment, and the state of natural resources.

Cropping patterns provide an insight into the relationship between the environment

and farming developments within the EU. Permanent grasslands (when extensively managed) are generally considered as the most important crop from a nature conservation perspective, providing habitats for many wild plants and animal species. The grazing of animals on grassland, if not too heavy, can contribute to conservation in semi-natural habitats – as plants and animals benefit from lightly or moderately grazed pastures, whereas heavy grazing is likely to reduce biodiversity. The quality (or balance between intensive and extensive farming practices) of grasslands can be roughly assessed by studying livestock densities. Higher livestock densities are likely to contribute more greenhouse gas emissions, as a result of manure production and enteric fermentation, and may also result in nutrient leaching into the water and air. In contrast, a low level of livestock density may increase the need for industrial fertilisers to be used on agricultural land or lead to the risk of land abandonment, which may also result in an elimination of environmental diversity.

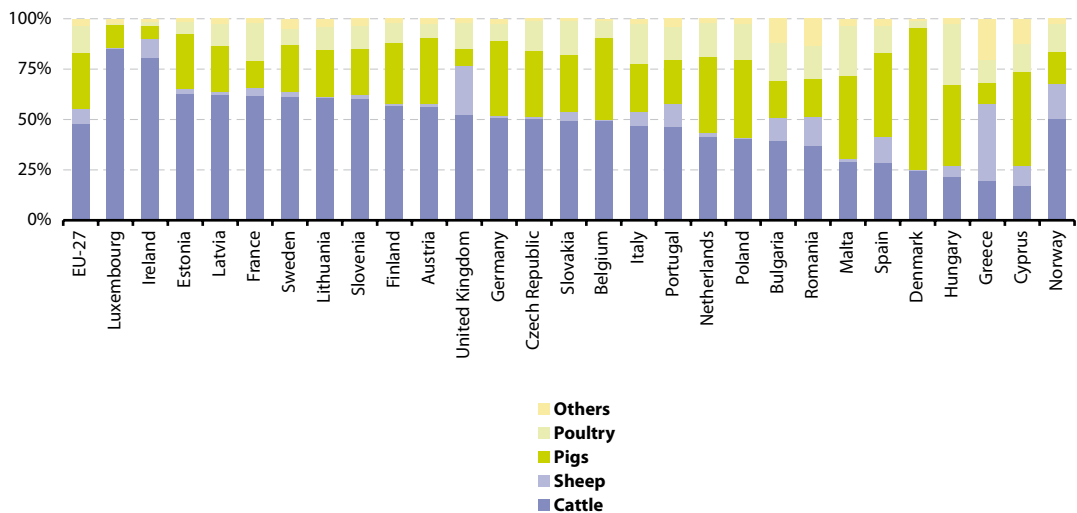


Figure 8.10: Cropping pattern - utilised agricultural area (UAA) by crop type, 2007
(% of total UAA)



Source: Eurostat (ef_lu_ovcropaa)

Figure 8.11: Livestock pattern - number of livestock units (LSU) by type, 2007 ⁽¹⁾
(% of total number of LSU)

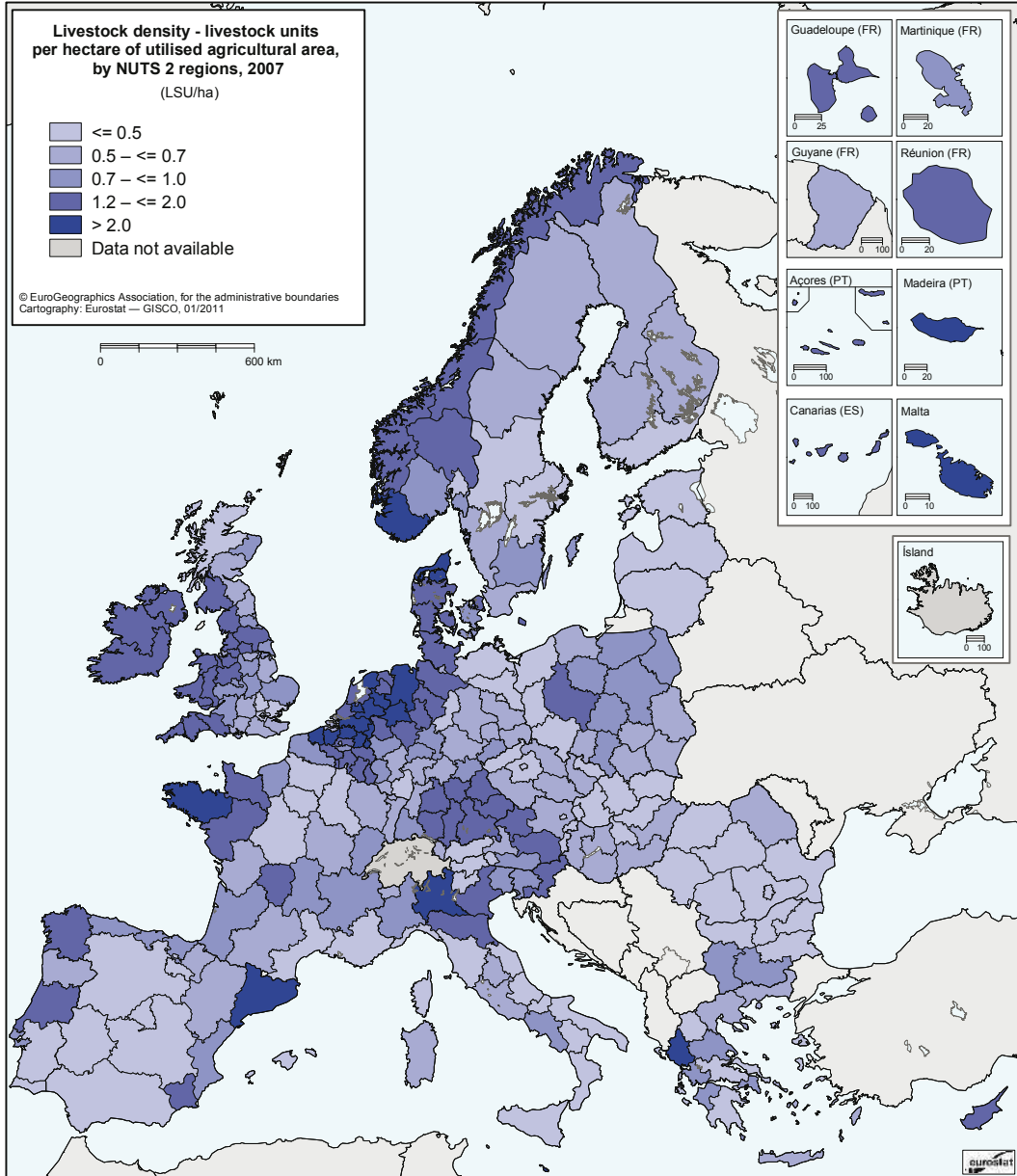


⁽¹⁾ The LSU is related to the feed requirements of each individual animal category - for example, 1 LSU corresponds to one dairy cow or 10 sheep.

Source: Eurostat (ef_ov_lsum)



Map 8.2: Livestock density - livestock units per hectare of utilised agricultural area, by NUTS 2 regions, 2007
(LSU per ha)



Source: Eurostat (aei_ps_ld)



8.5 Forestry

This subchapter presents statistics on forestry and logging in the European Union (EU). The EU-27 has approximately 178 million hectares of forests and other wooded land, corresponding to 42 % of its land area, and forest cover is gradually increasing.

Main statistical findings

From 1994 to 2007, there was a relatively steady rise in the level of roundwood production in the EU-27, both for coniferous (softwood) and non-coniferous (broadleaved or hardwood) species – see Figure 8.12. However, the effects of the economic and financial crisis led to the level of coniferous production falling in 2008 and this was confirmed with a further reduction in 2009, when non-coniferous production also fell. Nevertheless, the overall level of roundwood production in the EU-27 in 2009 remained 47.6 million m³ higher than in 1994.

Some of the peaks (most recently 2000, 2005 and 2007) in roundwood production are due to forestry and logging having to cope with unplanned numbers of trees that were felled by severe storms. The 415.1 million m³ of roundwood produced in the EU-27 in 2008 was almost 10 % less than the relative peak recorded in 2007. This latest relative peak was due to exceptional windthrows by storms in many parts of Europe – notably in Germany and Sweden – after which many more trees had to be removed from forests than planned. In 2009, roundwood production declined by a further 5.6 % to 391.9 million m³. Among the Member States, Sweden produced the

most roundwood (65.1 million m³), followed by Germany, France and Finland (each producing between 42 million and 57 million m³) – see Table 8.9.

Approximately 25 % of roundwood production is used as wood for fuel and 75 % is industrial roundwood that is used either for sawnwood and veneers, or for pulp and paper production.

Some 91.0 million m³ of sawnwood were produced in the EU-27 in 2009, 40 % of which came from the two largest producing Member States namely Germany (22.7 %) and Sweden (17.8 %); Austria, Finland and France each accounted for around 9 % of the EU-27 total. The level of sawnwood production in the EU-27 in 2009 was 21.9 % lower than in 2007.

There is a strong link between the volume of roundwood produced and the value added generated by forestry and logging, and this is also the case concerning a link between the number of annual work units (AWU) and value added. However, it is worth noting that the number of AWU per area of exploited forest varies significantly between countries, ranging from more than ten AWU per 1 000 hectares in the Czech Republic to only around one AWU per 1 000 hectares in Finland and Norway (see Figure 8.14). Forestry and logging work in mountainous areas generally requires a higher labour input than on large tracts of flat land.

Data sources and availability

Eurostat, the Timber Committee of the United Nations Economic Commission

for Europe (UNECE), the Forestry Section of the United Nations Food and Agriculture Organisation (FAO) and the International Tropical Timber Organisation (ITTO) collect and collate statistics on the production and trade of wood through their Joint Forest Sector Questionnaire. Each partner collects data from a different part of the world. Eurostat is responsible for data from the EU Member States and EFTA countries.

Roundwood production is a synonym for removals; it comprises all quantities of wood removed from forests and other wooded land or other felling sites during a given period; it is reported in cubic metres (m³) underbark (in other words, excluding bark). Sawnwood production is wood that has been produced either by sawing lengthways or by a profile-chipping process and that exceeds 6 mm in thickness; it includes for example planks, beams, joists, boards, rafters, scantlings, laths, boxboards and lumber, in the following forms – unplanned, planned, and end-jointed; it is reported in cubic metres of solid volume.

Economic and employment data for forestry and logging are collected with a separate questionnaire that was developed in collaboration with Eurostat's national accountants; these statistics are part of integrated environmental and economic accounting for forests.

Context

Contrary to what is happening in many other parts of the world, forest cover in

the EU-27 is slowly increasing. The area covered by forests and other wooded land increased by 0.3 % annually over the period 1990 to 2005. The EU-27's forests and other wooded land cover approximately the same proportion of land area as that used for agriculture.

Ecologically, the forests within the EU belong to many different biogeographical regions and have adapted to a variety of natural conditions, ranging from bogs to steppes and from lowland to alpine forests. Socioeconomically, they vary from small family holdings to state forests or large estates owned by companies, many as part of industrial wood supply chains; about 60 % of the EU-27's wooded land is privately owned.

In 2006 the European Commission presented an EU forest action plan (COM(2006) 302) which underpins support for sustainable forest management and the multi-functional role of forests. The plan is a framework for forest-related measures and is used to coordinate EU initiatives with the forest policies of the Member States. There are 18 key actions proposed – to be implemented jointly with the Member States during the period 2007 to 2011. The plan focuses on four main objectives:

- improving long-term competitiveness;
- improving and protecting the environment;
- contributing to the quality of life;
- fostering coordination and communication.

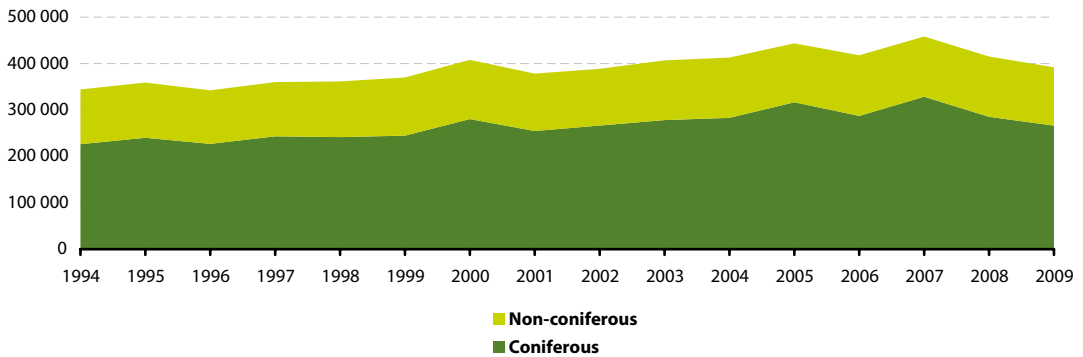


Table 8.9: Wood production
(1 000 m³)

	Roundwood production					Sawnwood production				
	1994	1999	2007	2008	2009	1994	1999	2007	2008	2009
EU-27	344 280	370 044	458 304	415 131	391 897	81 484	94 152	116 533	99 484	91 011
Belgium	:	4 400	5 015	4 700	4 395	:	1 056	1 555	1 400	1 255
Bulgaria	2 685	4 352	5 696	6 071	4 599	257	325	1 884	816	447
Czech Republic	11 950	14 203	18 508	16 187	16 187	3 158	3 584	5 454	4 636	4 636
Denmark	2 282	1 538	2 566	2 786	2 786	585	344	300	300	300
Germany	39 813	37 634	76 728	55 367	56 634	13 669	16 110	25 063	19 187	20 674
Estonia	3 550	6 704	4 500	4 860	4 860	305	1 200	1 584	1 120	1 150
Ireland	2 018	2 593	2 710	2 232	2 349	709	811	1 094	697	774
Greece	2 091	2 215	1 743	1 261	1 261	337	140	108	106	106
Spain	15 307	14 810	14 528	17 027	13 980	2 805	3 102	3 332	3 142	2 072
France	60 165	56 948	54 583	52 757	54 108	9 806	10 236	9 965	9 343	7 886
Italy	9 465	11 138	8 125	8 667	7 581	1 821	1 630	1 700	1 384	1 220
Cyprus	47	36	20	20	10	15	12	9	10	5
Latvia	5 700	14 008	12 173	8 806	10 409	950	3 640	3 459	2 545	2 500
Lithuania	3 992	4 924	6 195	5 594	5 460	760	1 150	1 380	1 109	1 011
Luxembourg	:	260	291	353	274	:	133	0	202	129
Hungary	4 527	5 231	5 640	5 276	5 244	418	308	235	207	102
Malta	0	0	0	0	0	0	0	0	0	0
Netherlands	1 043	1 044	1 022	1 117	1 016	387	362	273	243	210
Austria	14 960	14 083	21 317	21 795	16 727	7 587	9 628	11 816	10 835	8 455
Poland	18 776	24 268	35 935	34 273	34 629	5 321	4 137	4 417	3 786	3 594
Portugal	9 819	8 978	10 823	10 169	9 564	1 770	1 430	1 011	1 010	1 093
Romania	11 925	12 704	15 341	13 667	12 557	1 727	2 818	4 143	3 794	3 598
Slovenia	1 944	2 068	2 882	2 990	2 930	515	455	610	475	397
Slovakia	5 316	5 795	8 131	9 269	9 087	700	1 265	2 781	2 842	2 254
Finland	48 745	53 637	56 612	50 670	41 653	10 357	12 768	12 477	9 881	8 072
Sweden	55 900	58 700	78 200	70 800	65 100	13 842	14 858	18 738	17 601	16 200
United Kingdom	7 920	7 774	9 021	8 416	8 497	2 461	2 650	3 145	2 815	2 871
Iceland	0	:	0	:	:	0	:	0	:	:
Liechtenstein	25	:	25	28	25	:	:	10	10	4
Norway	8 744	8 424	10 465	10 324	8 884	2 417	2 336	2 402	2 228	1 850
Switzerland	4 679	4 737	5 520	4 950	4 577	1 345	1 525	1 541	1 540	1 481
Croatia	2 817	3 486	4 210	4 469	4 242	601	685	702	721	653
FRY of Macedonia	:	:	634	709	639	:	:	17	9	2
Turkey	16 845	16 608	18 319	19 420	19 430	5 163	5 039	6 599	6 175	5 853
Canada	183 224	193 890	160 792	134 947	107 266	44 687	50 412	52 284	41 548	32 820
Russia	115 670	143 600	207 000	181 400	151 400	33 750	19 100	24 258	21 618	18 974
United States	473 107	469 313	425 129	380 509	344 835	88 333	92 615	85 377	72 869	61 998

Source: Eurostat (for_remov and for_swpan)

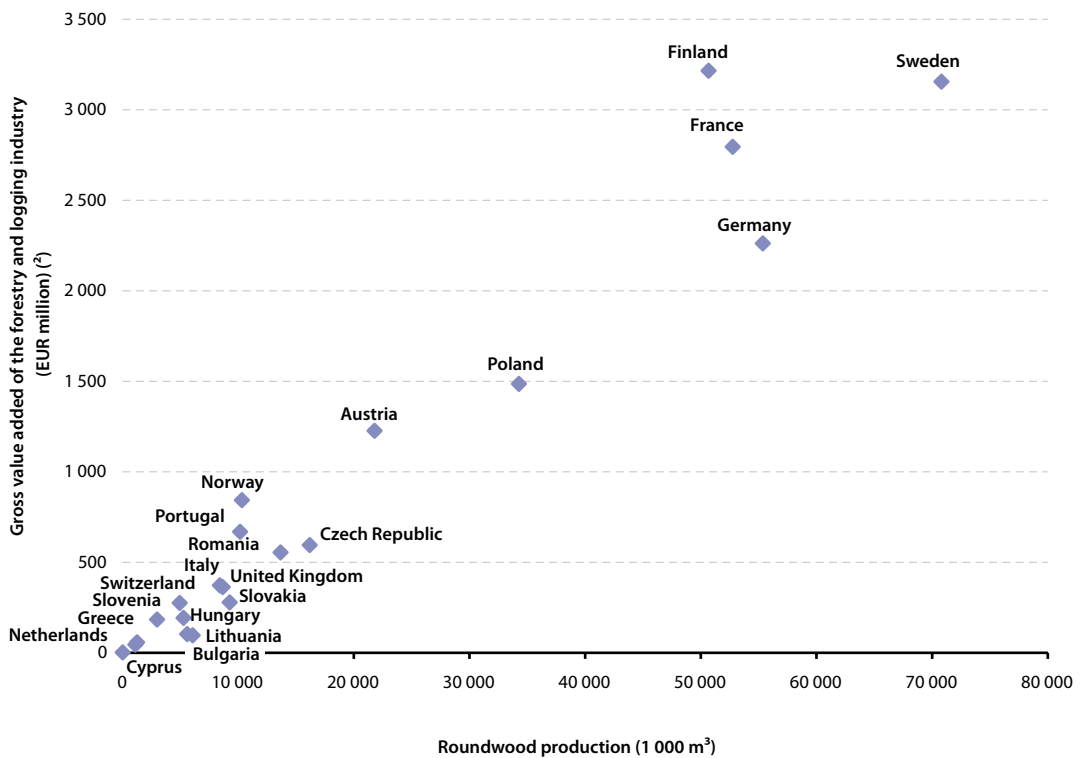
Figure 8.12: Annual production of roundwood, EU-27 ⁽¹⁾
(1 000 m³)



⁽¹⁾ 2000, 2001, 2007 and 2009, estimates.

Source: Eurostat ([for_remove](#))

Figure 8.13: Roundwood production and gross value added of forestry and logging, 2008 ⁽¹⁾



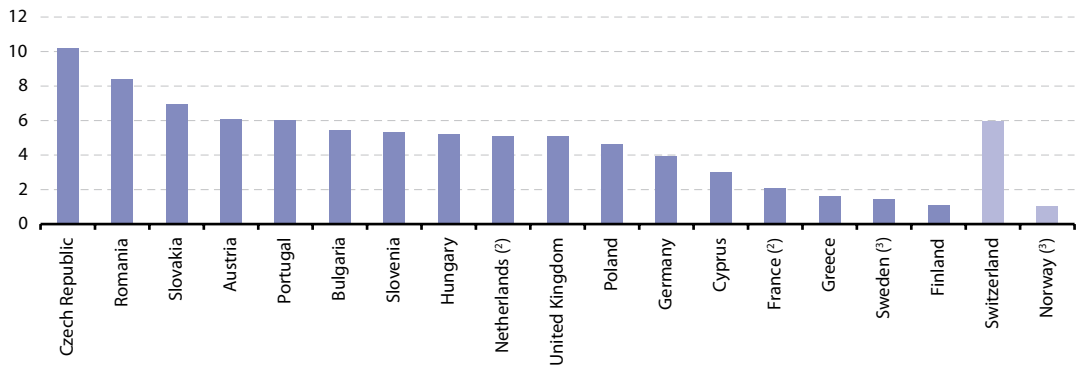
⁽¹⁾ Member States that are not shown, not available.

⁽²⁾ France, Italy, Lithuania and Netherlands, 2006; Sweden, 2007.

Source: Eurostat ([for_remove](#) and [for_ieeaf_cp](#))



Figure 8.14: Volume of work per area of exploited forest, 2008 ⁽¹⁾
(annual work units per 1 000 hectares)



⁽¹⁾ Forest available for wood supply, 2005; an annual work unit is equivalent to the work performed by one person employed full-time over a year; Member States that are not shown, not available.

⁽²⁾ 2006.

⁽³⁾ 2007.

Source: Eurostat ([for_awu](#) and [for_area](#)), FAO Forest Resources Assessment 2005

8.6 Fisheries

Fish are a natural, biological, mobile (sometimes over wide distances) and renewable resource. Aside from fish farming, fish cannot be owned until they have been caught. For this reason, fish stocks continue to be regarded as a common resource, which needs to be managed collectively. This has led to a range of policies that regulate the amount of fishing, as well as the types of fishing techniques and gear used in fish capture. This subchapter gives an overview of recent statistics on fishing fleets, fish catches, and also on aquaculture production in the European Union (EU).

Main statistical findings

By far the largest fishing fleets among the EU Member States, in terms of power, were those from Italy, France, Spain and the United Kingdom; in 2008, the fishing fleets of each of these countries had a collective power of between 0.8 million kW and 1.1 million kW. In terms of tonnage, however, the Spanish fishing fleet was by far the largest, being about two and a half times the size of the fleets in the United Kingdom, France or Italy.

Total catches by the fishing fleets of Spain, Denmark, the United Kingdom and France accounted for more than half of all the catches made by EU-27 fishing fleets in 2008. This share has declined in recent years from about 60 % in 2000, mainly as a result of the sharp reduction in the share of the Danish catch, as well as (to a lesser degree) that of France and Spain (see Table 8.10). Since 1998, the to-

tal EU-27 catch has fallen every year with the exceptions of 2001 and 2008; the total catch by the EU-27 in 2008 was nearly 30 % less than in 1998. Around 70 % of the catches made by the EU-27 in 2008 were in the north east Atlantic, with the Mediterranean the second largest fishing area (see Figure 8.16).

The level of aquaculture production in the EU-27 remained relatively stable between 1.2 million tonnes and 1.4 million tonnes during the period 1998 to 2007. The five largest aquaculture producers among the EU Member States were Spain, France, Italy, the United Kingdom and Greece, which together accounted for around three quarters of total aquaculture production in 2007. Among the non-member countries included in Table 8.11 aquaculture production was extremely large in Norway – higher than the combined output of the three largest Member States; the aquaculture output of Turkey was also quite substantial. The development of aquaculture production between 1998 and 2007 followed different patterns across the EU Member States. Production in the Netherlands more than halved and there were also large percentage reductions in aquaculture output in Germany and Denmark, whereas, among the larger producers, aquaculture output rose by 90 % in Greece.

Data sources and availability

Fishery statistics are collected from official national sources either directly by Eurostat for the members of the European Economic Area (EEA) or indirectly



through other international organisations for other countries. The data are collected using internationally agreed concepts and definitions developed by the coordinating working party on fishery statistics (CWP), comprising Eurostat and several other international organisations with responsibilities in fishery statistics. The flag of the fishing vessel is used as the primary indication of the nationality of the catch, though this concept may vary in certain circumstances.

In general, the data refer to the fishing fleet size on 31 December of the reference year. The data are derived from national registers of fishing vessels which are maintained pursuant to Regulation 26/2004 which contains information on the vessel characteristics to be recorded on the registers – the administrative file of fishing vessels maintained by the European Commission's Directorate-General for Maritime Affairs and Fisheries. There has been a transition in measuring the tonnage of the fishing fleet from gross registered tonnage (GRT) to that of gross tonnage (GT). This change, which has taken place at different speeds within the national administrations, gives rise to the possibility of non-comparability of data over time and of non-comparability between countries.

Catches of fishery products include items taken for all purposes (commercial, industrial, recreational and subsistence) by all types and classes of fishing units operating both in inland, inshore, offshore and in high-seas fishing areas. The catch is normally expressed in live weight and

derived by the application of conversion factors to the landed or product weight. As such, catch statistics exclude quantities which are caught and taken from the water (that is, before processing) but which, for a variety of reasons, are not landed.

Geographical fishing areas are defined for a number of specific areas of water, including:

- the north east Atlantic, which is roughly the area to the east of 42°W longitude and north of 36°N latitude, including the waters of the Baltic Sea;
- the north west Atlantic, which is the region that is roughly the area to the west of 42°W longitude and north of 35°N latitude;
- the eastern central Atlantic, which is the region to the east of 40°W longitude between latitudes 36°N and 6°S;
- the Mediterranean and the Black Sea, which is also known as Food and Agriculture Organization (FAO) major fishing area 37, which comprises the Mediterranean Sea and the adjacent Black Sea.

Aquaculture is the farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding and protection from predators. Farming also implies individual or corporate ownership of, or rights resulting from contractual arrangements to, the stock being cultivated.

Context

The first common European policy measures in the fishing sector date from 1970. They set rules for access to fishing grounds, markets and structures. All these measures became more significant when, in 1976, the Member States followed an international movement and agreed to extend their rights to marine resources from 12 to 200 miles from their coasts.

After years of difficult negotiations, the common fisheries policy (CFP), the EU's instrument for the management of fisheries and aquaculture, was born in 1983. The CFP sets maximum quantities of fish that can be safely caught every year: the total allowable catch (TAC). Each country's share is called a national quota.

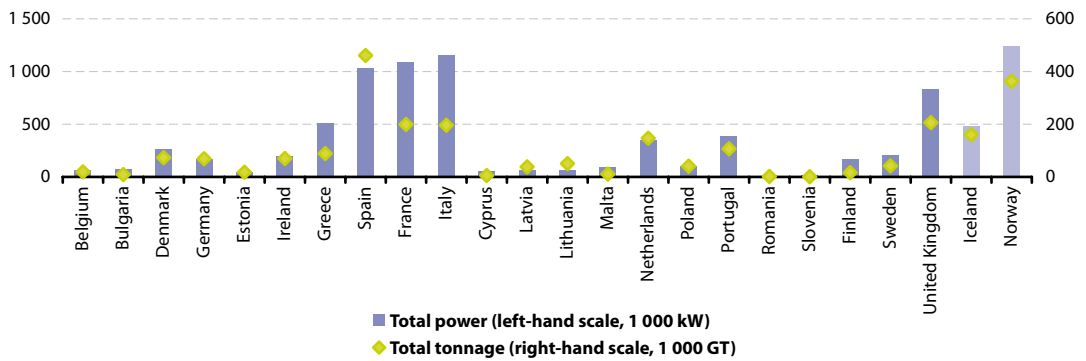
The CFP was reformed in 2002 to deal with the environmental, economic and social dimensions of fishing. Common measures were agreed in four areas:

- the conservation of stocks/environmental impact – to protect fish resources by regulating the amount of fish taken from the sea, by allowing young fish to reproduce, and by ensuring that measures are respected;
- structures and fleet management (such as vessels, port facilities and fish processing plants) – to help the fishing and aquaculture sectors adapt their equipment and organisations to the constraints imposed by scarce resources and the market;
- the organisation of the market for fish in the EU – to maintain a common organisation of the market in fish products and to match supply and demand for the benefit of both producers and consumers;
- and external fisheries policy – to set-up fisheries agreements and to negotiate at an international level within regional and international fisheries organisations for common conservation measures in deep-sea fisheries.

The 2002 reform identified the need to limit fishing efforts, the level of catches, and to enforce certain technical measures. To ensure sustainable fishing, it is not only the quantity of fish taken from the sea that is important, but also their species, size, and the techniques used in catching them, as well as the areas where they are caught.

The European fisheries fund (EFF) has a budget of around EUR 3 800 million and covers the period 2007 to 2013. It aims to support the objectives of the CFP by:

- supporting sustainable exploitation of fisheries resources and a stable balance between these resources and the capacity of Community fishing fleet;
- strengthening the competitiveness and the viability of operators in the sector;
- promoting environmentally-friendly fishing and production methods;
- providing adequate support to people employed in the sector;
- fostering the sustainable development of fisheries areas.

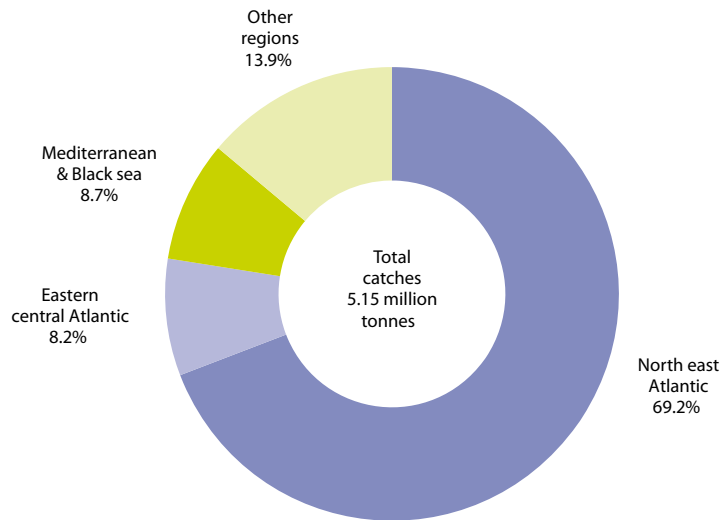
**Figure 8.15:** Fishing fleet, 2008 (1)

(1) The Czech Republic, Luxembourg, Hungary, Austria and Slovakia are landlocked countries without a marine fishing fleet.

Source: Eurostat ([fish_fleet](#))

Figure 8.16: Catches by fishing region, EU-27, 2008

(%, based on tonnes)



Source: Eurostat ([fish_ca_main](#))



Table 8.10: Total catches in all fishing regions
(1 000 tonnes live weight)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-27	7 253	6 870	6 789	6 920	6 324	5 892	5 876	5 642	5 416	5 133	5 148
Belgium	31	30	30	30	29	27	27	25	23	25	23
Bulgaria	19	11	7	7	15	12	8	5	8	9	9
Czech Republic	4	4	5	5	5	5	5	4	5	4	4
Denmark	1 557	1 405	1 534	1 511	1 442	1 031	1 090	911	868	653	691
Germany	267	239	206	211	224	261	262	286	298	249	229
Estonia	119	112	113	105	101	79	88	100	87	99	101
Ireland	327	285	278	356	282	266	280	268	212	215	205
Greece	110	121	99	94	96	93	93	92	98	95	89
Spain	1 210	1 164	1 067	1 096	852	857	772	769	743	738	919
France	599	665	702	680	703	709	671	595	593	558	499
Italy	306	283	302	310	270	296	279	298	316	287	236
Cyprus	19	40	67	81	2	2	2	2	2	2	2
Latvia	102	125	136	128	114	115	125	151	140	155	158
Lithuania	67	73	79	151	150	157	162	140	155	187	183
Luxembourg	0	0	0	0	0	0	0	0	0	0	0
Hungary	7	8	7	7	7	7	7	8	8	7	7
Malta	1	1	1	1	1	1	1	1	1	1	1
Netherlands	533	511	496	518	464	526	522	549	436	414	417
Austria	0	0	0	0	0	0	0	0	0	0	0
Poland	242	236	218	225	223	180	192	155	145	152	143
Portugal	230	210	189	192	202	209	221	219	229	253	240
Romania	9	8	7	8	7	10	5	6	7	6	5
Slovenia	2	2	2	2	2	1	1	1	1	1	1
Slovakia	1	1	1	2	2	2	2	2	2	2	2
Finland	156	144	156	149	145	121	135	131	149	165	158
Sweden	411	351	339	312	295	287	270	256	269	238	231
United Kingdom	923	841	748	740	690	637	655	669	621	616	594
Iceland	1 700	1 754	2 000	2 001	2 145	2 002	1 750	1 661	1 345	1 421	1 307
Liechtenstein	0	0	0	0	0	0	0	0	0	0	0
Norway	2 861	2 628	2 700	2 687	2 740	2 549	2 525	2 393	2 256	2 378	2 436
Switzerland	2	2	2	2	2	2	2	1	1	1	2
Croatia	22	19	21	18	21	20	30	35	38	40	49
FYR of Macedonia	0	0	0	0	0	0	0	0	0	0	0
Turkey	487	574	503	528	567	508	550	426	533	632	494

Source: Eurostat (fish_ca_00)



Table 8.11: Aquaculture production
(1 000 tonnes live weight)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-27	1 376	1 429	1 399	1 386	1 272	1 343	1 311	1 261	1 283	1 307	:
Belgium	1	2	2	2	2	1	1	0	0	0	:
Bulgaria	4	8	4	3	2	4	2	3	3	4	:
Czech Republic	17	19	19	20	19	20	19	20	20	20	20
Denmark	42	43	44	42	32	38	43	39	28	31	:
Germany	73	80	66	53	50	74	57	45	38	45	44
Estonia	0	0	0	0	0	0	0	1	1	1	:
Ireland	42	44	51	61	63	63	58	60	53	53	:
Greece	60	84	95	98	88	101	97	106	113	113	115
Spain	314	318	309	309	255	268	293	219	295	285	:
France	268	265	267	252	252	240	243	245	238	237	:
Italy	209	210	217	218	184	192	118	181	174	181	:
Cyprus	1	1	2	2	2	2	2	2	4	3	:
Latvia	0	0	0	0	0	1	1	1	1	1	:
Lithuania	2	2	2	2	2	2	3	2	2	3	:
Luxembourg	0	0	0	0	0	0	0	0	0	0	0
Hungary	10	12	13	13	12	12	13	14	15	16	:
Malta	2	2	2	1	1	1	1	1	7	9	:
Netherlands	120	109	75	57	54	67	79	71	42	53	:
Austria	3	3	3	2	2	2	2	2	3	3	2
Poland	30	34	36	35	33	35	35	38	36	35	37
Portugal	8	6	8	8	8	8	7	7	8	7	6
Romania	10	9	10	11	9	9	8	7	9	10	:
Slovenia	1	1	1	1	1	1	2	1	1	1	1
Slovakia	1	1	1	1	1	1	1	1	1	1	:
Finland	16	15	15	16	15	13	13	14	13	13	:
Sweden	5	6	5	7	6	6	6	6	8	5	:
United Kingdom	137	155	152	171	179	182	207	173	172	174	:
Iceland	4	4	4	4	4	6	9	8	9	5	:
Norway	411	476	491	511	551	584	637	662	709	830	:
Switzerland	1	1	1	1	1	1	1	1	1	1	:
Croatia	6	6	7	10	9	8	10	11	14	13	:
FYR of Macedonia	1	2	2	1	1	1	1	1	1	1	:
Turkey	57	63	79	67	61	80	94	120	129	140	:

Source: Eurostat (fish_aq_q)