Agriculture in the United Kingdom 2003

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Preface

Legal basis

1 Agriculture in the United Kingdom 2003 fulfils the requirement under the Agriculture Act 1993 that Ministers publish an annual report on such matters relating to price support for agricultural produce as they consider relevant. The Government will draw on this information when considering policy issues, including proposals by the European Commission in respect of the Common Agricultural Policy (CAP) and the provision of agricultural support.

Changes

2 Some of the figures now given for past years may differ from those published in preceding issues. This is because of the use of later information, changes in the scope and nature of the available data and improvements in statistical methods.

Structure of Tables

3 Most of the data are on a calendar year basis. The data for 2003 are provisional because information for 2003 was still incomplete at the time of publication, and therefore an element of forecasting was required.

4 The following points apply throughout:

(a) All figures relate to the United Kingdom (UK), unless otherwise stated.

(b) In the tables

- means 'nil' or 'negligible' (less than half the last digit shown).

. . means 'not available' or 'not applicable'.

(c) The figures for imports and exports include those from intervention stocks and the figures for exports include re-exports. Imports are based on country of consignment. Exports are based on country of reported final destination. The source of Overseas Trade Statistics is HM Customs and Excise.

(d) Where statistics are shown for the European Union (EU) as a whole they represent the present Member States in all years regardless of when they became a member. In 2003, the 15 Member States were: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, the Netherlands, and the United Kingdom.

5 Where figures are presented in real terms the measure of inflation used is the all-items Retail Price Index.

Website

6 This publication and other Defra statistics can be found at http://statistics.defra.gov.uk/esg/. Further statistics of the Devolved Administrations can be found at:

- Scottish Executive - http://www.scotland.gov.uk/Topics/?pageID=62
- Department of Agriculture, Northern Ireland - http://www.dardni.gov.uk/econs/stats.htm
- Welsh Assembly Government - http://www.wales.gov.uk/keypubstatisticsforwales/index.htm

'The Future of UK Agriculture in a Changing World'

Introduction

1 In its report, 'The Future of UK Agriculture in a Changing World', which was published on 6 November 2002, the House of Commons' Environment, Food and Rural Affairs Committee recommended that:

2 "In the light of the economic and other factors affecting the future of farming the Government should commission an annual financial assessment of the state of British farming which goes beyond simply looking at farm incomes. Its production should involve representative bodies from across the food chain, as well as the industry's bankers. Such a document could form an objective basis against which to judge and assess the possible effects of future policy proposals."

3 The Government's reply was: "The Government accepts this recommendation to enhance the evidence base on the farming sector. It is proposed that we will enhance the work and analysis already undertaken and published within 'Agriculture in the United Kingdom' to monitor the trends in economic, environmental and social aspects of farming, and that we shall undertake analysis of current and future prospects for the industry in consultation with external representative bodies on the technical aspects of the analysis."

4 "In order to meet the obligations of National Statistics on the release of statistics, discussions would take place following the publication of the main headline income figures at the end of January each year. An open invitation to attend the technical discussions would be made in the Statistics Notice published at this time. The discussions would then inform the more detailed analysis and interpretation published in 'Agriculture in the United Kingdom' that would be used to judge the possible effects of current and future policy proposals. As a first step, discussions will be arranged with stakeholders to identify the additional analyses to be developed and published within 'Agriculture in the United Kingdom' and to agree the process by which their input would be provided on a regular annual basis."

Progress to date

5 An open invitation to attend a seminar was made in the Statistics Notice in which headline farm income figures were published on 30 January 2003. In addition, a list of stakeholders was drawn up and invitations sent directly to them.

6 A seminar was held in June to identify additional analyses that might be developed and published in 'Agriculture in the United Kingdom' and to agree the process by which stakeholder's input would be provided on a regular annual basis. The seminar was well attended with a mixture of representatives from banks, trade associations, the academic world, consultancies, and other professionals. A number of suggestions for additional analyses and statistics to include in the publication were put forward at the seminar and further suggestions and comments received from those who were unable to attend.

7 A clear message was received from stakeholders that 'Agriculture in the United

Kingdom' is seen as an authoritative source and that it should not be changed substantively, in particular in such a way as to distract from its statistical content. Concern was expressed that the range of additional analyses and statistics suggested would add enormously to the scope and size of the publication, detract from its current content, and perhaps put back its publication. When considering what might be included in 'Agriculture in the United Kingdom', a balance therefore needs to be struck between what might be included, with other options for publishing additional analyses and directing users to other sources of statistics.

8 It was clear that stakeholders did not wish publication of 'Agriculture In The United Kingdom' to be delayed. Regular seminars would therefore be held annually after publication.

In this publication

9 Additional statistics and analyses included in this publication are:

- more statistics to enable comparison of the UK with the EU;
- additional statistics and analyses from the Farm Business Survey;
- analyses of the farm gate share of retail expenditure and household food sales;
- statistics on the age of holders and agricultural training of holder managers;
- a new chapter on UK trade in food, feed and drink;
- a new chapter on organic farming;
- more information on productivity in UK agriculture including analyses of total factor productivity and benchmarking;
- more information on agriculture's impact on the environment and the work being carried out in this area;
- a separate chapter on conservation and land management;
- data on the environmental impact of agriculture;
- links to the statistical web pages for the devolved administrations.

10 An annex is to be published with the website version of 'Agriculture in the United Kingdom 2003' to show analyses of UK and EU market prices.

Still to come

11 Work continues on analyses and statistics for:

- Less Favoured Areas;
- diversification;
- agriculture’s contribution to the rural economy;
- co-operatives;
- non-food crops;
- efficiencies of ‘downstream’ industries in the food chain;
- livestock flows;

- routes from farm to the consumer;
- food safety;
- rural funding;
- environmental accounts for agriculture.

12 A publication of agricultural statistics for England is being considered.

Seminar 2004

13 A seminar is planned for June 2004. The aim will be:

- to discuss the future financial prospects of the farming sector;
- to discuss medium term farm income projections;
- to obtain stakeholders views on any additional analyses to be considered for inclusion in the edition of 'Agriculture In The United Kingdom' to be published in the following year;
- to discuss progress on work being done on developing a framework for environmental accounts for agriculture.

14 If you would like to take part in the seminar, please contact Keith Seabridge by email (keith.seabridge@defra.gsi.gov.uk), by fax (+44 (0)1904 455060), or by post (Keith Seabridge, Economics and Statistics Division, Defra, Room 222, Foss House, Kings Pool, 1-2 Peasholme Green, York, England, YO1 7PX.

Chapter 1 Key events in 2003

CAP Reform - mid-term review of Agenda 2000

1 The Council of EU Agriculture Ministers met during June 2003 to negotiate changes to the Common Agricultural Policy (CAP) based on the European Commission's proposals tabled in January 2003. On 26 June 2003, agreement was reached on a package of reform measures which are described in Chapter 10. The legal texts were formally adopted at the Agriculture Council of September 2003. Defra and the Devolved Administrations then undertook consultations on implementation of the CAP reform agreement in England, Northern Ireland, Scotland and Wales.

WTO negotiations

2 The 5th meeting of the World Trade Organisation Ministerial Conference took place in Cancún, Mexico between 10 and 14 September 2003. It marked the half-way point in the current world trade round, the 'Doha Development Agenda', launched at Doha, Qatar, by the 4th meeting of the Ministerial Conference in November 2001.

3 The talks broke down without agreement. The immediate cause of the breakdown concerned differences over the "Singapore issues" - investment, competition, trade facilitation and government procurement - but there were also differences in other areas. However, progress was made, including on agriculture, and negotiations continued in Geneva with a view to getting the Round back on track.

EU enlargement

4 The Member States of the European Union and the candidates for membership - Cyprus, Malta, Hungary, Poland, the Slovak Republic, Latvia, Estonia, Lithuania, the Czech Republic and Slovenia - agreed in Copenhagen on 13 December 2002 on a package for the admission of these ten new Member States to the Union. The accession treaty was signed in Athens on April 16th 2003, and these new Member States will join the EU on 1 May 2004, once the accession treaty is ratified.

5 Ratification in nine of the ten acceding countries will follow referenda; Cyprus ratified the treaty according to its domestic procedures on 14th July 2003. The results of all referenda have been in favour. No referenda are foreseen in the existing Member States of the European Union on the accession treaty and ratification will follow the constitutional procedure in each Member State.

Sustainable Development

6 England's Sustainable Farming and Food Strategy was launched on 12 December 2002. It set out how industry, Government and consumers could work together to secure a sustainable future for the farming and food industries, as viable industries contributing to a better environment and healthy and prosperous communities. In England, an Implementation Group, chaired by Sir Don Curry, was set up with the remit to drive and oversee the delivery of the Government's Sustainable Farming and Food Strategy, working with the farming and food industries and Government to drive forward change.

7 The major milestones reached so far include:

- radical reform of CAP agreed;

- successful launch of pilots for new entry-level agri-environment scheme to enable decisions on national roll-out in 2005;
- establishment of the Food Chain Centre, English Food and Farming Partnership and the Red Meat Industry Forum;
- network of pilot demonstration farms up and running;
- £5m in Agricultural Development Scheme grants awarded;
- Animal Health and Welfare Outline Strategy launched;
- good progress made on Assured Food Standards and the Red Tractor logo;
- whole farm appraisal pilot under way;
- regional delivery plans drawn up;
- Haskins report on improving the delivery of rural policies published;
- successfully launched the public sector food procurement initiative.

8 Work on many of these topics is being taken forward by the Devolved Administrations, though they may differ in detail from the approach in England; for example, in Wales this work is being carried out through implementation of the Agri-Food strategy and the farm advisory service known as Farming Connect.

9 As part of the its Sustainable Farming and Food Strategy, Defra is developing a set of headline and delivery indicators that will bring together data from various sustainability programmes including Biodiversity Action Plans, Animal Health and Welfare, and the Food Industry Sustainability Strategy. The purpose is to monitor the economic, environment and social aspects identified in the various sustainability strategies and provide summary statistics to support evidence based policy making. These will be published on the Defra website as they become available during 2004.

10 The Scottish Executive Environment and Rural Affairs Department (SEERAD) is, in conjunction with stakeholders, developing a series of indicators that will help measure, in environmental, economic and social terms, the success of its Agriculture Strategy. The Welsh Assembly Government is developing a set of indicators in support of its strategy, Farming in the Future.

Total Income from Farming

11 The long term trend in aggregate income has been downwards although it rose and fell dramatically in the nineties due to changes in the exchange rates, world commodity prices and the impact of BSE. In 2003, we have seen a recovery in the euro resulting in a rise in prices across a range of commodities and higher direct subsidy payments. In real terms Total Income from Farming is now at a level more in line with levels of the late eighties; it is 77 per cent above the low point in 2000 and 50 per cent below the peak in 1995.

Weather

12 Key effects of the weather were:

- a very warm and dry summer and autumn, particularly in the south, reduced cereals yields but brought forward easier harvesting;
- record hot and dry weather in Europe hit wheat production on the continent;

pushing spot prices for feed wheat to just over £100 per tonne in November;

- lack of rain continued into November and brought fears for crop germination;
- dry weather caused a shortage of grass, causing problems for livestock and milk producers;
- low rainfalls hampered the potato harvest as the dry weather conditions made lifting difficult and increased the incidence of bruising;
- some vegetable crops suffered from reduced yields caused by the dry conditions, while others matured earlier than usual resulting in gluts followed by shortages. Hard soil made the lifting of carrots difficult;
- high temperatures led to an oversupply of flowers in some areas with some left unpicked;
- the hot weather led to crops of soft fruits ripening earlier, placing pressure on the harvest operation and leading to increased wastage;
- the Northern Ireland apple industry suffered severely from the effects of frost at blossom stage.

Chapter 2 Farming income and agriculture in the economy

Long Term Trends in Farming Income (Chart 2.1)

1 Total Income from Farming increased for the third year in a row in 2003 so that, in real terms, it is now 77 per cent above the low point in 2000 and 50 per cent below the peak in 1995. The long term trend in aggregate income has been downwards. The dramatic rise in farming's profitability in the early nineties followed the decline in the euro/sterling exchange rate after the UK left the Exchange Rate Mechanism. The equally rapid reverse in the second half of the decade was caused by increases in the exchange rate, lower world commodity prices and the impact of BSE.

Chart 2.1 UK income trends in real terms at 2003 prices

source: Defra website, http://statistics.defra.gov.uk/esg/

Summary Measures including Total Income from Farming (Table 2.1)

2 Total Income from Farming in the UK in 2003 is estimated to be £3.2 billion which is 32 per cent (28 per cent in real terms) higher than its 2002 level. Total Income from Farming is income generated by production within the agriculture industry, including subsidies. It represents business profits plus remuneration for work done by owners and other unpaid workers. Total Income from Farming per full-time person equivalent (AWU of entrepreneurial labour in table 2.1) rose by 36 per cent (32 per cent in real terms) to £15,537. Average subsidies per whole-time person equivalent of entrepreneurial labour were higher at £14,109, a 7.8 per cent increase in real terms on 2002. However, the distribution of subsidies is far from equal.

3 Total Income from Farming is calculated as: gross output at basic prices (market prices plus subsidies on products); **plus** other subsidies less taxes on products; **less** total intermediate consumption, total consumption of fixed capital (depreciation), paid labour, rent and interest.

4 The greatest influence on the value of Total Income from Farming is the value of gross output. Fluctuations in gross output correlate closely with Total Income from Farming.

5 In real terms, the trend in the value of gross output (plus subsidies less taxes) is downwards, although there have been periods of increased value, in particular in the early nineties linked to the exchange rate. The value of intermediate consumption is about half that of gross output and has been decreasing over time. The value of the other components together is about a third that of gross output.

6 The overall increase in income for 2003 masks variation across the sectors and individual countries of the UK. The value of output (including subsidies directly related to products) increased by £963 million or 6.2 per cent. The volume was 1.7 per cent lower but prices received were generally higher, due in part to exchange rate movements.

7 The value of output for cereals increased by 9.7 per cent. Drought and very hot weather conditions in central and southern Europe during the summer of 2003 adversely affected cereal crops. This led to high demand in Europe and strong prices. The value of output of wheat increased by 6.2 per cent and barley by 17 per cent. The value of output of industrial crops increased, with a significant increase for oilseed rape of 42 per cent to £423 million. 2003 saw one of the highest volumes recorded, strong prices and increased subsidy payments.

8 Within the value of output for vegetables and horticultural products (plants and flowers) vegetables were little changed at £962 million whilst plants and flowers increased by 3.2 per cent to £772 million. Increases in the value of output of soft fruit and culinary apples resulted in a 16 per cent increase for fruit overall. Late high prices for potatoes balanced out lower prices in the first half of the year to leave the value of output little changed.

9 The livestock sector saw an increase of 4.3 per cent in the value of output, largely as a result of an increase of 12 per cent in the value of sheep, assisted by an increase of 7.9 per cent in the total value of sheep subsidies paid. The value of output of livestock products increased by 8.5 per cent as a result of the milk sector increasing by 6.7 per cent, following agreements by supermarkets to raise prices for liquid milk. There was also a 16 per cent rise in the value of output of eggs as prices rose to their highest levels since 1996.

10 Cash flow from farming increased in real terms by £1.1 billion or 42 per cent to £3.7 billion. Cash flow reflects sales rather than production, and expenditure on gross fixed capital formation rather than depreciation of capital assets. It includes capital transfers paid to the industry in exchange for assets.

11 Total factor productivity increased by 0.8 per cent in 2003 as labour input continued to fall. The paid labour force fell by 7.3 per cent. There was no real change to interest payments.

Agriculture in the national economy (Table 2.2)

12 Gross value added for the industry, which represents its contribution to national gross domestic product (GDP) increased by 11 per cent, driven by an increase in output that was greater than the increase in intermediate consumption.

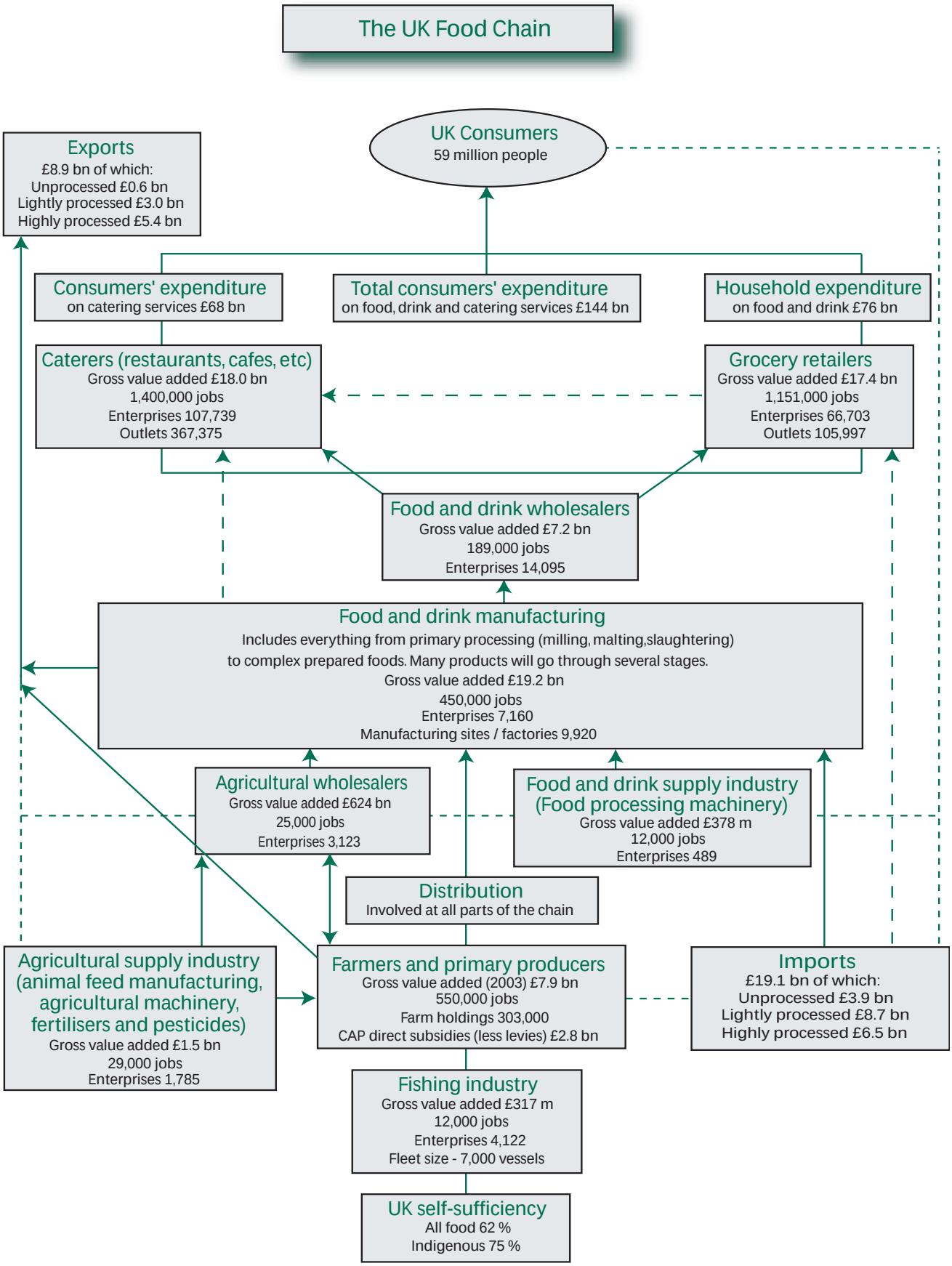
13 Since 2000 the agricultural industry has accounted for around 0.8 per cent of the total economy, measured in terms of gross value added. Since 1973, when the share was almost 3 per cent, the overall trend has been downwards, although there have been brief recoveries when prices for agricultural commodities improved.

14 The downward trend in the industry's share of the workforce has continued and is now at 1.8 per cent. The volume of paid labour fell by 7.3 per cent and unpaid labour by 2.9 per cent in 2003. Since the early 1980s there has been a shift in the composition of the labour force with an increase in the proportion of part-time workers, rising from 25 per cent to about 50 per cent of the total.

Food and farming in the national economy
(Table 2.2 and chart 2.2)

15 Chart 2.2 shows the largest elements of the food chain from agriculture as a primary producer through food manufacturing and retail trade to consumers' expenditure. The UK food supply chain as a whole received £134 billion from spending by UK consumers, plus exports less imports of agricultural commodities and processed food and drink products (assuming that imports and exports directly to and from consumers are negligible). The agri-food sector provided a total of just over 3.8 million jobs (equivalent to 15% of UK employees) in Quarter 3 of 2003. Of these a little over half a million were employed in agriculture.

Chart 2.2 The UK food chain



Consumers' expenditure is a provisional estimate by Defra for 2003 calculated at current prices. Gross value added figures are provisional data from ONS for 2002 calculated at basic prices (market prices **less** taxes **plus** subsidies). Employee data is for Q3 2003 from ONS. Overseas Trade data is for full year 2002 from HM Customs and Excise.

Consumers' expenditure on food and drink (Table 2.2)

16 In 2003 consumers' expenditure on food and drink (including catering services) is provisionally estimated at £144.3 billion, 3.9 per cent higher than in 2002. This represents 20.9 per cent of consumers' expenditure on all items. In volume terms it is an increase of 1.8 per cent.

17 Consumers spent almost £40 billion on alcoholic beverages in 2003, a rise of 3.1 per cent compared to expenditure in 2002. In volume terms this is an increase of 0.5 per cent.

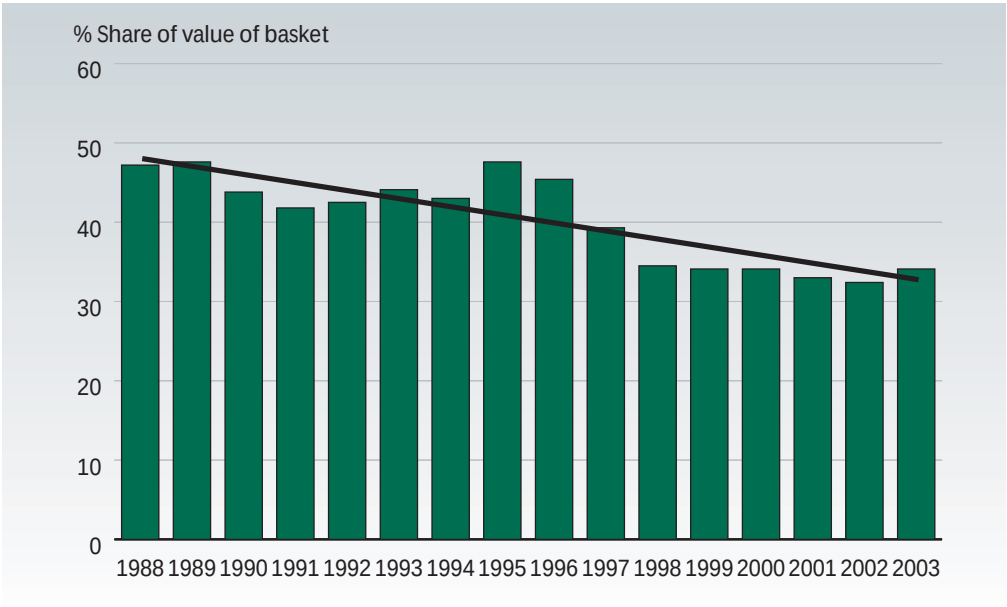
18 In real terms food has become cheaper. Since 1995 food prices have risen by only 10 per cent whilst prices of all items have risen by 22 per cent.

19 Consumers are spending a smaller proportion of their family budgets on food and drink. In 2003 the proportion was 21 per cent, down from 23 per cent in 1995. This is almost entirely explained by the 2 percentage points drop in the share of food and non-alcoholic drink consumed at home. As consumers' incomes rise, they tend to spend a smaller proportion of their family budget on food; another factor has been the decline in retail food prices relative to the all-items RPI. In contrast the share of consumer spending accounted for by catering has been stable.

Farmers' share of consumers' expenditure (Table 2.3, charts 2.3 and 2.4)

20 Chart 2.3 shows the share farmers have received each year for a basket of food items covering staples of UK agricultural production. The absolute level of the farmers' share is sensitive to precisely which retail products are chosen for the basket; some have a greater amount of added value beyond the farm gate and it would therefore be expected that the share accounted for by the farmer would be lower. However the change or trend in the farmers' share over time shows that farmers received 28 per cent (equivalent to a 13 percentage points reduction in farmer share) less in 2003 for their contribution to the basket than they received in 1988.

Chart 2.3 UK farmers' share of retail prices for a basket of food items



source: Defra website, http://statistics.defra.gov.uk/esg/

21 Table 2.3 shows the items in the basket and how the farmers' share has changed for each. They are weighted according to their value to UK farmers. This gives most weight to milk and then to other livestock products. The fruit and vegetables selected have a small impact on the overall value of the basket.

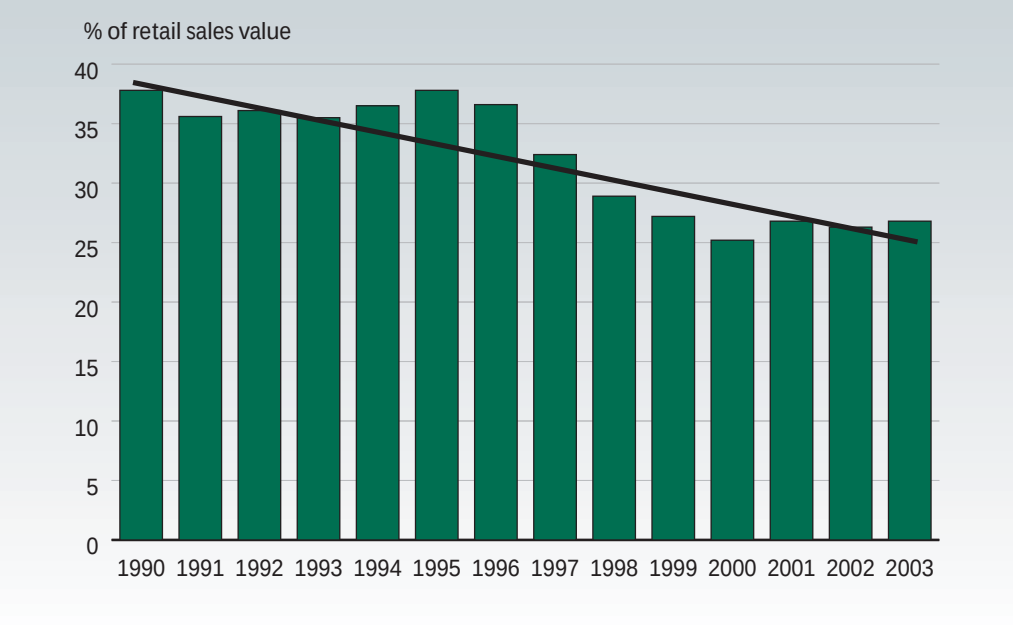
22 The farmers' reducing share of the basket of food items corroborates evidence that farm gate prices are not keeping up with retail food prices. Partly this can be explained by retail price rises accounted for by greater processing and packaging beyond the farm gate though the items in the basket have not changed substantially over this period. Another reason for retail food prices to rise ahead of farm gate prices is additional regulation beyond the farm gate to ensure food safety, notably in meat processing.

23 Exchange rates have a significant impact on farm gate prices. Farm gate prices increased up to 1995 but then reduced when sterling strengthened against the euro. CAP reform over the last 15 years, which cut commodity support prices and compensated with direct payments to farmers, has also played a role. Retail food prices were less affected by these factors as the food chain contains a large cost component that reflects overall conditions in the economy.

24 Defra have commissioned research to investigate the evidence for multiple grocery retailers exerting undue pressure on farmers to force farm gate prices down. The project focuses on a similar set of food items to the basket shown here and will be published in full on the Defra website when completed. Previous studies suggested that, for red meat and liquid milk, retailers were largely passing on reductions in producer prices to consumers, though with time lags of some months.

25 Chart 2.4 shows a related analysis - the farm gate share of total household food sales. This analysis compares the estimates of the value of farm gate output with estimates of consumers' expenditure on all household food, including highly processed foods. This approach differs because it encompasses all purchased food and therefore incorporates changes due to consumers changing their types of purchase. In particular it will, over time, include a higher share of food items incorporating greater processing or value added beyond the farm gate. This explains why farmers receive a lower share of the total household food sales than of the basket of household food items. The reduction in the farmers' share of total household food sales between 1990 and 2003 is slightly larger than the corresponding reduction in the farmers' share of the basket of goods.

Chart 2.4 UK farm gate share of total household food sales



source: Defra website, http://statistics.defra.gov.uk/esg/

Method note: Farm gate value is adjusted to remove produce going to the catering industry. Consumers' expenditure is adjusted to remove imported food.

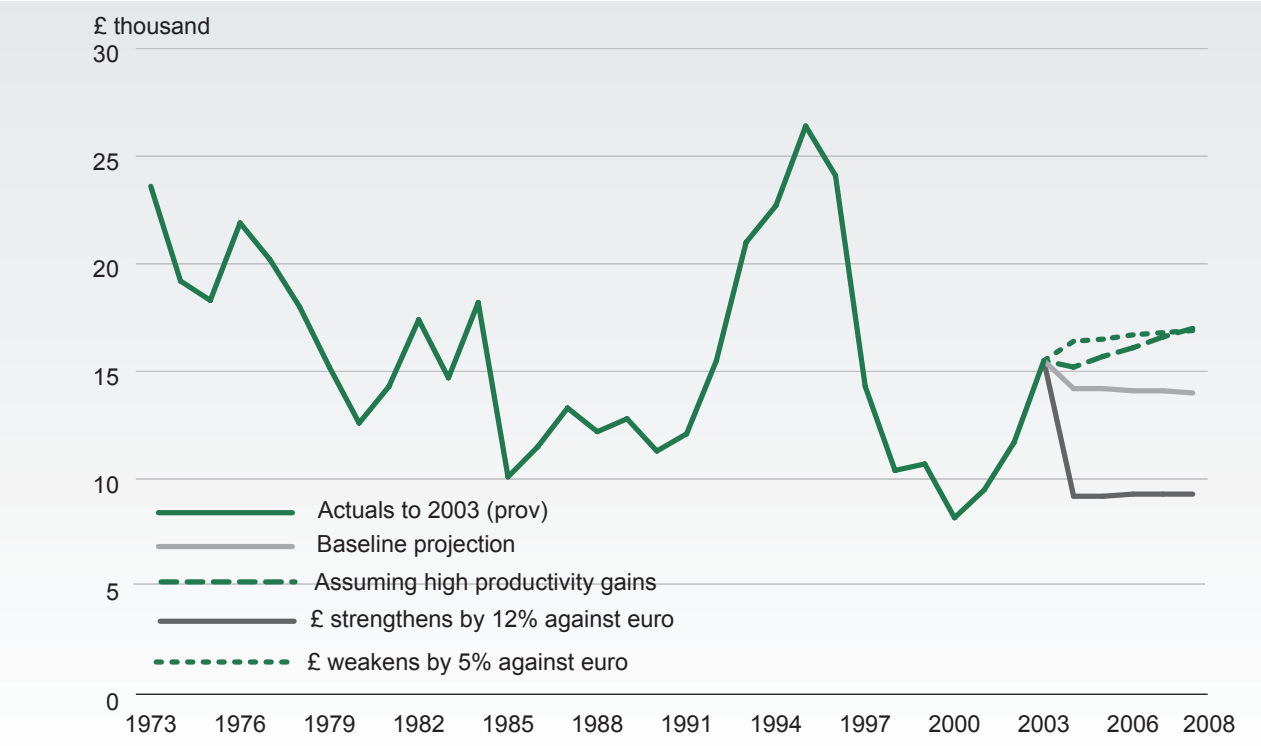
Prospects for farming incomes (Chart 2.5)

26 The future business prospects for farming will reflect the interaction of the key drivers (both long-term and short-term) which have shaped the present position. Chart 2.5 shows some stylised projections of underlying trends; it should be emphasised that these types of projection have very broad margins of uncertainty and also that agriculture is an industry where specific events, such as a disease outbreak or poor weather, can shift incomes from the underlying trend in individual years.

27 A small step down from 2003 is expected as cereal prices return to more normal levels. Beyond this, there is likely to be only a modest recovery in commodity markets over the medium term future. However, when this is combined with the impacts of ending of the Over Thirty Month Scheme; the implementation of the remaining elements of the Agenda 2000 reform; the implementation of the latest round of CAP reform; and regulatory measures, there is expected to be little further change in aggregate incomes over the next five years (at current exchange rates) although there are likely to be fluctuations from the smooth trend shown (for example as CAP reform is implemented).

28 Most macroeconomic forecasters are expecting the current level of the euro to be sustained and this level (70 pence per €) is built into the baseline projection in Chart 2.5. Projections are also provided to illustrate the effects of further movements in the exchange rate over and above the weakening of sterling relative to the euro seen in 2003. The scenarios shown illustrate the effects of a further 5 per cent weakening of sterling and the impact of a 12 per cent strengthening which would bring the euro back to 62 pence (the level seen during the 2000-2002 period).

Chart 2.5 UK Total Income from Farming in real terms at 2003 prices per full-time person equivalent up to 2008



source: Defra website, http://statistics.defra.gov.uk/esg/

29 The other key driver is productivity. Following recently completed research (see http://statistics.defra.gov.uk/esg/reports/prodagri/default.asp) the high productivity scenario within this analysis has been chosen to broadly match the growth rate seen for the leading group of EU Member States (France, Denmark, the Netherlands and Belgium). The further recovery in income seen in 2003 will have lessened the economic pressure on productivity growth, and so this will remain a challenging path for UK agriculture to follow, but if achieved would give a further rise in income per head of around a fifth relative to the baseline position.

Diversification

30 Diversification is widely held to offer considerable scope for improving the economic viability of many farm businesses. It can be thought of as "the entrepreneurial use of farm resources for a non-agricultural purpose for commercial gain". There are some obvious activities that are included as diversification such as tourism, sport, recreation, processing, etc., and others that are not, such as the production of organic or novel crops, which whilst possibly reflecting a change in focus and entrepreneurial activity by the farmer remain agricultural activities. Others such as off-farm employment or investment income are not regarded as diversified activities as they do not utilise farm resources.

31 Slightly differing definitions of diversification lead to different results from a number of sources: the annual June Agricultural and Horticultural Census; the Farm Business Survey; the Farm Diversification Benchmarking Study; and the Survey of Personal Incomes (conducted by the Inland Revenue). The Farm Diversification Benchmarking Study was commissioned by Defra and undertaken by Exeter

University, in collaboration with the University of Plymouth. The headline figures from this study estimated that 65 per cent of "full-time" farms in 2002 had a diversified business. A full copy of the study can be found at: http://statistics.defra.gov.uk/esg/reports/farmdiv/default.asp. Further information can be found at: http://statistics.defra.gov.uk/esg/reports/divagri.pdf. An analysis of historical diversification results from the June census in England was published on 24 January 2004 and can be found at http://statistics.defra.gov.uk/esg/statnot/jundiv.pdf.

Geographic comparisons (Tables 2.4 and 2.5)

32 Table 2.4 shows the agricultural industry's main indicators for England, Northern Ireland, Scotland and Wales in 2003. Agriculture's share of total economy gross value added is generally declining. Agriculture's share of regional employment is highest in Northern Ireland at about 1 in 14 whereas in England it is around 1 in 70.

33 Table 2.5 shows the UK country breakdown of indicators in 2002 with an additional breakdown for English Government Office regions.

EU comparisons (Tables 2.6 and 2.7, Chart 2.6)

34 Chart 2.6 shows estimated changes in income from agricultural activity across the Member States of the EU, as measured by Eurostat's indicator A. It is based on net value added at factor cost (deflated by the GDP price index), which is a measure of agricultural income, per annual work unit (full-time worker equivalent). All EU-15 figures exclude Greece from where, due to a strike, no data are available.

35 This income measure is estimated to have risen by 0.9 per cent in 2003 in the European Union as a whole, increasing in seven of the Member States and falling in the others. The largest increases in incomes in 2003 compared with 2002 was in the UK (20.5 per cent). Belgium (8.6 per cent), Spain (4.2 per cent) and Portugal (3.3 per cent) also had increases in incomes. The largest falls were recorded in Germany (- 14.2 per cent), Denmark (- 7.9 per cent), Austria (- 6.4 per cent) and Finland (- 5.9 per cent).

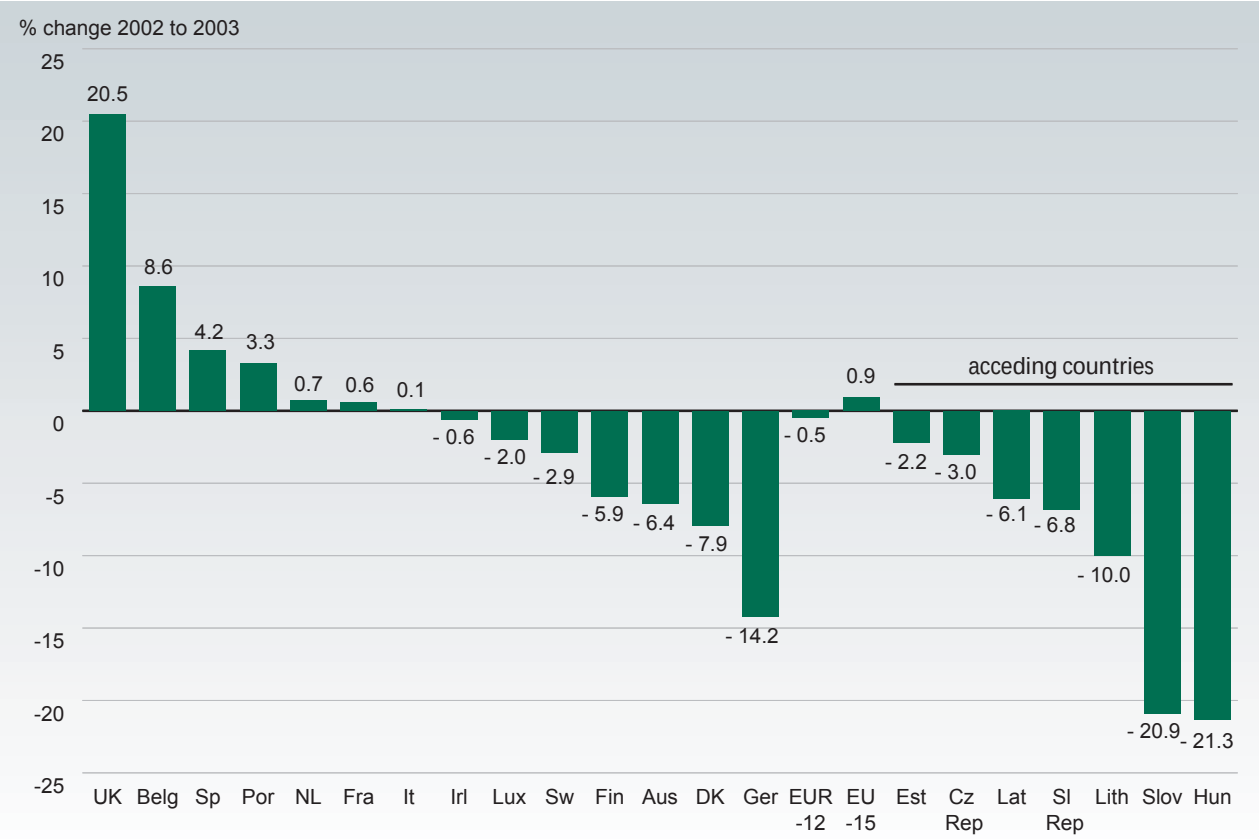
36 Indicator A has also been calculated for seven of the acceding countries. All show declining incomes in 2003 with the largest falls in Hungary (- 21.3 per cent) and Slovenia (- 20.9 per cent).

37 Table 2.6 shows the relative importance of agriculture in the 15 Member States in 2002. Figures for agriculture's share of national gross value added and national employment will be put on the internet version of table 2.6 as soon as they are available. In 2000 the UK had the lowest rate in both categories.

38 France, Italy, Spain, Germany and the Netherlands accounted for just over three-quarters of the EU total value of crop output in 2002. France was also the main producer in the livestock sector, and together with Germany, Italy, the UK and Spain accounted for nearly three-quarters of the total EU value. Of acceding countries, Poland produced nearly half the value in both crop and livestock sectors.

Chart 2.6 Changes in income across the EU and acceding countries

The change in income from agricultural activity as measured by Eurostat, Indicator A, which is based on net value added per full-time worker equivalent.



source: Eurostat - Statistics : Statistics in focus, December 2003

39 Table 2.7 compares Eurostat's income indicators in the UK and in the EU as a whole. Income per full-time worker equivalent (indicator A) increased by 5.3 per cent over the EU as a whole between 1995 and 2002, while in the UK it fell by 33 per cent, the largest decrease in any Member State.

40 Indicator B (income per non-salaried full-time person equivalent) in the EU as a whole rose by 17 per cent between 1995 and 2001, the most recent year for which figures are available. In the UK (1995 to 2002) Indicator B fell by 53 per cent.

41 Total entrepreneurial income (indicator C) fell slightly (-1.2 per cent) in the EU between 1995 and 2002. The decline in the UK was the second largest overall (-59 per cent). Only three countries showed an increase in this indicator over the same period.

Net farm incomes by farm type
(Table 2.8 and 2.9, charts 2.7 and 2.8)

42 Information on incomes, assets and liabilities of full time businesses in the UK is provided by the annual Farm Business Surveys, conducted by universities and agricultural colleges in England and Wales, the Department of Agriculture and Rural Development in Northern Ireland, and the Farm Accounts Scheme in Scotland carried out by the Scottish Agricultural College.

43 Net farm income is constructed so that the profitability and performance of different types of farms can be compared. It is defined as the return to the principal farmer and spouse for their manual and managerial labour and on the tenant-type capital of the business. Tenant-type assets, which for this purpose are all assumed to be owned by the occupier, include crops, machinery and livestock. Net farm income treats all farms on a consistent basis by assuming that all farms are tenanted by including an imputed rent on owner-occupied land. Thus the profitability of farms of different tenure can be compared. In addition, an imputed labour cost is deducted for unpaid family labour (other than the farmer and spouse).

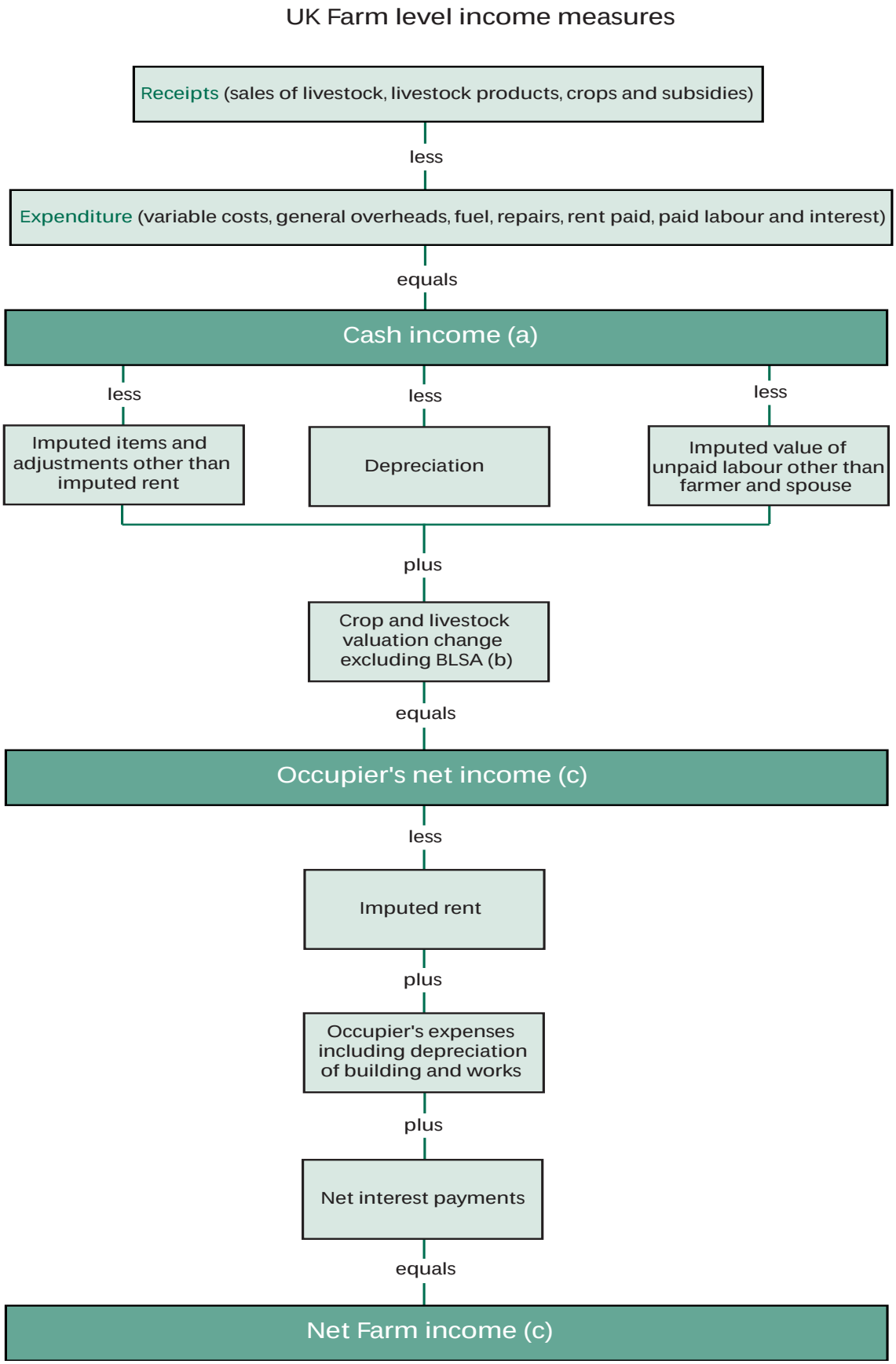
44 Total Income from Farming (TIFF) represents business profits plus income to farmers, partners and directors and those with an entrepreneurial interest in the business and is constructed in accordance with internationally agreed national accounting principles. Total Income from Farming and its underlying estimates of outputs and inputs feed into the national accounts and ultimately the national estimate for GDP.

TIFF - Aggregate Measure	**NET FARM INCOME - Farm Level Measure**
Gross output at basic prices	Receipts from sales of output plus subsidies
plus	**plus**
Other subsidies less taxes	Crop and livestock valuation change
less	**less**
Total intermediate consumption, rent, paid labour	Expenditure (costs, overheads, fuel, repairs, rent, paid labour)
Total consumption of fixed capital (depreciation)	Tenanted depreciation
Interest	Imputed value of unpaid labour other than farmer and spouse
	Imputed rent for owner-occupiers
equals	**equals**
Total Income from Farming	Net Farm Income

45 As can be seen from their respective definitions, net farm income is a narrower income measure than Total Income from Farming. As a consequence the annual percentage change in net farm income is more volatile, especially at relatively low levels of income.

46 Movements in net farm income over the last decade for each UK region and for the major farm types (excluding horticulture) are shown in Table 2.8. Net farm income figures are for an accounting period that runs from March to February on average, cover full-time farms only and exclude horticulture. Also, note that whereas the net farm income figures presented in Table 2.8 exclude those farms subjected to the compulsory cull of animals during the foot-and-mouth disease epidemic, Total

Chart 2.7 UK farm level income measures



(a) Of farmers, partners, directors and their spouses.

(b) Breeding livestock stock appreciation.

(c) Of principal farmer and spouse only.

Income from Farming statistics include such farms.

47 Table 2.8 shows that average net farm income in the UK increased by 11 per cent between 2001/02 and 2002/03. This modest rise masks very large increases in net farm incomes for all farm types except dairy and general cropping farms which showed significant decreases of 47 and 31 per cent respectively.

48 The low point in UK net farm income was 1999/2000 when the average was £5,700. Since then average net farm income has risen steadily, but in 2002/03 was still less than half the peak level of £31,900 in 1995/96.

49 In 2003/04 UK average net farm income is forecast to rise by nearly 70 per cent to around £20,000. Incomes are expected to increase for all farm types except lowland cattle and sheep, where a slight fall of around 5 per cent is predicted. Income from dairy farms are expected to recover due to an increase in milk prices although this will be partially offset by higher feed prices. A moderate increase is forecast for cattle and sheep farms (less favoured areas) due to increases in headage payments and strong prices for finished cattle and lambs as well as store cattle and sheep. Higher egg and pigmeat prices are forecast to result in higher incomes on pig and poultry farms, although higher feed prices are now affecting the profitability of this sector.

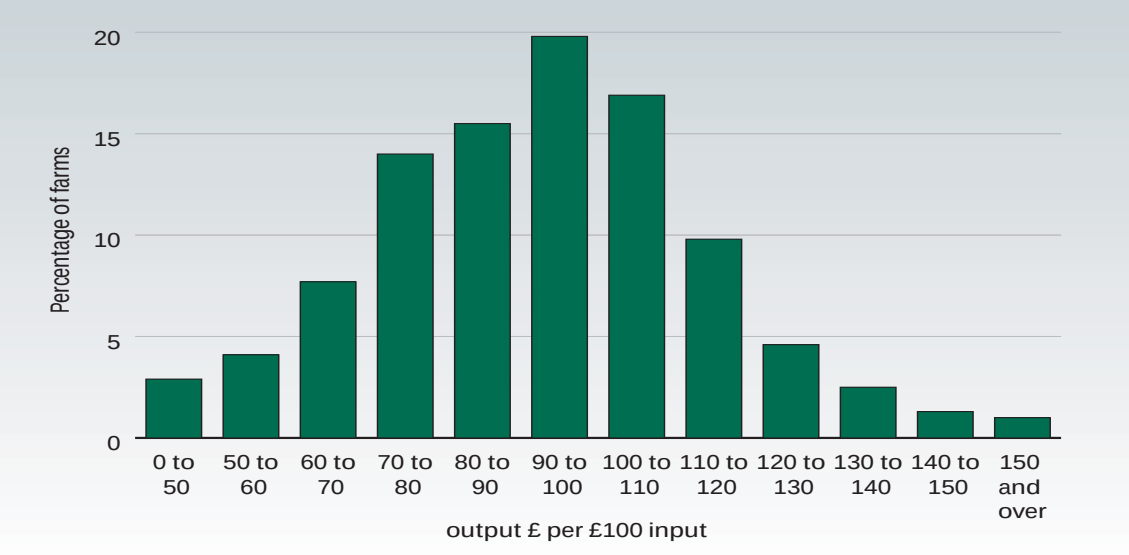
50 Incomes on general cropping farms are expected to increase as a reduced supply of potatoes, due to a poor growing season, resulted in a significant increase in prices. A large increase in incomes is also expected for cereal farms which were similarly affected by the lack of supplies in European and world markets as a result of the dry summer. Area payments also increased as the euro strengthened against the pound.

51 Table 2.9 compares three measures of farm income: net farm income; occupier's net income; and cash income. Chart 2.7 explains how these are derived.

52 Net farm income treats all farms, whether tenanted or owner-occupied, on the same basis so the profitability of farms with different tenure types can be compared. Occupier's net income differs because imputed rent is not deducted as a cost and land-type costs are included in inputs. This measure is therefore closer to the income position from the occupier's point of view. Cash income is defined as the cash return to the group (with an entrepreneurial interest in the business) for their labour and on all the investment and is calculated as output less input.

53 Table 2.9 shows there were wide variations in the level of income across farms. Of UK farms 40 per cent had net incomes of less than £5,000. This proportion was around 50 per cent in both Northern Ireland and Scotland and 37 and 33 per cent in England and Wales respectively. Twenty per cent of farms in England had incomes of £30,000 or more but only 7.8 per cent of farms in Northern Ireland had incomes of this level. In the UK as a whole more than a quarter of farms had a net farm income

Chart 2.8 UK distribution of performance across farms > 8 ESU 2002/03



source: Defra website, http://statistics.defra.gov.uk/esg/

of less than zero with a higher proportion, over a third, in Scotland and Northern Ireland.

54 Chart 2.8 shows the differences in performance of UK farms for 2002/03. Performance is measured as £ of output per £100 of input, where input includes a charge for farmer and spouse manual labour, imputed or otherwise. The chart illustrates the significant variation in performance across all farms.

Table 2.1 Summary measures from the UK aggregate agricultural account

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

£ million (unless otherwise specified) Calendar years

Year	Net value added at factor cost	Income from farming				Cash flow from farming
		Total income from farming	Compensation of employees	Income from agriculture of total labour input	Total income from farming per AWU of entrepreneurial labour (a)	
		A	B	A + B	(£)	
1994	7 031	4 485	1 827	6 313	18 073	4 444
1995	7 898	5 299	1 836	7 135	21 709	5 128
1996	7 557	4 894	1 881	6 775	20 303	4 923
1997	5 780	2 973	1 930	4 903	12 424	3 221
1998	5 115	2 209	1 975	4 185	9 350	2 923
1999	5 092	2 229	2 029	4 258	9 737	3 083
2000	4 436	1 696	1 893	3 589	7 677	2 786
2001	4 745	1 999	1 946	3 944	9 120	3 892
2002	5 076	2 418	1 945	4 362	11 414	2 530
2003 (provisional)	5 842	3 197	1 911	5 108	15 537	3 690
In real terms, 2003 prices		A	B	A + B	(£)	
1994	8 849	5 645	2 300	7 945	22 746	5 593
1995	9 607	6 446	2 234	8 679	26 407	6 237
1996	8 975	5 812	2 234	8 046	24 114	5 847
1997	6 655	3 423	2 222	5 645	14 307	3 709
1998	5 695	2 460	2 199	4 659	10 409	3 254
1999	5 583	2 444	2 225	4 669	10 677	3 381
2000	4 725	1 806	2 016	3 822	8 176	2 967
2001	4 963	2 090	2 035	4 125	9 538	4 071
2002	5 225	2 488	2 002	4 490	11 748	2 604
2003 (provisional)	5 842	3 197	1 911	5 108	15 537	3 690

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) An annual work unit (AWU) represents the equivalent of an average full-time worker engaged in agriculture.

Table 2.2 UK agriculture and food in the national economy

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Agriculture's contribution to total economy gross value added (a)						
at current prices (£ million)	8 779	7 299	6 720	6 852	7 137	7 924
volume index (1995 = 100)	102.9	107	106	96	108	105
% of national gross value added (current prices)	1.5	0.9	0.8	0.8	0.8	0.8
Workforce in agriculture (thousand persons) (b)	632	586	557	568	550	533
% of total workforce in employment	2.4	2.1	1.9	2.0	1.9	1.8
Gross fixed capital formation in agriculture						
total gross fixed capital formation at current prices (£ million)	2 440	1 646	1 593	2 009	2 141	2 263
% of national gross fixed capital formation (current prices)	2.4	1.1	1.0	1.2	1.3	1.3
volume index (1995 = 100):						
buildings and works, plant and machinery, vehicles	88.7	56.9	53.9	61.2	61.9	63.2
livestock	102.5	97.4	86.1	99.8	99.3	95.2
Imports of food, feed and drink (£ million) (c) (d)	13 968	17 214	16 828	18 267	19 091	. .
% of total UK imports	10.3	8.8	7.6	8.0	8.4	. .
Exports of food, feed and drink (£ million) (c) (d)	8 202	8 880	8 702	8 506	8 915	. .
% of total UK exports	6.8	5.4	4.7	4.5	4.8	. .
Household final consumption expenditure on						
food and alcoholic drinks at current prices (£ million)	92 983	122 381	127 844	133 027	138 939	144 325
of which: household food	46 903	57 025	58 563	59 938	60 885	63 749
food eaten out	21 873	31 690	34 642	37 027	39 681	40 997
alcoholic drinks	25 493	33 666	34 639	36 062	38 373	39 579
at constant 1995 prices (£ million)	109 345	123 848	127 844	128 681	131 362	133 720
of which: household food	50 926	56 670	58 563	57 919	58 395	60 559
food eaten out	27 735	32 849	34 642	35 532	36 645	36 671
alcoholic drinks	31 878	34 329	34 639	35 230	36 322	36 490
% of total household final consumption expenditure	23.2	21.5	21.2	20.9	20.9	20.9
of which: household food	11.7	10.0	9.7	9.4	9.1	9.2
food eaten out	5.3	5.6	5.7	5.8	6.0	5.9
alcoholic drinks	6.2	5.9	5.7	5.7	5.8	5.7
Retail price index (1995 = 100):						
food	95.1	105.0	104.7	108.1	108.9	110.3
alcoholic drinks	93.5	112.2	113.9	116.3	118.7	121.5
all items	94.6	110.9	114.2	116.3	118.2	121.6

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) In order to estimate the total gross value added at basic prices for the entire economy, the fourth quarter has been estimated using the trend of the previous three quarters.

(b) This series now includes spouses of farmers, partners and directors, which were not previously available. From 2001, figures include the effect of the register improvement in England and are NOT directly comparable with earlier years. See also table 3.8.

(c) This aggregate covers Standard International Trade Classification divisions 01-09, 11, 22 and section 4. A breakdown of the data can be found in table 4.1.

(d) Overseas Trade Statistics (OTS), based on data collected by HM Customs and Excise. Data shown are quoted in real terms at 2002 prices.

Table 2.3 UK farmers' share of the value of a basket of food items (a)

Enquiries: Jim Holding on +44 (0)1904 455069 email: jim.holding@defra.gsi.gov.uk

		Farmgate share in 1988	Farmgate share in 2003	Change in share	Weight in basket in 2003
Farmers' share of basket		47%	34%	-28%	
Farm gate product	**Retail product**				
apples	dessert apples per kg	54%	41%	-23%	9
beef	untrimmed beef (b) per kg	67%	46%	-31%	153
carrots	carrots per kg	30%	44%	46%	16
cabbages	cabbage, hearts, per kg	38%	42%	9%	8
chicken	oven ready roasting chicken, fresh or chilled per kg	47%	30%	-37%	115
eggs	size 2 eggs per dozen	29%	23%	-22%	71
lamb	untrimmed lamb (b) per kg	65%	51%	-20%	87
onions	onions per kg	26%	25%	-4%	3
pork	untrimmed pork (b) per kg	57%	45%	-20%	90
potatoes	old loose white potatoes per kg	24%	17%	-28%	65
tomatoes	tomatoes per kg	48%	60%	26%	11
wheat	white loaf sliced, 800g	23%	14%	-39%	25
milk	whole milk (c)	38%	28%	-25%	347

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Farm gate prices from Defra, retail prices from the Office for National Statistics and the Meat and Livestock Commission (MLC).

(b) Retail prices for beef, lamb and pork are untrimmed MLC prices adjusted for drip loss.

(c) The average price of one pint of delivered milk and one pint of shop milk (the shop milk price based on a two pint purchase).

Table 2.4 Summary measures by country in 2003

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

	Gross output (a)	Intermediate consumption	Gross value added at basic prices	Total income from farming	Agriculture's share of total regional gross value added at basic prices (b)	Agriculture's share of total regional employment (c) (d)
	£ million	£ million	£ million	£ million	%	%
United Kingdom	16 482	8 558	7 924	3 197	0.8	1.8
England & Wales (e)	13 212	6 815	6 397	2 549	0.6	1.6
Scotland	2 041	1 020	1 021	471	1.1	2.7
Northern Ireland	1 229	723	506	177	2.9	7.1

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Imported livestock, including purchases of store cattle and sheep, are included as negative output.

(b) In order to estimate the total gross value added at basic prices for the entire economy, the fourth quarter has been estimated using the trend of the previous three quarters. Data for 2003 is not available from the Office for National Statistics (ONS) for individual countries so data for 2001 has been included for illustrative purposes.

(c) The total workforce in employment consists of employees in employment, the self-employed and people in work related government training schemes. For Northern Ireland, agriculture's percentage share is higher than that published by the Northern Ireland Department of Enterprise, Trade and Investment, which excludes part-time owners, partners, directors and spouses of farmers from persons engaged in agriculture.

(d) The agriculture industry includes a high proportion of part-time workers. A comparison on the basis of full-time equivalents would show lower percentages.

(e) Separate data for Wales were not available at time of publishing.

Table 2.5 Summary measures by region in 2002

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

	Gross output (a)	Intermediate consumption	Gross value added at basic prices	Total income from farming	Agriculture's share of total regional gross value added at basic prices (b)	Agriculture's share of total regional employment (c) (d)
	£ million	£ million	£ million	£ million	%	%
United Kingdom	15 519	8 381	7 137	2 418	0.8	1.9
England	11 453	6 045	5 408	1 812	0.6	1.5
Wales	1 012	631	381	116	0.9	4.5
Scotland	1 923	1 032	891	365	1.1	2.8
Northern Ireland	1 131	674	457	126	2.9	7.2
English Regions						
North East	415	222	193	56	0.7	1.2
North West	1 072	600	472	71	0.8	1.3
Yorkshire and Humberside	1 462	746	717	329	1.3	1.7
East Midlands	1 675	876	799	348	1.6	2.1
West Midlands	1 330	706	624	203	1.2	1.8
East of England	2 116	1 050	1 067	528	1.4	2.0
South East & London	1 317	657	659	136	0.4	1.3
South West	2 065	1 187	877	142	2.0	1.9

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Imported livestock, including purchases of store cattle and sheep, are included as negative output.

(b) In order to estimate the total gross value added at basic prices for the entire economy, the fourth quarter has been estimated using the trend of the previous three quarters. Data for 2002 is not available from the Office for National Statistics (ONS) for individual countries so data for 2001has been included for illustrative purposes. Data given for the English regions relate to 2000 and refers to the latest data available from the ONS; these figures relate to the category 'Agriculture, hunting, forestry and fishing'.

(c) The total workforce in employment consists of employees in employment, the self-employed and people in work related government training schemes. For Northern Ireland, agriculture's percentage share is higher than that published by the Northern Ireland Department of Enterprise, Trade and Investment, which excludes part-time owners, partners, directors and spouses of farmers from persons engaged in agriculture.

(d) The agriculture industry includes a high proportion of part-time workers. A comparison on the basis of full-time equivalents would show lower percentages.

Table 2.6 Comparison of agriculture in EU Member States and acceding countries for 2002

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

Country comparison at current prices and current exchange rates € million

						Agriculture as a % of:			
	Total crop output	Total animal output	Gross output	Gross value added (GVA)	Entre-pren-eurial income	National GVA at market prices (a) %	National employ-ment %	Total labour input AWU (b) thousand	Gross value added per AWU (b)
Member States						(c)	(c)		
EU-15	153 815	117 701	280 925	148 176	74 375	1.4	4.0	5 966	24.8
EUR-12	137 951	96 843	242 700	132 193	67 712	1.7	4.7	5 508	24.0
Belgium	3 371	3 723	7 131	2 790	1 396	1.0	1.9	70	39.9
Denmark	3 133	4 845	8 334	3 288	313	1.7	3.5	71	46.1
Germany	20 673	19 442	41 463	16 376	3 379	0.7	2.5	580	28.2
Greece	8 837	2 872	11 709	9 251	7 853	4.7	16.5	536	17.3
Spain	22 949	12 945	36 345	23 820	17 650	3.2	6.2	1 004	23.7
France	36 461	24 088	63 266	31 606	14 213	1.8	3.9	988	32.0
Ireland	1 224	4 234	5 746	2 621	2 023	1.8	7.6	158	16.6
Italy	27 681	14 118	42 871	29 128	14 094	2.2	4.8	1 181	24.7
Luxembourg	88	154	250	127	70	0.5	2.4	4	31.0
Netherlands	10 274	8 052	20 022	9 082	2 852	2.1	3.2	208	43.6
Austria	2 577	2 581	5 308	2 622	1 834	1.0	5.9	165	15.9
Portugal	3 704	2 547	6 258	3 264	2 102	2.0	11.9	511	6.4
Finland	1 747	2 230	4 100	1 634	1 385	0.5	5.0	102	16.0
Sweden	2 059	2 343	4 513	1 475	594	0.5	2.4	67	21.9
UK	9 037	13 528	23 611	11 091	4 619	0.4	1.4	320	34.7
Acceding countries (d)									
Cyprus	. .	. .	. .	. .	. .	. .	. .	. .	. .
Czech Republic	1 650	1 602	3 281	929	- 111	. .	. .	143	6.5
Estonia	162	219	400	155	37	. .	. .	64	2.4
Hungary	2 862	2 688	5 890	2 102	786	. .	. .	636	3.3
Lithuania	608	533	1 150	355	135	. .	. .	181	2.0
Latvia	266	260	531	255	154	. .	. .	117	2.2
Malta	58	82	140	78	69	. .	. .	4	18.1
Poland	6 395	6 282	13 059	4 917	2 286	. .	. .	2 404	2.0
Slovenia	512	534	1 062	494	275	. .	. .	106	4.7
Slovak Republic	660	809	1 507	527	55	. .	. .	132	4.0

source: Eurostat

(a) Differs from agriculture's contribution to total economy gross value added at current prices (tables 2.2 and 2.3) because it excludes directly paid subsidies.

(b) Differs from workforce in agriculture in tables 2.2 and 3.8 which is shown in thousand persons. In this table the basis is annual work units (AWU) (full-time equivalents) as opposed to persons employed.

(c) Data for 2000 shown in these columns.

(d) The acceding countries will join the EU on 1 May 2004, subject to the Accession Treaty being ratified by each country.

Table 2.7 Agriculture in the economy: Eurostat income indicators

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

Index 1995 = 100 Calendar years

	Average of 1992-94	1998	1999	2000	2001	2002
Net Value Added at factor cost of agriculture per total annual work unit (Indicator A)						
UK	83.0	62.5	61.2	58.6	62.5	66.6
The EU	89.8	100.2	100.6	106.5	111.3	105.3
Net agricultural entrepreneurial income per unpaid Annual Work Unit (Indicator B)						
UK	76.8	42.3	40.5	35.1	41.2	47.3
The EU	108.2	103.0	102.0	106.8	116.8	. .
Net entrepreneurial income from agriculture (Indicator C)						
UK	78.9	40.9	38.0	31.8	37.1	41.1
The EU	98.8	92.1	93.7	95.4	97.1	98.8

source: Eurostat

Table 2.8 Net farm income by country and type of farm

Enquiries: Selina Matthews +44 (0)20 7238 3274 email: selina.matthews@defra.gsi.gov.uk

Average net farm income (£ thousand per farm) Accounting years ending on average in February

	1999/00	2000/01	2001/02 (a)	2002/03 (a)	2003/04 (provisional)
At current prices					
England					
Dairy	9.4	14.0	30.7	18.3	20.5
Cattle and sheep (less favoured areas)	5.3	5.8	7.9	18.0	19.0
Cattle and sheep (lowland)	0.5	- 0.4	-	5.8	4.5
Cereals	11.7	6.2	4.1	12.1	32.0
General cropping	8.0	18.4	17.9	14.5	43.5
Pigs and poultry	- 4.4	32.6	21.5	49.5	57.5
Mixed	5.5	7.5	5.4	13.3	19.5
Wales					
Dairy	14.2	12.3	29.6	18.6	18.5
Cattle and sheep (less favoured areas)	3.1	3.7	1.7	12.5	17.0
Cattle and sheep (lowland)	0.6	0.7	2.2	9.1	8.5
Scotland					
Dairy	1.9	13.6	33.1	5.1	9.0
Cattle and sheep (less favoured areas)	2.7	5.6	5.8	13.3	16.5
Cereals	10.6	0.7	-0.6	-1.6	17.5
General cropping	3.6	8.4	8.0	-1.9	19.0
Mixed	3.6	5.9	12.6	9.5	24.0
Northern Ireland					
Dairy	7.0	14.6	17.5	6.5	13.0
Cattle and sheep (less favoured areas)	- 1.6	0.7	4.0	4.6	6.0
United Kingdom					
Dairy	9.0	13.9	27.9	14.9	17.5
Cattle and sheep (less favoured areas)	2.2	3.9	4.5	12.0	14.5
Cattle and sheep (lowland)	0.1	- 0.1	0.8	5.8	5.5
Cereals	11.5	5.4	3.3	10.0	30.0
General cropping	6.7	16.3	15.7	10.9	38.0
Pigs and poultry	- 3.9	29.1	19.4	44.9	52.0
Mixed	4.4	6.8	6.3	11.7	19.0
All Types (excluding horticulture)	5.7	7.8	11.0	12.2	20.5

continued

Table 2.8 continued

Average net farm income (£ thousand per farm) — Accounting years ending on average in February

	1999/00	2000/01	2001/02 (a)	2002/03 (a)	2003/04 (provisional)
In real terms (at 2002/03 prices)					
United Kingdom					
Dairy	9.7	14.4	28.4	14.9	17.0
Cattle and sheep (less favoured areas)	2.4	4.1	4.6	12.0	14.5
Cattle and sheep (lowland)	0.1	- 0.1	0.8	5.8	5.0
Cereals	12.3	5.6	3.4	10.0	29.0
General cropping	7.1	16.8	16.0	10.9	37.0
Pigs and poultry	- 4.1	30.1	19.7	44.9	50.5
Mixed	4.7	7.1	6.5	11.7	18.5
All Types (excluding horticulture)	6.1	8.0	11.2	12.2	20.0

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excluding farms subjected to compulsory foot-and-mouth disease cull.

Table 2.9 All farm types: distribution of farm incomes by country 2002/2003

Enquiries: Selina Matthews +44 (0)20 7238 3274 — email: selina.matthews@defra.gsi.gov.uk

Percentage of farms (a) (b) (unless otherwise specified)

	England	Wales	Scotland	Northern Ireland	UK
Net Farm Income					
Less than zero	26.4	21.1	35.8	37.1	28.5
0 to less than £5,000	11.0	11.9	13.3	12.8	11.7
£5,000 to less than £10,000	12.5	16.1	11.8	14.9	13.1
£10,000 to less than £20,000	18.2	25.9	17.1	18.6	19.0
£20,000 to less than £30,000	12.2	12.6	8.6	8.8	11.3
£30,000 to less than £50,000	10.1	7.6	9.0	6.1	9.1
£50,000 and over	9.6	4.8	4.4	1.7	7.3
Average (£ thousand per farm)	16.4	13.6	7.3	4.5	13.3
Occupier's Net Income					
Less than zero	25.4	19.2	29.6	38.5	26.9
0 to less than £5,000	11.1	10.8	15.5	14.2	12.1
£5,000 to less than £10,000	11.0	11.1	11.7	11.1	11.1
£10,000 to less than £20,000	18.8	29.8	17.7	19.9	20.1
£20,000 to less than £30,000	12.5	14.2	11.2	9.5	12.1
£30,000 to less than £50,000	10.3	9.3	10.9	5.4	9.7
£50,000 and over	11.0	5.6	3.5	1.4	8.0
Average (£ thousand per farm)	18.0	15.0	9.7	3.8	14.6
Cash Income					
Less than zero	11.1	9.6	7.0	6.8	9.8
0 to less than £5,000	7.8	10.0	5.1	8.4	7.7
£5,000 to less than £10,000	9.5	12.8	14.1	14.2	11.1
£10,000 to less than £20,000	17.5	23.2	19.5	22.9	19.2
£20,000 to less than £30,000	14.6	19.0	20.0	20.3	16.6
£30,000 to less than £50,000	18.0	15.5	19.8	17.6	17.9
£50,000 and over	21.6	10.0	14.5	9.8	17.7
Average (£ thousand per farm)	35.4	22.6	27.6	18.8	30.6

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excluding farms subjected to compulsory foot-and-mouth disease cull.

(b) Including horticulture.

Chapter 3 The structure of the industry

Introduction

1 The tables in this chapter show the size and structure of the UK agricultural industry. Together they provide information on land use and livestock numbers in UK agriculture, the distribution of these between holdings, the industry's labour force and fixed capital.

2 This edition of Agriculture in the United Kingdom includes additional tables on agricultural holdings by size and country, those in less favoured areas, and by farm types (tables 3.5 to 3.7), and tables on holders' age and agricultural training of holder managers by farm type and farm size (tables 3.9 to 3.12).

Land use, crop areas and livestock numbers

(Tables 3.1 and 3.2, charts 3.1, 3.2 and 3.3)

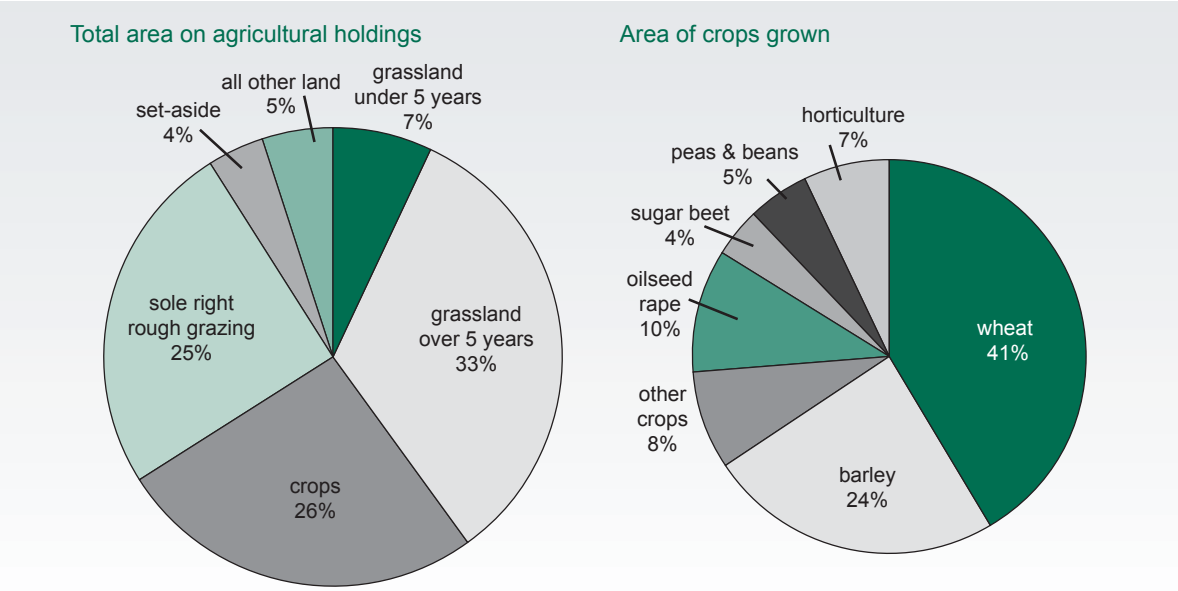
3 At June 2003, the total area of agricultural land was 18.4 million hectares, some 77 per cent of the total land area in the UK.

4 The June 2003 Census showed a fall of 2.1 per cent in the area of crops in the UK, partly due to an 11 per cent increase in land 'set aside' from arable production. The total area of cereals fell by 5.7 per cent, compared with a 7.7 per cent increase in the previous year. The area of wheat in particular fell by 8.0 per cent. The area devoted to other arable crops increased by 10 per cent, reversing a 10 per cent fall in the previous year, while the area for potatoes fell by 8.4 per cent. The area used for horticulture was virtually unchanged.

5 The cattle population was 1.7 per cent greater at June 2003 compared with June 2002, increasing for the first time since 1996. The dairy herd continued on its long-term trend of declining numbers due to the restriction on milk production by milk quota and increasing milk yields from dairy cows, falling by 1.6 per cent. The beef breeding herd showed its first year-on-year increase since 1998, increasing by 2.6 per cent.

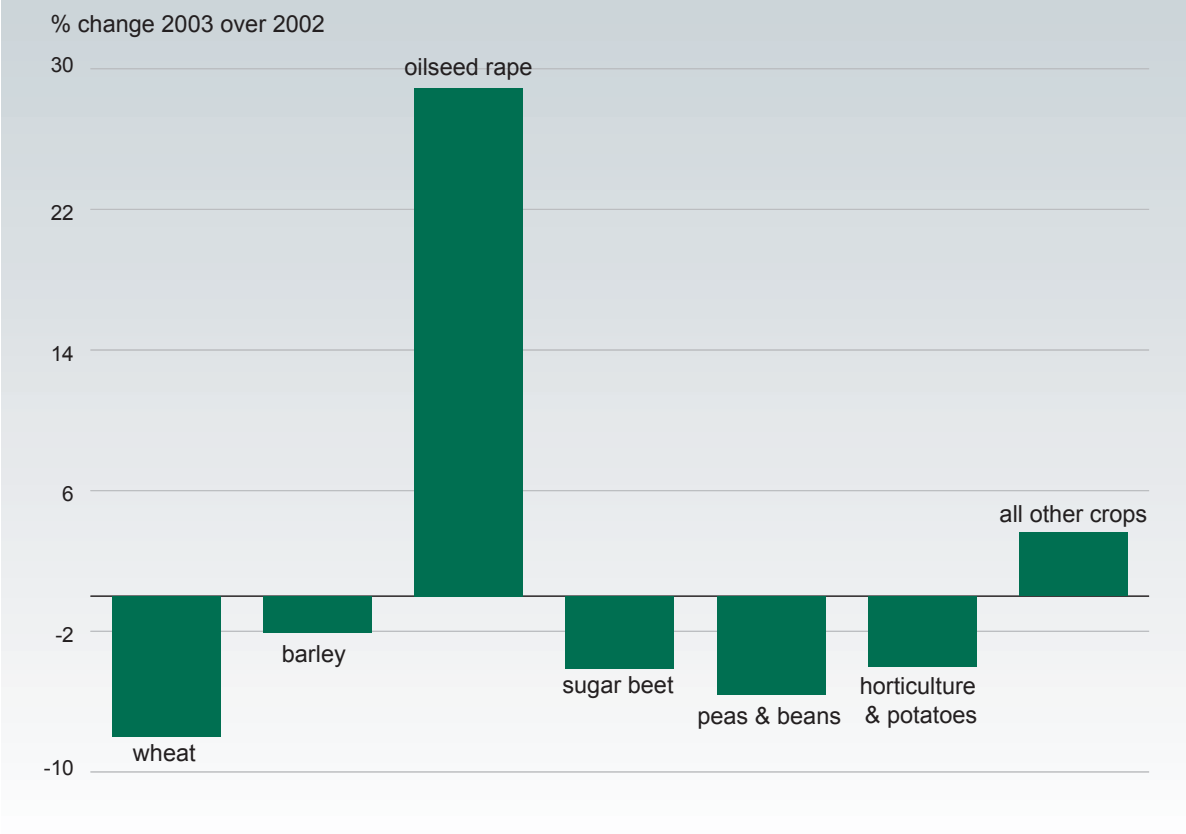
6 The sheep and lambs population was virtually unchanged from June 2002 with a marginal fall in the breeding flock being offset by an increase in the number of lambs. The pigs population fell by 9.7 per cent between June 2002 and June 2003, reflecting the continuing long-term contraction of the breeding herd since 1997. The total number of fowls rose by 6.7 per cent in the year to June 2003 reversing a 5.4 per cent fall in the previous 12 months.

Chart 3.1 UK agricultural land use 2003



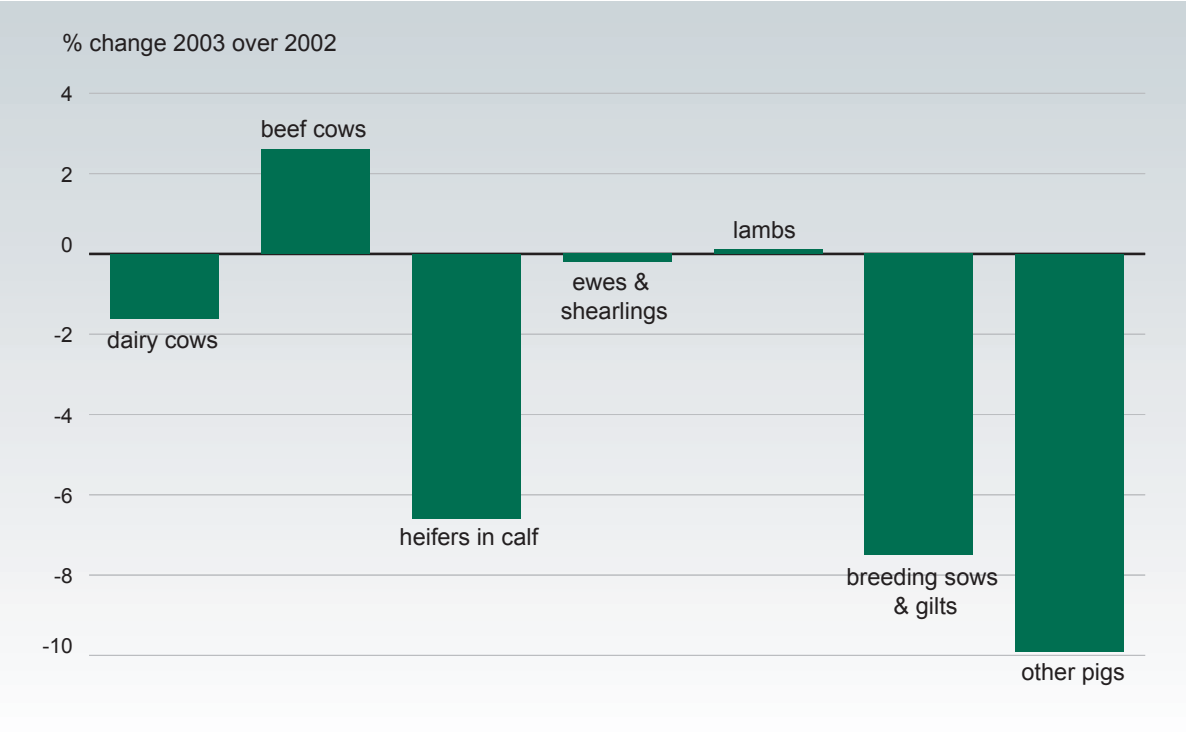
source: Defra website, http://statistics.defra.gov.uk/esg/

Chart 3.2 Changes in UK crop area



source: Defra website, http://statistics.defra.gov.uk/esg/

Chart 3.3 Changes in UK livestock numbers

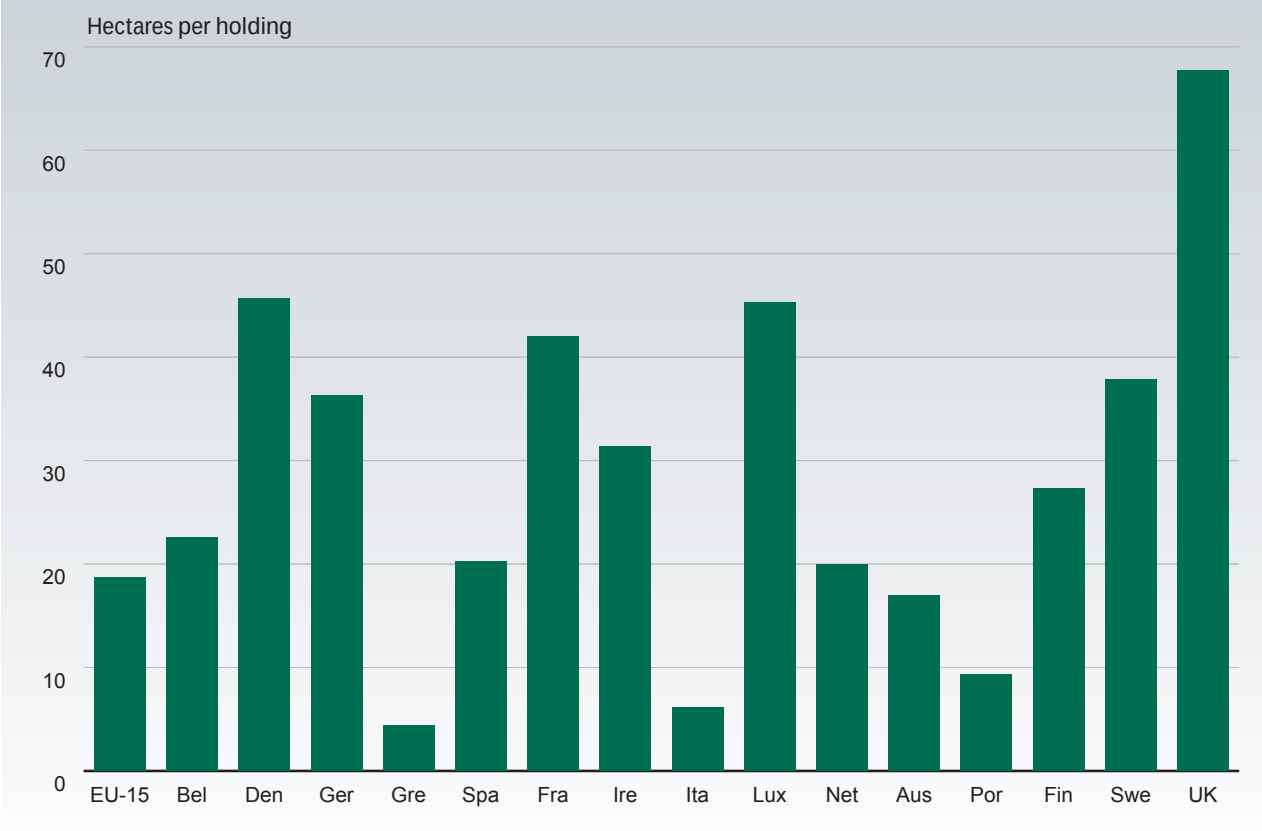


source: Defra website, http://statistics.defra.gov.uk/esg/

Numbers and sizes of holdings and enterprises (Tables 3.3 and 3.4 and chart 3.4)

7 Tables 3.3 and 3.4 compare numbers and sizes of holdings and enterprises for 2002 and confirm the continuing trend towards larger holdings and enterprises. European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The margins used are gross margins standardised at 1987-89 values. The threshold of 8 ESU is judged to be the minimum for full-time holdings. Tables 3.5 to 3.7 show a breakdown of Tables 3.3 and 3.4 by country. Chart 3.4 shows the average size per holding in 2000 for the EU-15 and each Member State; the source is the Farm Structure Survey - more information about the Farm Structure Survey is given in paragraphs 9 and 10.

Chart 3.4 EU comparison of agricultural area - hectares per holding 1999-2000



source: Eurostat, Statistics in Focus 16/2003

Labour force in agriculture (Table 3.8)

8 The total labour force at June 2003 fell by 3.2 per cent compared with June 2002, to 533 thousand. The number of workers fell by 5.3 per cent while the number of farmers, partners, directors and spouses fell by 2.0 per cent.

Age of holders, agricultural training (Tables 3.9 to 3.12, chart 3.5 and 3.6)

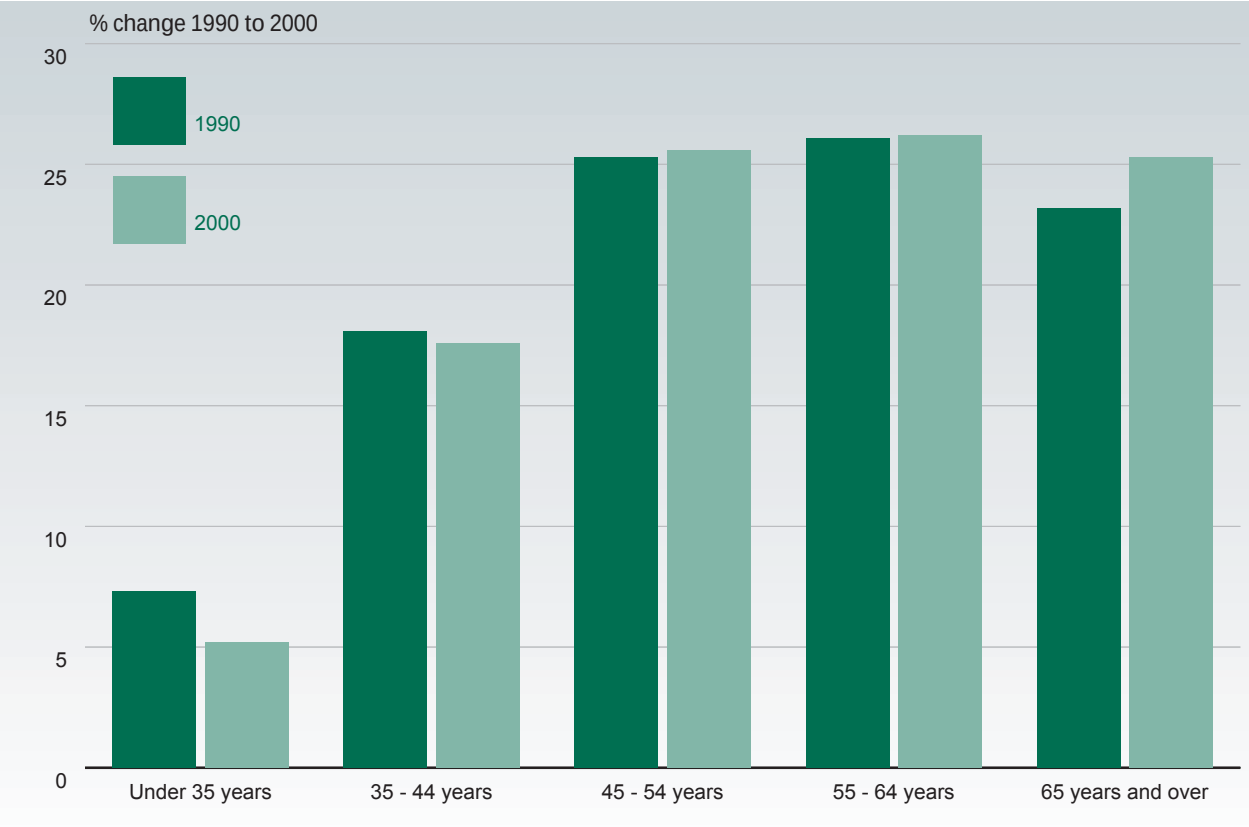
9 The Farm Structure Survey has been held across all Member States of the European Union four times every decade since 1966-67. The survey results help to assess the agricultural situation across the Community and to monitor trends in the structure of holdings.

10 Within the UK, responsibility for data collection lies with Defra (for England and Wales), SEERAD (for Scotland) and DARD (for Northern Ireland). Data for some 65,000 holdings are utilised for the Farm Structure Survey across the UK. Whilst much of the data on crops and livestock are taken from the annual June Census, an additional Labour Survey is conducted in each UK country to gather detailed information on agricultural workers.

11 Tables 3.9 and 3.10 show the age distribution of holders within the United Kingdom broken down by both farm type and farm size (expressed in terms of European Size Units (ESU). On average, 25 per cent of holders in the UK were aged 65 years or older in 2000, up from 23 per cent in 1990. Just 5.2 per cent of holders were younger than 35 years old in 2000 (compared to 7.3 per cent in 1990). Older holders tend to be on smaller holdings and younger holders to be on larger ones.

12 Tables 3.11 and 3.12 show the distribution of holders' training by both farm type and by farm size (expressed in European Size Units (ESU)). The definition of a holder is tighter here than for the age distribution as data on training is available only for holders who are also responsible for the day to day running of the holding. 11 per cent of holder managers possessed some agricultural training in 2000, the same as in 1990. A greater proportion of small holdings are run my holder managers with only practical experience. The proportion of holder managers with some agricultural training increases with farm size.

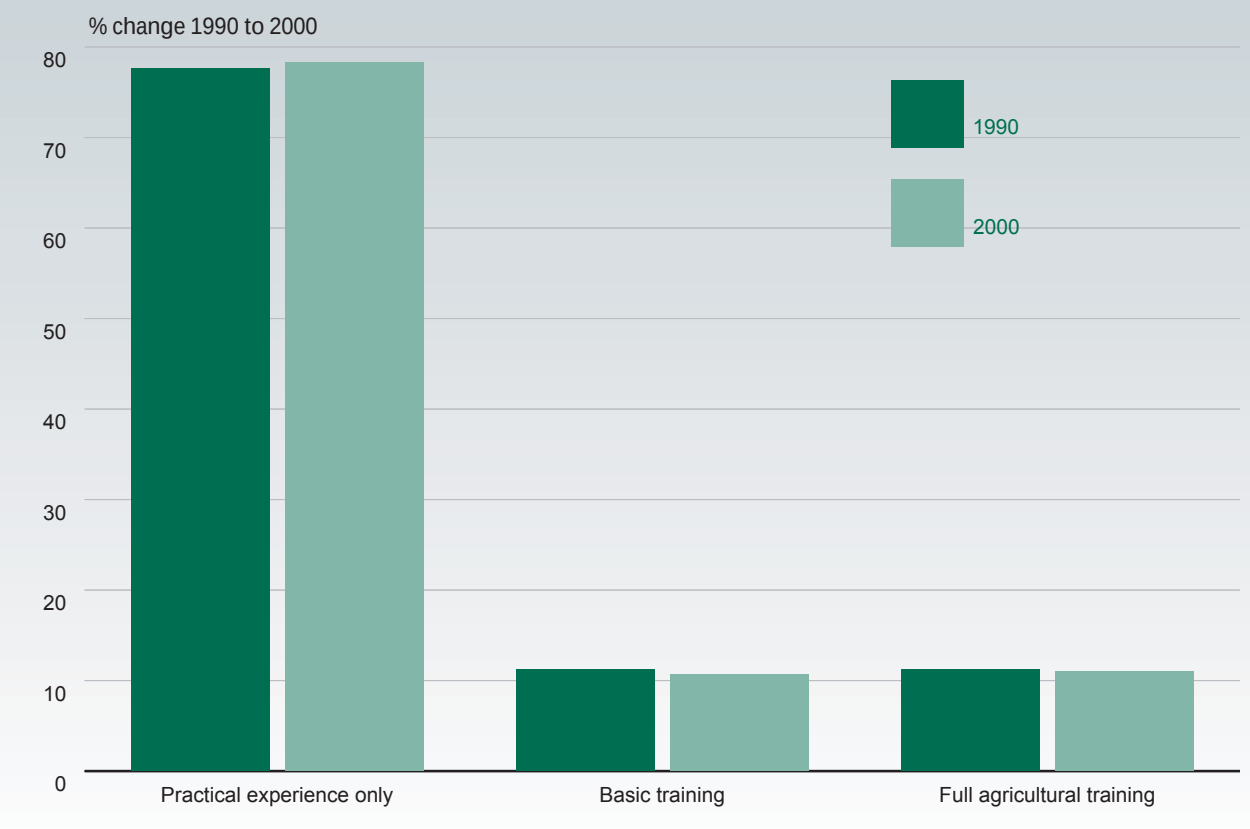
Chart 3.5 Age of holders in the UK (a)



source: EU Farm Structure Survey

(a) The holder is defined as the (natural or legal) person in whose name the holding is operated. The holder can either own or rent the holding, be a hereditary long-term leaseholder, or a usufructuary or a trustee. The data in this table relate to all holders whether or not the holder is also the manager of the holding.

Chart 3.6 Agricultural training of holder managers in the UK (a)



source: EU Farm Structure Survey

(a) The data in this chart relate only to holders who are responsible for the day to day running of the holding. The exact definition of holder varies between countries of the UK.

Fixed capital stock (Table 3.13)

13 Table 3.13 provides information on the volume of gross stock of fixed capital (excluding land and livestock) available to the agricultural industry. The figures are shown before allowing for consumption of fixed capital and give a broad indication of how this aspect of the industry's productive capacity has changed over the years.

14 Agriculture's total volume of fixed capital stock is estimated to have been 2.1 per cent lower at the end of 2003 compared to the end of 2002. This is a decline of around 12 per cent on the 1992-94 average level. In recent years, buildings and works, and plant and machinery, have shown a reduction in fixed capital stock while that of vehicles has increased slightly in 2002.

Table 3.1 UK agricultural land use

The data in this table cover all holdings (including minor holdings) in the UK. (a)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

Thousand hectares At June of each year

	Average of 1992-94	1999	2000	2001	2002	2003
Total agricultural area (b)	18 863	18 579	18 311	18 556	18 506	18 449
of which:						
Crops	4 657	4 709	4 665	4 455	4 573	4 478
Bare fallow	50	33	37	43	33	29
Total tillage	4 707	4 742	4 702	4 498	4 605	4 507
All grass under five years old	1 541	1 226	1 226	1 205	1 243	1 201
Total arable land	6 247	5 968	5 928	5 703	5 848	5 707
All grass five years old and over (excluding rough grazing)	5 314	5 449	5 363	5 584	5 519	5 683
Total tillage and grass (c)	11 561	11 417	11 291	11 287	11 366	11 391
Sole right rough grazing	4 882	4 575	4 445	4 435	4 488	4 329
Set-aside	522	572	567	800	612	681
All other land (d) and woodland	670	789	780	801	806	811
Total area on agricultural holdings	17 635	17 352	17 083	17 323	17 271	17 213
Common rough grazing (estimated)	1 228	1 227	1 228	1 232	1 234	1 236

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Before 2000 Scottish minor holdings were not included; data for earlier years are therefore not directly comparable.

(b) Total area on agricultural holdings plus common rough grazing.

(c) Includes bare fallow.

(d) In Great Britain other land comprises farm roads, yards, buildings (excluding glasshouses), ponds and derelict land.

Table 3.2 UK crop areas and livestock numbers

The data in this table cover all holdings (including minor holdings) in the UK. (a) (b)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

At June of each year

		Average of 1992-94	1999	2000	2001	2002	2003
Crop areas (thousand hectares)							
Total		4 657	4 709	4 665	4 455	4 573	4 472
of which:							
Total cereals		3 188	3 141	3 348	3 014	3 245	3 059
of which:	wheat	1 879	1 847	2 086	1 635	1 996	1 837
	barley	1 191	1 179	1 128	1 245	1 101	1 078
	oats	100	92	109	112	126	122
	rye and mixed corn	10	10	10	7	9	9
	triticale	8	13	16	14	14	15
Other arable crops (excluding potatoes)		1 106	1 211	979	1 103	993	1 092
of which:	oilseed rape	401	417	332	404	357	460
	sugar beet not for stockfeeding	196	183	173	177	169	162
	hops	3	3	2	2	2	2
	peas for harvesting dry and field beans	227	202	208	276	249	235
	linseed	117	209	71	31	12	32
	other crops	161	197	192	214	204	201
Potatoes		172	178	166	165	158	145
Horticulture		191	179	172	173	176	176
of which:	vegetables grown in the open	129	126	119	120	124	125
	orchard fruit (c)	32	28	28	28	26	25
	soft fruit (d)	13	9	10	9	9	9
	plants and flowers (e)	14	13	14	14	15	14
	glasshouse crops	2	2	2	2	2	2
Livestock numbers (thousand head)							
Total cattle and calves		11 910	11 423	11 135	10 602	10 345	10 517
of which:	dairy cows	2 689	2 440	2 336	2 251	2 227	2 192
	beef cows	1 775	1 924	1 842	1 708	1 657	1 700
	heifers in calf	782	763	718	701	728	680
Total sheep and lambs		44 263	44 656	42 264	36 716	35 834	35 846
of which:	ewes and shearlings (f)	. .	21 458	20 449	17 921	17 630	17 599
	lambs under one year old	22 253	22 092	20 857	17 769	17 310	17 335
Total pigs		7 817	7 284	6 482	5 845	5 588	5 047
of which:	sows in pig and other sows for breeding	691	603	537	527	483	443
	gilts in pig	111	85	73	71	74	73
Total fowl (g)		127 530	149 867	154 504	163 875	155 005	165 324
of which:	table fowl including broilers	76 462	101 625	105 689	112 531	105 137	116 774
	laying fowl (h)	32 824	29 258	28 687	29 895	28 778	29 274
	growing pullets	10 662	9 583	9 461	9 367	9 784	8 286

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) For various reasons, the crop area figures and livestock numbers shown in this table may differ slightly from those shown in chapter 6.

(b) Before 2000 Scottish minor holdings were not included; data for earlier years are therefore not directly comparable.

(c) Includes non-commercial orchards.

(d) Includes wine grapes.

(e) Hardy nursery stock, bulbs and flowers.

(f) Improvements to the Census questions on sheep were introduced in 1995; data for earlier years are therefore not directly comparable.

(g) Improvements to the Census methodology were introduced in 1997 onwards to account for poultry production on unregistered units; data for earlier years are therefore not directly comparable.

(h) Excludes fowls laying eggs for hatching.

Table 3.3 UK numbers and sizes of holdings

Minor holdings are excluded for England and Wales in 1997. (a)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

At June of each year

		1997		2002	
		Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU
Size of holding (ESU) (b) (c)	under 8 European Size Unit (ESU)	123.3	3.0	188.8	3.4
	8 to under 40 ESU	68.1	15.8	58.4	15.0
	40 to under 100 ESU	41.7	30.2	34.9	28.1
	100 to under 200 ESU	15.9	24.5	14.9	25.7
	200 ESU and over	6.2	26.5	6.0	28.0
	Total	255.2	100.0	303.0	100.0
	Average size (ESUs):				
	All holdings		34.6		26.3
	Holdings 8 ESU and over		64.9		67.4
		Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)
Total area on holdings (b)	Under 20 hectares	117.3	885	177.3	874
	20 to under 50 hectares	56.5	1 868	47.8	1 580
	50 to under 100 hectares	40.6	2 886	36.5	2 608
	100 hectares and over	40.8	11 675	41.4	12 093
	Total	255.2	17 313	303.0	17 154
	Average area (hectares):				
	All holdings		67.9		56.6
	Holdings 8 ESU and over		111.4		124.6
	% of total area on holdings with 100 hectares and over		67.4		70.5
Tillage and grass area (b) (d) (e)	0.1 to under 20 hectares	111.1	837	132.0	804
	20 to under 50 hectares	56.2	1 854	46.9	1 571
	50 to under 100 hectares	39.2	2 775	35.4	2 516
	100 hectares and over	31.2	6 144	32.2	6 366
	Total	237.7	11 610	246.5	11 258
	Average crops and grass area per holding (hectares) (f)		48.8		45.7
	% of total crops and grass area on holdings with 100 hectares and over		52.9		56.5

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) From 1997 the Northern Ireland census included all active farms having one or more hectares of farmed land plus any below that size which had significant agricultural output.

(b) Land in Great Britain let out under short term lets is attributed to the lessor, but land so let out in Northern Ireland (under the conacre system) is attributed to the lessee. This difference affects both the number of holdings and their average size.

(c) European Size Units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from the crops and stocks.

(d) The numbers of holdings shown in this part of the table are lower than those presented in the "total area" part of the table because holdings without crops and grass are excluded.

(e) The areas shown in this part of the table exclude set-aside land.

(f) Refers to holdings with crops and grass only.

Table 3.4 UK numbers and sizes of enterprises

Minor holdings are excluded for England and Wales in 1997 (a)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

Areas refer to the area of the specified crop and not to the area of the holding — At June of each year

		1997		2002	
		Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)
Cereals (excluding maize)	0.1 to under 20 hectares	33.1	292.3	27.4	382.0
	20 to under 50 hectares	18.2	595.4	15.3	542.1
	50 hectares and over	21.8	2 623.0	20.0	2 516.6
	Total	73.1	3 510.7	62.8	3 440.7
	average area (hectares) (a)		48.0		54.8
	% of total cereals area on holdings with 50 hectares and over		74.7		73.1
Oilseed rape	0.1 to under 20 hectares	8.1	91.0	6.4	71.0
	20 to under 50 hectares	5.8	182.0	4.5	141.2
	50 hectares and over	2.1	171.9	1.7	144.7
	Total	16.1	444.9	12.6	356.9
	average area (hectares) (a)		27.7		28.3
	% of total oilseed rape area on holdings with 50 hectares and over		38.6		40.5
Sugar beet	0.1 to under 10 hectares	3.6	20.1	3.4	17.6
(England and Wales only)	10 to under 20 hectares	2.7	38.2	2.0	29.1
	20 hectares and over	3.1	137.6	2.7	122.4
	Total	9.4	195.9	8.1	169.1
	average area (hectares) (a)		20.9		20.8
	% of total sugar beet area on holdings with 20.0 hectares and over		70.3		72.4
Potatoes	0.1 to under 10 hectares	13.9	38.2	9.6	28.6
	100 to under 20 hectares	2.9	40.5	2.4	33.9
	20 hectares and over	2.3	87.0	2.2	96.0
	Total	19.1	165.8	14.3	158.5
	average area (hectares) (a)		8.7		11.1
	% of total potato area on holdings with 20 hectares and over		52.5		60.5

		1997		2002	
		Number of holdings (thousand)	Number of livestock (thousand)	Number of holdings (thousand)	Number of livestock (thousand)
Dairy cows	1 to 49 dairy cows	15.8	424.8	12.1	290.4
	50 to 99	13.1	928.1	9.7	698.7
	100 and over	7.5	1 123.8	7.8	1 238.1
	Total	36.4	2 476.7	29.7	2 227.2
	average size of herd (head)		67.9		74.9
	% of total dairy cows in herds of 100 and over		45.4		55.6
Beef cows	1 to 19 beef cows	42.7	333.4	37.7	297.7
	20 to 49	18.9	586.1	16.1	503.4
	50 and over	10.2	925.5	9.1	854.6
	Total	71.8	1 844.9	63.0	1 655.7
	average size of herd (head)		25.7		26.3
	% of total beef cows in herds of 50 and over		50.2		51.6

continued

Table 3.4 continued

At June of each year

		1997		2002	
		Number of holdings (thousand)	Number of livestock (thousand)	Number of holdings (thousand)	Number of livestock (thousand)
Sheep breeding flock	1 to 99 breeding sheep	41.3	1 685.4	45.2	1 597.9
	100 to 499	34.5	8 050.2	28.8	6 697.1
	500 and over	10.9	9 916.8	9.3	8 539.4
	Total	86.7	19 652.4	83.3	16 834.4
	average size of flock (head)		226.6		202.0
	% of total breeding sheep in flocks of 500 and over		50.5		50.7
Pig breeding herd	1 to 49 breeding pigs	6.9	68.6	4.5	38.1
	50 to 99	0.9	63.9	0.5	34.3
	100 and over	2.1	657.7	1.3	487.1
	Total	9.8	790.1	6.3	559.5
	average size of herd (head)		80.3		88.2
	% of total breeding pigs in herds of 100 and over		83.2		87.1
Fattening pigs	1 to 199 fattening pigs	5.9	246.7	5.0	147.1
(Fattening pigs of over 20kg	200 to 999	2.8	1 398.7	1.7	908.2
liveweight excluding barren sows)	1,000 and over	1.4	3 250.0	1.1	2 367.0
	Total	10.1	4 895.4	7.8	3 422.4
	average size of herd (head)		483.9		438.1
	% of total fattening pigs in herds of 1,000 and over		66.4		69.2
Broilers (b)	1 to 9,999 broilers	1.8	927.5	1.8	721.1
(Includes small numbers of other table	10,000 to 99,999	0.8	32 868.0	0.8	35 231.1
fowl in Scotland and Northern Ireland)	100,000 and over	0.2	50 464.3	0.3	69 184.4
	Total	2.9	84 259.8	2.9	105 136.6
	average size of flock (head)		29 358.8		36 191.6
	% of total broilers in flock of 100,000 and over		59.9		65.8
Laying fowls (b)	1 to 4,999 laying fowls	28.3	2 705.6	31.2	2 123.4
	5,000 to 19,999	0.6	6 171.5	0.5	5 230.5
	20,000 and over	0.3	31 875.8	0.3	29 747.8
	Total	29.2	40 752.9	32.0	37 101.7
	average size of flock (head)		1 393.6		1 158.4
	% of total laying fowls in flocks of 20,000 and over		78.2		80.2

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Average area refers to the average area of the specified crop on holdings that grow that crop. Holdings that do not grow the crop are excluded from the calculation.

(b) Figures for 1997 and 2002 are not directly comparable because of a register improvement exercise for poultry holdings that took place in England and Wales between these years.

Table 3.5 UK agricultural holdings by size and country 2002 (a)

The data in this table includes main and minor holdings in Great Britain. In Northern Ireland all active farms are included. (b)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

At June of each year

	England		Wales		Scotland		Northern Ireland	
	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU
Size of holding (ESU) (c)								
under 8 ESU	115.1	2.6	23.7	5.0	34.7	3.1	15.3	9.8
8 to under 40 ESU	33.8	12.1	7.9	27.5	7.3	14.4	9.4	33.6
40 to under 100 ESU	23.0	25.8	3.7	37.9	5.1	31.2	3.1	35.4
100 to under 200 ESU	10.9	26.1	0.9	20.6	2.4	30.5	0.7	16.9
200 ESU and over	5.1	33.4	0.2	8.9	0.7	20.7	0.1	4.3
Total	187.9	100.0	36.5	100.0	50.2	100.0	28.5	100.0
Average size (ESU):								
All holdings		30.8		16.4		21.2		18.5
Holdings 8 ESU and over		77.4		44.7		66.5		36.0
	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)
Total area on holdings								
Under 20 hectares	114.7	494.9	21.4	102.9	28.9	151.4	12.3	124.4
20 to under 50 hectares	25.8	854.4	6.1	204.2	6.3	207.3	9.7	313.9
50 to under 100 hectares	21.2	1.5	5.0	353.7	5.7	412.1	4.7	321.3
100 hectares and over	26.2	6 228.7	4.0	791.5	9.4	4 764.7	1.8	307.6
Total	187.9	9 099.1	36.5	1 452.2	50.2	5 535.6	28.5	1 067.3
Average area (hectares):								
All holdings		48.4		39.8		110.3		37.4
Holdings 8 ESU and over		112.8		96.2		257.0		61.5
% of total area on holdings with 100 hectares and over		68.5		54.5		86.1		28.8

source: Farm Incomes in the United Kingdom 2001/2002

(a) This table will be updated on the Defra website when data for 2003 becomes available.

(b) This table contains data for all holdings in Great Britain and all active farm businesses in Northern Ireland (see "The Digest of Agricultural Census Statistics, UK, 1997"). Previously in Great Britain only main holdings were included. As a result these figures are not directly comparable with the results for earlier years published in previous editions of FIUK.

(c) European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The threshold of 8 ESU is judged to be the minimum for full-time holdings.

Table 3.6 Agricultural holdings wholly or mainly in Less Favoured Areas by size and country 2002 (a)

The data in this table includes main and minor holdings in Great Britain. In Northern Ireland all active farms are included. (b)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

At June of each year

	England		Wales		Scotland		Northern Ireland	
	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU
Size of holding (ESU) (c)								
under 8 ESU	16.3	5.1	15.3	5.2	8.4	3.9	11.0	12.5
8 to under 40 ESU	5.4	25.3	6.1	31.7	4.9	20.4	6.9	42.2
40 to under 100 ESU	3.1	42.7	2.7	40.2	3.1	39.4	1.7	33.1
100 to under 200 ESU	0.7	19.8	0.5	16.5	1.1	27.6	0.2	10.2
200 ESU and over	0.1	7.1	0.1	6.4	0.2	8.7	-	2.0
Total	25.6	100.0	24.7	100.0	17.7	100.0	19.9	100.0
Average size (ESU):								
All holdings		17.6		16.4		28.5		15.3
Holdings 8 ESU and over		45.8		40.8		52.3		30.0
% of total ESU on:								
LFA holdings		7.8		70.0		47.8		57.8
non-LFA holdings		92.2		30.0		52.2		42.2
	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)	Number of holdings (thousand)	Hectares (thousand)
Total area on holdings								
Under 20 hectares	14.6	70.4	13.5	68.2	5.7	41.8	8.5	89.9
20 to under 50 hectares	3.9	131.2	4.3	146.0	3.0	100.8	7.0	224.4
50 to under 100 hectares	3.3	236.7	3.7	265.4	3.1	226.1	3.1	211.3
100 hectares and over	3.7	978.1	3.2	660.8	5.9	3 824.6	1.3	221.2
Total	25.6	1 416.4	24.7	1 140.4	17.7	4 193.3	19.9	746.8
Average area (hectares):								
All holdings		55.4		46.2		237.1		37.6
Holdings 8 ESU and over		133.0		103.8		346.4		62.6
% of total area on holdings with 100 hectares and over		69.1		57.9		91.2		29.6
% of total area on:								
LFA holdings		15.6		78.5		83.4		70.0
non-LFA holdings		84.4		21.5		16.6		30.0

source: Farm Incomes in the United Kingdom 2001/02

(a) This table will be updated on the Defra website when data for 2003 becomes available.

(b) This table contains data for all holdings in Great Britain and all active farm businesses in Northern Ireland (see "The Digest of Agricultural Census Statistics, UK, 1997"). Previously in Great Britain only main holdings were included. As a result these figures are not directly comparable with the results for earlier years published in previous editions of FIUK.

(c) European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The threshold of 8 ESU is judged to be the minimum for full-time holdings.

Table 3.7 Agricultural holdings by farm type, size and country 2002 (a)

The data in this table includes main and minor holdings in Great Britain. In Northern Ireland all active farms are included. (b)

Enquiries: Alison Wray on +44 (0)1904 455313 email: alison.wray@defra.gsi.gov.uk

At June of each year

	England		Wales		Scotland		Northern Ireland	
	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU
Dairy								
under 8 ESU (c)	0.6	0.1	0.1	0.2	-	0.1	0.1	0.2
8 to under 40 ESU	2.6	5.8	0.8	9.8	0.1	1.2	1.8	17.7
40 to under 100 ESU	6.8	37.0	1.5	40.9	0.7	29.1	2.1	50.6
100 to under 200 ESU	3.7	41.1	0.6	35.1	0.7	53.4	0.5	27.0
200 ESU and over	0.7	15.9	0.1	13.9	0.1	16.3	-	4.5
Total	14.3	100.0	3.1	100.0	1.6	100.0	4.6	100.0
Cattle and sheep (LFA)								
under 8 ESU	6.0	8.1	5.6	6.2	4.5	5.0	10.1	24.4
8 to under 40 ESU	4.2	38.8	5.3	42.3	4.0	28.0	5.1	57.4
40 to under 100 ESU	1.4	39.2	1.7	39.7	2.2	44.1	0.4	15.3
100 to under 200 ESU	0.2	10.1	0.2	9.1	0.4	19.0	-	2.9
200 ESU and over	-	3.9	-	2.6	-	3.9		
Total	11.8	100.0	12.8	100.0	11.2	100.0	15.6	100.0
Cattle and sheep (lowland)								
under 8 ESU	23.7	16.9	2.3	11.9	0.5	6.7	3.3	27.4
8 to under 40 ESU	8.3	41.7	1.1	41.6	0.3	29.3	1.3	56.0
40 to under 100 ESU	1.4	24.2	0.2	29.5	0.1	33.8	0.1	14.3
100 to under 200 ESU	0.3	11.2	-	12.0	-	30.2	-	2.3
200 ESU and over	0.1	6.0	-	5.0			-	-
Total	33.8	100.0	3.6	100.0	0.9	100.0	4.7	100.0
Cereals								
under 8 ESU	3.8	1.1	0.1	5.7	0.9	2.8	0.3	16.9
8 to under 40 ESU	7.4	12.1	0.1	26.5	1.4	20.2	0.2	44.1
40 to under 100 ESU	6.0	29.7	-	36.7	0.7	34.0	-	27.0
100 to under 200 ESU	3.0	30.7	-	31.2	0.3	25.6	-	12.0
200 ESU and over	1.1	26.4			0.1	17.4	-	-
Total	21.3	100.0	0.3	100.0	3.3	100.0	0.5	100.0
General Cropping								
under 8 ESU	0.7	0.2	-	1.1	0.1	0.1	0.1	2.9
8 to under 40 ESU	2.1	4.0	-	13.9	0.3	3.4	0.1	22.0
40 to under 100 ESU	2.9	15.7	-	39.3	0.7	21.1	0.1	27.0
100 to under 200 ESU	1.8	20.8	-	45.5	0.6	37.4	-	25.4
200 ESU and over	1.6	59.4			0.3	38.0	-	22.7
Total	9.2	100.0	0.1	100.0	2.1	100.0	0.3	100.0

continued

Table 3.7 continued

At June of each year

	England		Wales		Scotland		Northern Ireland	
	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU	Number of holdings (thousand)	Percent of total ESU
Pigs and poultry								
under 8 ESU	4.1	1.0	0.5	2.0	0.1	0.3	0.2	3.0
8 to under 40 ESU	1.1	7.7	-	8.8	0.1	14.3	0.2	28.6
40 to under 100 ESU	0.8	17.3	-	20.5			0.1	30.9
100 to under 200 ESU	0.6	25.1	-	22.7	-	19.2	-	12.4
200 ESU and over	0.4	49.0	-	46.1	-	66.1	-	25.0
Total	7.0	100.0	0.5	100.0	0.4	100.0	0.5	100.0
Horticulture								
under 8 ESU	4.0	3.3	0.4	8.3	0.3	7.3	0.1	4.7
8 to under 40 ESU	3.6	21.2	0.1	26.4	0.1	23.5	0.1	27.2
40 to under 100 ESU	1.3	22.9	-	14.8	-	17.4	-	27.2
100 to under 200 ESU	0.4	14.7	-	17.7	-	51.9	-	17.6
200 ESU and over	0.3	37.9	-	32.9			-	23.3
Total	9.5	100.0	0.5	100.0	0.4	100.0	0.3	100.0
Mixed								
under 8 ESU	2.8	1.2	0.3	3.6	0.3	0.8	0.3	5.8
8 to under 40 ESU	3.4	11.7	0.2	21.3	0.7	13.0	0.5	38.7
40 to under 100 ESU	2.2	22.1	0.1	34.3	0.6	28.8	0.1	34.4
100 to under 200 ESU	1.0	22.4	-	23.3	0.3	27.8	-	21.1
200 ESU and over	0.8	42.6	-	17.5	0.1	29.6		
Total	10.3	100.0	0.6	100.0	2.0	100.0	1.0	100.0
Other								
under 8 ESU	69.5	29.5	14.4	68.4	4.4	59.9	0.8	12.5
8 to under 40 ESU	1.2	14.1	0.2	26.7	0.1	40.1	0.1	28.1
40 to under 100 ESU	-	1.4	-	5.0			-	42.7
100 to under 200 ESU	-	1.6			-	-	-	16.7
200 ESU and over	-	53.4	-	-	-	-		
Total	70.7	100.0	14.6	100.0	4.6	100.0	1.0	100.0
Total								
under 8 ESU	115.1	2.6	23.7	5.0	11.2	2.4	15.3	9.8
8 to under 40 ESU	33.8	12.1	7.9	27.5	7.2	14.4	9.4	33.6
40 to under 100 ESU	23.0	25.8	3.7	37.9	5.1	31.5	3.1	35.4
100 to under 200 ESU	10.9	26.1	0.9	20.6	2.4	30.8	0.7	16.9
200 ESU and over	5.1	33.4	0.2	8.9	0.7	20.9	0.1	4.3
Total	187.9	100.0	36.5	100.0	26.6	100.0	28.5	100.0

source: Farm Incomes in the United Kingdom 2001/02

(a) This table will be updated on the Defra website when data for 2003 becomes available.

(b) This table contains data for all holdings in Great Britain and all active farm businesses in Northern Ireland (see "The Digest of Agricultural Census Statistics, UK, 1997"). Previously in Great Britain only main holdings were included. As a result these figures are not directly comparable with the results for earlier years published in previous editions of FIUK.

(c) European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The threshold of 8 ESU is judged to be the minimum for full-time holdings.

Table 3.8 UK labour force in agriculture

The data cover main and minor holdings in the UK.

Enquiries: Lindsey Clothier +44 (0)1904 455319 email: lindsey.j.clothier@defra.gsi.gov.uk

Thousand persons — At June of each year

	Average of 1992-1994	2000	2001 (a)	2001 (b)	2002	2003
Workers						
Regular whole-time:						
male	97	73	69	70	65	60
female	14	10	11	11	11	10
Total	111	84	80	82	76	70
Regular part-time: (c)						
male	30	25	22	23	22	21
female	25	21	19	19	18	17
Total	55	45	41	42	40	38
Seasonal or casual:						
male	54	46	45	45	46	45
female	30	18	19	19	18	18
Salaried managers	8	11	13	14	13	13
Total workers	258	204	198	202	194	184
Farmers, partners, directors and spouses						
whole-time	. .	169	166	168	164	160
part-time (c)	. .	183	186	198	193	190
Total farmers, partners and directors and spouses	374	353	352	367	356	349
Total labour force						
(including farmers and their spouses) (d) (e)	632	557	550	568	550	533

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) These results exclude the effect of the register improvement in England and are directly comparable with previous years.

(b) These results and those for following years include the effect of the register improvement in England and are NOT directly comparable with previous years.

(c) Part-time is defined as less than 39 hours per week in England and Wales, less than 38 hours per week in Scotland and less than 30 hours per week in Northern Ireland.

(d) This is the series referred to as 'Workforce in agriculture' in Table 2.2.

(e) Figures exclude schoolchildren and most trainees.

Table 3.9 Holders age by farm type in the UK (a)

Enquiries: Lindsey Clothier +44 (0)1904 455319 email: lindsey.j.clothier@defra.gsi.gov.uk

Thousand persons

	EC FARM TYPE								
	Cereals	General	Horti-culture	Pigs and Poultry	Dairy	Cattle and Sheep (LFA and Lowland)	Mixed	Other	All types
1990									
Holders age									
Under 35 years	1.3	1.6	0.7	0.4	2.7	6.0	1.4	3.3	17.2
as a proportion of the total	8%	7%	6%	7%	8%	8%	8%	6%	7%
35 - 44 years	3.0	4.5	2.0	1.1	7.0	13.0	3.3	8.7	42.6
as a proportion of the total	18%	20%	18%	18%	21%	17%	20%	17%	18%
45 - 54 years	4.2	6.0	3.0	1.7	9.6	18.4	4.5	12.2	59.6
as a proportion of the total	26%	26%	27%	30%	28%	24%	27%	24%	25%
55 - 64 years	4.3	6.3	3.2	1.5	9.5	20.4	4.4	11.7	61.3
as a proportion of the total	26%	28%	29%	25%	28%	26%	26%	23%	26%
65 years and over	3.7	4.3	2.2	1.2	4.9	20.0	3.2	15.0	54.5
as a proportion of the total	22%	19%	20%	20%	15%	26%	19%	30%	23%
Total	16.6	22.7	11.0	5.8	33.6	77.9	16.8	50.9	235.3
2000									
Holders age									
Under 35 years	1.0	0.6	0.3	0.3	1.4	4.9	0.7	1.8	10.8
as a proportion of the total	4%	5%	3%	5%	6%	7%	5%	3%	5%
35 - 44 years	4.5	2.4	1.3	1.1	4.9	11.6	2.9	7.4	36.2
as a proportion of the total	19%	19%	17%	20%	22%	17%	21%	15%	18%
45 - 54 years	6.0	3.3	2.1	1.5	6.7	16.5	4.0	12.6	52.7
as a proportion of the total	26%	27%	26%	27%	29%	24%	28%	25%	26%
55 - 64 years	6.3	3.4	2.5	1.5	5.9	17.5	3.7	13.3	53.9
as a proportion of the total	27%	27%	31%	27%	26%	25%	26%	26%	26%
65 years and over	5.5	2.8	1.9	1.1	3.9	18.9	2.9	15.2	52.1
as a proportion of the total	24%	22%	23%	21%	17%	27%	20%	30%	25%
Total	23.2	12.5	8.0	5.4	22.7	69.4	14.2	50.2	205.6

source: EC Farm Structure Survey

(a) The holder is defined as the (natural or legal) person in whose name the holding is operated. The holder can either own or rent the holding, be a hereditary long-term leaseholder, or a usufructuary or a trustee. The data in this table relate to all holders whether or not the holder is also the manager of the holding. The exact definition of holder varies between the countries of the UK.

Table 3.10 Holders age by farm size in the UK (a) (b)

Enquiries: Lindsey Clothier +44 (0)1904 455319 email: lindsey.j.clothier@defra.gsi.gov.uk

Thousand persons

	< 8 ESU	8:< 40	40: < 100	100: < 200	200 and over	Total
1990						
Holders age						
Under 35 years	6.9	5.8	3.4	0.9	0.3	17.2
as a proportion of the total	6%	8%	8%	8%	8%	7%
35 - 44 years	17.4	12.8	9.0	2.7	0.7	42.6
as a proportion of the total	16%	18%	22%	23%	22%	18%
45 - 54 years	24.4	18.7	11.8	3.6	1.1	59.6
as a proportion of the total	23%	26%	29%	31%	32%	25%
55 - 64 years	26.1	20.4	11.1	2.9	0.8	61.3
as a proportion of the total	24%	29%	27%	25%	26%	26%
65 years and over	33.4	13.6	5.6	1.5	0.4	54.5
as a proportion of the total	31%	19%	14%	13%	12%	23%
Total	108.3	71.3	40.9	11.5	3.3	235.3
2000						
Holders age						
Under 35 years	4.6	2.9	1.9	0.9	0.5	10.8
as a proportion of the total	5%	6%	6%	5%	5%	5%
35 - 44 years	14.2	8.6	7.2	4.1	2.1	36.2
as a proportion of the total	15%	17%	22%	23%	24%	18%
45 - 54 years	22.9	12.6	9.3	5.3	2.6	52.7
as a proportion of the total	24%	25%	28%	30%	30%	26%
55 - 64 years	24.6	13.7	8.6	4.7	2.2	53.9
as a proportion of the total	25%	28%	26%	27%	26%	26%
65 years and over	30.6	11.6	5.9	2.7	1.2	52.1
as a proportion of the total	32%	24%	18%	15%	14%	25%
Total	96.9	49.4	32.9	17.8	8.6	205.6

source: EC Farm Structure Survey

(a) The holder is defined as the (natural or legal) person in whose name the holding is operated. The holder can either own or rent the holding, be a hereditary long-term leaseholder, or a usufructuary or a trustee. The data in this table relate to all holders whether or not the holder is also the manager of the holding. The exact definition of holder varies between the countries of the UK.

(b) European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The threshold of 8 ESU is judged to be the minimum for full-time holdings.

Table 3.11 Agricultural training of holder managers by farm type in the UK (a)

Enquiries: Lindsey Clothier +44 (0)1904 455319 email: lindsey.j.clothier@defra.gsi.gov.uk

Thousand persons

	EC FARM TYPE								
	Cereals	General	Horti-culture	Pigs and Poultry	Dairy	Cattle and Sheep (LFA and Lowland)	Mixed	Other	All types
1990									
Agricultural training									
Practical experience only	10.2	13.2	7.1	3.8	21.6	57.6	10.6	37.3	161.4
as a proportion of the total	69%	66%	73%	74%	73%	84%	72%	83%	78%
Basic training	2.3	3.2	1.1	0.6	4.6	5.5	2.2	3.9	23.3
as a proportion of the total	15%	16%	12%	11%	16%	8%	15%	9%	11%
Full agricultural training	2.3	3.6	1.6	0.8	3.5	5.9	2.0	3.7	23.3
as a proportion of the total	16%	18%	16%	15%	12%	9%	14%	8%	11%
Total	14.7	19.9	9.7	5.2	29.6	69.0	14.8	44.9	208.0
2000									
Agricultural training									
Practical experience only	13.0	7.3	5.2	3.8	13.8	52.9	8.6	40.1	144.7
as a proportion of the total	63%	65%	75%	78%	68%	85%	69%	88%	78%
Basic training	3.6	1.7	0.7	0.5	3.5	5.0	1.9	2.8	19.8
as a proportion of the total	17%	15%	10%	11%	17%	8%	15%	6%	11%
Full agricultural training	4.2	2.1	1.0	0.5	2.9	4.6	2.0	2.8	20.4
as a proportion of the total	20%	19%	15%	11%	15%	7%	16%	6%	11%
Total	20.8	11.1	7.0	4.9	20.2	62.6	12.6	45.7	184.9

source: EC Farm Structure Survey

(a) Data in this table relate only to holders that are also responsible for the day to day running of the holding - ie holder managers. The exact definition of holder varies between the countries of the UK.

Table 3.12 Agricultural training of holder managers by farm size in the UK (a) (b)

Enquiries: Lindsey Clothier +44 (0)1904 455319 email: lindsey.j.clothier@defra.gsi.gov.uk

Thousand persons

	< 8 ESU	8:< 40	40: < 100	100: < 200	200 and over	Total
1990						
Agricultural training						
Practical experience only	80.9	49.8	23.9	5.7	1.2	161.4
as a proportion of the total	84%	78%	67%	57%	45%	78%
Basic training	7.2	7.2	6.4	2.0	0.5	23.3
as a proportion of the total	7%	11%	18%	20%	20%	11%
Full agricultural training	7.9	6.7	5.5	2.3	0.9	23.3
as a proportion of the total	8%	10%	15%	23%	35%	11%
Total	96.0	63.7	35.8	9.9	2.6	208.0
2000						
Agricultural training						
Practical experience only	78.5	35.2	19.2	8.7	3.2	144.7
as a proportion of the total	89%	79%	66%	56%	44%	78%
Basic training	5.1	4.8	5.2	3.1	1.5	19.8
as a proportion of the total	6%	11%	18%	20%	21%	11%
Full agricultural training	4.7	4.7	4.8	3.7	2.4	20.4
as a proportion of the total	5%	11%	16%	24%	34%	11%
Total	88.3	44.7	29.1	15.6	7.1	184.9

source: EC Farm Structure Survey

(a) Data in this table relate only to holders that are also responsible for the day to day running of the holding - ie holder managers. The exact definition of holder varies between the countries of the UK.

(b) European size units (ESU) measure the financial potential of the holding in terms of the margins which might be expected from crops and stock. The threshold of 8 ESU is judged to be the minimum for full-time holdings.

Table 3.13 Fixed capital stock of UK agriculture

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Indices 1995 = 100 At year end

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Gross capital stock (excludes livestock capital assets)						
Buildings and works	99.9	95.4	93.3	91.5	89.5	. .
Plant and machinery	99.3	94.0	91.3	89.2	87.1	. .
Vehicles	94.0	103.2	102.9	103.2	103.9	. .
Total	99.5	95.3	93.0	91.2	89.4	87.5

source: Defra website, http://statistics.defra.gov.uk/esg/

Chapter 4 Trade

Overseas trade statistics

1 The Overseas Trade Statistics (OTS) presented in this chapter are based on data collected by HM Customs and Excise (HMCE).

2 Overseas trade statistics are compiled from returns made to HMCE by importers and exporters. Before the completion of the Single Market in the EC at the end of 1992, all UK overseas trade data was compiled from Customs declarations made by traders. However, since the beginning of 1993, the collection of trade statistics has been divided into two categories: that transacted between the UK and countries outside the EC (extra-EC trade), and that between the UK and its EC partners (intra-EC trade). Extra-EC trade statistics are compiled, as before, from Customs declarations by importers, exporters and their agents; intra-EC trade statistics are compiled using a system linked to traders' VAT returns, known as Intrastat.

Trade in food, feed and drink
(Table 4.1 and chart 4.1)

3 The value of food, feed and drink exports in 2002 was £8.9 billion, 4.8 per cent up on 2001 when it stood at £8.5 billion, while the value of food, feed and drink imports in 2002 was £19.1 billion, 4.5 per cent higher than in 2001 when it stood at £18.3 billion.

4 The value of exports of food, feed and drink has fallen by 25 per cent in real terms from its peak in 1995. This is a consequence of the combination of the strength of sterling, BSE, lower world commodity prices, economic difficulties in the Far East and latterly foot-and-mouth disease. The value of imports has fallen by just 1.0 per cent in real terms over the same period.

5 As a consequence the trade gap in food, feed and drink has widened by 37 per cent in real terms over this period to £10.2 billion.

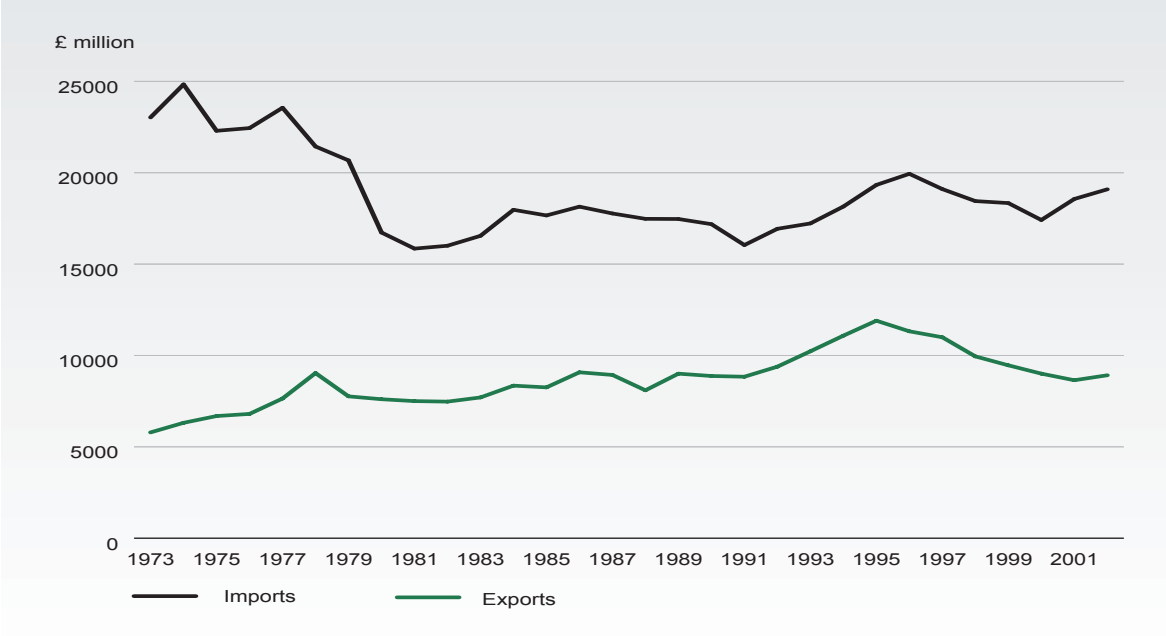
Self sufficiency
(Table 4.1)

6 Self-sufficiency in food in 2003 was 64 per cent for all food and 77 per cent for indigenous food. Imports have continued to rise slightly, whilst exports are beginning to rise again following a dip in 2000 and 2001. The ban on exports of meat imposed during the outbreak of foot-and-mouth disease in 2001 was fully lifted in February 2002. Despite this, exports of livestock and livestock products have not reached previous levels although they are now steadily increasing. There also continues to be a small increase in the import of fruit and vegetables. Self sufficiency is calculated as the value of raw food for human consumption divided by the value of production of raw food.

Trading partners
(Chart 4.2 and 4.3)

7 Exports to the EU accounted for 63 per cent of UK food, feed and drink exports in 2002. This compares with 45 per cent when the UK first entered the EC and 65 per cent in 1991. Imports from the EU accounted for 64 per cent of UK food, feed and drink imports in 2002. This compares to 66 per cent in 1991.

Chart 4.1 UK trade in food, feed and drink (1973 to 2002) in real terms at 2002 prices



source: Defra website, http://statistics.defra.gov.uk/esg/

8 Principal destinations of food, feed and drink exports to the EU in 2002 were the Irish Republic (£1.4 billion), France (£1.1 billion), Spain (£678 million) and Germany (£606 million). The principal exporting EU countries of food and drink to the UK in 2002 were France (£2.4 billion), the Netherlands (£2.3 billion), the Irish Republic (£1.8 billion) and Germany (£1.3 billion).

9 Principal non-EU destinations of food, feed and drink exports in 2002 were the USA (£817 million), South Korea (£214 million), Japan (£214 million), Canada (£155 million) and Australia (£127 million), while the main exporting non-EU countries were the U.S.A. (£796 million), Australia (£516 million), Brazil (£496 million), South Africa (£394 million) and New Zealand (£367 million).

Commodities exported
(Table 4.1 and chart 4.4)

10 Over the past ten years (in real terms at 2002 prices):

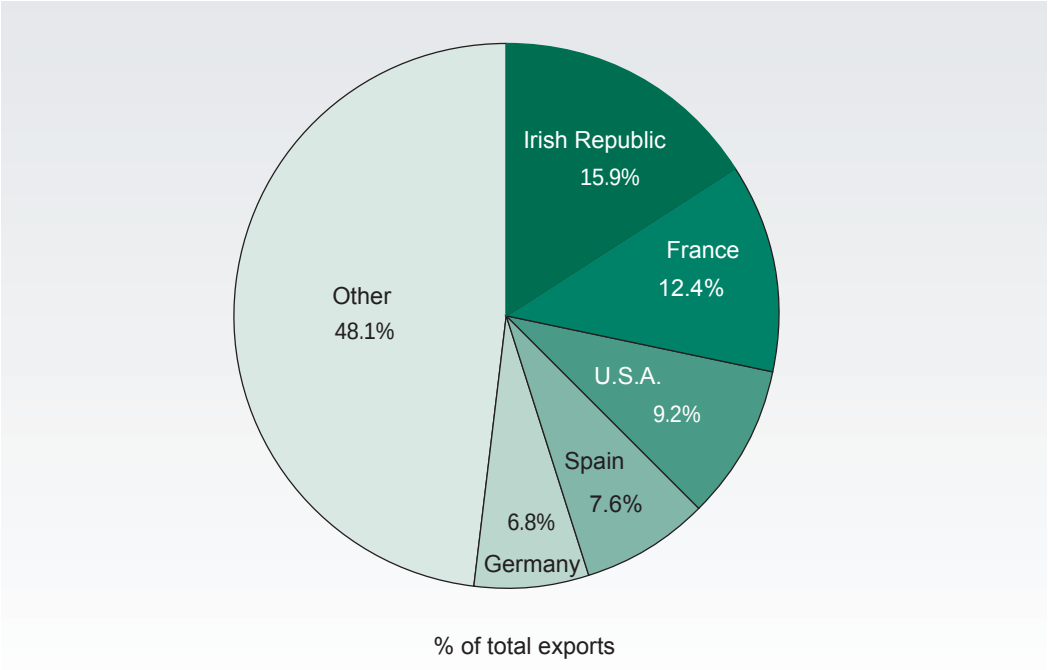
- exports of highly processed foods and drink such as confectionery, canned meats, jams, alcoholic drinks, ice cream etc. decreased by 0.3 per cent;
- exports of lightly processed foods and drinks (goods that retain their raw recognisable form) such as meat, cheese and butter, powdered milk, flour, sugar etc.) decreased by 21 per cent;
- exports of unprocessed commodities, such as fresh fruit and vegetables, coffee beans, honey, eggs, milk and cream, unmilled cereals etc. decreased by 48 per cent.

11 Over the past ten years (in real terms at 2002 prices):

- imports of highly processed foods and drink such as confectionery, canned meats, jams, alcoholic drinks, ice cream, etc, increased by 28 per cent;

- imports of lightly processed foods and drinks (goods that retain their raw recognisable form) such as meat, cheese and butter, powered milk, flour, sugar, etc) increased by 1 per cent;
- imports of unprocessed commodities, such as fresh fruit and vegeatables, coffee beans, honey, eggs, milk and cream, unmilled cereals, etc, increased by 9.0 per cent.

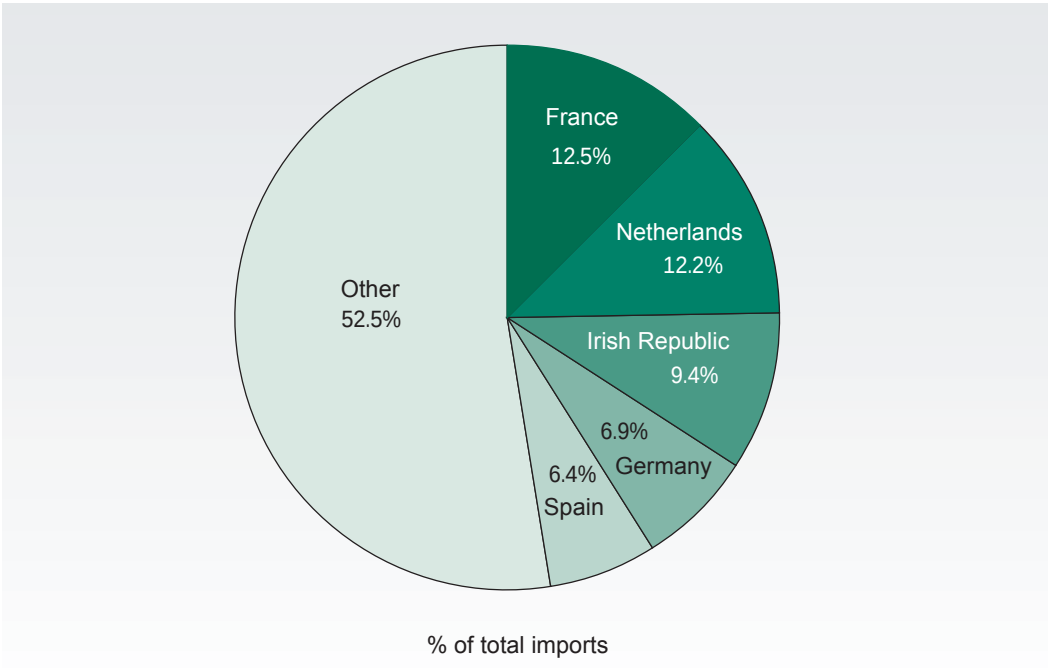
Chart 4.2 UK exports of food, feed and drink by country of destination in 2002



% of total exports

source: Defra website, http://statistics.defra.gov.uk/esg/

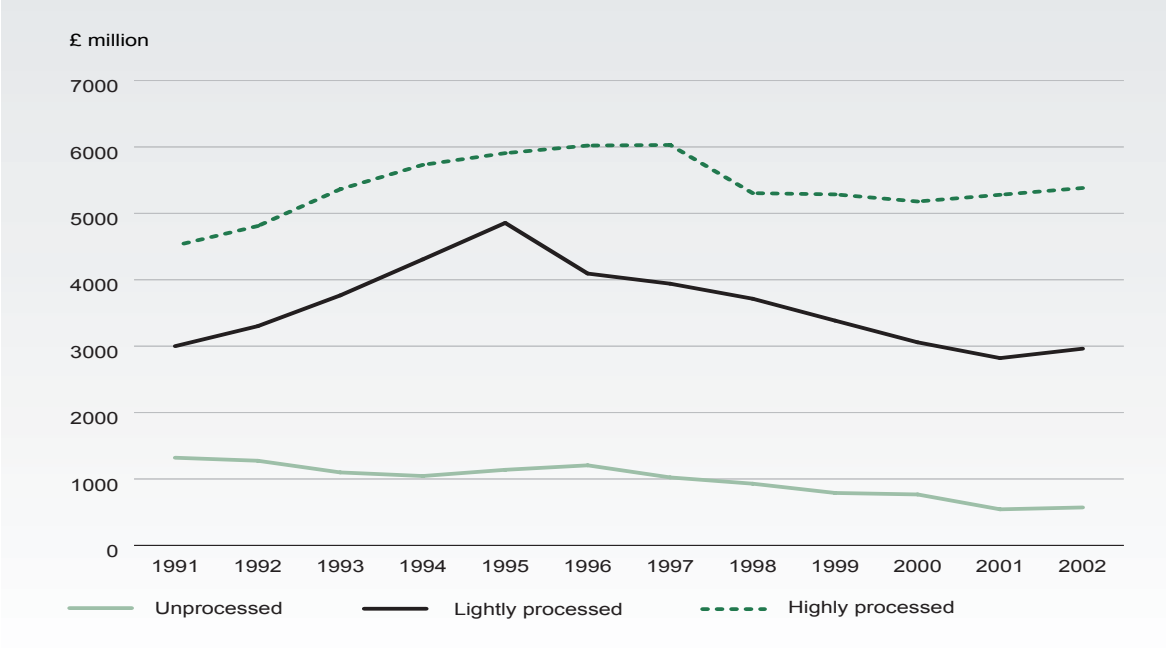
Chart 4.3 UK imports of food, feed and drink by country of origin in 2002



% of total imports

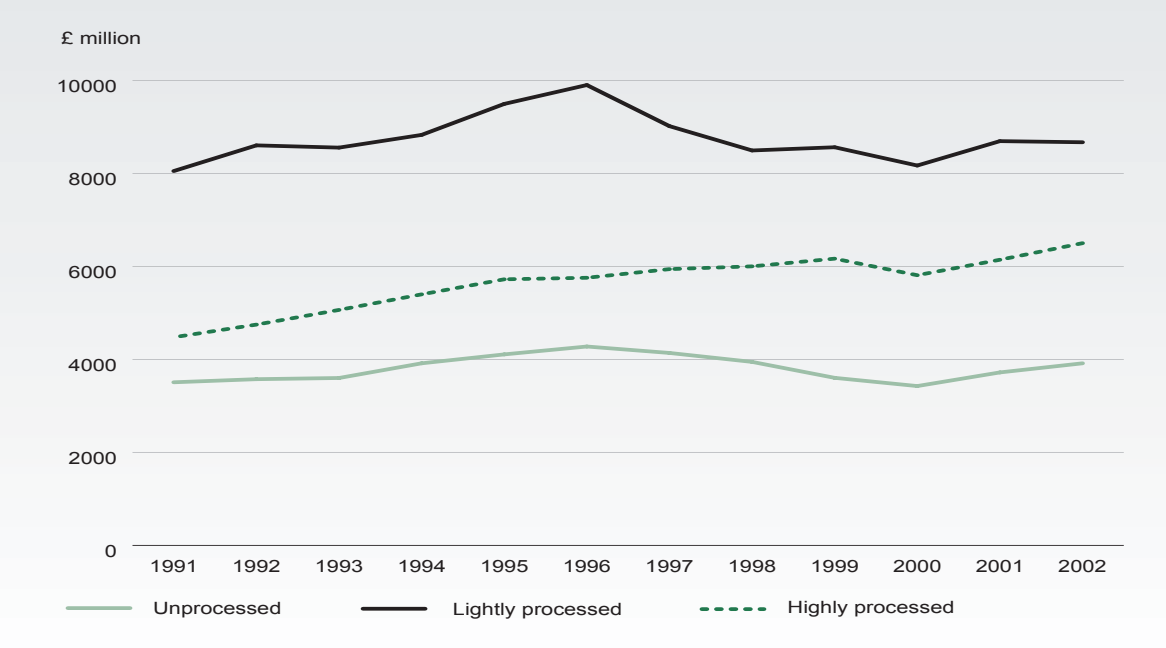
source: Defra website, http://statistics.defra.gov.uk/esg/

Chart 4.4 UK exports of food, feed and drink by degree of processing (in real terms at 2002 prices)



source: Defra website, http://statistics.defra.gov.uk/esg/

Chart 4.5 UK imports of food, feed and drink by degree of processing (in real terms at 2002 prices)



source: Defra website, http://statistics.defra.gov.uk/esg/

Trade in key commodities (Table 4.2)

11 Over the past ten years (in real terms at 2002 prices):

- the value of exports of whisky fell by 13 per cent between 1993 and 2002; the value of wine imports increased by 54 per cent between 1993 and 2002, to £2.0 billion;
- the value of exports of lamb and mutton fell by 29 per cent between 1993 and 2000 (exports were banned during the outbreak of foot-and-mouth disease in 2001 but partially recovered in 2002);
- the pattern of beef exports reflect the export ban of beef imposed in March 1996 after the British Government acknowledged a link between BSE and CJD; the value of imports decreased by 0.7 per cent between 1993 and 2002 while the value of exports fell by 96 per cent;
- the value of pork imports rose by 55 per cent between 1993 and 2002; exports declined over the same period reflecting the fall in UK pig production and the ban imposed during the outbreak of foot-and-mouth disease in 2001, there has been some recovery in 2002;
- the value of poultrymeat imports increased by 68 per cent between 1993 and 2002, to £565 million; the value of exports increased by 18 per cent;
- all trade in breakfast cereal has increased between 1993 and 2002 with the value of imports almost doubling and exports increasing by two-thirds;
- the value of cheese imports increased by 4.0 per cent between 1993 and 2002, to £647 million.

Dataset

12 An Excel dataset, which can be manipulated, showing UK trade data in food, feed and drink including indigeneity and degree of processing may be found on the Defra website at http://statistics.gov.uk/esg/datasets/webindig.xls.

Table 4.1 UK trade in food, feed and drink by SITC division (in real terms at 2002 prices) and self-sufficiency

Enquiries: Clare Burgon on +44 (0)1904 455326 email: clare.f.burgon@defra.gsi.gov.uk

£ million (unless otherwise specified) Calendar years

SITC code	Title	Average of 1992-1994	1999	2000	2001	2002	2003
Exports							
01	Meat	993.8	649.2	627.1	418.7	513.8	. .
02	Dairy	618.6	686.8	654.5	612.2	619.3	. .
03	Fish	625.7	747.2	698.5	745.6	762.3	. .
04	Cereals	1 195.6	1 209.2	1 261.4	1 085.0	1 135.5	. .
05	Fruit and Vegetables	354.9	432.5	394.0	394.8	432.2	. .
06	Sugar	339.2	375.6	360.6	357.1	325.7	. .
07	Coffee, Tea, etc.	591.3	589.3	585.4	593.8	615.6	. .
08	Animal feed	309.0	337.2	324.0	291.5	311.1	. .
09	Miscellaneous.	370.0	563.6	546.8	605.8	621.1	. .
11	Drink	2 647.9	3 032.0	3 078.4	3 240.6	3 329.0	. .
22 + S4	Oils	156.3	257.4	171.6	160.8	249.7	. .
	Total	8 202.3	8 879.8	8 702.3	8 505.7	8 915.2	. .
Imports							
01	Meat	1 964.7	2 194.9	2 406.7	2 775.9	2 891.8	. .
02	Dairy	1 080.1	1 187.4	1 189.6	1 279.1	1 324.6	. .
03	Fish	1 003.6	1 302.7	1 338.3	1 449.9	1 438.8	. .
04	Cereals	1 000.0	1 134.7	1 098.1	1 247.6	1 310.2	. .
05	Fruit and Vegetables	3 209.2	4 133.4	3 980.2	4 221.1	4 528.0	. .
06	Sugar	789.4	741.2	712.0	788.0	792.3	. .
07	Coffee, tea, etc.	1 044.9	1 234.7	1 103.6	1 093.0	1 169.3	. .
08	Animal feed	740.9	649.6	704.7	788.1	757.4	. .
09	Miscellaneous	690.9	963.5	829.0	833.5	888.0	. .
11	Drink	1 704.6	2 854.5	2 706.4	2 926.8	3 118.1	. .
22+S4	Oils	739.8	817.2	759.8	864.2	872.1	. .
	Total	13 968.1	17 213.8	16 828.5	18 267.1	19 090.6	. .
UK self-sufficiency in food as a % of:							
	all food	73.7%	67.8%	67.0%	62.8%	62.5%	64.1%
	indigenous type food	85.6%	81.7%	80.4%	75.1%	75.5%	77.4%

source: Defra website, http://statistics.defra.gov.uk/esg/

Defra's aggregate 'Food, Feed and Drink' is composed of the following divisions from the Standard International Trade Classification (SITC):

01 Meat: meat from cattle, sheep, pigs, goats, poultry, horses etc.; preparations including blood, juices, sausages, livers, offal.

02 Dairy: includes milk (skimmed or otherwise), butter, buttermilk, cream, yoghurt, ice cream, whey, cheese and curd, all types of eggs both in and out of shell.

03 Fish: All types of edible marine life excluding mammals, fresh, frozen, processed, prepared or preserved.

04 Cereals: includes rice, wheat, barley, oats, maize, grain sorghum and preparations including sweet biscuits, waffles, gingerbread, uncooked/unstuffed pasta.

05 Fruit and vegetables: includes fresh, frozen or prepared fruit (except crystallised) and vegetables, nuts (except groundnuts), vegetable and fruit juices of all kinds except wine (see division 11), jams, marmalades, fruit or nut puree/paste etc.

06 Sugar: includes both natural sugar and sugar confectionery (but not chocolate or cocoa), both natural and artificial honey, and liquorice.

07 Coffee, tea, etc.: includes all types of tea, coffee (e.g. green, decaffeinated), extracts and substitutes thereof; cocoa and chocolate (of all kinds): all kinds of spices.

08 Animal feed: includes hay, fodder, bran, sharps and other residues derived from cereals or leguminous plants, oil-cake and other solid residues, other residues, brewing dregs, all types of pet or animal food.

09 Miscellaneous: includes margarine, shortening, homogenised products or preparations not elsewhere specified, sauces, vinegar, soups, yeasts cooked/stuffed pasta, food preparations for infant use.

11 Drink: includes alcoholic drinks of all kinds; also natural or artificial mineral and aerated waters sweetened or otherwise.

22+S4 Oils: includes groundnuts (peanuts), soya beans, sunflower seeds, rape seeds, palm nuts, linseed, poppy seeds etc., lard, pig fat, olive oil, rape oil, corn oil, linseed oil, beeswax etc.

Division 00, which covers all live animals, is excluded from the aggregate 'Food, Feed and Drink' because it includes non-food animals, particularly race horses.

Table 4.2 UK trade in key commodities in real terms at 2002 prices

Enquiries: Clare Burgon on +44 (0)1904 455326 email: clare.f.burgon@defra.gsi.gov.uk

£ million

		Average of 1992-1994	1998	1999	2000	2001	2002
Whisky	Imports	42.0	54.6	52.7	58.7	69.3	69.3
	Exports	2 643.0	2 229.4	2 271.3	2 263.8	2 360.9	2 315.6
Wine	Imports	1 355.2	1 911.6	2 043.6	1 747.0	1 881.3	2 026.8
	Exports	48.8	118.0	122.9	121.8	121.4	137.6
Cheese	Imports	665.2	661.7	671.3	621.9	665.0	647.1
	Exports	148.9	136.6	145.5	134.0	149.8	153.7
Poultrymeat	Imports	366.7	565.7	582.4	559.6	578.2	564.7
(inc poultry offal)	Exports	140.1	188.1	171.0	143.5	168.8	143.1
Beef and veal	Imports	440.5	287.6	323.9	338.6	398.9	457.3
	Exports	473.1	13.1	21.0	21.7	19.1	18.1
Wheat, unmilled	Imports	245.2	152.7	137.1	133.7	148.4	147.3
	Exports	508.3	378.8	256.1	289.7	136.5	118.7
Lamb and mutton	Imports	223.1	220.2	207.0	206.5	198.1	228.0
	Exports	298.1	233.6	219.6	208.8	79.8	142.6
Pork	Imports	196.0	190.1	229.4	284.7	341.2	331.0
	Exports	166.3	225.8	157.2	146.4	38.9	74.3
Breakfast Cereals	Imports	33.8	46.1	46.0	51.1	65.9	75.7
	Exports	159.7	303.4	299.5	270.6	259.2	254.9
Milk and cream	Imports	50.1	64.8	50.5	43.1	41.2	31.4
	Exports	125.3	154.7	148.1	122.0	105.4	110.1

source: Defra website, http://statistics.defra.gov.uk/esg/

Chapter 5 Prices

Price indices
(Table 5.1 and chart 5.1)

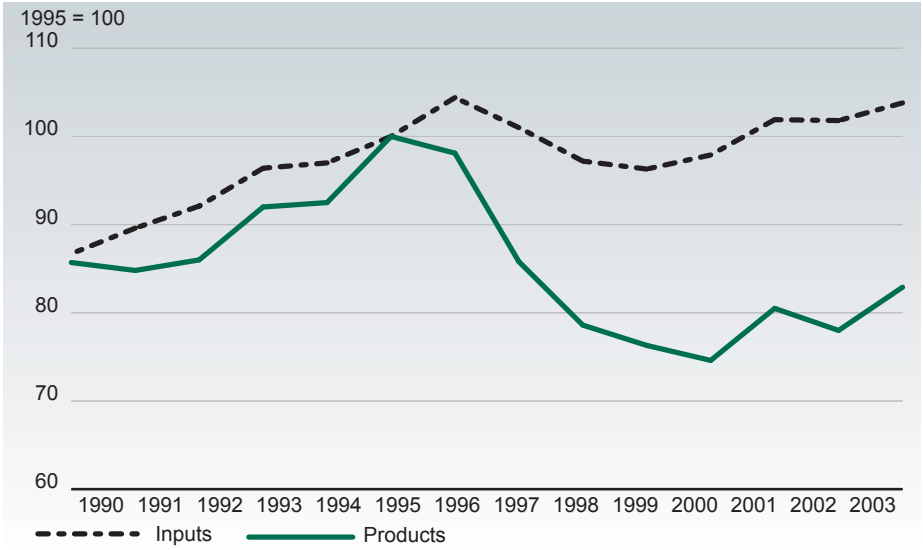
1 Table 5.1 shows price indices for agricultural products and inputs while chart 5.1 portrays the main changes in these indices over recent years. Between 2002 and 2003 the average price of agricultural products rose by 6.3 per cent whereas the average price of inputs rose by 2.0 per cent. Since 1995 product prices have fallen by 17 per cent with the largest falls being in the prices of root crops (52 per cent), cereals (37 per cent) and seeds (35 per cent). The average price of inputs is higher than in 1995, having risen by 2.2 per cent.

2 In 2003 the price of crop products rose by 5.1 per cent mainly due to increases of 14 per cent in the price of fresh fruit, 13 per cent in the price of fresh vegetables and 11 per cent in the price of cereals. The price of other crop products fell by 21 per cent due mainly to a fall in straw prices.

3 The price of livestock and livestock products rose by 6.5 per cent with a significant price increase of 22 per cent for eggs. Other prices in the sector also rose with a 7.6 per cent increase in the price of other livestock products, 6.1 per cent in the price of livestock (for slaughter and export) and 5.2 per cent in the price of milk.

4 It should be noted that these indices are constructed using fixed annual weights (relating to 1995). They reflect observed market prices and do not take account of direct subsidy payments. In contrast, the price changes presented in table 8.2, derived from the aggregate accounts, include subsidy payments and are based on current production. For these reasons the price movements presented here and in Chapter 8 may differ.

Chart 5.1 UK price indices for products and inputs



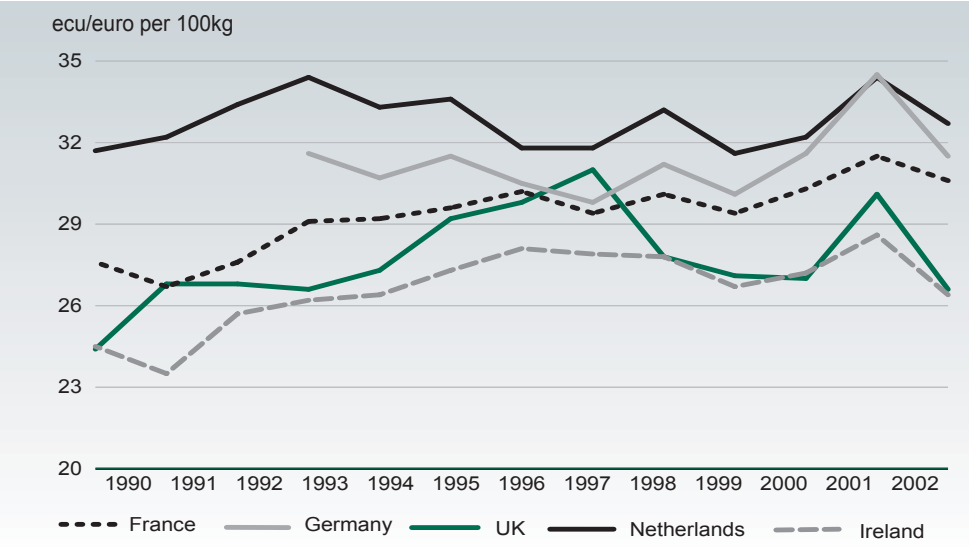
source: Defra website, http://statistics.defra.gov.uk/esg/

Market prices
(Table 5.2 and chart 5.2)

5 Table 5.2 shows absolute levels of markets prices for EU Member States as recorded by Eurostat for a range of agricultural commodities for 2002. An annex to this publication on the Defra website will show comparisons of UK and EU market prices for a range of commodities from 1990 to 2002.

6 UK market prices, when expressed in euros, are largely comparable with the rest of the EU mirroring the trends and absolute levels seen in other Member States which reflects the effectiveness of the single market for traded commodities. An exception is milk where UK prices first rose in the period to 1997 to a level above that seen in France and Germany and close to the milk price recorded in the Netherlands, before a relative decline to a level second lowest only to Ireland in 2002.

Chart 5.2 Milk prices for UK and selected Member States 1990 to 2002



Source: Eurostat

Farm rents
(Table 5.3)

7 Table 5.3 shows indices of average rents per hectare. The rents refer to the calendar year, whilst the surveys on which they are based are conducted in October. No survey was run for England and Wales in 2003 and estimates are based on previous years trends. Because of the duration of periods for rent settings, the values applying to the calendar year are deemed to be mainly (approximately 75 per cent) a carry over from those recorded in the preceding October. Therefore the derivation of the changes (noted below) are driven primarily by developments in 2002 and only to a lesser extent (approximately 25 per cent) by conditions in 2003.

8 For Great Britain as a whole provisional results for 2003 suggest a small increase in average rents of around 0.2 per cent. Average rents decreased in England by around 0.9 per cent while rents in Wales increased by around 9.2 per cent.

9 The data for England and Wales denote the average rent estimates for the full agricultural tenancies series, which were based on results of the former annual rent enquiry up to and including 1995 and thereafter on the annual survey of tenanted land. To ensure consistency with the earlier rent enquiry series, a weighted average of the rent enquiry and the full agricultural tenancy rents derived from the annual survey of tenanted land has been taken for 1995 to 1997 (with an increasing

incremental weighting on the annual survey of tenanted land). From 1998 the series is derived exclusively from the annual survey of tenanted land, although this survey was not run in 2003.

10 For Scotland, up to 1995, rent estimates were based on the results of continuing field enquiries. After its demise that year, they were based on the farm accounts survey, and from 1998 on a new survey of tenanted land.

11 In Northern Ireland virtually all land is let in "conacre", i.e. nominally short-term lettings (for 11 months or 364 days), although in practice some can be extended beyond this. The estimates are based on results from the Northern Ireland Farm Business Survey.

Agricultural land prices
(Table 5.4 and chart 5.3)

12 The average prices of all sales shown in table 5.4 are obtained from data on land transfers collected by the Valuation Office Agency in Great Britain and the Valuation and Lands Agency in Northern Ireland. Only a very small proportion of the total area of farmland in the UK is sold in any particular year. The average price of land sold can therefore be subject to considerable variation from year to year, and in the case of un-weighted averages shown here, may vary with size and type of lot sold in the year concerned. Chart 5.3 plots the average price in real terms of all sales of agricultural land from 1993-2002.

13 Recent data on land prices in Scotland should be treated with caution given the difficulties with collecting accurate statistics and the substantial time lags in gathering data.

14 The average price of agricultural land in Wales has increased by 35 per cent (27 per cent in real terms) over the period 1999 to 2002. This large increase has occurred mainly during the final year of the period following small, steady increases over the preceding two years. It should be noted however that a relatively small number of high (or low) value transactions can sometimes have a disproportionate effect on this average. The number of transactions in Wales fell markedly in 2001. As in other parts of the UK, this was largely attributable to the foot-and-mouth disease outbreak. This smaller number of transactions would have introduced greater volatility into the average price for this year.

15 In England provisional figures show that land prices were 5.2 per cent (6.7 per cent in real terms) lower in 2002. Looking at the data in greater detail shows the following: all grades of land saw a decrease in prices; grades 1 and 2 fell by 1.3 per cent; grade 3 fell by 2.9 per cent; grades 4 and 5 fell by 9.1 per cent; and un-graded land fell by 17.3 per cent. At a regional level, prices fluctuated with many areas seeing a decrease in land price values. Particularly interesting though, are the East of England and South East which saw noticeable increases (12 and 14 per cent respectively). Overall, the number of sales and area sold slightly increased on last year (1.5 per cent and 5.0 per cent respectively).

16 The number of land sales recorded each year in Northern Ireland has been declining markedly. Most sales involve relatively small areas and though variable, the long term trend in prices is upward.

Chart 5.3 UK prices of agricultural land (all sales) at 2002 prices

source: Defra website, http://statistics.defra.gov.uk/esg/

Table 5.1 UK price indices for products and inputs

Enquiries: Allan Howsam on +44 (0)1904 455253 email: allan.howsam@defra.gsi.gov.uk

Indices: 1995 = 100 (a) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Producer prices for agricultural products (b)	90.2	76.3	74.6	80.5	78.0	82.9
of which:						
Crop products:	86.7	75.5	70.8	79.4	74.7	78.5
Cereals	100.9	66.5	59.9	64.5	57.1	63.4
Root crops	54.0	57.9	44.1	55.7	45.2	47.7
Fresh vegetables	89.2	90.6	93.0	105.5	104.5	117.9
Fresh fruit	91.0	93.8	101.6	98.5	110.6	125.6
Seeds	85.6	67.2	56.5	64.6	63.4	65.4
Flowers and plants	95.5	107.4	103.6	107.6	109.0	111.2
Other crop products	89.9	82.5	86.9	106.0	104.5	83.1
Livestock and livestock products:	92.6	74.0	74.3	78.5	76.4	81.4
Livestock (for slaughter and export)	95.9	74.3	78.2	79.1	80.7	85.6
Milk	86.2	73.6	67.9	77.2	68.6	72.2
Eggs	101.9	74.1	76.0	80.8	84.7	103.3
Other livestock products	87.7	71.4	69.9	75.2	70.6	76.0

continued

Table 5.1 continued

Indices: 1995 = 100 (a) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Prices of agricultural inputs:	95.2	96.3	97.9	101.9	101.8	103.8
of which:						
Currently consumed in agriculture:	95.1	93.5	95.4	100.5	100.2	102.2
Livestock feedingstuffs	99.5	77.1	77.5	83.0	80.7	81.4
Seeds	89.7	83.2	76.3	82.4	80.2	82.6
Fertilisers and soil improvers	85.7	83.4	88.0	102.1	98.5	105.2
Plant protection products	97.9	96.4	89.9	87.7	86.2	86.0
Maintenance and repair of plant and machinery	94.6	116.6	120.9	126.2	132.5	140.5
Energy, lubricants	99.8	102.5	127.1	122.4	116.5	126.1
Maintenance and repair of buildings	90.8	102.9	104.9	107.0	110.0	113.5
Veterinary services	99.3	103.8	102.8	101.6	101.0	104.2
General expenses	93.3	109.4	112.4	118.7	120.0	112.4
Contributing to agricultural investment (c):	95.3	109.7	109.7	108.6	109.8	111.5
Machinery and other equipment	96.6	109.4	107.8	104.9	104.6	105.2
Buildings	91.9	110.8	115.1	118.9	124.5	129.3

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Indices covering an aggregation of commodities are weighted averages with weights based on the values of output of the respective commodities in 1995.

(b) These indices reflect prices received by producers but exclude direct subsidies.

(c) Covers the purchase and maintenance of capital items, but excludes stocks.

Table 5.2 EU farmgate prices for agricultural commodities 2002 (a)

Enquiries: Allan Howsam on +44 (0)1904 455253 email: allan.howsam@defra.gsi.gov.uk

Prices in euros per 100 kg (unless otherwise specified)

	Belg	Ger	Gre	Spain	Fra	Ire	Lux	Neth	Aust	Port	Fin	UK
Farmgate prices for agricultural products												
Soft wheat	9.9	10.1	15.2	13.0	10.7	9.6	12.6	9.8	9.8	11.7	13.2	11.1
Barley	8.8	8.7	14.1	11.8	9.5	9.4	7.7	9.2	8.8	11.1	10.6	9.3
Main crop potatoes	5.9	8.5	35.7	15.9	10.3	. .	23.8	8.7	8.6	11.5	16.1	12.4
Dessert apples, all varieties	29.0	41.2	67.4	36.2	. .	. .	. .	36.0	34.3	49.8	100.4	72.3
Heifers - live weight	120.8	. .	. .	. .	160.8	125.8	161.2	. .	117.0	. .	. .	148.8
Pigs (carcasses) (grade I)	133.3	135.0	. .	. .	129.6	. .	135.3	. .	113.0	141.5	142.0	135.9
Fattening lambs - live weight	. .	. .	304.1	273.6	. .	164.7	. .	196.6	198.9	203.4	. .	171.1
Raw cows' milk; actual fat content	29.0	31.5	34.0	28.6	30.6	26.4	33.6	32.7	31.5	33.7	36.2	26.6
Fresh eggs (whole) - per 100 items	2.9	6.6	10.8	6.4	4.2	5.5	. .	4.4	9.1	5.0	5.1	4.2

source: Eurostat

(a) No data are recorded for Denmark, Italy or Sweden.

Table 5.3 UK farm rents

Enquiries: Michael Rowland on +44 (0)1904 455557 email: michael.rowland@defra.gsi.gov.uk

Average per hectare: indices, 1995 = 100 Calendar years

		Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
England:	full agricultural tenancies (a)	96.2	112.7	112.4	109.5	105.8	104.3
	average (b)	. .	119.8	117.9	117.6	119.0	117.9
Wales:	full agricultural tenancies (a)	94.5	113.0	113.2	111.8	117.4	134.3
	average (b)	. .	126.1	129.1	138.3	156.4	170.8
Scotland (c)		80.6	123.5	128.5	127.9	127.6	127.6
Great Britain		94.3	120.6	119.5	120.0	122.7	123.0
Northern Ireland (d)		87.0	100.5	93.3	94.4	89.2	89.2

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Average rent estimates for full agricultural tenancies up to 1995 were sourced from the rent enquiry. For 1995 to 1997, a weighted average of rent enquiry and annual survey of tenanted land data was used. From 1998, estimates were sourced from the annual survey of tenanted land. This was not run in 2003 and this year's estimate is based on previous years trend.

(b) A new series for England and Wales has been introduced giving a weighted average rent in £ per hectare for all agreements over a year in length.

(c) Scottish estimates relate to crops and grassland only. From 1998 onwards crops and grass is replaced by a non less favoured area classification.

(d) In Northern Ireland, virtually all land is let in 'conacre', i.e. nominally short-term lettings (for 11 months or 364 days).

Table 5.4 UK agricultural land prices

Enquiries: Clare Burgon on +44 (0)1904 455326 email: clare.f.burgon@defra.gsi.gov.uk

£ per hectare of all sales (a) Calendar years

	Average of 1992-1994	1998	1999	2000	2001	2002
England (b)	3 865	6 134	6 670	7 048	7 385	6 999
Wales (b)	3 055	4 686	4 937	4 992	5 148	6 655
Scotland	1 527	2 654	3 158	4 103	2 894	3 984
Northern Ireland	4 260	8 746	8 267	9 634	9 961	9 455

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) These series, based on Inland Revenue data, exclude land sold for non-agricultural purposes. Also excluded are: sales of less than 5 hectares in England, Wales and Scotland; and sales of less than two hectares in Northern Ireland.

(b) From 1993, figures for England and Wales are not directly comparable with those estimated in previous years.

Chapter 6 Commodities

Summary

1 In 2003, the total value of production of all commodities at current prices (including subsidies directly related to products) was £16.5 billion; £963 million (6.2 per cent) higher than in 2002.

2 The value of production for:

- wheat increased by 6.2 per cent to £ 1.6 billion;
- barley increased by 17 per cent to £735 million;
- oilseed rape increased by 41.9 per cent to £423 million;
- sugar was unchanged at £283 million;
- fresh vegetables increased by 1.2 per cent to £962 million;
- plants and flowers increased by 3.2 per cent to £772 million;
- potatoes increased by 1.2 per cent to £483 million;
- fresh fruit increased by 16 per cent to £285 million;
- beef and veal was unchanged at £2.1 billion;
- pigmeat fell by 0.5 per cent to £678 million;
- mutton and lamb increased by 13 per cent to £1.0 billion;
- poultrymeat increased by 2.2 per cent to £1.3 billion;
- milk increased by 6.7 per cent to £2.6 billion;
- eggs increased by 16.4 per cent to £520 million.

3 The total value of inputs (or intermediate consumption) was £8.6 billion, of which:

- the total cost of purchased seeds increased by 3.6 per cent to £286 million;
- the cost of animal feeds increased by 1.7 per cent to £2.3 billion.

Structure of Tables in this Chapter

4 The order of the commodities in this chapter has been aligned with the order shown in the production and income account , table 8.1. Each of the main commodity tables is divided, where appropriate, into three sections.

Production

For crops the aggregate areas and average yields are shown and are used to derive the levels of production. For livestock the populations, marketings and average slaughter weights are shown and lead to estimates of production. The volume of production corresponds to the quantities of sales of products and differs from the

accounting concept of volume in chapter 8, which includes changes in work-in-progress and treats changes in quality as changes in volume.

Value of production figures are broken down into sales out of the industry, sales within the industry, changes in stocks or work-in-progress and subsidies (less tax) on production. The value of production in these tables is the same as the value of output in table 8.1.

Prices

Average producer prices and/or selected market prices are provided.

Supply and Use

Total new supply is defined as production plus imports less exports. Overseas Trade Statistics are provided by HM Customs and Excise. Data for imports and exports within the EU represent all present Member States in all years shown.

Total domestic use is the total new supply adjusted for changes in stocks. Where stocks are insignificant or not known the total domestic use is assumed to be the same as the total new supply.

Production as a percentage of total new supply for use in the UK gives an indication of the UK self-sufficiency in the commodity.

Cereals

Total cereals (Table 6.1)

5 The area of cereals planted fell by 5.7 per cent and the volume of production was down by 6.3 per cent in 2003. Drought and very hot weather conditions in central and southern Europe during the summer of 2003 adversely affected cereal crops in other European countries, resulting in a tight supply situation during the second half of the year. This led to high demand in Europe (particularly for feed grains) and strong prices. The total value of UK production increased by 10 per cent to £2.4 billion. Consequently there has been an increase in exports for all cereals, in particular for wheat. In December the EU Agriculture Council cut the compulsory set-aside rate for cereals from 10 per cent to 5 per cent for the 2004/2005 marketing year to offset the effects on the market of the severe drought in the summer.

Wheat (Table 6.2)

6 There was a decrease in the area of wheat planted due in part to wet weather conditions in some important growing regions in October and November and also some movement away from winter cereals to the planting of oilseed rape and spring sown crops. This, and a lower yield, meant that the volume of production was reduced by 11 per cent. However, due to the strong demand for the good quality UK crop against tight supplies in Europe, prices for the 2003 crop were strong. The annual average price of milling wheat increased by £14 per tonne and that of feed wheat by £13 per tonne, equivalent to a 20 and 21 per cent increase respectively.

7 The overall value of production of wheat increased by 6.2 per cent to £1.6 billion, mainly due to an increase in the value of sales which was up by 45 per cent on 2002

as a result of higher prices. Ex-farm gate prices of wheat have been increasing throughout 2003 and at the end of the year prices for milling and feed wheat were approximately £40 to £50 per tonne higher than at the same time in 2002. Exports increased significantly, with those to the EU double those seen in 2002. The amount of imports was reduced by 35 per cent. Overall total domestic use of wheat has increased slightly, by 1.1 per cent. This reflects the balance between a slight decline in use by millers against small increased use in animal feed. In the first half of the year use of wheat in the animal feed sector was up by approximately 10 per cent but fell steadily in the second half of the year. This was due to the reduced size of the pig herd population and also to the increased prices.

Barley (Table 6.3)

8 There was a 3.9 per cent increase in the volume of production of barley as a result of the higher yield for spring planted barley. The overall value of barley production increased by 17 per cent to £735 million. Strong demand enabled farmers to command higher prices. The annual average price of malting barley increased by £10 per tonne and feed barley by £12 per tonne, equivalent to 14 and 21 per cent increases respectively. The value of sales increased by 15 per cent and subsidies increased by 8.7 per cent.

9 Exports increased by 11 per cent compared to wheat and imports decreased by 35,000 tonnes or 43 per cent. Total domestic use fell by 4.3 per cent. This was most marked in the animal feed sector where a fall of 7.8 per cent was seen overall for the year. The overall reduction is a reflection of both the contraction in pig herd numbers and the availability of competitively priced wheat. However barley use increased steadily during the second half of 2003 due to the high price of wheat.

Oats (Table 6.4)

10 The value of production of oats rose by 17 per cent to £79 million. There was a small reduction in the area planted but the yield was up on 2002, leading to only a 0.5 per cent reduction in the volume of production. The price of milling oats increased by £5 per tonne or 8.6 per cent. There was no significant change in the price of feed oats. Total domestic use increased by 3.6 per cent and exports increased by 6.3 per cent.

Table 6.1 Total UK cereals

Enquiries: Alex Clothier on +44 (0)1904 455068 email: alex.clothier@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares)		3 188	3 141	3 348	3 014	3 245	3 059
Volume of harvested production		20 507	22 125	23 988	18 959	22 965	21 511
Value of production (£ million) (a)		2 654	2 326	2 337	2 023	2 182	2 394
Supply and use							
Production		20 507	22 125	23 988	18 959	22 965	21 511
Imports from:	the EU	2 636	1 677	1 890	2 147	2 234	1 912
	the rest of the world	482	926	914	839	776	556
Exports to:	the EU	3 221	3 040	3 634	1 812	2 453	3 972
	the rest of the world	1 933	1 360	1 995	613	277	669
Total new supply		18 472	20 329	21 163	19 520	23 245	19 338
Change in farm and other stocks		- 304	- 48	483	- 1 793	2 094	- 1 699
Total domestic uses		18 776	20 377	20 680	21 313	21 151	21 037
Production as % of total new supply for use in UK		111%	109%	113%	97%	99%	111%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes arable area payments, but excludes set-aside payments and farm saved seed. Taxes, where applicable, are deducted.

Table 6.2 UK wheat

Enquiries: Alex Clothier on +44 (0)1904 455068 email: alex.clothier@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares)		1 879	1 847	2 086	1 635	1 996	1 837
Yield (tonnes per hectare)		7.2	8.1	8.0	7.1	8.0	7.8
Volume of harvested production		13 434	14 867	16 704	11 580	15 973	14 288
Value of production (£ million) (a)		1 729	1 525	1 578	1 227	1 480	1 572
of which:	sales	1 459	1 061	995	1 010	836	1 213
	subsidies (b)	173	420	458	350	446	466
	on farm use	90	64	40	43	39	52
	change in stocks	7	- 20	84	- 176	158	- 159
Prices (average prices weighted by volumes of sales (£ per tonne))							
Milling wheat		128.2	81.4	73.8	81.8	71.0	85.0
Feed wheat		112.6	73.0	65.4	74.6	62.5	75.5
Supply and use							
Production		13 434	14 867	16 704	11 580	15 973	14 288
Imports from:	the EU	1 066	579	556	725	822	557
	the rest of the world	237	616	621	580	546	337
Exports to:	the EU	2 421	2 598	2 957	1 257	1 429	2 917
	the rest of the world	1 253	255	714	369	195	502
Total new supply		11 063	13 209	14 209	11 259	15 717	11 763
Change in farm and other stocks		- 69	26	1 081	- 2 126	2 584	- 1 516
Total domestic uses		11 132	13 183	13 128	13 385	13 133	13 279
of which:	flour milling	5 136	5 668	5 617	5 667	5 616	5 563
	animal feed	4 826	6 371	6 459	6 601	6 416	6 586
	seed	319	375	265	298	281	300
	other uses and waste	852	769	788	819	820	830
Production as % of total new supply for use in UK		121%	113%	118%	103%	102%	121%
% of home grown wheat in milling grist		78%	83%	82%	85%	85%	85%

UK wheat (Crop Years: July-June)

Thousand tonnes (unless otherwise specified) Crop years: July-June

		1998/99	1999/00	2000/01	2001/02	2002/03
Production and output						
Volume of harvested production		15 449	14 867	16 704	11 580	15 973
Value of production (£ million) (a)		1 631	1 468	1 558	1 208	1 531
of which:	sales	1 075	1 033	1 053	829	986
	subsidies (b)	466	420	458	350	446
	on farm use	80	47	36	44	39
	change in stocks	10	- 31	10	- 15	60

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excludes farm saved seed.

(b) Includes arable area payments but excludes set-aside payments and is net of taxes.

Table 6.3 UK barley

Enquiries: Alex Clothier on +44 (0)1904 455068 email: alex.clothier@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares)		1 191	1 179	1 128	1 245	1 101	1 078
Yield (tonnes per hectare)		5.4	5.6	5.8	5.4	5.6	5.9
Volume of harvested production		6 452	6 581	6 492	6 660	6 128	6 370
Value of production (£ million) (a)		849	735	686	724	628	735
of which:	sales	532	308	312	290	261	299
	subsidies (b)	111	259	244	259	246	267
	on farm use	233	148	137	152	143	165
	change in stocks	- 27	20	- 7	23	- 21	3
Prices (average prices weighted by volumes of sales (£ per tonne))							
Malting barley		124.0	79.0	75.5	76.9	72.4	82.6
Feed barley		109.2	69.9	64.8	67.5	58.2	70.5
Supply and use							
Production		6 452	6 581	6 492	6 660	6 128	6 370
Imports from:	the EU	204	107	50	79	51	40
	the rest of the world	12	22	20	21	31	7
Exports to:	the EU	739	399	550	439	870	890
	the rest of the world	680	1 105	1 281	244	81	166
Total new supply		5 250	5 206	4 731	6 077	5 259	5 361
Change in farm and other stocks		- 252	- 73	- 626	370	- 528	- 176
Total domestic uses		5 502	5 279	5 357	5 707	5 787	5 537
of which:	brewing/distilling	1 810	1 910	1 925	1 974	1 949	1 982
	animal feed	3 410	3 132	3 201	3 527	3 635	3 352
	seed	182	192	187	160	160	160
	other uses and waste	100	45	44	45	43	43
Production as % of total new supply for use in UK		123%	126%	137%	110%	117%	119%

UK barley (Crop Years: July-June)

Thousand tonnes (unless otherwise specified) Crop years: July-June

		1998/99	1999/00	2000/01	2001/02	2002/03
Production and output						
Volume of harvested production		6 623	6 581	6 492	6 660	6 128
Value of production (£ million) (a)		769	719	685	709	650
of which:	sales	339	323	297	292	254
	subsidies (b)	277	259	244	259	246
	on farm use	155	141	142	150	145
	change in stocks	- 1	- 4	1	7	5

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excludes farm saved seed

(b) Includes arable area payments but excludes set-aside payments and is net of taxes.

Table 6.4 UK oats

Enquiries: Alex Clothier on +44 (0)1904 455068 email: alex.clothier@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares)		100	92	109	112	126	122
Yield (tonnes per hectare)		5.2	5.9	5.9	5.5	6.0	6.2
Volume of harvested production		526	541	640	621	753	749
Value of production (£ million) (a)		70	58	65	65	67	79
of which:	sales:	39	24	27	29	28	33
	subsidies (b)	10	20	23	23	28	30
	on farm use	21	14	13	13	11	10
	change in stocks	1	- 1	3	-	-	6
Prices (average prices weighted by volumes of sales (£ per tonne))							
Milling oats		115.8	70.7	64.2	68.8	57.7	62.7
Feed oats		113.7	71.2	65.1	67.5	58.2	58.1
Supply and use							
Production		526	541	640	621	753	749
Imports from:	the EU	3	11	7	10	18	8
	the rest of the world	3	2	-	-	-	-
Exports to:	the EU	46	34	107	108	144	153
	the rest of the world	-	-	-	-	-	-
Total new supply		484	519	540	523	627	604
Change in farm and other stocks		17	- 1	28	- 37	38	- 7
Total domestic uses		467	520	512	560	589	611
of which:	milling	214	266	261	287	313	321
	animal feed	222	230	232	252	257	270
	seed	19	21	16	18	16	16
	other uses and waste	13	3	3	3	4	4
Production as % of total new supply for use in UK		110%	104%	119%	119%	120%	124%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excludes farm saved seed

(b) Includes arable area payments but excludes set-aside payments and is net of taxes.

Industrial crops

Oilseed rape (Table 6.5)

11 The value of production of oilseed rape increased significantly, by 42 per cent, to £423 million. The total area planted increased by 26 per cent. Despite a marginal fall in yields for both production on set-aside and not on set-aside land, the overall volume of harvested production increased by 21 per cent to 1.8 million tonnes, one of the highest volumes recorded.

12 The value of sales increased by 38 per cent as a result of strong prices throughout the year. Subsidy payments rose by 48 per cent due to the increased area and an increase in the subsidy rate in sterling from £238.94 per hectare in 2002 to £260.93 per hectare in 2003, before modulation. Due to the increase in domestic production and resulting surplus, overall exports rose by 93 per cent; most exports were to the EU, predominantly to Germany and France.

Linseed (Table 6.6)

13 Production of linseed fell consistently from 1999 to 2002 due primarily to changes in subsidies. In 2002, volume of production reached the lowest it has been for 14 years. In 2003 the value of production increased by 230 per cent to £19 million. The total area planted increased by 167 per cent to 34 thousand hectares. Together with a 21 per cent increase in yield, this has resulted in the overall volume of harvested production increasing by 223 per cent, to 59 thousand tonnes. Subsidy payments are valued at £8 million, an increase of 203 per cent. The reason for this year's turn-around in production is considered to be due to good price prospects and favourable planting conditions for this crop.

Sugar beet and sugar (Table 6.7)

14 The overall value of production of sugar beet for 2003 remained the same as for 2002 at £283 million. The area of contracted sugar beet decreased by 4.1 per cent. Despite a slightly higher yield there was a 2.7 per cent decrease in the overall volume of harvested production. The average sugar content is one of the highest observed, at 18.46 per cent, due to very favourable growing conditions. Sugar production from beet fell slightly by 2.1 per cent. Production as a percentage of total new supply for use in the UK was 77 per cent, one of the highest observed.

Table 6.5 UK oilseed rape

Enquiries: Melanie Riley on +44 (0)1904 455067 email: melanie.riley@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production						
Area (thousand hectares)	443	537	402	451	432	542
Yield (tonnes per hectare)	2.7	3.2	2.9	2.6	3.4	3.3
Volume of harvested production	1 180	1 733	1 157	1 157	1 468	1 771
of which:						
Production not on set-aside land:						
Area (thousand hectares)	401	417	332	404	357	460
Yield (tonnes per hectare) (a)	2.7	3.2	2.9	2.6	3.5	3.4
Production (a)	1 100	1 354	965	1 038	1 246	1 548
Production on set-aside land:						
Area (thousand hectares)	64	120	70	48	75	82
Yield (tonnes per hectare)	1.8	3.2	2.8	2.5	2.9	2.7
Production	121	379	192	119	221	223
Value of production (£ million) (b)	363	371	249	276	298	423
of which: sales	208	202	158	167	205	283
subsidies (c) (d)	160	175	110	104	81	119
change in stocks	- 5	- 6	- 19	4	12	21
Supply and use						
Production	1 180	1 733	1 157	1 157	1 468	1 771
Imports from: the EU	207	208	270	463	263	123
the rest of the world	68	115	18	142	64	-
Exports to: the EU	44	126	50	16	162	400
the rest of the world	37	149	-	-	45	-
Total new supply	1 374	1 781	1 396	1 746	1 587	1 493
Production as % of total new supply for use in UK	86%	97%	83%	66%	92%	119%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) These figures are on the basis of a standard (9%) moisture content.

(b) Value of production is calculated taking into account the price for oilseed rape produced not on set-aside with an average oil content of 43%.

(c) Includes arable area payments but excludes set-aside payments. Under the Arable Area Payments Scheme until 1999 payments were made to oilseed rape producers in two instalments: an advanced payment in the autumn of the year of harvest and the balance in the following spring. However for the purposes of these accounts all payments have been included under the year of harvest. From 2000, only one payment will be made, in the year of harvest.

(d) In 2000, an area of genetically modified contaminated crop was destroyed. The subsidies valuation includes both the subsidy payment for this area and the compensation payments made.

Table 6.6 UK linseed

Enquiries: Melanie Riley on +44 (0)1904 455067 email: melanie.riley@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production						
Area (thousand hectares)	126	213	74	31	13	34
Yield (tonnes per hectare)	1.3	1.4	0.6	1.2	1.4	1.7
Volume of harvested production	171	302	43	39	18	59
of which:						
Production not on set-aside land:						
Area (thousand hectares)	117	209	72	31	12	32
Yield (tonnes per hectare) (a)	1.3	1.4	0.6	1.2	1.3	1.7
Production (a)	161	297	40	38	16	56
Production on set-aside land:						
Area (thousand hectares)	14	3	2	-	1	2
Yield (tonnes per hectare)	1.1	1.6	1.3	1.3	2.9	1.5
Production	15	5	3	1	2	3
Value of production (£ million)	102	132	34	16	6	19
of which: sales	20	29	8	6	3	10
subsidies (b)	83	102	29	10	3	8
change in stocks	-	2	- 3	-	-	1
Supply and use						
Production	171	302	43	39	18	59
Imports from: the EU	2	2	4	1	1	1
the rest of the world	13	1	3	25	21	11
Exports to: the EU	47	100	63	44	8	16
the rest of the world	-	6	1	-	-	-
Total new supply	134	199	- 14	20	32	55
Production as % of total new supply for use in UK	124%	152%	-295%	189%	57%	107%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) These figures are based on a standard (9%) moisture content.

(b) Includes arable area payments but excludes set-aside payments.

Table 6.7 UK sugar beet and sugar

Enquiries: Melanie Riley on +44 (0)1904 455067 email: melanie.riley@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Sugar beet							
Area (thousand hectares)		196	183	173	177	169	162
Yield (adjusted tonnes per hectare)		48.4	58.0	52.5	47.0	56.5	57.3
Volume of harvested production		9 511	10 584	9 079	8 335	9 557	9 296
Value of production (£ million)		361	280	252	256	283	283
Sugar content %		16.93%	17.16%	17.10%	17.16%	17.38%	18.46%
Prices (average market price (£ per adjusted tonne)) (a)		38.0	26.4	27.8	30.8	29.6	30.4
Sugar (refined basis)							
Production (b)		1 391	1 548	1 325	1 222	1 430	1 400
Imports from:	the EU	119	117	143	120	118	123
	the rest of the world	1 188	1 137	1 101	1 118	1 105	983
Exports to:	the EU	76	83	90	94	100	96
	the rest of the world	361	534	608	535	355	591
Total new supply		2 261	2 185	1 871	1 832	2 197	1 818
Production as % of total new supply for use in UK		62%	71%	71%	67%	65%	77%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Average price for all sugar beet, including transport allowance and bonuses.

(b) Sugar coming out of the factory in the early part of the new year is regarded as being part of the previous calendar year's production.

Forage plants

15 The total value of output (or production) for forage plants as shown in the production and income account in table 8.1, increased by 11 per cent to £178 million in 2003. This includes: peas, beans and maize grown for stockfeed, farm transfer of peas and beans, hay and dried grass, grass for grazing livestock and non-agricultural horse grazing, and subsidies.

Peas and beans for stockfeed (Table 6.8)

16 The combined value of production for peas and beans for stockfeed increased by 8.7 per cent to £149 million in 2003. The area of dried peas grown for stockfeed fell by 11 per cent. Increased yields meant that the volume of production was up by 2.0 per cent. The area of field beans grown for stockfeed increased by 4.1 per cent in 2003, but a slight decrease in yields meant that the volume of production increased by 2.2 per cent.

Table 6.8 UK peas and beans for stockfeed

Enquiries: Joanne Gardiner on +44 (0)1904 455076 email: joanne.gardiner@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Peas for harvesting dry (a)						
Area (thousand hectares)	64	78	71	81	74	66
Yield (tonnes per hectare)	3.8	4.0	3.7	3.5	3.4	3.9
Volume of harvested production (a)	240	310	260	285	254	259
Value of production (£ million)	48	48	40	47	42	44
of which: sales	31	23	21	25	19	22
subsidies (b)	25	24	19	22	22	22
Field beans (mainly for stockfeed)						
Area (thousand hectares)	147	113	124	173	164	171
Yield (tonnes per hectare)	3.4	3.5	3.9	3.5	3.9	3.8
Volume of harvested production (a)	504	395	485	606	632	646
Value of production (£ million)	105	69	74	95	89	105
of which: sales	64	30	39	53	46	55
subsidies (b)	61	38	35	42	43	50

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) The figures presented here cover only that part of the crop which is assumed to be used for stockfeed (80% of total production); the remainder is included in UK fresh vegetables, Table 6.9.

(b) Includes Arable Area Payments but excludes set-aside payments.

Vegetables and horticultural products

Fresh vegetables (Table 6.9)

17 The area of field vegetables showed an increase of 2.6 per cent in 2003. The value of production of field vegetables increased by 3.0 per cent to £682 million. There was an increase of 4.9 per cent in the value of cauliflowers and 9.6 per cent in the value of cabbages although there was a decrease of 18 per cent in the value of carrots. All crops and markets were affected to varying degrees by the prolonged hot and dry summer. The yields of a number of crops were reduced by the very dry conditions during the summer and autumn.

18 A number of crops matured earlier than usual, for example there were gluts of cauliflowers and calabrese, though later in the season shortages occurred which led to price increases for some crops, in particular cauliflowers. The combination of lack of rainfall and disease led to a reduction in the yield of carrots. The value of mushrooms fell by 13.2 per cent to £119 million as oversupply in Europe, and competition, forced down prices.

19 The area of protected vegetables fell by 6.9 cent. The value of production decreased by 3.0 per cent to £281 million. The overall value of tomatoes fell by 0.7 per cent to £79 million. Demand for tomatoes was exceptional; speciality tomatoes continued to dominate the market and achieved high returns.

Plants and flowers (Table 6.10)

20 The overall area for plants and flowers decreased by 4.4 per cent in 2003 to 21 thousand hectares. The total value of production increased by 3.2 per cent to £772 million. The value of production of the relatively small flowers and bulbs sector rose by 2.5 per cent. Bulb prices remained low but sales were better than expected. High temperatures led to an oversupply in some areas with some flowers left unpicked. Large quantities of flowers continued to be imported.

21 The value of hardy ornamental nursery stock rose by 2.4 per cent. Spring sales of container nursery stock achieved an increase but slowed down during the hot dry summer. Demand for the amenity landscape market was steady but remained price sensitive.

22 The value for protected plants and flowers rose by 4.4 per cent. Increased volumes of protected cut flowers and pot plants continued to be marketed through the multiple retailers. Demand for pot plants was particularly strong in the spring but fell away in the hotter summer weather.

Table 6.9 UK fresh vegetables

Enquiries: Lesly Lawton on +44 (0)1904 455072 email: lesly.lawton@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares):		168	149	138	129	121	124
of which:	grown in the open (a) (b)	165	148	137	128	119	122
	protected (c)	2	2	2	2	2	1
Value of production (£ million):		950	962	886	1 021	951	962
of which:	grown in the open	632	643	570	714	662	682
	protected	318	318	316	307	289	281
of which:	subsidies (d)	10	6	5	5	4	4
Selected crops:	cabbages	65	55	49	62	57	63
	carrots	76	94	75	163	145	119
	cauliflowers	69	36	42	30	38	39
	lettuces	112	103	82	99	86	94
	mushrooms	151	170	150	150	137	119
	peas	54	57	59	55	55	52
	tomatoes	68	67	85	79	80	79
Prices (farm gate price (£ per tonne))							
Selected crops:	cauliflowers	221.9	211.3	270.0	276.9	324.8	325.3
	tomatoes	599.2	576.5	751.6	724.8	793.6	1 039.9
Supply and use (e)							
Total production		3 174	2 952	2 907	2 843	2 578	2 484
Supplies from the Channel Islands		23	16	15	14	12	12
Imports from:	the EU	708	1 085	1 091	1 301	1 358	1 359
	the rest of the world	209	163	159	186	209	208
Exports to:	the EU	70	89	97	97	105	99
	the rest of the world	8	3	2	6	7	8
Total new supply		3 733	4 124	4 072	4 241	4 044	3 956
Production as % of total new supply for use in the UK		79%	72%	71%	67%	64%	63%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes peas harvested dry for human consumption.

(b) Areas relate to field areas multiplied by the number of crops in the year and hence differ from those shown in table 3.2.

(c) Excludes mushrooms area.

(d) Arable Area Payments for peas harvested dry.

(e) Trade figures relate to fresh produce where distinguishable.

Table 6.10 UK plants and flowers (a)

Enquiries: Lisa Szydlowska +44 (0)1904 455070 email: lisa.szydlowska@defra.gsi.gov.uk

Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production						
Area (thousand hectares) (b):	19	20	20	19	22	21
Value of production (£ million)	566	717	679	687	749	772
of which: flowers and bulbs in the open (c)	53	34	32	33	32	33
hardy plants and flowers nursery stock	284	400	375	393	441	452
protected crops	232	283	273	262	276	288
Trade (£ million)						
Imports						
Bulbs	32	39	34	31	40	. .
Cut Flowers	187	323	330	355	413	. .
Foliage	14	18	16	20	21	. .
Indoor plants	64	84	86	87	112	. .
Outdoor plants	36	25	29	28	35	. .
Trees	6	25	31	30	34	. .
Other	13	20	22	22	25	. .
Total Imports (exc. Channel Islands)	352	534	548	572	680	. .
Exports						
Bulbs	7	7	7	7	6	. .
Cut Flowers	12	14	19	21	18	. .
Foliage	2	3	2	2	2	. .
Indoor plants	2	1	1	1	1	. .
Mycelium	3	5	3	2	5	. .
Outdoor plants	2	2	3	4	3	. .
Trees	3	1	1	1	1	. .
Other	2	2	2	1	3	. .
Total Exports	32	35	39	40	38	. .

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) More statistics for plants and flowers are available in the publication "Basic Horticultural Statistics", which can be found on the internet at: http://statistics.defra.gov.uk/esg/publications/bhs/default.asp

(b) Areas relate to field areas multiplied by the number of crops in the year and hence differ from those shown in table 3.2.

(c) Including forced flower bulbs.

Potatoes

Potatoes (Table 6.11)

23 The total area for all potatoes fell by 8.4 per cent in 2003. The area for earlies decreased by 5.2 per cent in 2003, however good yields led to an increase in production of 15 per cent to 271 thousand tonnes. The average price paid to registered producers for early potatoes increased by 19 per cent rising from £110 to £131. The area for maincrop potatoes fell by 8.7 per cent and the decrease in yield led to a decrease in production of 15 per cent to 5.6 million tonnes. However, average prices paid to registered producers for maincrop potatoes increased by 24 per cent to £94 per tonne. The overall value of production for maincrop and earlies increased by 1.2 per cent to £483 million.

Table 6.11 UK potatoes

Enquiries: Karen Stark on +44 (0)1904 455126 email: karen.p.stark@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Production						
Area (thousand hectares)	172	178	166	165	158	145
of which: early	16	14	12	14	14	14
maincrop	156	164	154	151	144	132
Yield (tonnes per hectare):						
early	24.5	23.3	22.6	12.4	16.4	20.0
maincrop	43.2	41.6	41.4	42.8	46.7	42.9
overall	41.5	40.1	40.0	40.2	44.0	40.7
Volume of harvested production	7 143	7 131	6 636	6 649	6 966	5 918
of which: early	393	322	276	172	235	271
maincrop	6 750	6 809	6 359	6 477	6 732	5 647
End year stocks	3 608	3 706	2 986	3 435	3 376	2 878
Value of production (£ million)	545	749	453	655	478	483
of which: sales	539	678	504	588	467	526
on farm seed use	16	29	8	17	15	6
change in stocks	- 11	43	- 60	50	- 5	- 48
Prices (average price paid to registered producers (£ per tonne)) (a)						
early potatoes	121.4	75.3	132.3	183.5	110.1	130.9
maincrop potatoes	88.0	119.2	80.7	106.7	75.5	93.8
all potatoes	88.5	119.1	83.3	111.3	80.9	97.3

continued

Table 6.11 continued

Thousand tonnes (unless otherwise specified) — Calendar years

	Average of 1992-94	1999	2000	2001	2002	2003 (provisional)
Supply and use						
Total production	7 143	7 131	6 636	6 649	6 966	5 918
Supplies from the Channel Islands	48	44	43	36	40	40
Imports	1 023	1 105	1 270	1 900	1 787	1 755
of which:						
early from:						
the EU	69	65	65	78	69	50
the rest of the world	130	128	81	95	95	87
maincrop from:						
the EU	109	69	166	488	150	130
the rest of the world	16	7	8	10	11	1
processed (raw equivalent) from:						
the EU	645	771	903	1 166	1 419	1 435
the rest of the world	24	46	17	25	15	19
seed from:						
the EU	29	19	29	38	28	34
the rest of the world	1	-	-	-	-	-
Exports	273	339	372	343	460	433
of which:						
raw to:						
the EU	96	156	153	119	175	168
the rest of the world	46	3	8	2	5	14
processed (raw equivalent) to:						
the EU	65	82	94	109	153	156
the rest of the world	9	21	35	27	22	20
seed to:						
the EU	31	31	34	56	46	44
the rest of the world	26	46	48	30	59	32
Total new supply	7 940	7 941	7 577	8 242	8 334	7 280
Change in stocks	- 60	358	- 720	449	- 59	- 498
Total domestic uses	8 000	7 584	8 297	7 793	8 393	7 778
of which: used for human consumption	6 303	6 210	6 675	6 606	6 881	6 464
seed for home crops (including seed imports)	511	446	454	422	416	371
support buying	476	-	-	-	-	-
chats, waste and retained stockfeed	868	928	1 168	766	1 095	942
Production as % of total new supply for use in the UK	90%	90%	88%	81%	84%	81%

UK potatoes (Crop Years: June-May)

Thousand tonnes (unless otherwise specified) — Crop years: June-May

	1998/99	1999/00	2000/01	2001/02	2002/03 (provisional)
Production					
Volume of harvested production	6 422	7 131	6 636	6 649	6 966
Value of production (£ million)	853	447	634	561	422
of which: sales	829	437	626	530	412
on farm seed use	16	23	9	19	8
change in stocks	8	- 12	- 2	12	2
Prices (average realised return (£ per tonne)) (a)	158.8	73.4	116.6	98.6	71.9

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Takes account of support buying, seed sales and sacks where appropriate.

Fresh fruit

Fresh fruit
(Table 6.12)

24 Orchard fruit area showed a slight fall of 0.8 per cent in 2003 while the value of production showed a sharp increase of 23 per cent to £104 million. The value of production for culinary apples increased by 30 per cent and that of dessert apples decreased by 1.4 per cent. The value of production of pears fell by 22 per cent. An increased demand was established for English Cox and Bramley apples through retailers and this, combined with lower yields, resulted in some higher prices. Conference produced a lower yield with poor quality fruit which reduced the overall value of the crop.

25 Soft fruit area increased by 1.5 per cent. The value of production rose by 13 per cent to £155 million. The value of production for raspberries rose by 17 per cent and strawberries by 8.3 per cent. The hot summer weather meant crops ripened faster which placed pressure on the harvest operation and led to increased wastage. Autumn raspberries produced heavier crops in the high temperatures.

Table 6.12 UK fresh fruit

Enquiries: Lesly Lawton on +44 (0)1904 455072 email: lesly.lawton@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Production							
Area (thousand hectares):		43	34	33	33	31	31
of which:	orchard fruit (a)	30	25	24	24	22	22
	soft fruit (b)	13	9	9	9	9	9
End year stocks (c)		121	73	79	82	62	64
Value of production (£ million) (d):		269	256	229	239	245	285
of which:	orchard fruit (e)	125	106	83	95	85	104
	soft fruit	141	138	134	127	137	155
of which:	sales	266	264	227	238	253	283
	change in stocks (c)	2	- 8	2	1	- 8	3
Selected crops:	dessert apples	57	59	36	37	32	32
	culinary apples	32	28	23	19	27	35
	pears	13	10	8	14	14	11
	raspberries	30	37	26	25	29	33
	strawberries	72	87	81	80	89	96
Prices (farm gate price (£ per tonne))							
Selected crops:	dessert apples	338.3	436.8	357.8	352.2	385.2	496.2
	culinary apples	201.7	248.9	215.3	175.7	285.7	585.5
	pears	428.4	426.4	283.3	352.1	402.9	364.8
Supply and use (f)							
Total production		470	345	304	330	290	244
Supplies from the Channel Islands		21	16	15	14	12	12
Imports from:	the EU	1 025	1 172	1 257	1 291	1 337	1 225
	the rest of the world	1 242	1 517	1 497	1 589	1 665	1 780
Exports to:	the EU	60	73	59	73	69	69
	the rest of the world	4	1	-	1	1	1
Total new supply		1 947	2 975	3 013	3 151	3 234	3 192
Change in stocks		4	- 20	6	2	- 19	2
Total domestic uses		1 943	2 995	3 007	3 149	3 253	3 190
Production as % of total new supply for use in the UK		17%	12%	10%	10%	9%	8%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes field area of commercial orchards only, and may therefore differ from the area in table 3.2, which also includes non-commercial orchards.

(b) Excludes area of wine grapes and may therefore differ from the area in table 3.2.

(c) Stocks relate to apples and pears.

(d) Includes glasshouse fruit.

(e) Excludes EU grubbing up grant.

(f) Trade figures relate to fresh produce where distinguishable.

Livestock

Gross indigenous production (Tables 6.13, 6.14 and 6.15)

26 Two measures of production are shown in these tables. Gross indigenous production is a measure of animal production commonly used in other EU states and is therefore useful for making international comparisons. It is measured as total slaughterings plus all live exports minus all live imports of breeding and non-breeding livestock. Home-fed production includes imports and exports of non-breeding animals only, i.e. it is measured as total slaughterings plus live exports (non-breeding) minus live imports (non-breeding).

Cattle and calves: beef and veal (Table 6.13)

27 The value of production of cattle and calves rose by 0.4 per cent in 2003 to £2.1 billion, due primarily to a 1.1 per cent increase in the value of home-fed production of beef and veal. Clean cattle prices have increased, as a result of steer availability declining when demand was strong, while the total value of all subsidy payments remained stable.

28 Clean cattle marketings remained stable in 2003, following the recovery seen in 2002 after the outbreak of foot-and-mouth disease. Home-fed production of beef and veal fell by 1.1 per cent to 687 thousand tonnes while the amount of beef available for domestic use remained stable at 983 thousand tonnes as a result of increased imports.

Pigs and pigmeat (Table 6.14)

29 The value of production of pigs fell by 0.5 per cent in 2003 to £678 million, half the peak value of £1.4 billion in 1996, due primarily to the value of home-fed production of pigmeat falling by 0.4 per cent to £686 million; its lowest value since the publication of Agriculture in the United Kingdom began in 1988.

30 Prices strengthened markedly in 2003, with UK prices peaking at a 6 year high in mid June. Despite the subsequent fall in these prices due to cheaper imports and the decline in demand for pork as a result of the hot weather, the average clean pig price for the 2003 year of 102.5 pence per kg deadweight was sufficient to insulate the value of this sector from lower productivity.

31 Marketings of clean pigs fell by 12 per cent, primarily due to the continued contraction of the breeding herd as a result of higher imports but also because of the disrupted breeding patterns and developing sow infertility problems coupled with a higher incidence of the pig wasting disease PMWS. Average carcase weights of clean pigs continued to increase, averaging 73.8 kg, about 4.7 kg a pig more than in 1999. Home-fed production of pigmeat fell by 11 per cent to 689 thousand tonnes. This decrease impacted more on the production of pork than it did on the production of bacon and ham.

32 Home-fed production of pork declined by 7.6 per cent to 577 thousand tonnes while the amount of pork available for domestic use fell by 5.6 per cent to 800 thousand tonnes, as the continued recovery in exports following the outbreak of foot-and-mouth disease in 2001 has been more than offset by the rise in imports. Exports, however, are still at their lowest level since 1990 (excepting 2001 and 2002) while imports are the highest ever recorded at 316 thousand tonnes.

33 In 2003, home-cured production of bacon remained stable at 200 thousand tonnes

and the amount available for domestic use fell by 0.4 per cent to 479 thousand tonnes. As a result, imports now contribute over 60 per cent of the domestic supplies of bacon and ham.

Sheep and lambs: mutton and lamb (Table 6.15)

34 The value of production of sheep and lambs rose by 12 per cent to £1.0 billion in 2003, owing to a 13 per cent increase in the value of home-fed production and a 6.1 per cent increase in subsidy payments.

35 A healthy demand for sheepmeat and a tightening of supply following the outbreak of foot-and-mouth disease in 2001 saw lamb prices remain above 2001 levels throughout both 2002 and 2003. The increase in subsidy payments in 2003 was largely the result of the strength of the euro against the pound.

36 Clean sheep marketings rose by 3.9 per cent in 2003, continuing the recovery following the outbreak of foot-and-mouth disease in 2001, but were still 19 per cent below 2000 reflecting a fall in the breeding flock. Sheepmeat production rose by 2.8 per cent, to 316 thousand tonnes but was still below that in 2000. The amount of sheepmeat available for domestic use rose by 0.4 per cent to 363 thousand tonnes. Exports were 17 per cent higher than in 2002 but were still less than 70 per cent of those in 2000.

Poultry and poultrymeat (Table 6.16)

37 Production of poultrymeat rose by 1.9 per cent in 2003 to 1.5 million tonnes with total slaughterings rising by 3.1 per cent. The value of production rose by £26 million (2.1 per cent) to £1.3 billion.

38 Average producer poultrymeat prices generally rose during 2003; turkey meat rose by 4.7 per cent to 119 pence per kilogram, duck meat rose by 0.5 per cent to 170 pence per kilogram with goose meat rising by 4.3 per cent to 413 pence per kilogram. However boiler meat fell by 2.6 per cent per kilogram to 10 pence per kilogram and broiler meat fell by 0.2 per cent to 68 pence per kilogram. Imports rose by 24 thousand tonnes (7.5 per cent) and exports rose by 29 thousand tonnes (20 per cent).

Table 6.13 UK cattle and calves: beef and veal

Enquiries: Steve Walton on +44 (0)1904 455090 email: steve.walton@defra.gsi.gov.uk

2003

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-1994 (a)	1999	2000	2001	2002	2003 (provisional)
Population						
Total cattle and calves (thousand head at June)	11 910	11 423	11 133	10 600	10 343	10 459
of which: dairy cows	2 689	2 440	2 336	2 251	2 227	2 200
beef cows	1 775	1 924	1 842	1 708	1 656	1 683
dairy heifers in-calf	557	549	532	502	470	442
beef heifers in-calf	225	214	186	199	257	235
other	6 664	6 296	6 238	5 940	5 732	5 899
Production (b) (c)						
Total home-fed marketings (thousand head)	3 622	2 296	2 421	2 145	2 289	2 283
of which: steers, heifers and young bulls	2 485	2 216	2 265	2 048	2 187	2 179
calves	470	75	152	92	98	100
cows and adult bulls	666	4	4	5	4	4
Average dressed carcase weight (kg) (d):						
steers, heifers and young bulls	293	305	309	313	315	316
calves	76	30	27	27	26	26
cows and adult bulls	286	274	249	254	243	248
Production (dressed carcase weight):						
home-fed production	936	679	705	645	694	687
gross indigenous production	929	676	701	638	687	682
Value of production (£ million)	2 280	2 047	1 994	1 787	2 080	2 088
of which: value of home-fed production	1 978	1 093	1 114	998	1 113	1 125
subsidies (e)	335	902	899	831	929	928
change in work-in-progress (f)	- 14	54	- 18	- 39	41	35
less imported livestock	21	2	2	2	3	1
plus breeding animals exported	2	. .	. .	. .	. .	. .
Prices						
Store cattle (£ per head) (g):						
Hereford/cross bull calves (h)	171.2	88.2	79.5	. .	84.9	113.5
Beef/cross yearling steers (i)	456.2	382.0	400.0	. .	403.9	456.2
Finished cattle (pence per kg liveweight): All clean cattle	119.8	92.1	89.8	87.5	91.4	94.2
Over Thirty Month, Selective Cull and Calf Processing Aid Schemes (j)						
Over Thirty Month Scheme:						
clean cattle throughput (thousand head)	. .	72	62	55	65	49
cull cattle throughput (thousand head)	. .	898	910	562	766	705
receipts (£ million)	. .	266	260	158	211	181
Selective Cull scheme:						
throughput (thousand head)	. .	-	-	-	-	-
receipts (£ million)	. .	-	-	-	-	-
Calf Processing Aid Scheme:						
throughput (thousand head)	. .	307	. .	. .	. .	. .
receipts (£ million)	. .	20	. .	. .	. .	. .

continued

Table 6.13 continued

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-1994 (a)	1999	2000	2001	2002	2003 (provisional)
Supply and use (dressed carcase weight) (k)							
Home-fed production (b)(c)		936	679	705	645	694	687
Imports from:	the EU (l) (m)	156	125	133	189	211	216
	the rest of the world	46	59	64	74	88	90
Exports to:	the EU (m)	178	10	9	8	10	10
	the rest of the world	45	-	-	-	-	-
Total new supply		914	852	893	900	983	983
Change in stocks		- 47	- 83	- 21	- 1	- 6	-
Total domestic uses		961	934	914	901	989	983
Home-fed production as % of total new supply for use in the UK		103%	80%	79%	72%	71%	70%
Closing stocks		174	61	40	39	33	33

source: Defra Statistics website, http://statistics.defra.gov.uk/esg/

(a) For comparability with other years, the figures for 1992 have been adjusted from a 53-week to a 52-week basis where appropriate.

(b) Measures of marketings, production and value exclude all cattle removed from the food chain by the Over Thirty Month Scheme, the Selective Cull and the Calf Processing Aid Scheme. Payments to producers for the Over Thirty Months Scheme and Calf Processing Aid Scheme are included as subsidies in the value of production. Payments under the Selective Cull are not included as the payments are for the replacement of capital assets.

(c) Cattle slaughtered during the outbreak of foot-and-mouth disease in 2001 and under the Livestock Welfare Disposal Scheme are also not included in marketings, production and value as these animals were removed from the food chain. Foot-and-mouth disease compensation payments are not included in the value of production as these have been treated as payments for the loss of capital assets.

(d) Average dressed carcase weight of animals fed and slaughtered in the UK.

(e) Comprising hill livestock compensatory allowances, suckler cow premium, beef special premium, deseasonalisation premium, extensification payments and slaughter premium. Includes payments made under the Over Thirty Month Scheme and the Calf Processing Aid Scheme.

(f) A valuation of the change in work in progress of animals to be slaughtered.

(g) Average prices at representative markets in England and Wales.

(h) Category changes: Prior to January 2002, 1st quality Hereford/cross bull calves. From January 2002, Hereford/cross bull calves.

(i) Category changes: Prior to January 2002, Hereford/cross, Charolais/cross, Limousin/cross, Simmental/cross, Belgian blue/cross, other continental/cross, other beef/dairy cross, other beef/beef cross. From January 2002, Hereford/cross, Continental/cross, others.

(j) Cattle slaughtered under these schemes are not included within the volume of production. Receipts for the Over Thirty Month Scheme and the Calf Processing Aid Scheme are included as subsidies. Selective Cull payments are not included in the production and income account.

(k) Does not include meat offals or trade in preserved or manufactured meat products. Boneless meat has been converted to bone-in weights.

(l) Includes meat from finished animals imported from the Irish Republic.

(m) Adjusted, as necessary, for unrecorded trade in live animals.

Table 6.14 UK pigs and pigmeat

Enquiries: Steve Walton on +44 (0)1904 455090 email: steve.walton@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-1994 (a)	1999	2000	2001	2002	2003 (provisional)
Population						
Total pigs (thousand head at June)	7 817	7 284	6 482	5 845	5 588	5 050
of which: sows in pig and other sows for breeding	691	603	537	527	483	444
gilts in pig	111	85	73	71	74	70
other	7 016	6 595	5 872	5 247	5 030	4 537
Production (b)						
Total home-fed marketings (thousand head)	15 072	14 690	12 381	10 567	10 282	9 051
of which: clean pigs	14 684	14 312	12 058	10 383	9 967	8 795
sows and boars	388	378	323	184	315	255
Average dressed carcase weight (kg) (c):						
clean pigs	66	69	71	72	73	74
sows and boars	141	145	148	156	156	160
Production (dressed carcase weight):						
home-fed production	1 029	1 042	899	777	774	690
gross indigenous production	1 028	1 043	900	777	774	689
Value of production (£ million)	1 076	785	794	749	681	678
of which: value of home-fed production	1 066	792	822	738	689	686
change in work-in-progress (d)	4	- 11	- 31	11	- 10	- 11
less imported livestock	. .	. .	. .	. .	. .	. .
plus breeding animals exported	6	4	4	-	2	3
Prices (pence per kg deadweight)						
Clean pigs	105.9	78.6	94.4	97.8	93.3	102.5
Supply and use of pork (dressed carcase weight) (e) (f)						
Home-fed production (b)	819	827	721	605	624	577
Imports from: the EU (g)	106	231	269	259	310	313
the rest of the world	1	3	5	2	6	3
Exports to: the EU (h)	133	201	175	35	79	85
the rest of the world	6	34	33	4	15	9
Total new supply	786	827	787	828	846	798
Change in stocks	-	- 3	- 7	4	- 2	- 2
Total domestic uses	786	831	794	824	847	800
Home-fed production as % of total new supply for use in the UK	104%	100%	92%	73%	74%	72%
Closing stocks	11	15	8	12	10	8
Supply and use of bacon and ham (product weight) (e)						
Home-cured production (b)	214	237	214	203	200	200
Imports from: the EU	232	230	268	281	292	292
the rest of the world	-	-	-	-	-	-
Exports to: the EU	4	6	9	7	10	12
the rest of the world	1	-	1	-	1	-
Total new supply	441	462	473	477	481	479
Change in stocks	- 2	2	- 1	1	- 2	3
Total domestic uses	442	460	474	476	482	476
Home-cured production as % of total new supply for use in the UK	48%	51%	45%	43%	42%	42%
Closing stocks	2	5	4	5	3	6

source: Defra website, http://statistics.defra.gov.uk/esg/

continued

Table 6.14 continued

(a) For comparability with other years, the figures for 1992 have been adjusted from a 53-week year to a 52-week year where appropriate.

(b) Pigs slaughtered during outbreaks of foot-and-mouth disease and classical swine fever, and under welfare disposal schemes are not included in marketings, production and value as these animals were removed from the food chain. Foot-and-mouth disease compensation payments are not included in the value of production as these have been treated as payments for the loss of capital assets.

(c) Average dressed carcase weight of animals fed and slaughtered in the UK.

(d) A valuation of the change in work in progress of animals to be slaughtered.

(e) Does not include meat offals or trade in preserved or manufactured meat products.

(f) Boneless meat has been converted to bone-in weights.

(g) Includes meat from finished animals imported from the Irish Republic.

(h) Adjusted, as necessary, for unrecorded trade in live animals.

Table 6.15 UK sheep and lambs: mutton and lamb

Enquiries: Steve Walton on +44 (0)1904 455090 email: steve.walton@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-1994 (a)	1999	2000	2001	2002	2003 (provisional)
Population						
Total sheep and lambs (thousand head at June)	44 263	44 656	42 261	36 716	35 834	35 729
of which: breeding flock	20 825	21 458	20 447	17 921	17 630	17 511
lambs under 1 year old	22 253	22 092	20 855	17 769	17 310	17 337
others	1 185	1 106	959	1 026	894	881
Production (b)						
Total home-fed marketings (thousand head)	21 241	20 801	19 642	13 322	15 342	15 839
of which: clean sheep and lambs	18 889	18 499	17 151	11 550	13 417	13 939
ewes and rams	2 352	2 302	2 491	1 772	1 925	1 899
Average dressed carcase weight (kg) (c):						
clean sheep and lambs	18	18	18	19	19	19
ewes and rams	28	28	28	28	29	28
Production (thousand tonnes, dcw):						
home-fed production	399	392	383	267	307	316
gross indigenous production	399	392	383	267	307	316
Value of production (£ million)	1 197	984	954	622	897	1 007
of which: value of home-fed production	712	595	638	442	623	703
subsidies (d)	489	410	337	184	284	301
change in work in progress (e)	1	- 15	- 15	- 2	- 10	3
less imported livestock	6	5	7	1	-	-
plus breeding animals exported	-	-	-	-	-	-
Prices						
Store sheep (£ per head) (f):						
Lambs, hoggets and tegs	37.8	28.6	34.5	. .	. .	37.7
Finished sheep (pence per kg estimated dcw) (g):						
Great Britain	212.7	180.3	196.4	. .	233.4	260.1
Northern Ireland	197.9	165.7	182.7	. .	222.8	233.1

continued

Table 6.15 continued

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-1994 (a)	1999	2000	2001	2002	2003 (provisional)
Supply and use (dressed carcase weight) (h)							
Home-fed production (b)		399	392	383	267	307	316
Imports from:	the EU (i)	10	17	17	15	14	15
	the rest of the world	116	121	117	98	109	115
Exports to:	the EU (j)	163	142	124	38	69	81
	the rest of the world	3	1	1	-	1	1
Total new supply		359	386	392	342	361	364
Change in stocks		- 3	- 1	- 5	- 1	- 1	2
Total domestic uses		362	387	397	342	361	363
Home-fed production as % of total new supply for use in the UK		111%	102%	98%	78%	85%	87%
Closing stocks		13	14	9	8	8	10

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) For comparability with other years, the figures for 1992 have been adjusted from a 53-week year to a 52-week year where appropriate.

(b) Sheep slaughtered during the outbreak of foot-and-mouth disease in 2001 and under the Livestock Welfare Disposal Scheme are not included in marketings, production and value as these animals were removed from the food chain. Foot-and-mouth disease compensation payments are not included in the value of production as these have been treated as payments for the loss of capital assets.

(c) Average dressed carcase weight of animals fed and slaughtered in the UK.

(d) Comprising variable premium, hill livestock compensatory allowances, sheep annual premium and 'light lambs' welfare disposal scheme.

(e) A valuation of the change in work in progress of animals to be slaughtered.

(f) Average prices at representative markets in England and Wales, excluding prices at autumn hill sheep sales. Category changes: Prior to January 2002, 1st quality lambs, hoggets and tegs. From January 2002, lambs, hoggets and tegs.

(g) Unweighted average of weekly prices at representative markets as reported to the European Commission.

(h) Does not include meat offals or trade in preserved or manufactured meat products. Boneless meat has been converted to bone-in weights.

(i) Includes meat from finished animals imported from the Irish Republic.

(j) Adjusted, as necessary, for unrecorded trade in live animals.

Table 6.16 UK poultry and poultrymeat

Enquiries: Michael Chatten on +44 (0)1904 455098 email: michael.j.chatten@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1993-95 (a)	2000	2001	2002	2003	2004 (provisional)
Population						
Number (thousand head at June) (b):	119 334	153 506	157 138	166 881	156 290	167 097
of which: chickens and other table fowls	76 462	101 625	105 689	112 531	105 137	116 774
birds in the laying flock (c)	32 998	29 258	28 687	29 895	28 778	29 274
fowls for breeding	7 407	9 401	10 667	12 083	11 307	10 990
turkeys, ducks and geese (d)	2 467	13 221	12 095	12 373	11 069	10 060
Production						
Slaughterings (millions) (e):	726	863	843	866	850	877
of which: fowls	678	816	798	819	807	836
turkeys	35	29	27	26	23	21
ducks & geese	13	19	19	22	20	20
Production (carcase weight) (f):	1 283	1 548	1 514	1 567	1 537	1 566
of which: chickens and other table fowls	951	1 184	1 164	1 213	1 202	1 242
boiling fowls (culled hens)	49	53	51	49	50	50
turkeys	253	267	255	253	238	229
ducks & geese	31	44	43	50	46	46
Value of production (£ million):	1 253	1 275	1 303	1 343	1 248	1 274
of which: fowls	837	860	828	859	829	854
change in work in progress in fowls	12	- 38	2	15	- 22	- 4
turkeys, ducks, geese	359	397	409	400	359	352
exports of live poultry	38	50	60	62	70	64
hatching eggs for export	14	15	13	17	24	20
less live poultry imported	5	5	5	5	5	5
less hatching eggs imported	3	4	5	5	7	7
Prices (average producer price (pence per kg carcase weight)):						
chickens and other table fowls	85.8	72.1	70.7	70.4	68.5	68.4
boiling fowls (culled hens)	41.1	10.2	10.6	9.6	9.9	9.6
turkeys	124.7	118.8	129.9	123.6	113.5	118.8
ducks	129.9	173.5	169.8	164.7	169.2	170.0
geese	176.7	308.0	318.0	270.5	396.2	413.3
Supply and use of poultrymeat (carcase weight) (f)						
Production	1 283	1 548	1 514	1 566	1 537	1 566
Imports from: the EU	188	318	321	302	328	332
the rest of the world	1	31	34	44	39	59
Exports to: the EU	71	110	116	140	151	148
the rest of the world	23	76	58	46	63	95
Total new supply	1 378	1 711	1 695	1 726	1 689	1 714
Change in stocks	- 4	- 9	- 13	8	- 9	-
Total domestic uses	1 383	1 720	1 708	1 717	1 699	1 714
Production as % of total new supply for use in the UK	93%	91%	89%	91%	91%	91%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) For comparability with other years, the figures for 1992 have been adjusted from a 53-week year to a 52-week year where appropriate.

(b) Improvements to the Census methodology were introduced in 1997 onwards to account for poultry production unregistered units. Consequently the figures from 1997 onwards are not directly comparable with those for earlier years.

(c) Hens and pullets kept mainly for producing eggs for eating.

(d) Data prior to 1996 does not include figures for turkeys.

(e) Slaughtering figures include registered and un-registered slaughterhouses.

(f) Excludes offal.

Livestock products

Milk and milk products (Tables 6.17 and 6.18)

39 The value of production of milk produced for human consumption increased by 6.7 per cent, to £2.6 billion. This was primarily due to a £162 million increase in the value of milk sold for processing by dairy companies, which in turn arose mainly from an increase of 0.9 pence per litre in the average milk price received by farmers in 2003.

40 There was a £4 million increase in the value of milk processed on farm (such as milk and cheese) produced for sale direct to consumers arising from increased producer prices for these items. No superlevy charge for the third year in a row arose as milk production in the 2002/03 quota year again did not exceed quota.

41 High winter milk production followed by plentiful grass growth produced a very large spring flush of milk similar to 2002. Farm gate prices declined by 1.2 pence per litre in the first six months of 2003, compared with a drop of 3.4 pence per litre in the same period in 2002. The strengthening of the euro, strong demand for butter and skimmed milk powder outside the UK, and the agreements by supermarkets to raise prices for liquid milk, helped farmgate prices to move ahead from July, and the average price for the year increased by 5.4 per cent to 18 pence per litre.

42 Butter prices on European markets were stable in early 2003. The trend in the second half of 2003 was upwards with market prices above the support level. Intervention stocks have increased and only 6 thousand tonnes have been sold out of intervention at 65 per cent of intervention price for food manufacture. On the 28 August, export refunds for butter and butteroil were cut by 3.8 per cent as a result of increased world market prices. EU intervention stocks of butter reached 420 thousand tonnes in November 2003 (220 thousand tonnes in public stock) including about 14 thousand tonnes intervened in the UK.

43 World prices for skimmed milk powder at the beginning of 2003 were just below US support prices. Intervention for skimmed milk powder opened on 1 March 2003, and closed at the end of August 2003 as the maximum intake of 109 thousand tonnes had been reached. On the 28 August, export refunds were cut for skimmed milk powder by 5.00 per cent and for whole milk powder by 4.30 per cent as a result of increased world market prices. The EU also started to sell skimmed milk powder out of intervention. Only 1,500 tonnes of skimmed milk powder has been sold out of intervention. World whole milk powder prices dipped in early 2003, but started to move upwards in the second half of the year. Late in 2003, the world market for skimmed milk powder and whole milk powder improved and prices rose, with EU exports to Asia higher than normal due to the Australian drought.

Hen eggs (Table 6.19)

44 Overall value of production of eggs for human consumption increased by £73 million (16.4 per cent) to £520 million. The total quantity of egg production for human consumption rose by 21.1 million dozen (2.5 per cent) to 879 million dozen. Within this, processed eggs rose by 3.9 per cent whilst eggs sold in shell, which accounted for 83.6 per cent of the eggs sold for human consumption in 2003, rose by 2.2 per cent. The average egg price rose by 14 per cent to 59.1 pence per dozen.

Table 6.17 UK milk

Enquiries: Colin Beattie on +44 (0)1904 455095 email: colin.j.beattie@defra.gsi.gov.uk

Million litres (unless otherwise specified) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Population and yield						
Dairy herd (annual average, thousand head) (a)	2 729	2 445	2 354	2 251	2 224	2 209
Average yield per dairy cow (litres per annum)	5 265	5 964	5 978	6 347	6 495	6 620
Production						
Milk from the dairy herd (b)	14 367	14 580	14 071	14 284	14 442	14 621
Milk from the beef herd (b)	7	7	7	7	7	7
less on farm waste and milk fed to stock	276	285	277	283	269	258
Volume for human consumption	14 098	14 303	13 801	14 008	14 179	14 370
Value of production (£ million)	3 141	2 653	2 393	2 822	2 466	2 632
of which: raw milk leaving farm (c)	3 061	2 586	2 300	2 658	2 392	2 553
raw milk processed on farm (d)	104	76	86	85	75	79
agrimonetary compensation	. .	. .	22	79	. .	. .
less levies (e)	24	9	15	-	-	-
Prices (average price received by milk producers, net of delivery charges (pence per litre)) (f)						
Farmgate price of milk excluding bonus payments	. .	18.3	16.9	19.1	17.0	18.0
Farmgate price of milk including bonus payments	. .	18.3	16.9	19.3	17.1	18.0
Supply and use (g)						
Production	14 374	14 587	14 078	14 291	14 449	14 628
Imports	. .	111	105	64	72	120
Exports	95	465	445	414	421	445
Total new supply	14 279	14 233	13 738	13 941	14 100	14 303
of which:						
for liquid consumption	6 783	6 853	6 768	6 761	6 756	6 662
for manufacture	7 118	6 988	6 550	6 714	6 939	7 230
of which: butter (h)	278	290	270	259	279	297
cheese	3 304	3 297	3 032	3 568	3 449	3 416
cream (h)	264	271	266	259	260	263
condensed milk (i)	738	603	522	536	491	386
milk powder - full cream	528	853	932	781	825	880
milk powder - skimmed	1 403	1 123	889	663	973	1 367
other	605	549	640	649	663	621
dairy wastage and stock change	. .	56	91	132	98	119
other uses (j)	. .	338	329	334	307	291

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Dairy herd is defined as cows and heifers in milk plus cows in calf but not in milk, kept mainly for producing milk or rearing calves for the dairy herd.

(b) Excludes suckled milk.

(c) Value of raw milk sold to other businesses for processing.

(d) Value of milk and milk products processed on farm and sold direct to the consumer.

(e) Comprising milk co-responsibility levy from 1977 to 1993 and milk superlevy.

(f) No deduction is made for superlevy. In the current year, estimated bonuses for April to December have been included.

(g) Aggregated data from surveys run by Defra, SEERAD and DARDNI, on the utilisation of milk by dairies.

(h) Includes the utilisation of the residual fat of low fat liquid milk production.

(i) Includes condensed milk used in the production of chocolate crumb and in the production of machine skimmed milk.

(j) Includes farmhouse consumption, milk fed to stock and on farm waste. Excludes suckled milk.

Table 6.18 UK milk products

This data shows UK production and supplies of milk products manufactured by both dairy companies and on farm. The data is quoted in thousand tonnes and is not directly comparable with the data shown in table 6.17 which is quoted in million litres.

Enquiries: Colin Beattie on +44 (0)1904 455095 email: colin.j.beattie@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Butter (a) (b)							
Production (c)		139	141	132	126	136	145
Imports from:	the EU	62	67	80	76	97	119
	the rest of the world	58	47	38	39	19	-
Exports to:	the EU (d)	44	50	39	36	35	35
	the rest of the world	8	6	6	5	4	12
Total new supply (d)		207	199	204	201	213	217
Change in stocks (e)		- 15	11	- 5	1	1	- 6
Total domestic uses (d) (e)		222	187	209	199	212	222
Production as % of total new supply for use in the UK		67%	71%	64%	63%	64%	67%
Closing stocks (e)		39	22	17	18	19	14
Cheese							
Production (c)		337	368	340	395	380	366
Imports from:	the EU	193	236	225	246	253	285
	the rest of the world	18	41	30	29	32	29
Exports to:	the EU	32	49	48	57	60	62
	the rest of the world	23	13	10	11	23	20
Total new supply		493	584	536	601	583	598
Change in stocks		1	1	-	5	- 3	2
Total domestic uses		493	583	536	596	585	596
Production as % of total new supply for use in the UK		68%	63%	63%	66%	65%	61%
Closing stocks (f)		25	10	10	15	12	8
Cream - fresh, frozen, sterilized							
Production (b) (c)		256	275	270	263	264	267
Imports from:	the EU	3	8	10	18	15	12
	the rest of the world	-	-	-	-	-	-
Exports to:	the EU	63	95	81	84	91	96
	the rest of the world	2	1	1	1	-	1
Total new supply		194	188	198	197	188	182
Change in stocks		. .	. .	. .	. .	. .	. .
Total domestic uses		194	188	198	197	188	182
Production as % of total new supply for use in the UK		132%	146%	137%	134%	140%	147%
Closing stocks		. .	. .	. .	. .	. .	. .

continued

Table 6.18 continued

Thousand tonnes (unless otherwise specified) Calendar years

		Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Condensed milk (g)							
Production		198	177	162	161	146	127
Imports from:	the EU	12	14	15	14	12	18
	the rest of the world	-	-	-	-	-	-
Exports to:	the EU	8	38	28	20	28	17
	the rest of the world	46	13	3	2	2	1
Total new supply		156	139	145	153	128	127
Change in stocks		2	1	- 1	3	- 2	-
Total domestic uses		156	138	146	150	130	128
Production as % of total new supply for use in the UK		127%	127%	111%	105%	114%	100%
Closing stocks		11	8	7	10	8	8
Milk powder - full cream							
Production		79	102	105	87	105	103
Imports from:	the EU	6	10	11	8	9	11
	the rest of the world	-	-	-	-	-	-
Exports to:	the EU	27	28	28	29	43	29
	the rest of the world	42	64	74	57	60	75
Total new supply		17	20	14	9	12	10
Change in stocks		- 1	1	- 1	3	- 1	- 2
Total domestic uses		17	19	15	6	13	12
Closing stocks		2	4	3	6	5	4
Skimmed milk powder							
Production		127	102	83	71	87	115
Imports from:	the EU	17	14	13	23	17	33
	the rest of the world	-	-	-	-	-	-
Exports to:	the EU (d)	41	30	77	26	20	25
	the rest of the world	12	30	35	4	9	23
Total new supply (d)		90	57	- 16	63	75	100
Change in stocks		1	- 11	- 66	7	16	25
Total domestic uses (d)		90	68	50	56	59	75
Production as % of total new supply for use in the UK		140%	180%	- 527%	111%	115%	115%
Closing stocks		15	71	5	12	28	53

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes butterfat and oil, dehydrated butter and ghee.

(b) Includes production from the residual fat of low fat milk products.

(c) Includes farmhouse manufacture.

(d) Includes the use for animal feed.

(e) In addition to stocks in public coldstores surveyed by Defra, closing stocks include all intervention stocks in private coldstores. Total domestic uses does not equate exactly with consumption since changes in unrecorded stocks are not included in the calculation.

(f) Cheese stocks held in public coldstores. Public coldstores make their storage space available to the public or to the Rural Payments Agency, formerly the Intervention Board. The ownership of the store, whether public or private, is irrelevant.

(g) Includes condensed milk used in the production of chocolate crumb and in the production of sweetened and unsweetened machine skimmed milk.

Table 6.19 UK hen eggs

Enquiries: Michael Chatten on +44 (0)1904 455098 email: michael.j.chatten@defra.gsi.gov.uk

Million dozen (unless otherwise specified) Calendar years

	Average of 1993-95	2000	2001	2002	2003	2004 (provisional)
Population and yield						
Number of fowls laying eggs for eating (millions) (a)	35	31	31	33	36	36
Average yield per layer (number of eggs per bird per year)	273	291	290	290	290	290
Production						
Volume of production of eggs	887	850	855	917	972	992
of which: eggs for human consumption	795	743	747	806	858	879
eggs for hatching (b)	80	93	95	96	95	97
hatching eggs for export (c)	3	5	5	6	10	7
waste	9	8	9	9	9	9
Value of production of eggs for human consumption (£ million) (d)	410	342	367	406	446	520
Prices (pence per dozen)						
Average price	51.6	46.0	49.2	50.3	52.0	59.1
UK graded egg price weighted average (e)	40.3	34.1	36.7	37.6	39.5	46.3
Supply and use						
UK production of eggs for human consumption	795	743	747	806	858	879
of which: eggs sold in shell	696	605	610	671	719	735
eggs processed	99	139	136	136	139	144
Imports from (f): the EU	51	68	91	113	130	142
the rest of the world	1	2	3	4	11	8
Exports to (f): the EU	16	15	15	8	15	14
the rest of the world	1	3	3	3	3	1
Total new supply	830	795	822	912	982	1 015
Production of eggs for human consumption as % of total new supply for use in the UK	96%	93%	91%	88%	87%	87%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Population is implied from gross production and average yield and hence differs from the census figures in table 3.2.

(b) Eggs for hatching are not valued as they are included in the final value for poultry (table 6.16).

(c) Hatching eggs for exports are valued in table 6.16.

(d) Excludes value of eggs for hatching.

(e) Represents the UK packer to producer price excluding bonus. Takes account of all egg systems - laying cages, free range and barn.

(f) Includes shell egg equivalent of whole (dried, frozen and liquid) egg, egg yolk and albumen.

Purchased seeds and animal feed

Purchased seeds (Table 6.20)

45 The total volume of purchased seeds fell very slightly, by 0.3 per cent in 2003. However, the total value of production rose by 3.6 per cent to £286 million. This increase in value of purchased seeds is mainly due to good cereal prices during the last year coupled with high cereal seed volumes sold. Potato seed production and value decreased in 2003, by 57 per cent and 62 per cent respectively.

Animal feed (Table 6.21)

46 The total cost of all purchased animal feed went up slightly by £38 million or 1.7 per cent to £2.2 billion in 2003. Compound feed volumes were slightly reduced overall due mainly to a decline in pig and poultry compound production reflecting the shrinking UK pig herd. This was offset by an increase in straight feed sectors - straight concentrates increased by 7.1 per cent. Inter/intra farm transfer decreased by 1.2 per cent. Overall the total volume of purchased feed was up 1.9 per cent in 2003.

Table 6.20 UK purchased seeds

Enquiries: Melanie Riley on +44 (0)1904 455067 email: melanie.riley@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Cereals (a)	440	401	340	350	308	353
Grass and clover	12	11	11	11	11	11
Root and fodder crops	48	43	45	60	55	54
Potatoes (b)	501	454	466	447	439	376
Vegetable and other horticultural seeds (c)	115	141	137	149	162	178
Total purchased seeds	1 116	1 050	998	1 016	975	972
Total value of all purchased seeds (£ million)	313	327	263	291	276	286

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Restricted to the purchase of certified seed only.

(b) Includes farm-saved seed.

(c) Includes bulbs and seeds for hardy nursery stock, flowers, sugar beet and oilseed rape.

Table 6.21 UK animal feed

Including direct inter-farm and intra-farm transfer

Enquiries: Joanne Gardiner on +44 (0)1904 455076 email: joanne.gardiner@defra.gsi.gov.uk

Thousand tonnes (unless otherwise specified) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Compounds:						
cattle	4 141	4 176	3 948	4 230	4 124	4 352
calves	268	187	184	180	177	194
pigs	2 475	2 469	2 112	1 970	1 802	1 566
poultry (a)	3 117	3 181	3 059	3 243	3 456	3 323
other	639	874	729	704	627	678
Total (b)	10 683	10 750	9 888	10 180	10 077	10 054
Straight concentrates (c)	6 320	6 019	6 825	7 056	6 385	6 840
Non-concentrates (d)	551	526	525	525	525	525
Inter/intra farm transfer	3 033	3 151	2 850	2 996	3 173	3 135
Total all purchased animal feed	20 588	20 459	20 088	20 757	20 160	20 553
Value of purchased animal feed (£ million) (e)	2 891	2 261	2 140	2 367	2 224	2 262

source: Defra website, www.defra.gov.uk/esg/

(a) Includes poultry feed produced by 'retail' compounders, but excludes production from integrated poultry units which are included within the straight concentrates data.

(b) Including imports, less exports

(c) i.e cereals, cereal offals, proteins and other high energy feeds.

(d) Low-energy bulk feeds expressed as concentrate equivalent. Brewers and distillers grains, hay, milk by-products and other low-energy bulk feeds expressed in terms of equivalent tonnage of high energy feeds.

(e) See Table 8.1 for a breakdown of this total.

Chapter 7 Organic Farming

Organic farming

1 Organic farming requires farmers to operate to a system based on ecological principles and which imposes strict limitations on the inputs that can be used in order to minimise damage to the environment and wildlife.

2 Since 1993 when EC Council Regulation 2092/91 became effective, organic food production has been strictly regulated. Regulation 2092/91 prescribes the baseline standards that have to be observed by farmers who want to sell their produce as organic. In order to use the designation "organic" on their produce farmers must not only follow the standards laid down by Council Regulation 2092/91 but must also submit themselves to the inspection and control system laid down by the regulation, which in the UK is implemented by the organic inspection bodies approved by Defra.

3 Organic farmers are required to be registered with one of these bodies and to farm to an agreed plan. To ensure compliance with the standards and the management plan, the inspection body with which a farmer is registered carries out an inspection at least annually. The holding itself is inspected as well as the detailed records of, for example, inputs and outputs, crop treatments, livestock movements and livestock health. Regulation 2092/91 also applies to processing, processing aids and ingredients in organic foods. All food sold as organic must originate from growers, processors and importers who are registered with an approved body and subject to regular inspection.

4 Until 17 July 2003, the UK Register of Organic Food Standards (UKROFS) administered the regulation (as amended) in the UK. UKROFS was established in 1987 to provide baseline organic standards and to approve and monitor the work of organic certification bodies. UKROFS standards are the minimum standards which apply in the UK and are based on the EC regulation.

5 UKROFS was succeeded by the Advisory Committee of Organic Standards (ACOS). ACOS will provide UK Government departments advice on key areas relating to UK organic production.

6 Further information on organic production can be found on the Defra website at http://www.defra.gov.uk/farm/organic/.

Statistics on organic farming

7 In partnership with the various organic sector bodies in the UK, Defra collected and published data on the organic sector during 2003. Data currently available are for the area of fully organic land and land in conversion to organic, and the number of producers and processors/importers registered with the Organic Sector Bodies.

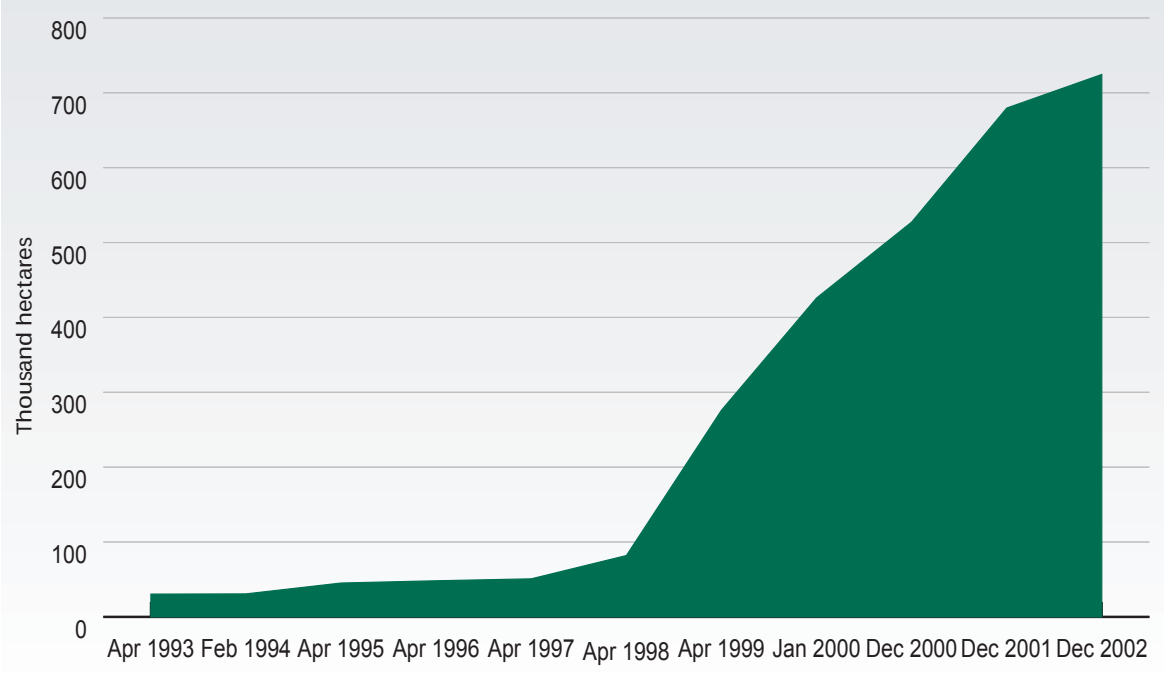
8 Work continues with the Organic Sector Bodies to further develop the data collected and published. If you have any comments on the statistics or on future requirements, please contact Michael Rowland by email at the following address: michael.rowland@defra.gsi.gov.uk.

Organic and in-conversion land
(Table 7.1 and chart 7.1)

9 The total area of organic land and in-conversion land in the UK as at March 2003 was 741 thousand hectares. Of this figure, 204 thousand hectares (28 per cent) was in-conversion and 537 thousand hectares (72 per cent) was fully organic. 34 per cent of the total organic and in-conversion land was in England, 7.4 per cent in Wales, 58 per cent in Scotland and 0.8 per cent in Northern Ireland. This represents just over 4 per cent of the total agricultural area (excluding common grazing) in the UK, although almost 8 per cent of land in Scotland is organic or in-conversion.

10 The late 1990s saw a very notable increase in the area of organic land and land in conversion to organic farming for a variety of reasons. Significant factors operating during this period were: farmers seeking alternatives to conventional farming in response to falling farm incomes; the EU extending the scope of organic farming to include livestock production in July 1999; and payment rates under the Organic Farming Scheme, which replaced the Organic Aid Scheme in 1999, being substantially increased.

Chart 7.1 UK organic and in-conversion land area 1993 to 2002



Source: UKROFS

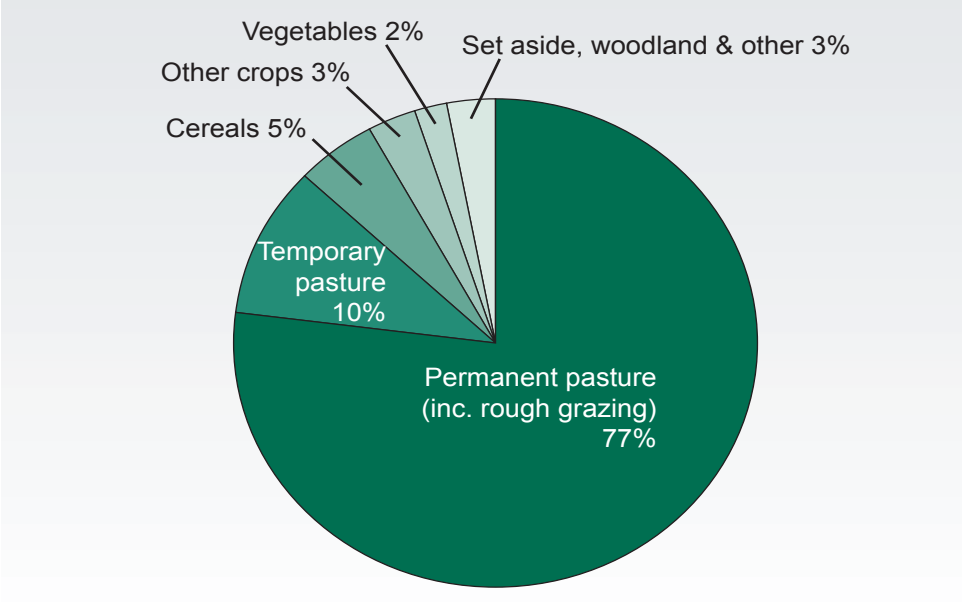
Organic and in-conversion land use in the UK
(Table 7.2 and chart 7.2)

11 Of the organic and in-conversion land, 77 per cent was used for permanent pasture and a further 10 per cent was used for temporary pasture. For conventional land use, 67 per cent of land is used as temporary or permanent pasture. Roughly 5.8 per cent of all land used for pasture is organic or in-conversion.

12 Cereals, other crops, fruit, vegetables, herbs and nuts, accounted for 9.5 per cent of fully organic land. Of land used for conventional farming, 25 per cent of land is used for these purposes. Roughly 1.1 per cent of all land used for cereals was organic or in conversion and the corresponding figure for fruit and vegetables was about 2.0 per cent.

13 Woodland, field margins, non cropping areas, environmental schemes, other uses and where the use was unknown, accounted for 2.0 per cent of fully organic land.

Chart 7.2 UK organic and in-conversion land use at March 2003



source: Defra website, http://statistics.defra.gov.uk/esg/

Organic producers, growers, processors and inporters - regional breakdown (Table 7.3)

14 64 per cent of organic producers and growers were based in England, 15 per cent in Wales, 18 per cent in Scotland and 3.4 per cent in Northern Ireland. 39 per cent of the English producers and growers are based in the South West and 2.8 per cent in the North East.

15 84 per cent of organic processors and importers were based in England, 5.6 per cent in Wales, 8.3 per cent in Scotland and 1.8 per cent in Northern Ireland. 26 per cent of the English processors and importers are based in the South East and 2.2 per cent in the North East.

Table 7.1 UK organic and in-conversion land at March 2003

Enquiries: John Gorner on +44 (0)1904 455093 email: john.gorner@defra.gsi.gov.uk

Thousand hectares (unless otherwise specified)

	In-conversion	Organic	Total	Total agricultural area (a) (b)	% of total area
North East	15.3	12.4	27.7	581.9	4.8%
North West	7.7	15.1	22.8	884.0	2.6%
Yorkshire and Humberside	2.3	7.0	9.2	1 093.2	0.8%
East Midlands	2.9	12.0	14.9	1 219.9	1.2%
West Midlands	6.0	23.4	29.4	928.0	3.2%
Eastern	4.1	7.8	11.9	1 471.1	0.8%
South West	18.0	78.1	96.1	1 765.7	5.4%
South East (inc. London)	11.5	28.3	39.8	1 155.3	3.4%
England	67.8	184.0	251.8	9 099.1	2.8%
Wales	13.7	41.4	55.1	1 452.2	3.8%
Scotland	121.3	307.3	428.6	5 535.6	7.7%
Northern Ireland	1.5	4.1	5.6	1 067.3	0.5%
UK	204.3	536.9	741.2	17 154.1	4.3%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Excludes common grazing land

(b) At June 2002

Table 7.2 UK organic and in-conversion land use at March 2003

Enquiries: John Gorner on +44 (0)1904 455093 email: john.gorner@defra.gsi.gov.uk

Thousand hectares (unless otherwise specified)

	In-conversion	Organic	Total	Total agricultural area (a) (b)	% of total area
Cereals	11.2	25.7	36.9	3 366.3	1.1%
Other Crops	6.5	14.1	20.6	1 009.4	2.0%
Fruit	-	1.5	1.9	34.8	5.4%
Vegetables	3.0	9.7	12.7	282.4	4.5%
Herbs & Nuts	-	-	-	. .	. .
Temporary pasture	18.1	58.9	76.9	1 230.1	6.3%
Set aside	3.5	3.4	6.9	. .	. .
Permanent pasture (a)	159.1	413.9	573.0	9 906.0	5.8%
Ornamentals	-	-	-	. .	-
Woodland	1.1	5.6	6.7	519.8	1.3%
Field margins	-	-	-	. .	. .
Non cropping	-	1.4	1.6	. .	. .
Environmental schemes	-	-	0.5	. .	. .
Other	-	-	-	. .	. .
Unknown	0.8	2.4	3.2	. .	. .
Total	204.3	536.9	741.2	17 154.1	4.3%

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes rough grazing

(b) At June 2002

Table 7.3 UK organic producers, growers, processors and importers - regional breakdown at March 2003

Enquiries: John Gorner on +44 (0)1904 455093 email: john.gorner@defra.gsi.gov.uk

Number of businesses

	Producers and growers	Processors and / or importers (a)	Total
North East	73	34	107
North West	171	122	293
Yorkshire and Humberside	136	118	254
East Midlands	220	175	395
West Midlands	330	138	468
Eastern	248	224	472
South West	1 026	333	1 359
South East (inc. London)	418	393	811
England	2 622	1 537	4 159
Wales	618	103	721
Scotland	725	152	877
Northern Ireland	139	33	172
UK	4 104	1 825	5 929

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Processers and importers include abattoirs, bakers, storers and wholesalers. The recorded location depends on the address registered with the Sector Bodies and so larger businesses may be recorded at their headquarters.

Chapter 8 Accounts

Total Income from Farming

1 Total Income from Farming in the UK in 2003 is estimated to have risen by 32 per cent (28 per cent in real terms) compared with its 2002 level. In real terms, Total Income from Farming is now at a level more in line with levels of the late eighties; it is 77 per cent above the low point in 2000 and 50 per cent below the peak in 1995. Total Income from Farming is income generated by production within the agriculture industry, including subsidies. It represents business profits plus remuneration for work done by owners and other unpaid workers.

2 Total Income from Farming is sensitive to small percentage changes in the values of outputs and inputs. This sensitivity, the provisional nature of the figures for the latest year and revisions made to previously published figures for earlier years, as methodology or data sources improve, all need to be borne in mind when using the figures.

Production and income account (Tables 8.1 and 8.2, charts 8.1 and 8.2)

3 The production and income account provides details of the industry's outputs, inputs and generation of income. It conforms to internationally agreed accounting principles required by both UK national accounts and by Eurostat.

4 Table 8.1 shows the full production and income account at current prices with chart 8.1 showing how the main aggregates in the account are related. Table 8.2 shows the value, price and volume changes between 2002 and 2003. Changes in value are shown in Chart 8.2.

5 These tables show estimates of:

(a) output at basic prices by product and total output at market prices after deducting subsidies;

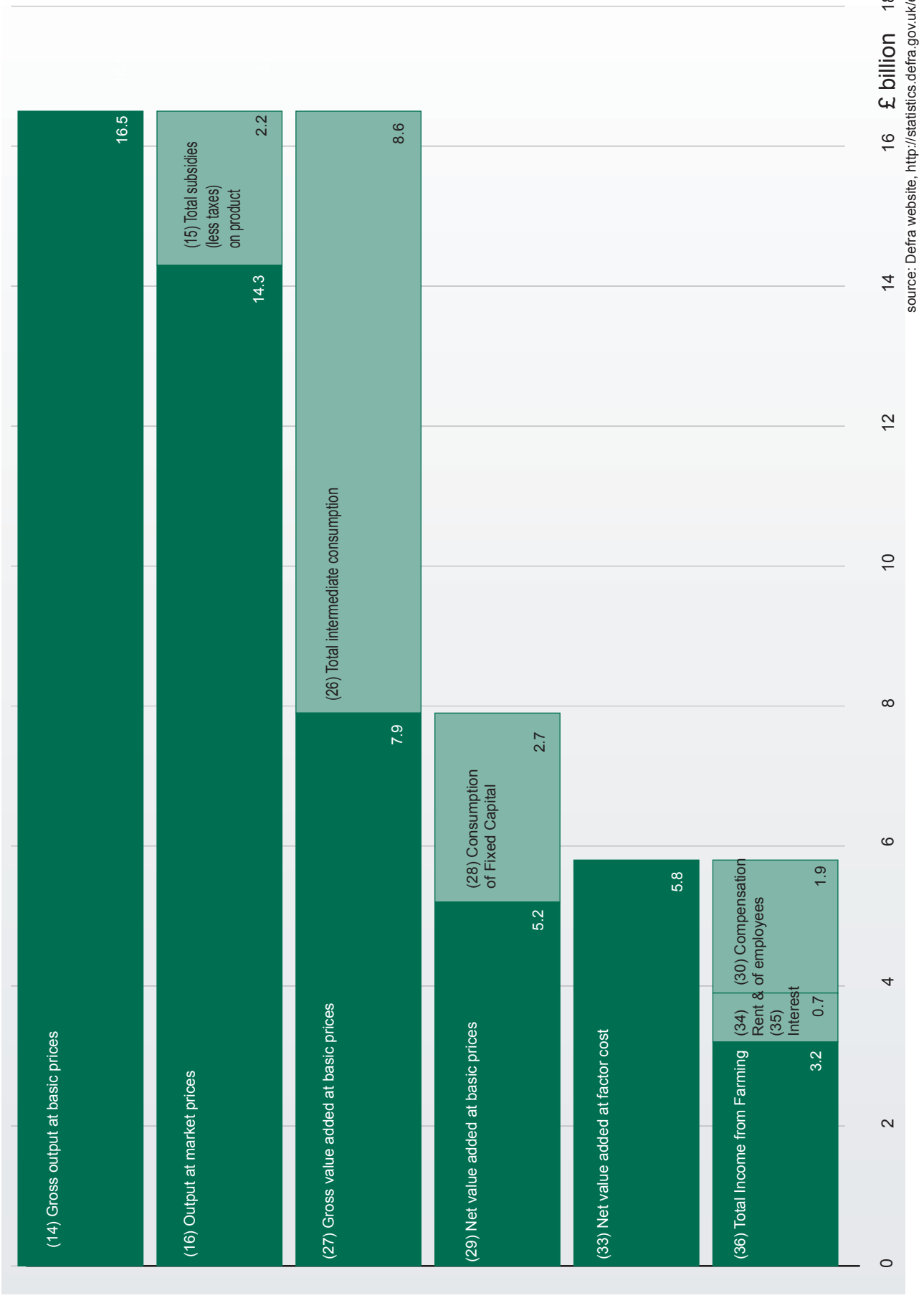
(b) transactions that take place wholly within the agricultural industry;

(c) inputs - intermediate consumption, consumption of fixed capital (i.e. the reduction in value of capital assets due to depreciation), compensation of employees, rent and interest payments.

6 The value of output (including subsidies directly related to products) was higher, up by 6.2 per cent or £963 million in 2003. The volume fell by 1.7 per cent with decreases for cereals, vegetables, plants and flowers, potatoes, fruit and livestock; and increases for industrial crops, forage plants, milk and eggs. Prices received were 8.0 per cent higher, with notable increases for wheat, barley, oilseed rape, potatoes, fruit and pigs.

7 The value of output of cereals rose by £211 million or 9.7 per cent. Because of the strong demand for good quality UK wheat resulting from the poor harvest elsewhere in Europe, and a rise in prices of 18 per cent, the value of production of wheat increased by £92 million or 6.2 per cent, despite a decrease in volume of 10 per cent.

Chart 8.1 Main components of the UK production and income account in 2003 (£ billion)



source: Defra website, http://statistics.defra.gov.uk/esg/

8 The value of livestock production increased by £247 million or 4.3 per cent. Sheep showed a significant change compared with 2002. The value of output of sheep rose by £110 million or 12 per cent helped by a 7.9 per cent increase in subsidy payments. Volume and price also increased, by 4.3 and 7.6 per cent respectively.

9 Total subsidies less taxes on product in 2003 amounted to £2.2 billion, 5.2 per cent more than in 2002. Full details of subsidies can be found in Chapter 10.

10 Intermediate consumption rose by £177 million or 2.1 per cent with expenditure on many items increasing due to price rises. Fertilisers were especially affected; prices increased by 9.5 per cent and expenditure was up 5.7 per cent to £800 million.

11 Gross value added for the industry, which represents its contribution to national GDP, increased in value by 11 per cent, as the increase in output exceeded the increase in intermediate consumption.

12 Net value added at factor cost is the best measure of value added by the industry because it includes all subsidies (some are not included in output, e.g. set-aside and agri-environment). It makes no allowance for interest, rent or labour costs. It increased by 15 per cent.

13 Total Income from Farming is derived by deducting interest, rent and paid labour costs from net value added at factor cost. Labour costs fell by 1.7 per cent as the paid labour force fell by 7.3 per cent. Total Income from Farming increased by 32 per cent to £3.2 billion.

Balance sheet (Table 8.3)

14 The aggregate balance sheets for UK agriculture, Table 8.3, show the net worth of the industry in terms of assets and liabilities at the end of each calendar year.

15 At current prices, assets, liabilities and net worth increased marginally in 2002 compared with 2001. However, in real terms all showed a decrease.

Percentage change	Current prices		Real terms	
	2001/2000	2002/2001	2001/2000	2002/2001
Total assets	3.1	0.3	2.4	-2.6
Total liabilities	-4.9	0.6	-5.6	-2.4
Net worth	3.9	0.3	3.2	-2.6

Current prices are net of depreciation but exclude the value of quotas.
Real terms at 1995 prices.

16 The value of land and buildings, which forms the major proportion of the value of assets was unchanged compared with 2001. The greatest increase in the value of assets was for trading livestock (37 per cent). The value of crops and stores declined while other assets changed little.

17 Total liabilities fell by 0.6 per cent, with long and medium-term liabilities falling by 0.4 per cent and short-term ones increasing by 1.5 per cent. Bank loans are the largest item within long and medium-term liabilities; they decreased by 0.7 per cent. Bank overdrafts (short-term loans) increased by 0.5 per cent.

18 Since 1996 the value of net worth in real terms has remained relatively stable as have total assets. Liabilities have continued to fall in real terms since 1999 and are at their lowest level since 1980.

19 Values of land and buildings are not directly comparable with data prior to 1993. From 1993, for England and Wales, some transactions influenced by non-market considerations have been excluded. The new price series may not necessarily represent purely competitive conditions. However, in general it tends to be higher than the old series. In addition, land and buildings are now valued using the average price of land sold. As a result of both these changes, land and buildings (and consequently total assets) tend to have a higher valuation than previously. Due to the provisional nature of the published land price series, a weighted average of the land price in quarter 3 and quarter 4 of the balance sheet year is used to value land and buildings.

Accumulation accounts (Tables 8.4 and 8.5)

20 Tables 8.4 and 8.5 form part of the accumulation accounts for the agriculture industry. The accumulation accounts consist of the capital account, the other changes in the volume of assets account, the revaluation account and the financial account. Table 8.4 contains elements of the capital account and the other changes in the volume of assets account. Table 8.5 shows elements of the revaluation account and changes in net worth due to changes in prices. The net worth shown in the balance sheets incorporates changes due to all of the accumulation accounts.

21 The Capital Account within table 8.4, shows estimates of changes in the assets held by the UK agricultural sector.

22 The revised estimate of total gross fixed capital formation in non-livestock assets for 2002 is £1.5 billion; a 3.2 per cent increase. The provisional estimate of total gross fixed capital formation in buildings, works, plant, machinery and vehicles in 2003 is £1.5 billion. This is an increase of 1.3 per cent over 2002. Gross fixed capital formation in non-livestock assets is now slightly above the levels of the early-nineties but still below the levels of the mid-nineties. Consumption of fixed non-livestock assets decreased slightly, by 2.3 per cent between 2002 and 2003.

23 Capital formation and capital consumption in livestock measure the output value due to the production of breeding animals and the depreciation of breeding animals (mainly dairy cows, beef cows, ewes, sows and egg laying poultry). In 2003 the value of capital formation in livestock increased by £103 million mainly due to increases in prices for breeding animals. Consumption of fixed capital in livestock (approximated by assuming that all depreciation takes place at the time animals leave the breeding herds) increased by £164 million. Net capital formation in livestock is estimated to be positive in 2003.

24 Changes in inventories contribute to income. Stocks of crops were lower because of reduced production of cereals. Stocks of work-in-progress animals were also lower with reductions in sheep and cattle for breeding and slaughter pigs only partly offset by an increase in slaughter cattle.

The revaluation account (Table 8.5)

25 Table 8.5 shows estimates of revaluation in the industry. Revaluation (holding gains) measures the change in value between the time of production and the end of the accounting period due to changes in price. It is not included in the production and income account of the aggregate agricultural account and thus does not contribute to income.

26 Total revaluation in 2003 increased to £791 million. The value of livestock increased to £195 million. The value of crops held in stock rose to £594 million.

Interest (Table 8.6)

27 Table 8.6 shows details of interest charges payable on farmers' borrowings for agricultural purposes (including land purchases). These payments, net of interest on short-term deposits, are estimated to have remained at a similar level to the previous year at £474 million. The average interest rate in 2003 was lower than in the previous year but was offset by the effects of an increase in farmers' borrowings.

Volume of capital assets (Table 8.7)

28 Table 8.7 shows volume indices for the formation and consumption of fixed capital assets (see also table 8.4). The total volume of gross fixed capital formation in 2003 remained similar to the previous year whilst its value rose by 5.7 per cent. The total volume of consumption of fixed capital remained similar to the previous year but its value increased by 4.6 per cent due to increases in cattle and sheep prices.

29 Within capital formation, plant and machinery are estimated to have experienced the largest increase in volume (up 3.9 per cent) and the volume of vehicles is also estimated to have increased by 2.1 per cent. The increase in value for plant and machinery was slightly lower than the increase in volume reflecting lower prices in 2003.

30 There was a 15 per cent increase in the value of capital formation in livestock due to an increase in the price of breeding and dairy cattle and breeding sheep. The volume of capital formation in livestock decreased by 4.1 per cent in 2003.

31 Between 1994 and 2000, the volume of capital formation in all non-livestock assets decreased every year. In the last three years however, the volume of capital formation in all non-livestock assets has slightly increased but it remains below the levels of the early 1990s.

32 Consumption of fixed capital continued its downward trend but fell only slightly in 2003. Consumption of fixed capital in non-livestock assets has been declining since 1997. Consumption of fixed capital in livestock is inherently more volatile and rose by 3.5 per cent in the current year.

Definition of terms

33 To aid the user with the terms used in tables 8.1 and 8.2, please refer to the following list.

Term	Table 8.1 reference number	Definition
Agricultural Industry		All activities taking place within businesses that carry out any agricultural activities. These businesses include all farms and specialist agricultural contractors.
Capital formation in livestock	9	Production of animals that will be used as the means of production, e.g. breeding animals.
Other agricultural activities	12	Agricultural activities that do not result in sales of final product, e.g. quota leasing, contract work.
Inseparable non-agricultural activities	13	Non-agricultural activities which are included within the business level accounts and are inseparable, e.g. some cases of bed and breakfast and recreation facilities.
Gross output at basic prices	14	Output including directly paid subsidies that are closely correlated with production of a specific product. The output of the agricultural industry includes some non-agricultural activities and transactions within the industry.
Basic prices		Market price plus directly paid subsidies that are closely correlated with production of a specific product.
Subsidies (less taxes) on product	15	Subsidies and taxes on products are shown in detail in table 8.7; all subsidies are recorded on an as due basis.
Intermediate consumption	26	Consumption of goods and services, e.g. feed, seeds, fertiliser, pesticides.
Gross value added (at basic prices)	27	Gross output at basic prices less intermediate consumption.
Consumption of fixed capital	28	The reduction in value (at current prices) of capital assets used in the production process, e.g. buildings, plant, machinery, vehicles and livestock.
Net value added at basic prices	29	Gross value added at basic prices less consumption of fixed capital.
Compensation of employees	30	The full costs of employees to the business including national insurance contributions.
Other Subsidies (less taxes) on production	32	Subsidies and taxes not closely correlated with production of a specific product, e.g. agri-environment payments, set-aside, animal disease compensation.
Net value added at factor cost	33	Net value added at basic prices plus other subsidies (less taxes) on production.
Total Income from Farming (TIFF)	36	Income to those with an entrepreneurial interest in the agricultural industry, e.g. farmers, partners, spouses and most other family workers.

Table 8.1 UK production and income account at current prices

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

£ million Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Output (a)						
1 Total cereals	2 654	2 326	2 337	2 023	2 182	2 394
wheat	1 729	1 525	1 578	1 227	1 480	1 572
rye	3	4	3	3	3	2
barley	849	735	686	724	628	735
oats and summer cereal mixtures	70	58	65	65	67	79
other cereals	2	4	5	4	5	5
2 Total industrial crops	1 060	1 012	778	813	893	1 029
oil seeds	465	503	283	291	304	441
oilseed rape	363	371	249	276	298	423
other oilseeds	102	132	34	16	6	19
sugar beet	361	280	252	256	283	283
other industrial crops	235	229	242	265	306	304
fibre plants	5	11	8	3	2	3
hops	20	13	11	10	8	8
others (b)	210	205	223	252	296	293
3 Total forage plants	183	145	139	170	160	178
4 Total vegetables and horticultural products	1 516	1 679	1 565	1 708	1 700	1 735
fresh vegetables	950	962	886	1 021	951	962
plants and flowers	566	717	679	687	749	772
5 Total potatoes (including seeds)	545	749	453	655	478	483
6 Total fruit	269	256	229	239	245	285
7 Other crop products including seeds	42	46	40	40	28	33
8 Total crop output (sum 1 to 7)	6 268	6 214	5 541	5 648	5 686	6 136
9 Total livestock production	6 738	5 637	5 587	5 255	5 751	5 997
primarily for meat	5 933	5 240	5 197	4 656	5 065	5 208
cattle	2 280	2 047	1 994	1 787	2 080	2 088
pigs	1 076	785	794	749	681	678
sheep	1 197	984	954	622	897	1 007
poultry	1 253	1 275	1 303	1 343	1 248	1 274
other animals	128	149	153	155	158	161
Gross Fixed Capital Formation	806	397	389	599	686	789
cattle	534	207	188	344	373	459
pigs	15	7	6	5	8	8
sheep	143	57	64	122	178	194
poultry	114	127	132	127	128	127
10 Total livestock products	3 613	3 043	2 806	3 266	2 966	3 218
milk	3 141	2 653	2 393	2 822	2 466	2 632
eggs	410	342	367	406	446	520
raw wool	39	21	23	17	19	20
other animal products	23	26	23	21	35	46
11 Total livestock output (9 + 10)	10 351	8 680	8 392	8 521	8 717	9 216

continued

Table 8.1 continued

£ million

Calendar Years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
12 Total other agricultural activities	545	726	638	634	649	648
agricultural services	470	610	586	606	605	618
leasing-out quota	75	117	51	28	43	30
13 Total inseparable non-agricultural activities	295	430	436	579	467	483
14 Gross output at basic prices (8 + 11 + 12 + 13)	17 460	16 050	15 007	15 382	15 519	16 482
15 Total subsidies (less taxes) on product (c)	1 418	2 373	2 187	1 923	2 101	2 210
16 Output at market prices (14 - 15)	16 042	13 677	12 820	13 459	13 418	14 272
of which:						
transactions within the agricultural industry						
feed wheat	90	64	40	43	39	52
feed barley	233	148	137	152	143	165
feed oats	21	14	13	13	11	10
seed potatoes	16	29	8	17	15	6
straw	184	175	192	222	265	262
contract work	470	610	586	606	605	618
leasing of quota	75	117	51	28	43	30
total capital formation in livestock	806	397	389	599	686	789
Intermediate consumption						
17 Seeds	313	327	263	291	276	286
cereals	113	87	71	75	64	73
other	200	240	192	216	212	213
18 Energy	584	622	694	685	646	675
electricity	245	222	230	242	236	225
fuels	340	400	464	444	410	449
19 Fertilisers	779	756	738	761	757	800
20 Pesticides	545	621	579	531	534	521
21 Veterinary expenses	253	270	256	242	250	255
22 Animal feed	2 891	2 261	2 140	2 367	2 224	2 262
compounds	1 708	1 402	1 283	1 398	1 377	1 324
straights	839	632	667	761	654	711
feed purchased from other farms	344	227	189	208	194	227
23 Total maintenance (d)	940	1 017	942	985	959	997
materials	623	699	650	662	633	666
buildings	317	318	292	323	326	331
24 Agricultural services	470	610	586	606	605	618
25 Other goods and services (d) (e)	1 905	2 268	2 088	2 061	2 130	2 144
26 Total intermediate consumption (sum 17 to 25)	8 681	8 752	8 287	8 530	8 381	8 558
27 Gross value added at basic prices (14 - 26)	8 779	7 299	6 720	6 852	7 137	7 924
28 Total consumption of Fixed Capital	2 453	2 432	2 501	2 591	2 577	2 697
equipment	1 144	1 311	1 276	1 281	1 266	1 213
buildings (d) (f)	573	700	690	685	687	695

continued

Table 8.1 continued

£ million

Calendar Years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
livestock	737	421	535	625	624	788
cattle	478	208	279	324	344	480
pigs	15	8	8	6	8	9
sheep	135	70	120	169	142	173
poultry	109	135	128	127	129	126
29 Net value added at basic prices (27 - 28)	6 326	4 866	4 219	4 261	4 560	5 227
30 Compensation of employees (g)	1 799	2 029	1 893	1 946	1 945	1 911
31 Other taxes on production	- 62	- 93	- 93	- 82	- 78	- 78
32 Other subsidies on production (c)	168	318	310	566	594	693
animal disease compensation	8	20	29	23	49	58
set-aside	116	170	127	180	157	206
agri-environment schemes (h)	44	128	153	198	236	277
other including Less Favoured Areas schemes (i)	-	-	-	165	152	152
33 Net value added at factor cost (29 + 31 + 32)	6 432	5 092	4 436	4 745	5 076	5 842
34 Rent	178	240	224	251	240	259
rent paid (j)	178	322	303	330	337	351
rent received (k)	. .	- 82	- 79	- 78	- 98	- 92
35 Interest (l)	592	595	623	549	474	474
36 Total Income from Farming (33 - 30 - 34 - 35)	3 862	2 229	1 696	1 999	2 418	3 197

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Output is net of VAT collected on the sale of non-edible products. Figures for total output include subsidies on products, but not other subsidies.

(b) Includes straw and minor crops.

(c) “Subsidies on products”: subsidies linked to products which provide an incentive to production of those products. “Other subsidies on production”: subsidies other than “Subsidies on products” from which agricultural producers can benefit as a consequence of engaging in production.

(d) Landlords' expenses are included within total maintenance, other goods and services and Total consumption of Fixed Capital of buildings.

(e) Includes livestock and crop costs, water costs, insurance premiums, bank charges, professional fees, rates and other farming costs.

(f) A more empirically based methodology for calculating landlords' consumption of fixed capital was introduced in 2000. The new series has been linked with the old one using a smoothing procedure for the transition year of 1996.

(g) Excludes the value of work done by farm labour on own account capital formation in buildings and works.

(h) Includes Environmentally and Nitrate Sensitive Areas, Countryside Stewardship and other management schemes, and Moorland, Habitat, Farm Woodland and Organic Farming Schemes.

(i) Land area based schemes which replaced the Hill Livestock Compensatory Allowance Scheme in 2001. These are Tir Mynydd in Wales, Less Favoured Area Compensatory Allowance Scheme in Northern Ireland, Less Favoured Areas Support Scheme in Scotland and Hill Farm Allowance in England.

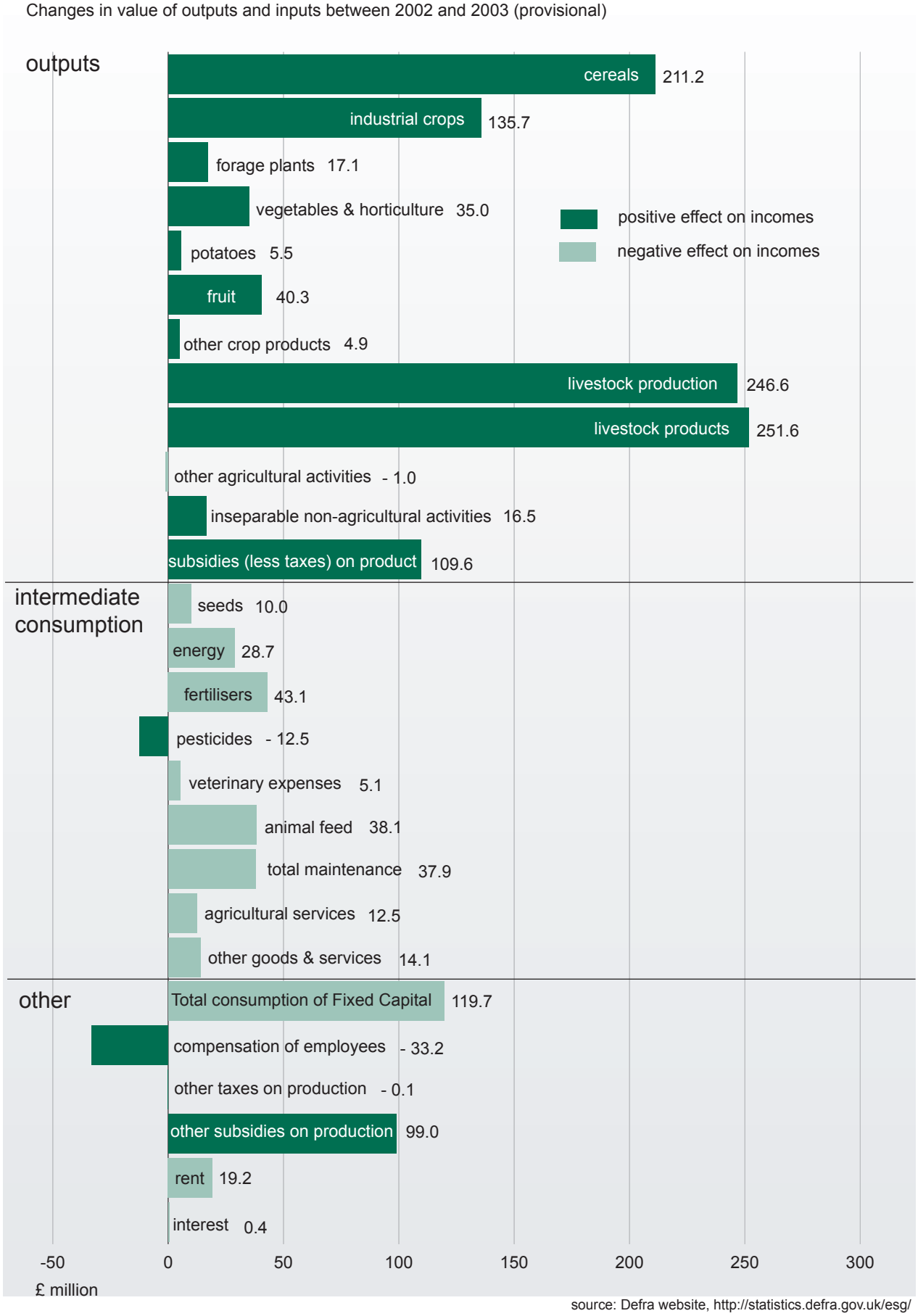
(j) Rent paid on all tenanted land (including 'conacre' land rented from non-farming persons in Northern Ireland) less landlords' expenses, landlords' consumption of fixed capital and the benefit value of dwellings on that land.

(k) Rent received by farming landowners from renting of land to other farmers less landlords' expenses. This series starts in 1996 following a revision to the methodology of calculating net rent.

(l) Interest charges on loans for current farming purposes and buildings and works less interest on money held on short term deposit.

Chart 8.2 Changes in UK outputs and inputs

Changes in value of outputs and inputs between 2002 and 2003 (provisional)



source: Defra website, http://statistics.defra.gov.uk/esg/

Table 8.2 Changes in UK outputs and inputs

Enquiries: Christine Holleran on +44 (0)1904 455080 email: christine.holleran@defra.gsi.gov.uk

£ million Calendar years

	Current price value		Changes %		
	2002	2003	value	volume	price
Output (a)					
1 Total cereals	2 182	2 394	10	- 5	16
wheat	1 480	1 572	6	- 10	18
rye	3	2	- 5	-	- 5
barley	628	735	17	4	13
oats and summer cereal mixtures	67	79	17	22	- 4
other cereals	5	5	5	- 13	20
2 Total industrial crops	893	1 029	15	8	7
oil seeds	304	441	45	25	16
oilseed rape	298	423	42	22	16
other oilseeds	6	19	230	223	2
sugar beet	283	283	-	- 3	3
other industrial crops	306	304	- 1	- 1	-
fibre plants	2	3	62	65	- 2
hops	8	8	1	-	1
others (b)	296	293	- 1	- 1	-
3 Total forage plants	160	178	11	5	5
4 Total vegetables and horticultural products	1 700	1 735	2	- 6	8
fresh vegetables	951	962	1	- 6	8
plants and flowers	749	772	3	- 5	9
5 Total potatoes (including seeds)	478	483	1	- 15	19
6 Total fruit	245	285	16	- 7	25
7 Other crop products including seeds	28	33	17	19	- 1
8 Total crop output (sum 1 to 7)	5 686	6 136	8	- 4	12
9 Total livestock production	5 751	5 997	4	- 1	5
primarily for meat	5 065	5 208	3	- 1	3
cattle	2 080	2 088	-	-	-
pigs	681	678	-	- 11	12
sheep	897	1 007	12	4	8
poultry	1 248	1 274	2	-	2
other animals	158	161	2	-	2
Gross Fixed Capital Formation	686	789	15	- 4	20
cattle	373	459	23	- 2	26
pigs	8	8	9	- 19	35
sheep	178	194	9	- 10	21
poultry	128	127	- 1	- 1	-
10 Total livestock products	2 966	3 218	8	2	6
milk	2 466	2 632	7	1	5
eggs	446	520	16	4	12
raw wool	19	20	7	-	7
other animal products	35	46	32	25	5
11 Total livestock output (9 + 10)	8 717	9 216	6	-	6

continued

Table 8.2 continued

£ million

Calendar Years

	Current price value		Changes %		
	2002	2003	value	volume	price
12 Total other agricultural activities	649	648	-	- 4	4
agricultural services	605	618	2	-	2
leasing-out quota	43	30	- 31	- 49	36
13 Total inseparable non-agricultural activities	467	483	4	-	3
14 Gross output at basic prices (8 + 11 + 12 + 13)	15 519	16 482	6	- 2	8
15 Total subsidies (less taxes) on product (c)	2 101	2 210	5	-	5
16 Output at market prices (14 - 15)	13 418	14 272	6	- 2	9
of which					
transactions within the agricultural industry					
feed wheat	39	52	33	7	25
feed barley	143	165	15	- 3	19
feed oats	11	10	- 14	- 7	- 7
seed potatoes	15	6	- 62	- 57	- 13
straw	265	262	- 1	- 1	-
contract work	605	618	2	-	2
leasing of quota	43	30	- 31	- 49	36
total capital formation in livestock	686	789	15	- 4	20
Intermediate consumption					
17 Seeds	276	286	4	3	1
cereals	64	73	14	15	-
other	212	213	-	- 1	1
18 Energy	646	675	4	- 3	8
electricity	236	225	- 4	- 10	7
fuels	410	449	10	1	8
19 Fertilisers	757	800	6	- 3	9
20 Pesticides	534	521	- 2	- 4	2
21 Veterinary expenses	250	255	2	2	-
22 Animal feed	2 224	2 262	2	1	1
compounds	1 377	1 324	- 4	-	- 4
straights	654	711	9	5	4
feed purchased from other farms	194	227	17	- 1	18
23 Total maintenance (d)	959	997	4	- 1	5
materials	633	666	5	- 1	6
buildings	326	331	2	- 1	2
24 Agricultural services	605	618	2	-	2
25 Other goods and services (d)(e)	2 130	2 144	1	- 2	3
26 Total intermediate consumption (sum 17 to 25)	8 381	8 558	2	- 1	3
27 Gross value added at basic prices(14 - 26)	7 137	7 924	11	- 2	14

continued

Table 8.2 continued

£ million

Calendar Years

	Current price value		Changes %		
	2002	2003	value	volume	price
28 Total consumption of Fixed Capital	2 577	2 697	5	-	4
equipment	1 266	1 213	- 4	- 2	- 2
buildings (d) (f)	687	695	1	- 1	2
livestock	624	788	26	4	22
cattle	344	480	39	8	29
pigs	8	9	14	- 17	37
sheep	142	173	22	- 2	24
poultry	129	126	- 3	- 3	-
29 Net value added at basic prices (27 - 28)	4 560	5 227	15	- 3	19
30 Compensation of employees (g)	1 945	1 911	- 2	- 7	6
31 Other taxes on production	- 78	- 78	-	- 1	1
32 Other subsidies on production (c)	594	693	17	. .	. .
animal disease compensation	49	58	19	. .	. .
set-aside	157	206	31	. .	. .
agri-environment schemes (h)	236	277	17	. .	. .
other including Less Favoured Areas schemes (i)	152	152	-	. .	. .
33 Net value added at factor cost (29 + 31 + 32)	5 076	5 842	15	- 3	19
34 Rent	240	259	8	. .	. .
rent paid (j)	337	351	4	. .	. .
rent received (k)	- 98	- 92	- 6	. .	. .
35 Interest (l)	474	474	-	. .	. .
36 Total Income from Farming (33 - 30 - 34 - 35)	2 418	3 197	32	1	31

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Output is net of VAT collected on the sale of non-edible products. Figures for total output include subsidies on products, but not other subsidies.

(b) Includes straw and minor crops.

(c) “Subsidies on products”: subsidies linked to products which provide an incentive to production of those products. “Other subsidies on production”: subsidies other than “Subsidies on products” from which agricultural producers can benefit as a consequence of engaging in production.

(d) Landlords' expenses are included within total maintenance, other goods and services and Total consumption of Fixed Capital of buildings.

(e) Includes livestock and crop costs, water costs, insurance premiums, bank charges, professional fees, rates and other farming costs.

(f) A more empirically based methodology for calculating landlords' consumption of fixed capital was introduced in 2000. The new series has been linked with the old one using a smoothing procedure for the transition year of 1996.

(g) Excludes the value of work done by farm labour on own account capital formation in buildings and works.

(h) Includes Environmentally and Nitrate Sensitive Areas, Countryside Stewardship and other management schemes, and Moorland, Habitat, Farm Woodland and Organic Farming Schemes.

(i) Land area based schemes which replaced the Hill Livestock Compensatory Allowance Scheme in 2001. These are Tir Mynydd in Wales, Less Favoured Area Compensatory Allowance Scheme in Northern Ireland, Less Favoured Areas Support Scheme in Scotland and Hill Farm Allowance in England.

(j) Rent paid on all tenanted land (including 'conacre' land rented from non-farming persons in Northern Ireland) less landlords' expenses, landlords' consumption of fixed capital and the benefit value of dwellings on that land.

(k) Rent received by farming landowners from renting of land to other farmers less landlords' expenses. This series starts in 1996 following a revision to the methodologo of calculating net interest.

(l) Interest charges on loans for current farming purposes and buildings and works less interest on money held on short term deposit.

Table 8.3 Aggregate balance sheets for UK agriculture

Enquiries: Barbara Boize on +44 (0)1904 455089 email: barbara.boize@defra.gsi.gov.uk

£ million As at December each year

	Average of 1992-94	1998	1999	2000	2001	2002 (provisional)
At current prices						
Assets						
Fixed (a):						
Land and buildings (b)	47 201	84 927	90 992	92 541	96 338	96 311
Plant, machinery and vehicles	6 961	8 145	7 793	7 553	7 476	7 426
Breeding livestock	5 701	3 806	2 824	3 645	3 942	3 842
Total fixed	59 863	96 878	101 609	103 740	107 755	107 579
Current:						
Trading livestock	3 344	2 175	2 230	2 094	1 901	2 606
Crops and stores	2 520	2 593	2 139	2 236	2 197	2 039
Debtors, cash deposits	3 134	3 826	4 062	4 188	3 903	3 867
Total current	8 998	8 593	8 431	8 518	8 001	8 512
Total Assets	68 861	105 471	110 040	112 257	115 757	116 091
Liabilities (c)						
Long and medium term:						
AMC, SASC, and LIC (d)	978	1 321	1 381	1 406	1 348	1 314
Building Societies and Institutions	191	299	336	400	390	382
Bank loans	1 430	2 239	2 349	2 375	2 219	2 204
Family Loans	311	386	421	442	448	470
Other	128	186	189	228	246	262
Total long and medium term	3 040	4 431	4 675	4 851	4 651	4 632
Short term:						
Leasing	440	186	136	95	94	113
Hire purchase	388	490	461	491	505	526
Trade Credit	1 199	1 211	1 289	1 285	1 188	1 192
Bank overdrafts	2 959	2 819	3 047	3 032	2 827	2 843
Other	97	127	115	115	119	131
Total short term	5 082	4 832	5 048	5 018	4 734	4 806
Total Liabilities	8 122	9 263	9 724	9 869	9 385	9 438
Net worth	60 739	96 208	100 317	102 388	106 372	106 653
In real terms (as deflated by the retail price index):						
Indices, 1995 = 100						
Total assets	79	105	108	107	110	107
Total liabilities	102	101	104	102	97	94
Net worth	77	106	108	107	111	108

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) The valuations of land, buildings and breeding livestock are at average market prices; those of plant, machinery and vehicles are replacement cost, net of consumption of fixed capital.

(b) Includes the value of owner-occupied and tenanted land and excludes dwelling houses apart from a proportion attributed to business use. Values of land and buildings are not directly comparable with data prior to 1993. From 1993, for England and Wales, some transactions influenced by non-market considerations have been excluded.

(c) Financial estimates are derived in part from a year-end analysis of farms in the farm business survey. In practice, year-ends vary from December through to April, with concentrations of year-ends at end-December and end-March.

(d) Agricultural Mortgage Company (AMC), Scottish Agricultural Securities Corporation (SASC) and Land Improvement Company (LIC).

Table 8.4 UK accumulation accounts

Enquiries: Dave Rimmer on +44 (0)1904 455088 email: david.j.rimmer@defra.gsi.gov.uk

£ million Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Capital account						
Gross fixed capital formation	2 440	1 646	1 593	2 009	2 141	2 263
Acquisitions less disposals of non-livestock assets:	1 634	1 249	1 204	1 410	1 455	1 474
buildings and works	488	370	344	428	412	425
plant and machinery	464	354	342	393	415	419
vehicles	681	525	519	589	628	630
Capital formation in livestock (a):	806	397	389	599	686	789
cattle	534	207	188	344	373	459
sheep	143	57	64	122	178	194
pigs	15	7	6	5	8	8
poultry	114	127	132	127	128	127
Consumption of fixed capital	2 453	2 432	2 501	2 591	2 577	2 697
Non-livestock assets:	1 716	2 011	1 966	1 966	1 953	1 909
buildings and works	573	700	690	685	687	695
plant and machinery	967	1 091	1 065	1 078	1 063	1 009
vehicles	177	220	211	203	203	204
Livestock (b):	737	421	535	625	624	788
cattle	478	208	279	324	344	480
sheep	135	70	120	169	142	173
pigs	15	8	8	6	8	9
poultry	109	135	128	127	129	126
Changes in inventories	8	20	- 106	- 70	151	- 164
stocks of crops	- 33	29	1	- 97	136	- 174
work-in-progress livestock	41	- 9	- 107	28	15	9
Total income from farming	3 862	2 229	1 696	1 999	2 418	3 197
Capital transfers	131	25	19	1 397	34	11
Foot-and-mouth disease payments:	. .	. .	. .	1 313	-	. .
culled cattle	. .	. .	. .	675	. .	. .
culled sheep	. .	. .	. .	414	. .	. .
culled pigs	. .	. .	. .	15	. .	. .
welfare disposals of cattle	. .	. .	. .	125	-	. .
welfare disposals of sheep	. .	. .	. .	64	. .	. .
welfare disposals of pigs	. .	. .	. .	15	. .	. .
other livestock (culled and welfare)	. .	. .	. .	5	. .	. .
Other capital transfers	99	18	12	75	24	-
Capital grants	32	7	7	9	10	11
Other changes in the volume of assets						
Exceptional disposals (due to foot-and-mouth disease) (c):	. .	. .	. .	465	. .	. .
breeding cattle	. .	. .	. .	177	. .	. .
slaughter cattle	. .	. .	. .	121	. .	. .
breeding sheep	. .	. .	. .	91	. .	. .
slaughter sheep	. .	. .	. .	53	. .	. .
breeding pigs	. .	. .	. .	4	. .	. .
slaughter pigs	. .	. .	. .	14	. .	. .
other livestock	. .	. .	. .	5	. .	. .

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Capital formation in livestock is estimated by valuing the number of entries to the breeding herds at the entry price less the disposal price.

(b) Consumption of fixed capital in livestock is estimated by valuing the disposals from the breeding herds at the entry price less the disposal price.

(c) Livestock culled due to foot-and-mouth disease measures are treated as exceptional losses as defined in the European System of Accounts 1995.

Table 8.5 UK stock appreciation

Enquiries: Dave Rimmer on +44 (0)1904 455088 email: david.j.rimmer@defra.gsi.gov.uk

£ million Calendar years

	1999	2000	2001	2002	2003 (provisional)
Livestock production work-in-progress (non-breeders)					
cattle	89	- 78	- 58	248	166
sheep	35	12	- 47	77	24
pigs	40	99	- 69	40	46
poultry (a)	- 9	6	4	- 2	9
total	155	38	- 170	364	245
Replacement animals for breeding herds					
cattle	- 23	23	134	108	- 61
sheep	15	5	- 27	33	12
pigs	1	1	- 1	1	- 1
total	- 8	30	106	142	- 48
Crop production work-in-progress					
wheat	- 63	- 40	98	- 137	398
barley	- 21	- 5	-	- 18	86
potatoes (b)	- 350	167	- 104	- 80	95
other crops (c)	- 37	13	9	18	14
total	- 472	135	2	- 217	594
Total stock appreciation	- 324	203	- 62	289	791

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Broilers, ducks, geese and turkeys.

(b) Previous publications of 'Agriculture in the United Kingdom' did not include correct data for potatoes.

(c) Oats, oilseeds, apples and pears.

Table 8.6 UK interest

Enquiries: Dave Rimmer on +44 (0)1904 455088 email: david.j.rimmer@defra.gsi.gov.uk

£ million (unless otherwise specified) Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Interest rates						
average bank base lending rate in the UK	7.0%	5.3%	6.0%	5.1%	4.0%	3.7%
average rate of interest on bank advances to agriculture	9.7%	7.7%	8.2%	7.3%	6.2%	5.9%
Interest charges (all lending to the farm business) on:						
bank advances	424	409	441	377	326	. .
Agricultural Mortgage Company loans	101	109	119	110	80	. .
instalment credit	35	53	48	43	44	. .
leased assets	27	10	7	6	6	. .
other credit (a)	37	50	46	47	46	. .
less interest on deposits (b)	32	37	39	34	29	. .
Total	592	595	623	549	474	474

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Interest paid on other institutional credit and that from private sources.

(b) Interest earned on money held on short-term deposit.

Table 8.7 Changes in volume of UK capital assets

Enquiries: Dave Rimmer on +44 (0)1904 455088 email: david.j.rimmer@defra.gsi.gov.uk

Indices 1995 = 100 Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Total volume of gross fixed capital formation						
Gross fixed capital formation:	92.8	65.9	61.4	70.1	70.6	70.5
non livestock:	88.7	56.9	53.9	61.2	61.9	63.2
buildings and works	105.4	63.0	54.7	66.3	62.0	62.2
plant and machinery	83.0	54.1	51.8	56.8	58.7	60.9
vehicles	82.9	55.3	55.1	61.3	64.6	65.9
livestock	102.5	97.4	86.1	99.8	99.3	95.2
Total volume of capital consumption						
Consumption of fixed capital	96.2	97.0	96.0	93.4	87.9	87.7
non livestock:	99.6	97.9	95.4	93.2	90.7	89.2
buildings and works	100.1	98.7	96.2	95.0	92.8	91.9
plant and machinery	100.0	96.0	93.1	89.9	86.7	84.6
vehicles	95.7	105.7	105.2	105.2	105.7	106.4
livestock	89.0	94.8	100.5	96.5	81.8	84.7

source: Defra website, http://statistics.defra.gov.uk/esg/

Chapter 9 Productivity

Introduction

1 A key measure of agriculture's economic performance and a key component of its competitiveness is its productivity; that is, how well the agricultural industry uses the resources that are available to turn inputs into outputs. Productivity measures are based on the ratio of the volume of outputs and the volume of inputs. Productivity is a key measure of the economic sustainability of UK farming and food. It is an important driver of farm incomes and it is an essential foundation for the environmental and social contributions which farming and food make. However, measuring productivity is not straightforward and comparisons need to be interpreted carefully both because of practical problems in obtaining robust data and also because productivity performance, particularly in agriculture, is often shaped by exogenous factors (to do with climate, topography and location for example) which are not easily susceptible to change.

Volume Indices (Table 9.1)

2 Following a period of output growth in the late seventies and early eighties, the volume of production was fairly stable from the mid-eighties to the end of the nineties. In recent years, there was a large fall in 2001 due to foot-and-mouth disease and a moderate recovery in 2003. Within total output there were largely different trends. Production of wheat, oil seed rape, sugar beet and poultry has increased since 1985. Production of barley, fruit, vegetables, cattle and pigs has decreased over the same period.

3 The volume of output in 2003 was 1.7 per cent lower than in 2002. Total crop output fell by 4.0 per cent due to declines in cereals, fruit, vegetables and potatoes, while total livestock output was unchanged.

4 In 2003, production of cereals was 5.4 per cent lower than in 2002. Wheat output was down 10 per cent as the area planted and yield were both lower. The volume of production of barley rose by 3.7 per cent due to higher yields.

5 The volume of production of industrial crops increased by 7.9 per cent in 2003. Production of oilseeds rose by 25 per cent, but the output of most other industrial crops fell.

6 Vegetable production decreased by 5.9 per cent. Fruit production fell by 6.9 per cent continuing the declining long-term trend. The volume of output of potatoes decreased by 15 per cent in 2003 compared to 2002.

7 Production of livestock (mainly for meat processing) decreased by 0.6 per cent in 2003 and is still below the 2000 level (down 3.8 per cent). Production of sheep increased by 4.3 per cent showing a continuing recovery from the effects of foot-and-mouth disease in 2001, but is still 15 per cent below the 2000 level. Since 1998, pig production has decreased by 40 per cent, with an 11 per cent fall into 2003. Production of poultry and cattle was virtually unchanged. Cattle and calves which

were disposed of in the Over Thirty Month Scheme and the Calf Processing Aid Scheme (which ran from 22 April 1996 until 31 July 1999) have not been counted towards the volume of output. Foot-and-mouth disease losses were treated as exceptional. This means that the volume of part produced animals, for slaughter or the breeding herd, that were culled, were included in output.

8 Milk production has been relatively stable since 1991 due to the quota system, but has shown a steady increase between 2000 and 2003, up 3.7 per cent. The production of eggs has increased since 1999, and was 3.5 per cent higher in 2003 than in 2002.

9 Total inseparable non-agricultural activities have shown an overall increasing trend up to 1999. Since then output has remained stable at a slightly lower level, with the exception of 2001 when there was a large rise, mainly due to cleaning and disinfecting of farms affected by foot-and-mouth disease. Between 1999 and 2003 there has been a decrease of 2.1 per cent.

10 Overall the volume of intermediate consumption increased steadily up to 1996. In the late 1990s the volume fell significantly due to pressures to reduce costs, but since 2000 has fallen more slowly, down 1.0 per cent in 2003. Consumption of fertilisers has fallen 32 per cent between 1997 and 2003, including a drop of 3.4 per cent in 2003 compared with 2002. Consumption of pesticides however, has fallen more slowly, by only 11 per cent since the recent peak in 1998 and by 3.8 per cent in 2003. Consumption of energy (especially electricity due to warmer weather) and maintenance, have also fallen substantially.

11 Animal feed consumption rose by 1.1 per cent in 2003 as livestock numbers, especially for sheep, continued to recover.

12 In 2003 the volume of outputs fell more than intermediate consumption; with falls of 1.7 and 1.0 per cent respectively. The volume measure of gross value added fell by 2.4 per cent.

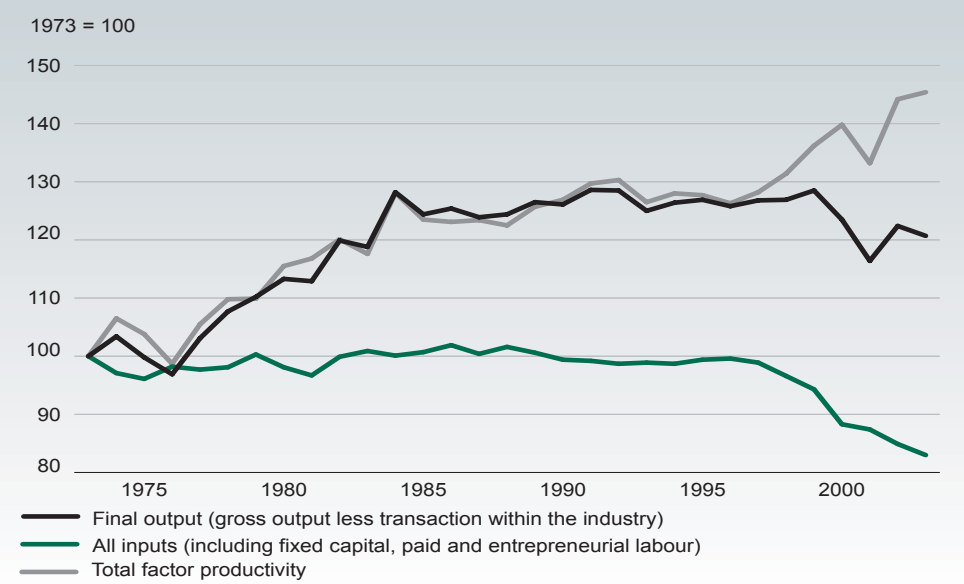
Productivity
(Table 9.2 and chart 9.1)

13 Productivity shows how efficiently inputs are converted into outputs. Since 1973 the productivity of the agricultural industry in the UK has increased by 45 per cent (see Chart 9.1 and Table 9.2). The headline measure, total factor productivity (TFP), shows the volume of output leaving the industry per unit of all inputs, including fixed capital and paid labour. It encompasses all businesses engaged in farming activities, including specialist contractors. Increases in labour productivity have been the key factor driving this growth; since 1973 labour productivity has more than doubled. Labour productivity measures the volume of net value added per unit of all labour (paid and entrepreneurial).

14 The increase in total factor productivity in the 1970s and early 1980s is explained by an increase in output without a corresponding increase in inputs (reductions in labour input were counteracted by increases in other forms of input). From 1984 to 1996 total factor productivity did not grow, with no significant changes in the overall volumes of outputs and inputs. After 1996 total factor productivity increased, driven by decreases in the volume of inputs. Since 2000 there has been a slight fall in the volume of output.

15 In 2003 the volume of output decreased due to crop production whilst the volume of inputs (including labour) decreased by slightly more compared to the previous year. Consequently total factor productivity and labour productivity increased marginally, up by 0.8 and 0.9 per cent respectively.

Chart 9.1 UK total factor productivity 1973 to 2003



source: Defra website, http://statistics.defra.gov.uk/esg/

Paid labour (Table 9.3)

16 Table 9.3 shows the cost and volume of paid labour relating to agricultural work only, excluding time spent on the construction of farm buildings. The total cost of paid labour fell by 1.7 per cent in 2003, arising from a decrease in the volume of paid labour input of 7.3 per cent and an average salary increase of 6.0 per cent. The volume of total labour decreased by 4.4 per cent during 2003.

17 The most significant fall in inputs is in the volume of paid labour (AWUs) which has reduced by 62 per cent since 1973, reflecting the outflow of labour from the industry.

18 Since the early 1980s there has been a shift in the composition of the labour force with an increase in part-time workers; rising from 25 per cent to about 50 per cent of the total by 2002.

"Productivity of UK agriculture - causes and constraints"

19 Defra has long published a productivity series for UK agriculture. Consultants were commissioned to assess the method used and to analyse the data series. The project was completed in July 2003 and the final report, "Productivity of UK Agriculture - Causes and Constraints", split into eight papers with an executive summary, is available on the Defra website at http://statistics.defra.gov.uk/esg /reports/prodagri/default.asp. The project covered estimates up to and including 2000. The estimates in the project are not entirely consistent with latest Defra estimates because data has been revised, particularly for recent years. The following are taken from this report.

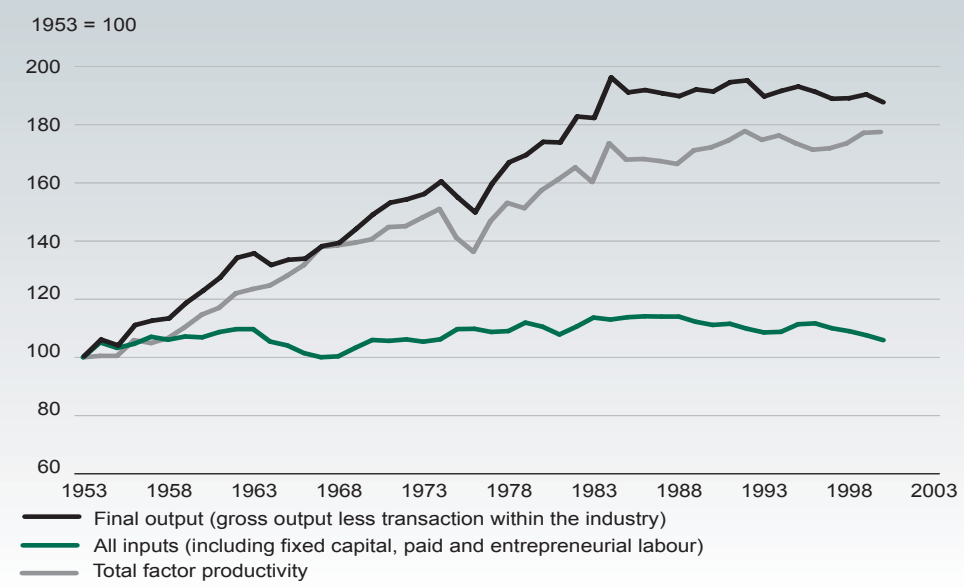
Total factor productivity (Chart 9.2)

20 Chart 9.2 shows the total factor productivity (TFP) series taken back to 1953 using

historical data. Because the data prior to 1973 was compiled using different methodology there may be an artificial break in the series at that point. It is also the time when the UK joined the EU and the Common Agricultural Policy. Since the project, the estimate for 2000 has been revised upwards, and coupled with estimates for 2001, 2002 and 2003 it is now clear that total factor productivity is again increasing.

21 Simple analysis shows that TFP growth in the UK has a break in 1984. From 1953 to 1984, TFP grew at 1.7 per cent per annum, whereas from 1984 to 2000, the rate fell to only 0.3 per cent. Output was growing at 1.9 per cent per year before 1984, but after 1984 it was contracting at -0.1 per cent. The fall in output was caused by falls in animal products and horticulture and fruit, while crop and animal outputs were stagnant. The TFP growth came from inputs falling faster than outputs, at -0.4 per cent per annum, whereas they were growing at 0.2 per cent before 1984. The intermediate inputs (seed, fertiliser, pesticide, feed and miscellaneous), which had grown rapidly in earlier times, ceased expanding after 1984. Of the capital inputs, only buildings and land improvements continued to grow, as livestock stabilised and machinery declined. The land input also declined very slowly, but the driving force behind input reduction was the continued shedding of labour.

Chart 9.2 UK total factor productivity 1953 to 2000

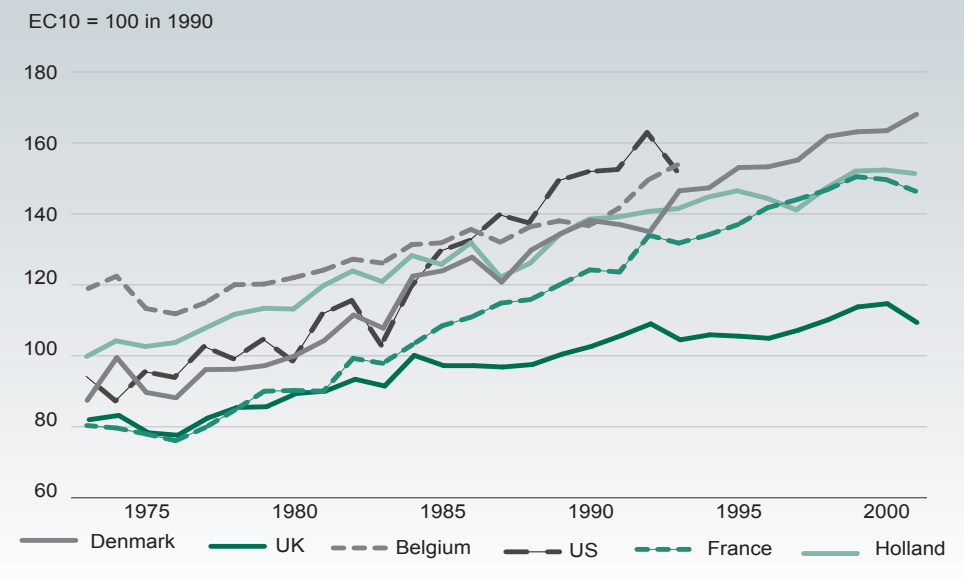


source: Defra website, http://statistics.defra.gov.uk/esg/

International benchmarking (Chart 9.3)

22 Analysis of TFP enables the EU countries to be divided into two groups. The more productive northern European countries, Denmark, France, the Netherlands and Belgium start from high levels of TFP and have high growth rates. The low growth rate countries (not shown) are Ireland, Italy, Greece, Germany and Luxembourg. The UK stands out because it starts in the "high growth club" but switches to the "low growth club" in 1984. After 1984 the French growth rate was 2.2 per cent per annum and that for Denmark was 2.0 per cent, while the UK rate was only 0.9 per cent.

Chart 9.3 Total factor productivity for UK, US and selected Member States



source: Defra website, http://statistics.defra.gov.uk/esg/

Benchmarking in the UK

23 Analysis of Farm Business Survey data for England and Wales from 1982 to 1997 shows that the frontier of efficient performance continues to move forward more rapidly than aggregate TFP, indicating that some farms are exhibiting high productivity growth. Cereal farms show the highest technology improvement at over 5 per cent per annum.

24 On average, farms in all sectors are falling further behind the frontier of efficient performance (a score of 100). This is an indication that many farms are under-achieving in terms of productivity, possibly by not utilising new technology. However, because the analysis compares farms in terms of value of production and cost of inputs, as opposed to volume measures, it is dependent on the general level of prices.

Technical change, efficiency change and farm size by type of farm

Farm Type	Cereals	Dairy	Sheep	Poultry	Pigs
Number of farms	310	1 194	513	68	174
Technical change	5.8% pa	1.5% pa	0.7% pa	2.8% pa	2.5% pa
Efficiency in 1982	94	94	86	94	94
Efficiency in 1997	50	86	77	90	86

25 The analysis showed that more efficient farms tend to be larger in area or have larger herds, but there is no evidence that farms will become more efficient if they simply grow in size. Differences in efficiency are associated with farm debt, farmer age, the level of specialisation and farm ownership status.

Table 9.1 UK output and input volume indices

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Indices 1995 = 100 Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Outputs (a)						
1 Total cereals	93.8	100.1	108.4	86.6	103.6	98.1
wheat	94.1	103.4	116.3	81.2	111.4	99.9
rye	86.9	82.1	78.6	82.1	82.1	82.1
barley	94.5	94.8	93.8	95.9	88.4	91.7
oats and summer cereal mixtures	85.6	87.0	103.4	99.8	107.4	131.0
other cereals	94.3	146.0	176.2	121.5	141.6	123.8
2 Total industrial crops	101.9	120.5	85.8	82.6	91.8	99.1
oil seeds	115.5	161.7	81.9	83.7	100.7	126.3
oilseed rape	103.3	134.7	93.0	96.3	119.6	145.7
other oilseeds	211.5	374.9	52.9	47.7	22.6	73.1
sugar beet	112.8	125.5	107.7	98.9	113.4	110.3
other industrial crops	74.7	66.6	67.8	64.1	63.7	63.1
fibre plants	36.8	106.8	69.5	42.2	23.9	39.3
hops	117.4	69.8	62.1	58.6	58.7	58.7
other industrial crops: others (b)	74.0	65.0	68.0	65.0	64.9	64.0
3 Total forage plants	127.0	119.6	124.5	144.3	143.7	150.7
4 Total vegetables and horticultural products	105.8	99.2	96.5	93.3	93.2	87.8
fresh vegetables	108.7	99.3	93.0	89.6	83.1	78.2
plants and flowers	101.1	98.5	100.7	97.8	108.1	102.2
5 Total potatoes (including seeds)	108.0	107.2	94.4	100.0	100.5	85.6
6 Total fruit	119.5	92.7	84.6	90.7	82.2	76.5
7 Other crop products including seeds	107.9	102.4	98.6	98.0	68.6	81.6
8 Total crop output (sum 1 to 7)	101.0	104.5	100.0	91.3	98.6	94.6
9 Total livestock production	98.1	95.6	90.8	84.0	89.1	88.2
primarily for meat	97.7	95.5	91.2	82.5	88.3	87.7
cattle	97.3	84.6	82.1	72.8	84.6	84.9
pigs	103.1	102.4	86.4	79.2	75.6	67.6
sheep	101.5	98.8	94.8	68.1	77.4	80.7
poultry	90.7	106.5	106.3	111.0	108.8	108.6
other animals	99.9	101.7	101.7	101.4	101.6	101.1
gross fixed capital formation	102.5	97.4	86.1	99.8	99.3	95.2
cattle	100.0	96.6	84.4	97.9	92.3	90.3
pigs	116.0	97.7	66.6	56.2	85.0	68.8
sheep	111.6	92.4	62.6	97.4	108.7	98.1
poultry	97.2	97.0	100.4	96.2	95.6	94.9
10 Total livestock products	101.3	101.3	99.2	101.3	103.6	105.7
milk	101.1	101.4	98.6	99.8	100.9	102.2
eggs	102.6	101.8	105.5	116.6	125.0	129.4
raw wool	100.6	95.3	91.7	76.2	79.2	79.5
other animal products	105.3	95.9	80.5	71.3	113.0	141.8
11 Total livestock output (9 + 10)	99.2	97.6	93.7	89.8	94.0	94.0
12 Total other agricultural activities	85.4	109.0	93.7	93.1	95.1	91.6
agricultural services	96.2	123.2	116.2	120.1	120.0	120.0
leasing out quota	49.8	65.6	28.0	15.1	22.8	11.6

continued

Table 9.1 continued

Indices 1995 = 100 Calendar Years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
13 Total inseparable non-agricultural activities	97.1	118.9	116.2	149.8	116.6	116.4
14 Gross output at basic prices (8 + 11 + 12 + 13)	99.2	101.2	96.6	92.0	96.3	94.7
15 Total subsidies (less taxes) on product	102.3	106.8	99.0	84.8	97.4	97.9
16 Output at market prices (14 - 15)	99.0	100.2	96.2	93.1	96.2	94.2
of which						
transactions within the agricultural industry						
feed wheat	159.1	175.0	120.1	114.8	124.8	132.9
feed barley	112.2	113.6	112.2	121.3	128.9	125.3
feed oats	102.7	118.2	108.8	112.8	105.4	97.9
seed potatoes	113.7	82.1	70.4	80.0	83.5	36.0
straw	71.4	61.0	64.4	61.2	60.9	60.0
contract work	96.2	123.2	116.2	120.1	120.0	120.0
leasing of quota	49.8	65.6	28.0	15.1	22.8	11.6
total capital formation in livestock	102.5	97.4	86.1	99.8	99.4	95.3
Intermediate consumption						
17 Seeds	98.0	95.1	90.5	94.5	90.1	92.6
cereals	94.5	86.3	73.0	75.1	66.2	75.9
other	99.9	99.2	98.6	103.5	101.1	100.4
18 Energy	99.2	102.8	91.4	93.7	93.3	90.5
electricity	99.5	100.3	92.3	100.6	103.7	92.8
fuels	99.1	104.7	91.4	90.7	88.6	89.6
19 Fertilisers	98.7	100.5	88.0	82.1	80.8	78.1
20 Pesticides	94.7	108.5	106.7	101.1	102.9	99.0
21 Veterinary expenses	88.1	90.2	86.4	82.9	86.3	87.9
22 Animal feed	97.1	95.4	91.8	95.0	92.6	93.6
compounds	98.1	97.5	89.6	92.3	91.7	91.3
straights	88.3	84.0	90.8	94.4	86.7	90.9
feed purchased from other farms	120.8	126.5	113.8	119.5	126.6	125.3
23 Total maintenance (c)	92.9	87.1	79.1	80.7	75.9	75.2
materials	92.8	89.1	81.1	80.2	73.5	72.9
buildings	93.0	83.1	75.1	82.0	81.1	80.4
24 Agricultural services	96.2	123.2	116.2	120.1	120.0	120.0
25 Other goods and services (d)	93.8	93.2	83.1	79.5	79.2	77.5
26 Total intermediate consumption (sum 17 to 25)	95.7	96.8	89.5	89.0	87.6	86.7
27 Gross value added at basic prices (14 - 26)	102.9	106.9	106.2	95.7	108.0	105.5
28 Total consumption of Fixed Capital	96.2	97.0	96.0	93.4	87.9	87.7
equipment	99.3	97.5	95.0	92.2	89.6	87.8
buildings (c) (e)	100.1	98.7	96.2	95.0	92.8	91.9
livestock	89.0	94.8	100.5	96.5	81.8	84.7
cattle	85.5	94.8	107.6	92.7	81.9	88.7
pigs	105.8	97.5	82.7	56.9	82.4	68.4
sheep	91.6	92.5	97.2	117.1	76.8	75.2
poultry	95.4	105.4	100.5	98.6	99.2	96.6
29 Net value added at basic prices (27 - 28)	105.5	112.6	112.0	96.4	121.3	117.1

source: Defra website, http://statistics.defra.gov.uk/esg/

continued

Table 9.1 continued

(a) Output is net of VAT collected on the sale of non-edible products. Figures for total output include subsidies on products, but not other subsidies.

(b) Includes straw and minor crops.

(c) Landlords' expenses are included within farm maintenance, miscellaneous expenditure and depreciation of buildings and works.

(d) Includes livestock and crop costs, water costs, insurance premiums, bank charges, professional fees, rates, and other farming costs.

(e) A more empirically based methodology for calculating landlords' depreciation was introduced in 2000.

Table 9.2 UK productivity

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Volume indices 1995 = 100 Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Final output (gross output less transactions within the industry)	99.8	101.2	97.3	91.7	96.4	95.1
All inputs (including fixed capital, paid and entrepreneurial labour)	99.4	94.9	88.9	87.9	85.4	83.5
Net value added per AWU of all labour (a)	101.2	122.0	129.8	113.2	148.3	149.7
Total factor productivity (b)	100.5	106.7	109.5	104.3	112.9	113.8

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) An annual work unit (AWU) represents the equivalent of an average full time person engaged in agriculture.

(b) Final output per unit of all inputs (including fixed capital and labour).

Table 9.3 UK costs and volumes of paid labour engaged in agricultural work

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Calendar years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
Paid labour costs (£ million) (a)	1 799	2 029	1 893	1 946	1 945	1 911
Annual work unit (thousand) (b)						
Entrepreneurial labour	251	229	221	219	212	206
Paid labour	157	132	116	114	108	100
Labour force	408	361	337	333	320	306

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes payments in kind to workers and employer and employee National Insurance contributions, redundancy payments, and the cost of trainees.

(b) An annual work unit represents the equivalent of an average full time person engaged in agriculture.

Chapter 10 Subsidies

Introduction

1 Chapter 10 gives details of direct subsidies and compensation paid to farmers. Total public expenditure on agriculture under the Common Agricultural Policy (CAP) and other schemes can be found in Chapter 13.

2 Initially, the CAP aims to increase agricultural productivity, safeguard farmers' livelihoods, stabilise markets and guarantee the European Community's food supply were achieved by market regulation. This was very successful but also created problems of commodity surpluses and rapidly increasing costs.

3 During the 1970s and 1980s, reforms were introduced to curb spending and control over-production by modifying market support measures. The UK launched schemes in 1988 to improve the environment and assist diversification. In 1993 a major reform of the CAP changed the emphasis from supporting prices to direct aid payments to farmers, with consequent savings to consumers from price reductions. The integrated administration and control system (IACS) was introduced for farmers claiming certain subsidies. There was more help for social and environmental measures with the UK introducing schemes to protect, create or improve wildlife habitats and encourage conversion to organic farming.

4 In 2000, the Agenda 2000 reform of the CAP was introduced. The aims were to reduce guaranteed prices and increase direct aid payments to safeguard agricultural incomes, lay the foundations for a comprehensive rural development policy and provide money for environmental schemes.

5 In summary, there are three types of support. Firstly, there is market support in the form of intervention purchases and import tariffs, which affect the accounts for the agriculture industry through their impact on market prices. Secondly, there are direct payments linked to production which form the majority of the present subsidies. Thirdly, there are direct payments linked to rural development.

CAP Reform - mid-term review of Agenda 2000

6 On 26 June 2003, the Council of EU Agriculture Ministers agreed a package of reform measures for the CAP. The legal texts were formally adopted at the Agriculture Council of September 2003. The key elements are:

- a single farm payment for EU farmers, decoupled from production; limited coupled elements may be maintained to avoid abandonment of production;
- this payment will be linked to the respect for environmental, food safety, animal and plant health and animal welfare standards, as well as the requirement to keep all farmland in good agricultural and environmental condition ("cross-compliance");
- a strengthened rural development policy with more EU money, new measures to promote the environment, food quality and animal welfare and to help farmers to

meet EU production standards starting in 2005;

- a reduction in direct payments ("modulation") for bigger farms to finance the new rural development policy;
- a mechanism for financial discipline to ensure that the farm budget fixed until 2013 is not overshot;
- revisions to the market policy of the CAP:

- asymmetric price cuts in the milk sector; additional reductions to the intervention price for butter to those agreed in Agenda 2000;
- reduction of the monthly increments in the cereals sector by half; the current intervention price will be maintained;
- reforms in the rice, durum wheat, nuts, starch potatoes and dried fodder sectors.

7 On two points, Ministers took two strategic decisions:

- implementation of the Single Payment Scheme in the UK would be on a regionalised basis; the Agriculture Departments in England, Scotland, Wales and Northern Ireland will make their own arrangements for their farmers ;
- the new single payment scheme would be introduced in the UK from the earliest date permitted, 1 January 2005.

8 Announcements for the implementation of the reform were made by the Agricultural Departments during February 2004. Briefly, the decisions made were:

- in England, a flat rate area based system of payment will be phased in over a transitional period, ending in 2012;
- in Scotland, the single farm payment will be based on subsidy receipts during 2000 to 2002 - the 'historic' basis;
- in Northern Ireland, a static, vertical hybrid model of decoupling will be introduced, comprising a flat rate, area based component and a 'historic' component;
- in Wales, the 'historic' basis will be adopted for the single farm payment.

Direct payments and levies (Table 10.1 and 10.2)

9 Table 10.1 gives details of the values of the subsidies less levies paid directly to farmers included in the production and income account. Provisional figures show that in 2003:

- the agricultural industry as a whole received £2.8 billion in direct subsidies less levies, 8.0 per cent more than in 2002;
- subsidies related to arable and livestock production rose by 5.2 per cent overall with a larger increase in arable subsidies compared with livestock subsidies;
- other payments less levies rose by 19.2 per cent compared with 2002;
- direct payments to arable farmers were up by 14 per cent to £1.2 billion while direct payments to livestock producers increased by 1.4 per cent, also to £1.2 billion;
- agri-environment payments increased by 17.5 per cent to £277 million; further

details can be found in Chapter 11.

Arable area payments

10 The Arable Area Payments Scheme is a direct subsidy payable to arable producers. It was introduced in 1993, following the 1992 reform of the CAP, as compensation for reductions in market support. It has developed over the years and was modified as part of the Agenda 2000 reform of the CAP.

11 In 2003, total payments made to farmers under Arable Area Payments Scheme, including set-aside payments, rose by £142 million, or 14 per cent, to £1.2 billion, because of an increase in payment rates due to a favourable euro/sterling exchange rate in June 2003.

12 Payments to cereal producers increased by 10 per cent with a rise of 48 per cent or £38.3 million for oilseed rape due to a 26 per cent increase in area planted and increased payment rates. Payments for set-aside also increased substantially by 31 per cent or £49.1 million, due to a 15 per cent increase in area as well as increased payment rates. Payments for wheat and barley also increased substantially, by £19.6 million and by £21.5 million respectively.

Direct support to livestock producers

13 Five direct subsidies are currently available to livestock producers as follows:

- Beef Special Premium Scheme - a subsidy for male cattle;
- Suckler Cow Premium Scheme - a subsidy on female cattle forming part of a suckler breeding herd used for rearing calves for meat production;
- Extensification Payments Scheme - payments made to farmers who receive Beef Special Premium or the Suckler Cow Premium and who meet specific stocking density criteria;
- Slaughter Premium Scheme - a subsidy that provides direct support to all producers of domestic cattle;
- Sheep Annual Premium Scheme - a subsidy for breeding ewes.

14 Member States also have additional funds, generally known as National Envelopes. The Beef National Envelope and the Sheep National Envelope can be used to assist beef and sheep producers in ways deemed most appropriate to the structure of the industries. The use made of the National Envelopes can be varied between constituent parts of the UK and from year to year.

15 The Over Thirty Month Scheme (OTMS) is also included in the agricultural account as a direct support payment to farmers. Its purpose is to provide producers with an alternative market for cattle aged over thirty months which have come to the end of their productive lives and can no longer be entered into the human or animal food chain as a result of the Over Thirty Month Rule.

16 Direct support payments to livestock producers increased by 1.4 per cent to £1.2 billion in 2003. Payments to sheep farmers increased by £17.4 million while payments to cattle producers fell by £0.6 million due to payments made under the OTMS falling by £29.9 million reflecting a fall in the number of animals going through the scheme.

Modulation 17 Modulation was introduced in the UK at a flat rate of 2.5% in the 2001 scheme year, rising gradually to 4.5% in 2005 and 2006. In 2003, 3.5% of subsidy payments was recycled to help fund the Rural Development Programmes in England, Wales, Scotland and Northern Ireland. Every pound recycled in this way is matched by a further pound by Government and the total returned through the programmes to the rural economy. The value of subsidies in this chapter are shown after modulation.

Capital grants and transfers (Table 10.5) 18 Capital grants and transfers appear in the capital account as opposed to the income account because they are not related to the activity of production (see also chapter 8, paragraph 22, and table 8.4).

Table 10.1 UK payments and levies in the production and income account

Shows payments after deduction for modulation where appropriate

Enquiries: Keith Seabridge on +44 (0)1904 455081 email: keith.seabridge@defra.gsi.gov.uk

£ million Calendar years

	Average of 1992-1994	1999	2000	2001	2002 (a)	2003 (a) (provisional)
Subsidies and levies on product (b)(c)						
Crop subsidies:						
Arable area payments on:						
wheat	277	420	458	350	446	466
barley	169	259	244	259	246	267
other cereal crops (d)	18	25	29	28	33	36
oilseed rape	154	175	110	104	81	119
linseed	27	102	29	10	3	8
peas and beans - stockfeed and human consumption	96	69	59	69	69	76
other crops	8	6	3	7	7	6
Other crop subsidies (e)	141	14	11	3	3	2
Livestock subsidies:						
Beef Special Premium (f)	132	273	216	241	234	243
Beef Marketing Payment Scheme	. .	. .	. .	. .	. .	. .
Suckler Cow Premium (f)	140	255	191	219	214	225
Slaughter Premium	. .	. .	43	76	124	124
Extensification Payment Scheme	. .	. .	122	118	117	126
Calf Processing Aid Scheme	. .	20	. .	. .	. .	. .
Over Thirty Month Scheme	. .	266	260	158	211	181
Hill Livestock Compensatory Allowance - cattle	63	87	55	. .	. .	. .
Beef National Envelope (g)	. .	. .	13	19	29	30
Sheep Annual Premium	421	324	283	181	277	299
Sheep National Envelope	. .	. .	. .	. .	7	2
Hill Livestock Compensatory Allowance - sheep	69	86	54	. .	. .	. .
Foot-and-mouth disease light lambs (h)	. .	. .	. .	3	. .	. .
Other livestock subsidies (i)	. .	. .	. .	. .	. .	. .
Other subsidies:						
Dairy agrimonetary compensation	. .	. .	22	79	. .	. .
Levies: (j)						
milk superlevy	- 9	- 9	- 15	. .	. .	. .
other levies prior to 1994 (k)	- 43	. .	. .	. .	. .	. .
Total subsidies (less levies) on product (c)	1 418	2 373	2 187	1 923	2 101	2 210

continued

Table 10.1 continued

£ million

Calendar years

	Average of 1992-1994	1999	2000	2001	2002 (a)	2003 (a) (provisional)
Other payments and levies (l)						
Set-aside (m)	174	170	127	180	157	206
Other animal disease compensation (n)	8	20	29	23	49	58
Less favoured areas support schemes (o)	. .	. .	. .	165	152	152
Agri-environment schemes:	44	128	153	198	236	277
Countryside Stewardship (p)	8	24	30	41	50	67
Countryside Premium and Rural Stewardship	1	7	5	9	9	13
Tir Cymen and Tir Gofal	3	6	8	13	17	21
Countryside management scheme	. .	. .	. .	1	3	3
Organic conversion (q)	. .	3	19	34	49	62
Environmentally Sensitive Areas	17	59	63	70	75	76
Nitrate Sensitive Areas	2	4	3	2	2	. .
Woodland Schemes	7	11	11	13	16	17
Sites of Special Scientific Interest (r)	8	13	12	12	13	14
Energy crops	. .	. .	-	-	-	-
other (s)	1	3	2	3	3	3
Taxes including vehicle licences	- 62	- 93	- 93	- 82	- 78	- 78
Other (t)	. .	. .	. .	. .	. .	. .
Total other subsidies and levies on production (c)	106	226	217	484	516	615
Total subsidies less levies	1 524	2 599	2 404	2 407	2 616	2 825

source: Defra website, http://statistics.defra.gov.uk/esg/

(a) Includes estimates for Wales.

(b) Contributes to basic prices and are included in output in table 8.1.

(c) “Subsidies on products”: subsidies linked to products which provide an incentive to production of those products. “Other subsidies on production”: subsidies other than “Subsidies on products” from which agricultural producers can benefit as a consequence of engaging in production.

(d) Oats, rye, mixed corn and triticale.

(e) CAP hops and herbage seeds support, hemp and flax aid, oilseed rape and linseed support.

(f) Includes extensification premium and Northern Ireland de-seasonalisation premium.

(g) Payments in England, Wales and Scotland were made to those claiming Suckler Cow Premium. In Northern Ireland, payments were divided between those claiming Slaughter Premium or Suckler Cow Premium.

(h) A 'light lambs' disposal scheme, part of the Livestock Welfare Disposal Scheme. This scheme was introduced to cover lambs that could not be marketed as a result of the ban on exports and restrictions on movement of sheep arising from the outbreak of foot-and-mouth disease in 2001.

(i) Beef and sheep variable premiums, hill cow, beef cow, calf, hill sheep, pig and calf subsidies.

(j) Excludes levies paid to non-governmental organisations. These are included in the production and income account (table 8.1) under 'other goods and services'.

(k) Wheat, barley, oats, rye, mixed corn and milk co-responsibility levies.

(l) Not included in output but contribute to net value added at factor cost in table 8.1.

(m) Arable area payment and former 5 and 1 year schemes.

(n) Tuberculosis, brucellosis, salmonella, Chernobyl, Newcastle and Aujeszky's disease, swine fever and avian influenza compensation and BEIC egg scheme.

(o) Land area based schemes which replaced the Hill Livestock Compensatory Allowance Scheme in 2001. These are Tir Mynydd in Wales, Less Favoured Area Compensatory Allowance Scheme in Northern Ireland, Less Favoured Areas Support Scheme in Scotland and Hill Farm Allowance in England.

(p) Also includes Arable Stewardship.

(q) Includes Organic Aid and Organic Conversion schemes.

(r) Payments for land management for Sites of Special Scientific Interest administered by English Nature, Scottish Natural Heritage and Countryside Council for Wales.

(s) Includes Moorland, Habitat and Countryside Access Farming schemes.

(t) Guidance premium for beef and sheepmeat production, Pilot Beef and Sheep Extensification Scheme and farm accounts grant. Also includes historic data for fertiliser and lime grant and payments to small scale cereal producers.

Table 10.2 UK subsidies and other payments by country in 2003

Shows payments after deduction for modulation where appropriate

Enquiries: Keith Seabridge on +44 (0)1904 455081 email: keith.seabridge@defra.gsi.gov.uk

£ million

	England	Wales (a)	Scotland	Northern Ireland
Subsidies on product (b) (c)				
Crop subsidies				
Arable area payments on:				
wheat	435	. .	21	2
barley	175	. .	75	6
other cereal crops (d)	28	. .	6	1
oilseed rape	110	. .	6	-
linseed	8	. .	-	-
peas and beans - stockfeed and human consumption	74	. .	-	-
other crops	5	. .	-	-
Total arable area payments	836	11	108	9
Other crop subsidies (e)	2	. .	-	-
Livestock subsidies:				
Beef Special Premium (f)	118	27	48	50
Suckler Cow Premium (f)	84	49	61	43
Slaughter Premium	69	4	26	26
Extensification Payment Scheme	55	5	37	34
Over Thirty Month Scheme	121	. .	33	26
Beef National Envelope (g)	16	. .	12	6
Sheep Annual Premium	108	98	71	19
Sheep National Envelope	2	. .	-	1
Total subsidies on product (c)	1 411	. .	396	214
Other subsidies on production (c) (h)				
Set-aside (i)	181	. .	21	1
Less favoured areas support schemes (j)	39	36	62	24
Agri-environment schemes:				
Countryside Stewardship (k)	66	. .	. .	. .
Countryside Premium and Rural Stewardship	. .	. .	13	. .
Tir Cymen and Tir Gofal	. .	18	. .	. .
Countryside management scheme		. .	. .	3
Organic conversion (l)	50	3	7	-
Environmentally Sensitive Areas	56	6	8	6
Nitrate Sensitive Areas	. .	. .	. .	. .
Woodland Schemes	11	. .	6	1
Sites of Special Scientific Interest (m)	9	. .	3	-
Energy crops	-	. .	. .	. .
Moorland and Habitat schemes (n)	2	1	-	. .
Total other subsidies on production (c)	415	. .	120	35
Total subsidies	1 826	. .	517	249

source: Defra website, www.defra.gov.uk/esg/

continued

Table 10.2 continued

(a) Data for Wales has been updated since preparation of the UK production and income account shown in table 8.1; the sum of the figures in this table may therefore not match the figures for the UK in table 8.1.

(b) Contributes to basic prices and are included in output in table 8.1.

(c) "Subsidies on products": subsidies linked to products which provide an incentive to production of those products. "Other subsidies on production": subsidies other than "Subsidies on products" from which agricultural producers can benefit as a consequence of engaging in production.

(d) Oats, rye, mixed corn and triticale.

(e) CAP hops and herbage seeds support, hemp and flax aid, oilseed rape and linseed support.

(f) Includes extensification premium .

(g) Payments in England, Wales and Scotland were made to those claiming Suckler Cow Premium. In Northern Ireland payments were divided between those claiming Slaughter Premium or Suckler Cow Premium.

(h) Not included in output but contribute to net value added at factor cost in table 8.1.

(i) Arable area payment and former 5 and 1 year schemes.

(j) Land area based schemes which replaced the Hill Livestock Compensatory Allowance Scheme in 2001. These are Tir Mynydd in Wales, Less Favoured Area Compensatory Allowance Scheme in Northern Ireland, Less Favoured Areas Support Scheme in Scotland and Hill Farm Allowance in England.

(k) Also includes Arable Stewardship.

(l) Includes Organic Aid and Organic conversion schemes.

(m) Payments for land management for Sites of Special Scientific Interest administered by English Nature, Scottish Natural Heritage and Countryside Council for Wales.

(n) Includes Moorland, Habitat and Countryside Access Farming schemes.

Table 10.3 UK capital payments

Enquiries: Keith Seabridge on +44 (0)1904 455081 email: keith.seabridge@defra.gsi.gov.uk

£ million Calendar years

	1999	2000	2001 (a)	2002 (a)	2003 (a) (provisional)
BSE - animal disease (from 1988)	1	1	1	1	-
BSE - selective cull (from 1997)	2	-	-	-	-
Scrapie (from 1998)	-	-	-	-	-
Sheep national envelope - Quota purchase	. .	. .	. .	2	. .
Pig welfare disposal scheme	. .	9	4	. .	. .
Pig industry restructuring scheme	. .	. .	47	22	. .
Foot-and-mouth disease (a)	. .	. .	1 313	. .	. .
Non-marketing of milk (1980 - 1986 and 1994)	. .	. .	. .	. .	. .
Milk outgoers (1984 - 1994)	. .	. .	. .	. .	. .
Milk quota cuts (1987 - 1997)	. .	. .	. .	. .	. .
Capital grants (b)	7	7	9	10	11

source: Defra website, http://statistics.defra.gov.uk/esg/

((a) For full breakdown see table 8.4.

(b) Includes farm diversity, farm and conservation, agriculture improvement scheme, agriculture and horticulture and farm structures grants.

Chapter 11 Conservation and land management

Land designation, protection and management (Table 11.1)

1 Traditional farming methods together with climatic conditions and the underlying geology have produced distinctive regional landscapes. The local landscape is shaped by natural landforms, local building materials, species and habitat types and land management practices. These have combined to create distinctive and unique character areas in the UK. Farming activities carried out in an environmentally responsible manner support, maintain and enhance the diversity of the landscapes, habitats and food sources for farmland wildlife. Much of our flora and fauna have adapted to agricultural systems, the common names of wild species indicate their historic relationship with farming, such as corn crake, barn owl, hedge sparrow, field poppy, corn cockle and corn flower.

2 Areas of the UK have been designated to give protection, mainly for reasons of national landscape and/or nature conservation importance. For example, Sites of Special Scientific Interest (SSSIs) are notified for the importance of the flora, fauna, geological or landform features. National Parks have been designated for their unique landscapes, natural habitats and recreational opportunities and Areas of Outstanding Natural Beauty (AONBs) for their landscapes. Environmentally Sensitive Areas (ESAs) are designated for high landscape, wildlife or historic value. Many of these areas are supported by management plans and agri-environment schemes.

3 Some sites are given enhanced protection due to their European and/or worldwide importance. For example, Special Protection Areas and Special Areas for Conservation have been proposed or designated under the EU Birds and Habitat Directive respectively and make up the Natura 2000 sites network. These, together with Ramsar sites (designated under the Ramsar Convention for wetlands) are based on the national networks of SSSIs and National Nature Reserves. These designations are not mutually exclusive and a site may be in more than one category.

4 The table 11.1 shows areas of land designations and some of those protected by voluntary management schemes in England, Wales, Scotland and Northern Ireland.

5 National Parks were first designated in the 1950s in England and Wales. There are now 11 parks and proposals for 2 more in the New Forest and the South Downs. Scotland's 2 National Parks are Loch Lomond and the Trossachs (designated 2002), and the Cairngorms (designated 2003). There is a proposal in Northern Ireland for The Mournes to become a National Park. The aims of National Parks are to: conserve and enhance the natural beauty, wildlife and cultural heritage; promote public understanding and enjoyment of the special qualities of the area; further economic and social development of the communities; and encourage sustainable use of natural resources. Funding is available in English and Welsh National Parks for management agreements for projects that meet local environmental circumstances and priorities.

6 Sites of Special Scientific Interest (SSSIs) in England, Scotland and Wales and Areas of Special Scientific Interest (ASSIs) in Northern Ireland are designated and administered, by English Nature, Scottish Natural Heritage, Countryside Council for Wales and the Environmental and Heritage Service (Northern Ireland) (see chapter 12 paragraphs 15-17). Management agreements are made with landowners to carry out activities to conserve and enhance the features for which the sites were designated, e.g. rare species, habitats or geological features. English Nature makes payments through its Wildlife Enhancement Scheme, these agreements can stand alone or augment ESA or stewardship agreements. An agri-environment scheme agreement for land that includes an SSSI or ASSI will incorporate the management of that site into the agreement. In Scotland, SSSIs are part of Scottish Natural Heritage's Natural Care Strategy, their schemes and agreements complement those of the Rural Development Programme.

7 In October 2002 the area of land in England designated as Nitrate Vulnerable Zones (NVZ) was increased from 4 per cent of land area to over 50 per cent and to also include areas in Scotland, Wales and Northern Ireland. Mandatory limits to the use of fertilisers were defined to protect ground and river water catchment areas. In England, farmers in NVZs can apply for a Farm Waste Grant to help them prevent nitrate run off. Since 1996 over £1 million has been paid out, of which £637,000 has been paid since the increase in NVZ area.

8 The National Trust and Scottish National Trust own a total of 3,280 km^2 of land in the UK. Over 80 per cent of the National Trust's land is farmed or is dependent on farming for its management. The Trusts hold this land 'for purposes of promoting permanent preservation for the benefit of the nation'. These benefits include: environmental quality; landscape; historic features and cultural values; diversity of wildlife and habitats and opportunities for public access as well as the production of food. They aim to preserve the traditional character of the area with active farm management. This is done by working closely with their tenants, providing advice on land management issues and developing whole farm plans.

9 There are a range of land management initiatives and schemes. Of those run by The Countryside Agency (CA), the Humberhead Levels and Severn Valley are designed for water and flood management. In the Northumberland National Park, the CA co-ordinate an initiative covering the whole park and looking at sustainable upland farm management.

10 The Environment Agency works with local, national and European groups on a range of management projects, particularly related to flood defence. The Upper Wharfedale best practice project looks at all aspects of the catchment area including geomorphology, hydrology and wildlife habitats. The project links forest design, ESA and stewardship opportunities and whole farm plans within the catchment area.

11 On an individual farm basis, Integrated Farm Management (IFM) aims to integrate biological processes into modern farming practices using advanced technology to provide the basis for efficient and profitable production which is economically viable and environmentally responsible. This involves the consideration in agricultural organisation and planning of: soil management and crop nutrition; crop protection; pollution control and waste management; energy efficiency; animal husbandry; and

landscape and wildlife features. Linking Environment and Farming (LEAF) actively promotes IFM with a self-assessment audit and over 1,600 members now consider IFM in their management decisions on over 200,000 hectares.

Rural development programmes (Table 11.2 and 11.3)

12 The land based agri-environment schemes are managed under the Rural Development Programmes (RDP) by Defra, Scottish Executive Environment and Rural Affairs Department, Welsh Assembly Government and Department of Agriculture and Rural Development (Northern Ireland). The programmes also include project based schemes for processing and marketing, rural enterprise and vocational training.

13 Agri-environment schemes make payments to farmers for 5 to 10 year agreements for conservation matters. The Environmentally Sensitive Areas Scheme (ESA) was introduced in 1987 to offer incentives to farmers to adopt agricultural practices which would safeguard and enhance parts of the country (within the ESA designation) of high landscape, wildlife or historic value. ESA payments contribute significantly to land management in both SSSIs and National Parks that are also within the ESA designation. Outside ESA areas, Countryside Stewardship (England), Rural Stewardship (Scotland), Countryside Management (Northern Ireland) and across the whole of Wales Tir Gofal, aim to do the following: conserve traditional countryside landscapes and features; improve and extend wildlife habitats; conserve historic, geological and landscape features; and to restore traditional aspects of the countryside. Other land based schemes include organic conversion, energy crops and farm woodlands.

14 In England an Entry Level agri-environment scheme is being piloted, aiming to encourage large numbers of farmers across a wide area of farmland to deliver simple yet effective environmental management on their farms. The full scheme will be rolled out and available to all farmers in 2005. In Wales an entry level scheme will be piloted in two areas during 2004. Northern Ireland is on target to open an Entry Level Countryside Management Scheme in 2004.

Environmental schemes (Table 11.3)

15 Table 11.2 shows expenditure on individual environment and conservation schemes by country. The figures for organic farming are for conversion programmes. A single scheme year has been used as the individual schemes use different years. The data for each scheme is for the year in which the bulk of that scheme's payments are made. The main increases in payments from 2002 to 2003 are in the various stewardship schemes and for organic conversion. In England payments to Countryside Stewardship agreement holders increased by a third and in Scotland, Rural Stewardship payments doubled; this scheme is replacing the Countryside Premium. Payments for organic conversion increased by 22 per cent in England and 51 per cent in Scotland. The payments and areas for SSSIs and ASSIs are for management agreements outside the RDPs, as mentioned in paragraph 6.

16 The Less Favoured Area designation (see table 11.1) covers upland areas where beef and sheep farmers receive a compensatory allowance which contributes to maintaining the landscape and rural communities. These are: in England, Hill Farm Allowance; in Wales, Tir Mynydd; in Scotland, Less Favoured Area Support Scheme and in Northern Ireland, Less Favoured Area Compensatory Allowances. These payments are on an area basis rather than per head of livestock. Total payments for

the UK have remained at around £150 million each year since these schemes replaced the Hill Farm Compensatory Allowances in 2001.

17 Table 11.3 shows the area of land in the various environment schemes by country. The area has been used to represent the uptake of the scheme although payments can be for boundaries, field margins or other forms of management not necessarily related to the land area. This table shows the cumulative areas of land within individual schemes by country, i.e. all the land receiving payments within that scheme for that year, and not just new agreement holders. For SSSIs, ASSIs and ESAs the area of land in table 11.3 relates to the payments for management schemes and not necessarily the total area of land designated (which is shown in table 11.1). SSSIs or ASSIs managed within ESA or stewardship schemes, are included in the data within the ESA or other management scheme in tables 11.2 and 11.3.

18 In line with increased payments in 2003, areas in the stewardship schemes showed the greatest increase: 21 per cent for Countryside Stewardship in England; 80 per cent for Tir Gofal in Wales (replacing Tir Cymen); and 58 per cent in Countryside Management in Northern Ireland. The uptake of ESA schemes, by area of land, within the ESA designated areas in 2003 was 54 per cent in England, 34 per cent in Wales, 56 per cent in Scotland (2002) and 66 per cent in Northern Ireland. Schemes such as Moorland and Habitat are being wound down and being incorporated into the stewardship schemes, hence the gradual decrease in payments and land area.

19 Further information on their specific schemes can be found on the Department for Environment, Food and Rural Affairs, Scottish Executive Environment and Rural Affairs Department, Welsh Assembly Government and Department of Rural Development (Northern Ireland) websites.

20 A report (McInerney et al, 2000) suggests that the farm level costs for countryside maintenance and management is an average of £23 per hectare, for areas outside agri-environment schemes. This is mainly spent on field boundaries but also on woodlands, traditional buildings, footpaths and semi-natural features such as ponds.

21 Please contact Barbara Norton for any general enquiries regarding this chapter, 01904 455577, barbara.norton@defra.gsi.gov.uk. Further information on any of the schemes, initiatives, designated or protected areas can be found on the appropriate websites.

Table 11.1 Designated and protected areas by country 2003 (a)

Enquiries: Barbara Norton on +44 (0)1904 455577 email: barbara.norton@defra.gsi.gov.uk

	National Parks	Area of Outstanding Natural Beauty / National Scenic Areas (b) (c)	Area / Site of Specific Scientific Interest desig-nation	Nitrate Vulnerable Zone	Environ-mentally Sensitive Area desig-nation	Less Favoured Area desig-nation	National Trust
England							
thousand hectares	994	2 071	1 055	6 919	1 176	2 214	193
number	8	37	4 113	. .	22	. .	. .
% of total land (d)	8%	16%	8%	53%	9%	17%	1%
Wales							
thousand hectares	409	105	275	35	519	1 648	45
number	3	5	1 016	. .	6	. .	. .
% of total land (d)	20%	10%	13%	2%	25%	79%	2%
Scotland							
thousand hectares	547	1 002	1 005	1 126	1 451	6 902	78
number	2	40	1 451	. .	10	. .	. .
% of total land (d)	7%	13%	13%	14%	19%	88%	1%
Northern Ireland							
thousand hectares	. .	336	92	2	221	826	12
number	. .	9	196	. .	5	. .	. .
% of total land (d)	. .	24%	7%	-	16%	58%	1%

source: Defra, Department of Environment (Northern Ireland), Countryside Council for Wales, Welsh Assembly Government, Scottish Executive, Scottish Natural Heritage, National Trust, Scottish National Trust, and Environment Agency

(a) Land in this table does not necessarily receive payment for land management.

(b) Generally Areas of Outstanding Natural Beauty and National Parks are mutually exclusive, however, some Areas of Outstanding Natural Beauty exist within the Broads National Park and National Scenic Areas remain within the Scottish National Parks.

(c) The total number of Areas of Outstanding Natural Beauty in England and Wales is 41, as the Wye Valley Area of Outstanding Natural Beauty spans both countries, the respective areas are included in each country in this table.

(d) The percentage is included for comparison purposes. Areas of land are not always consistent in their inclusion of lakes, estuaries and other bodies of water.

Table 11.2 Environmental schemes - payments by country

Enquiries: Keith Seabridge on +44 (0)1904 455081 email: keith.seabridge@defra.gsi.gov.uk

£ million Scheme year

	Average of 1992-94	1999	2000	2001	2002 (a)	2003 (a) (provisional)
Total expenditure	43	128	154	362	387	. .
England						
Hill Farm Allowance Scheme	. .	. .	. .	42	39	39
Environmentally Sensitive Areas Scheme	15	40	41	46	53	56
Countryside Stewardship Scheme	8	23	29	40	49	66
Arable Stewardship Scheme	. .	-	1	1	1	1
Organic conversion schemes	. .	2	15	26	41	50
Nitrate Sensitive Areas Scheme	2	4	3	2	2	. .
Countryside Access Scheme	. .	-	-	-	-	-
Habitat Scheme	2	2	2	2	2	2
Moorland Scheme	-	-	-	-	-	-
Woodland schemes	2	6	6	8	9	11
Energy Crops Scheme	. .	. .	-	-	-	-
Site of Special Scientific Interest (b)	7	8	8	8	8	9
Entry Level Scheme - pilot	. .	. .	. .	. .	. .	1
Wales						
Tir Mynydd	. .	. .	. .	36	44	36
Environmentally Sensitive Areas Scheme	. .	6	7	6	6	6
Tir Cymen	3	6	5	5	4	4
Tir Gofal	. .	. .	2	8	13	14
Organic conversion schemes	. .	. .	. .	3	2	3
Habitat Scheme	. .	. .	. .	1	1	1
Moorland Scheme	. .	. .	. .	1	1	-
Woodland schemes	2	-	-	-	-	-
Site of Special Scientific Interest (b)	2	3	2	2	2	. .
Scotland						
Less Favoured Area Support Scheme	. .	. .	. .	62	64	62
Environmentally Sensitive Areas Scheme	1	7	9	11	10	8
Countryside Premium Scheme	1	7	5	9	6	5
Rural Stewardship Scheme	. .	. .	. .	. .	3	7
Organic conversion schemes	. .	-	3	5	5	7
Habitat & Moorland schemes	1	-	-	-	-	-
Woodland schemes	2	4	4	4	6	6
Site of Special Scientific Interest (b)	. .	2	2	2	3	3
Northern Ireland						
Less Favoured Area Compensatory Allowances Scheme	. .	. .	. .	25	23	24
Environmentally Sensitive Areas Scheme	1	6	6	7	5	6
Organic conversion schemes	. .	. .	-	-	-	-
Woodland schemes	-	1	1	1	1	1
Countryside Management Scheme	. .	. .	. .	1	3	3
Area of Special Scientific Interest (b)	. .	-	-	-	-	-

source: Defra website, http://statistics.defra.gov.uk/esg

(a) Data for Wales has been updated since preparation of the UK production and income account shown in table 8.1; the sum of the figures in this table may therefore not match the figures for the UK in table 8.1.

(b) Payments for Sites of Special Scientific Interest or Areas of Special Scientific Interest that are managed under Environmentally Sensitive Areas or stewardship schemes are not also included in Sites of Special Scientific Interest or Areas of Special Scientific Interest payments shown in this table.

Table 11.3 Environmental schemes - area of land in schemes by country

Enquiries: Keith Seabridge on +44 (0)1904 455081 email: keith.seabridge@defra.gsi.gov.uk

Thousand hectares Scheme years

	Average of 1992-1994	1999	2000	2001	2002	2003 (provisional)
England						
Environmentally Sensitive Areas Scheme (a)	247	524	550	579	620	640
Countryside Stewardship Scheme	61	179	250	330	414	500
Arable Stewardship Scheme	. .	2	2	2	2	2
Organic conversion schemes	1	16	96	138	157	174
Nitrate Sensitive Areas Scheme	10	16	10	6	5	. .
Countryside Access Scheme	. .	-	-	-	-	. .
Habitat Scheme	4	7	7	7	7	7
Moorland Scheme	. .	16	16	16	3	3
Woodland schemes	16	33	36	41	46	51
Sites of Special Scientific Interest (a)	. .	. .	. .	. .	154	167
Entry Level Scheme - pilot	. .	. .	. .	. .	. .	31
Wales						
Environmentally Sensitive Areas Scheme (a)	. .	. .	. .	180	180	175
Tir Cymen	. .	. .	89	. .	. .	. .
Tir Gofal	. .	52	50	. .	97	174
Organic conversion schemes	. .	. .	34	. .	49	52
Habitat Scheme	. .	. .	7	7	7	6
Moorland Scheme	. .	. .	. .	1	-	-
Woodland schemes	. .	1	2	2	2	2
Sites of Special Scientific Interest (a)	37	55	63	57	48	40
Scotland						
Environmentally Sensitive Areas Scheme (a)	131	639	772	771	816	. .
Countryside Premium Scheme	. .	. .	. .	. .	. .	. .
Rural Stewardship Scheme	. .	. .	. .	. .	145	. .
Organic conversion schemes	. .	76	212	233	304	. .
Habitat Scheme	. .	2	2	2	2	. .
Woodland schemes	. .	40	50	53	57	62
Sites of Special Scientific Interest (a)	. .	310	287	312	332	339
Northern Ireland						
Environmentally Sensitive Areas Scheme (a)	. .	152	154	148	144	146
Organic conversion schemes	. .	1	1	4	5	5
Woodland schemes	18	67	54	54	42	46
Countryside Management Scheme	. .	. .	. .	19	57	90
Areas of Special Scientific Interest (a)	. .	2	2	2	2	3

source: Defra website, www.defra.gov.uk/esg/

(a) All land designated as Environmentally Sensitive Areas, Sites of Special Scientific Interest or Areas of Special Scientific Interest does not necessarily receive management payments. The areas in this table represent land receiving payments only.

Chapter 12 Environment

Introduction

1 In the UK, agricultural activities cover around three-quarters of the land area and produce two-thirds of UK food. The agricultural sector is made up of around 303,000 holdings varying widely in size and type. A range of different farming practices are employed involving: the way in which livestock are kept; the use of inputs such as soil and water as well as nutrient, land and waste management. The interaction between these practices and the local environmental characteristics affect the extent to which farming activities impact on the environment. The effects on the environment are significant and complex; farming activities can give rise to both positive and negative impacts on the environment operating at local, regional, national and global levels.

Environmental impacts

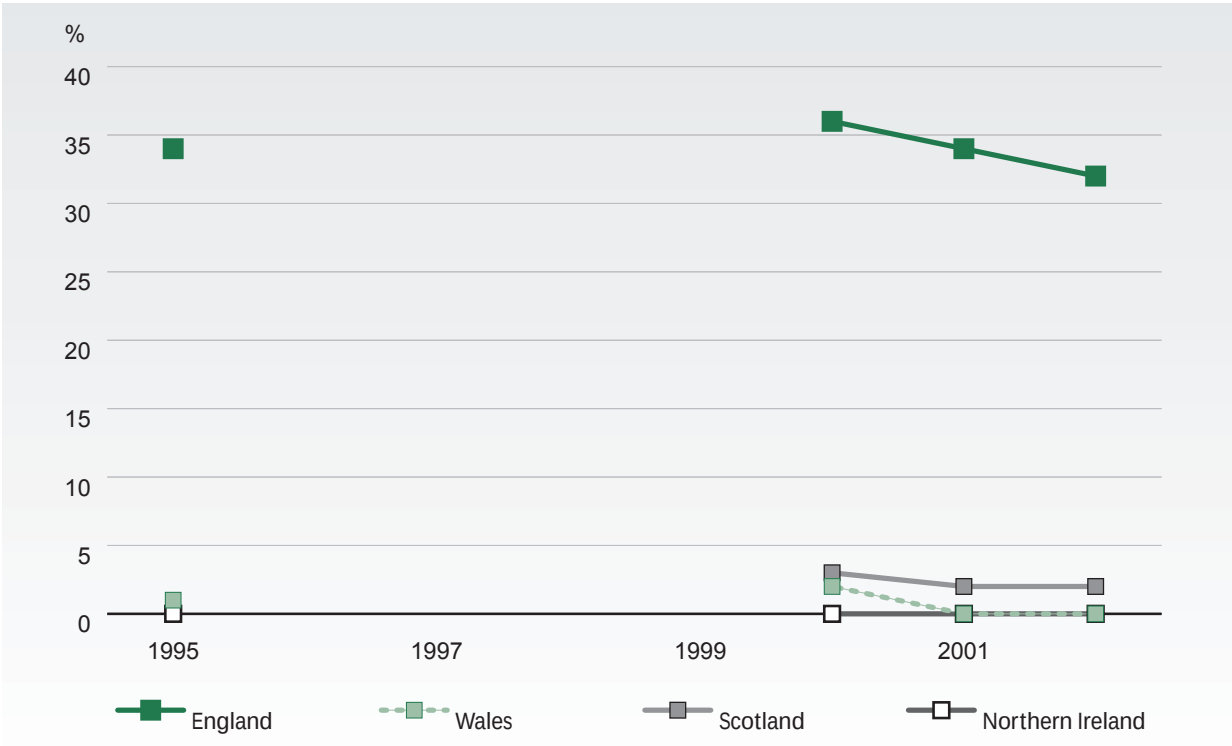
2 This section brings together physical data on the impacts of agriculture on the environment. The data have been selected to put these impacts into context and show the agricultural contribution to environmental issues. The charts, based on data from the e-Digest, cover all the major environmental issues for which reliable sources already exist. The e-Digest of Environment Statistics is available at: http://www.defra.gov.uk/environment/statistics/index.htm, where further information or definitions relating to any of the charts or tables sourced as the e-Digest can be found.

Water
(Charts 12.1 and 12.2)

3 River and groundwater are important resources for agriculture. Agricultural water use represents about 1 per cent of water abstracted, but water abstraction for irrigation is increasing. Agricultural land use alters the flow of water and speeds up overland flow rates, which can contribute to flooding and soil erosion and can also reduce infiltration and the recharge of aquifers.

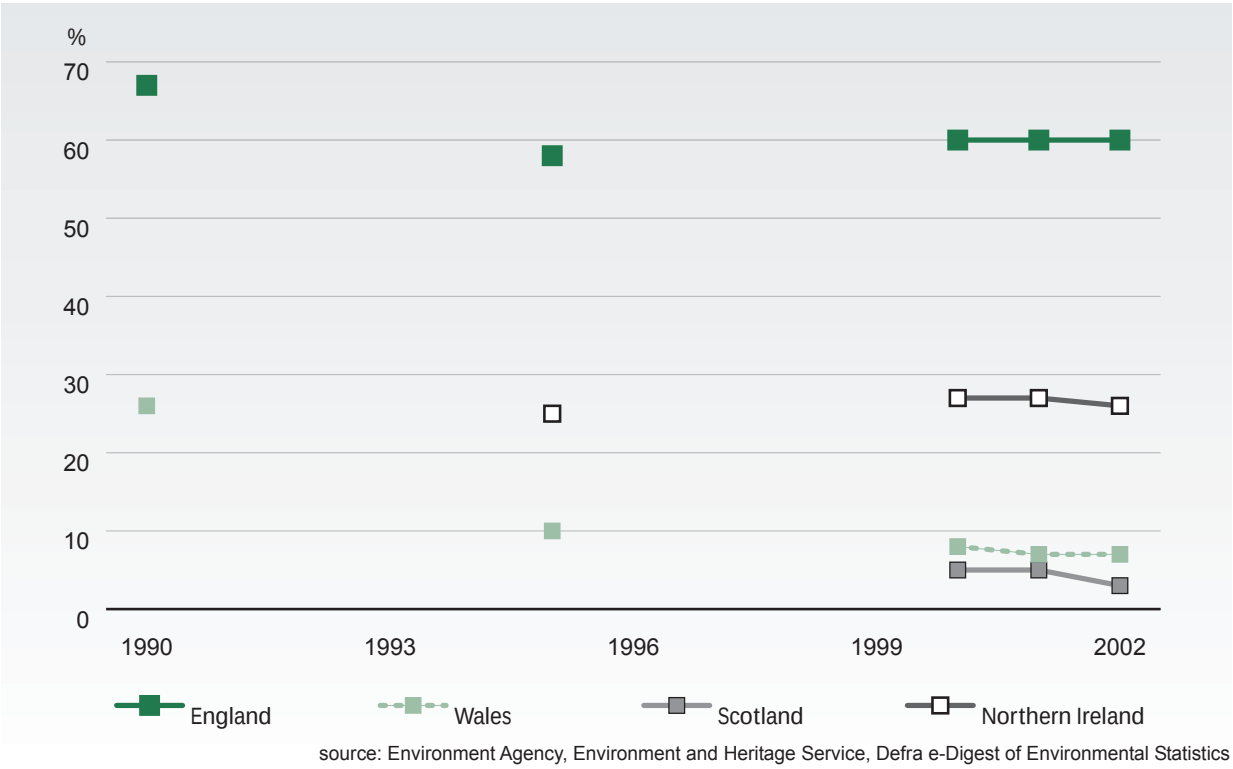
4 Farming is a major source of water pollution, both diffuse, such as from fertiliser and pesticides spread on the land, and point sources such as runoff from livestock buildings. Key areas of concern are nitrate pollution in surface and groundwater, phosphorus levels in surface water, contamination by pesticides and harmful effects of soil erosion sediments and mineral salts resulting in impaired drinking water and other environmental problems such as eutrophication. Chart 12.1 shows the lengths of rivers with nitrates levels over 30 mg NO_3 per litre. In Northern Ireland, Wales and Scotland these remain low, in England the recent fall reflects the fall in fertiliser use (chart 12.10 and paragraph 20). Chart 12.2 shows phosphate levels in rivers by country. High levels in freshwater can cause eutrophication, which affects the ecological balance of the water environment leading to excessive plant growth.

Chart 12.1 % of river length with nitrate levels greater than 30mg NO_3 per litre



source: Environment Agency, Environment and Heritage Service, Defra e-Digest of Environmental Statistics

Chart 12.2 % of river length with phosphate levels greater than 0.1mg per litre



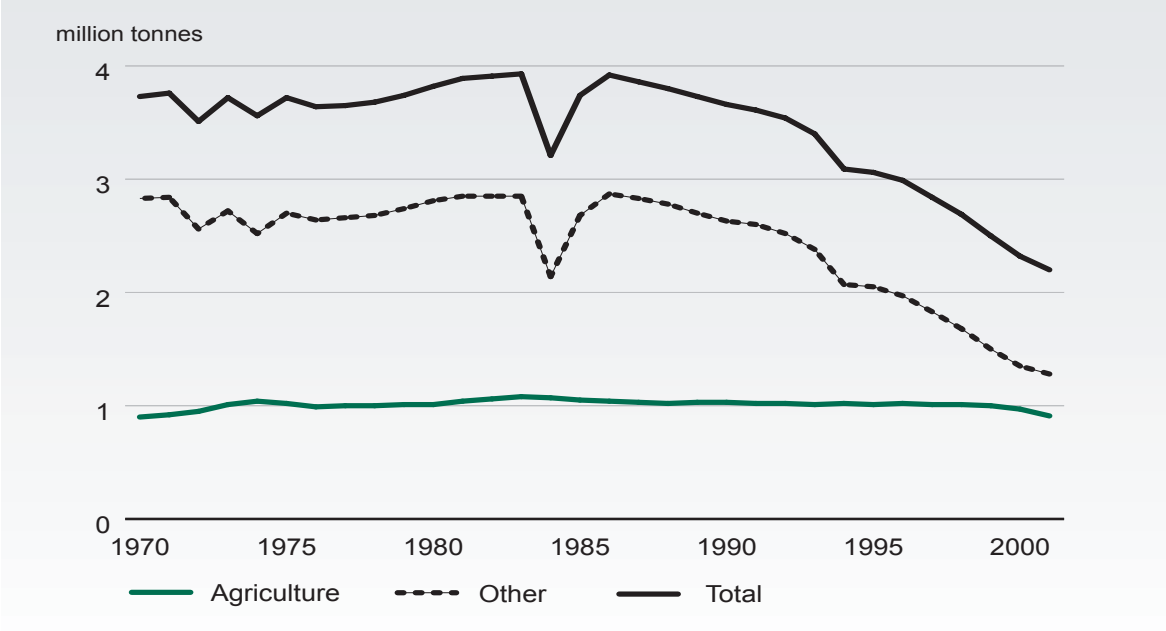
source: Environment Agency, Environment and Heritage Service, Defra e-Digest of Environmental Statistics

Air
(Charts 12.3, 12.4 and 12.5)

5 Emissions of carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) are of concern as they are greenhouse gasses. Methane and nitrous oxide have global warming potentials greater than carbon dioxide, by 21 and 310 times respectively. In the UK, agriculture accounts for 64 per cent of nitrous oxide and 42 per cent of methane emissions, as shown in charts 12.3 and 12.4.

6 Chart 12.3 shows the UK methane emissions from all sources and that from agriculture. Methane is generated as a result of enteric fermentation in ruminating animals. Over the last 30 years the emissions have remained fairly constant at around a million tonnes per year, the fall since 1999 reflects a general reduction in livestock numbers over this period.

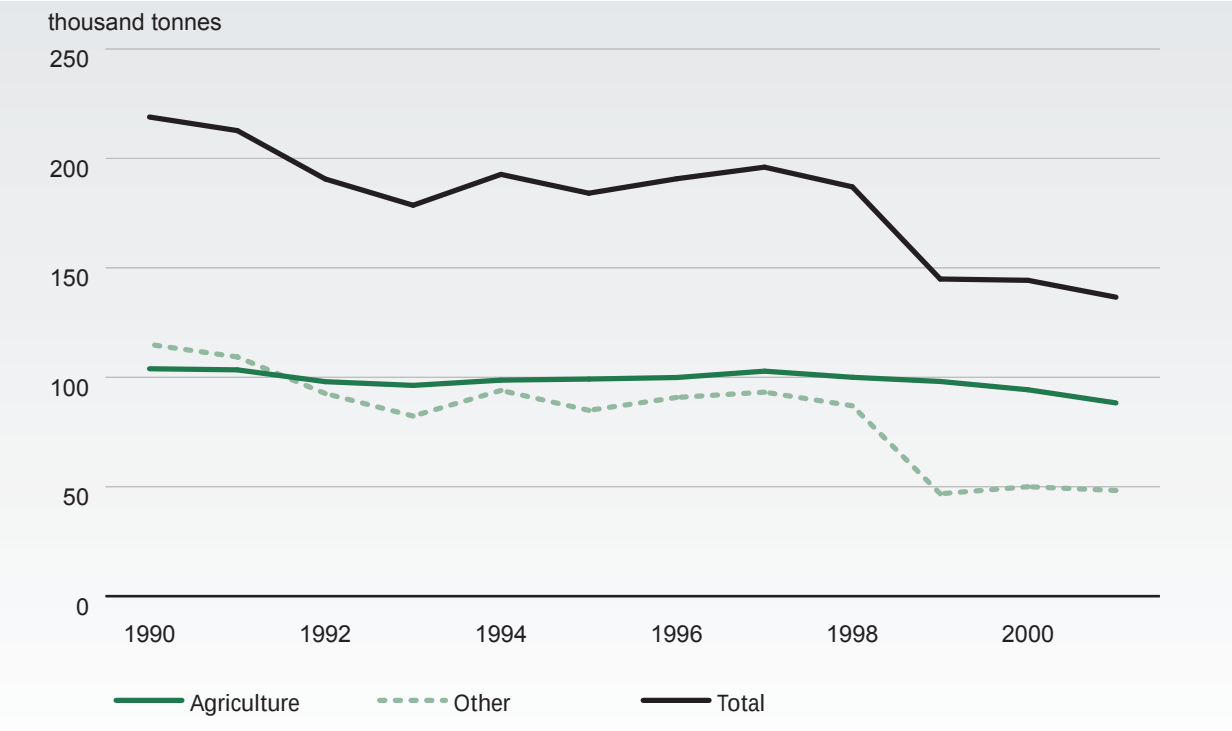
Chart 12.3 UK methane emissions by source 1970 to 2001



source: Necten, Defra e-Digest of Environment Statistics

7 Chart 12.4 shows the UK emissions of nitrous oxide from all sources and that from agriculture. Agricultural emissions of nitrous oxides are produced mainly from the oxidation of the nitrogen in fertilisers. The recent fall in these emissions is as a result of the reduction in fertiliser use (see chart 12.10 on fertiliser use).

Chart 12.4 UK nitrous oxide emissions by source 1990 to 2001

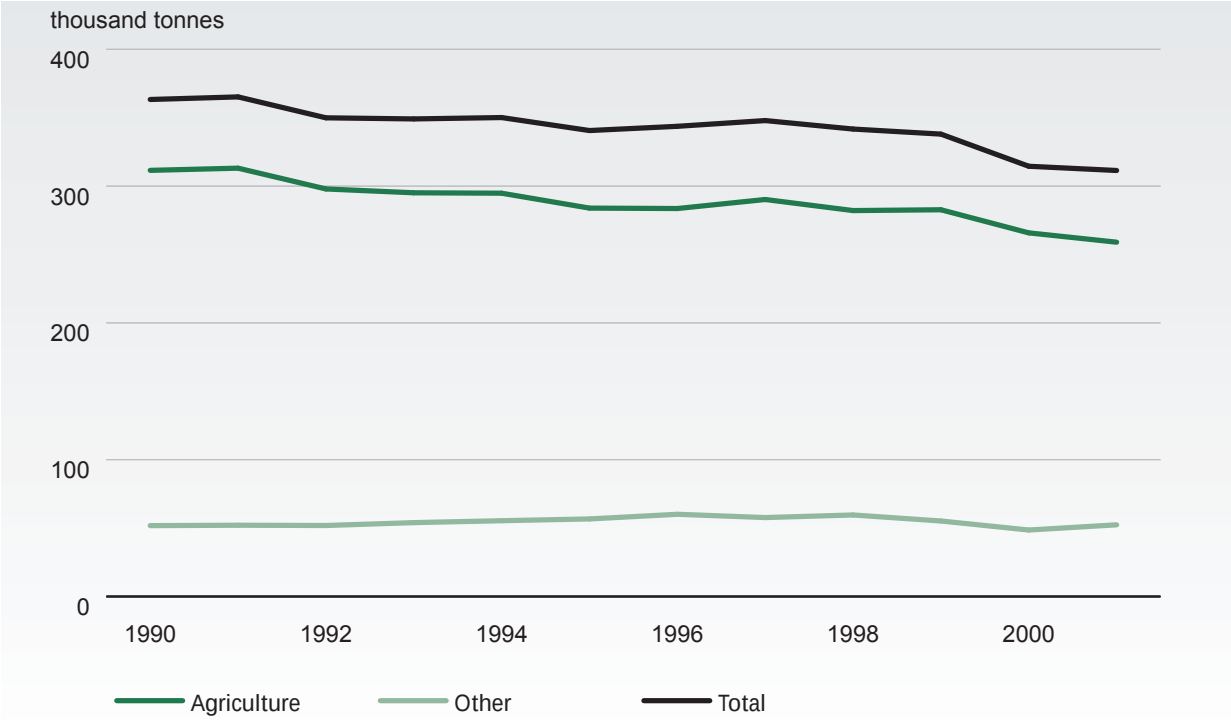


source: Necten, Defra e-Digest of Environmental Statistics

8 Carbon dioxide is emitted during cultivation of arable land or semi-natural vegetation, when the soil is rotated to the surface and exposed to the air, when peat or fenland is drained and during the combustion of fossil fuels to power tractors and machinery. All plant growth, including grass, crops and trees take in carbon from carbon dioxide and release oxygen. This makes vegetation a short term carbon sink, in which carbon is tied up for one, tens or hundreds of years before being re-released, whereas burning fossil fuels releases carbon tied up for millions of years.

9 Chart 12.5 shows that agriculture accounts for 83 per cent of the ammonia (NH_3) emissions in the UK. This is predominately from housing, storing and spreading animal manure particularly that of cattle and pigs. Inorganic fertilisers also produce ammonia as nitrogen reacts with compounds in the soil and air. The effects of ammonia are generally local, the main concern being acidification to water and soil. The gradual fall due to a general reduction in fertiliser use and a reduction in livestock numbers in the last few years.

Chart 12.5 UK ammonia emissions by source 1990 to 2001



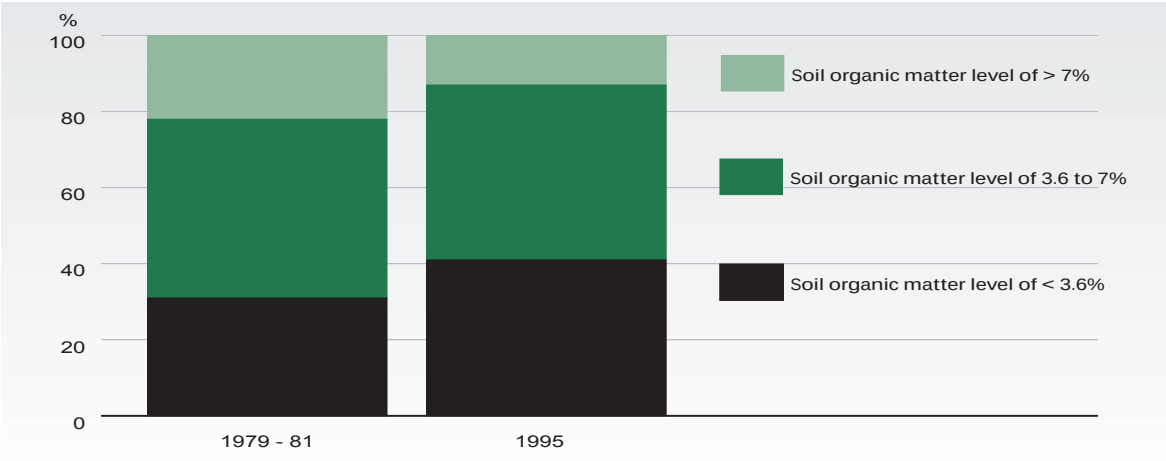
source: Necten, Defra e-Digest of Environmental Statistics

Soil (Chart 12.6)

10 Soil is a limited resource that is essential for all plant growth. Its biological, physical and chemical characteristics need to be maintained or improved. It also provides a habitat for earthworms and other fauna, which are essential for the soil structure and play their part in the wildlife food chain. Agricultural practices have an important part to play in protecting and improving the soil and preventing its loss by erosion. The careful management of soil is essential for all farming so that it remains a renewable resource. Rates of soil erosion from agricultural land are generally significant and are high where sensitive soil systems are managed inappropriately. The Environment Agency (2002) suggests that agriculture contributes to 95 per cent of soil erosion overall. Around 25 per cent of England and Wales is at moderate to high risk of erosion each year. Soil erosion may lead to falling soil productivity through soil losses and plant damage, as well as increased fertiliser and sowing costs and damage to water courses.

11 Soil organic matter is derived from plants, organic manures and the microbial biomass in the soil and other organic materials added to the soil. Organic matter plays a key role in maintaining soil fertility, structural stability and water holding capacity. Chart 12.6 shows the change in organic matter in agricultural top soil between 1979-81 and 1995. The proportion of soil with a high level of organic matter (over 7 per cent) has fallen from 21 per cent to 12 per cent between 1980 and 1995. The greatest proportion of loss has been in arable soils and peaty soils.

Chart 12.6 Organic content of soil in England and Wales



source: National soil inventory

Landscape (Table 12.1)

12 Agriculture plays a key role in shaping the character of the UK landscape. Agricultural landscapes are the visual outcomes of the interactions between farming, natural resources and the environment and include amenity, cultural and recreation values. Perceptions of landscape are rooted in history and local, regional and national cultures. Traditional buildings and field boundaries are important features of the landscape. Any changes to these features such as the removal of hedgerows and change in building methods or materials can change the character of the landscape. Table 12.1 shows the 1998 lengths of linear landscape features together with the change in lengths between 1990 and 1998, as reported by the Countryside Survey 2000. Further information on the Survey can be found at: http://www.cs2000.org.uk/results.htm

Table 12.1 Changes in stock of linear landscape features in GB 1990 to 1998

For definitions of linear landscape features used in Countryside Survey 2000 see Accounting for Nature: assessing habitats in the UK countryside.

Enquiries: Barbara Norton on +44 (0)1904 455577 email: barbara.norton@defra.gsi.gov.uk

	England and Wales			Scotland		
	1998 Length	Change in length 1990 - 1998		1998 Length	Change in length 1990 - 1998	
	thousand km		%	thousand km		%
Hedge	449.3	- 0.4	-	19.0	0.8	4.6
Remnant Hedge	52.3	- 13.5	- 20.9	5.3	- 0.9	-20
Wall	105.8	- 2.7	- 2.5	87.1	- 1.5	-1.7
Line of trees/shrubs/relict hedge and fence	70.0	15.5	30.8	11.1	1.4	14
Line of trees/shrubs/relict hedge	83.4	19.6	31.4	13.3	2.4	22.2
Bank/grass strip	70.0	- 1.9	- 2.5	12.4	0.8	6.3
Fence	423.2	25.6	6.6	233.7	8.6	3.9
Total	1 253.9	42.3	3.5	382.0	11.7	3.2

source: CS2000, e-Digest of Environmental Statistics

Habitat and species
(Table 12.2, charts 12.7, 12.8 and 12.9)

13 By interacting with environmental factors such as soil type, climatic conditions and existing populations of flora and fauna agriculture creates, maintains and supports semi-natural habitats, but can also damage them. Agricultural land use and other factors such as recreational use, impact on habitats and species in a complex and diverse manner. Table 12.2 shows the estimated stock of broad habitats in the UK in 1998 and the change in stock between 1990 and 1998. Further details and information on habitats and biodiversity can be found in Accounting for Nature: assessing habitats in the UK countryside, Countryside Survey 2000 (CS2000) at: http://www.cs2000.org.uk/

14 Chart 12.7 shows the trends in farmland bird populations since 1970. Bird populations are considered good indicators of the state of wildlife in the countryside since they have a wide habitat distribution and are near the top of the food chain. Therefore, changes in the bird population reflect changes in habitat diversity and in the food chain. The chart shows that total farmland bird populations declined by almost half between 1978 and 1993, but have since been relatively stable. Further information can be found on the Defra, RSPB, BTO and JNCC websites.

Table 12.2 Changes in stock of broad habitats in the UK 1990 to 1998

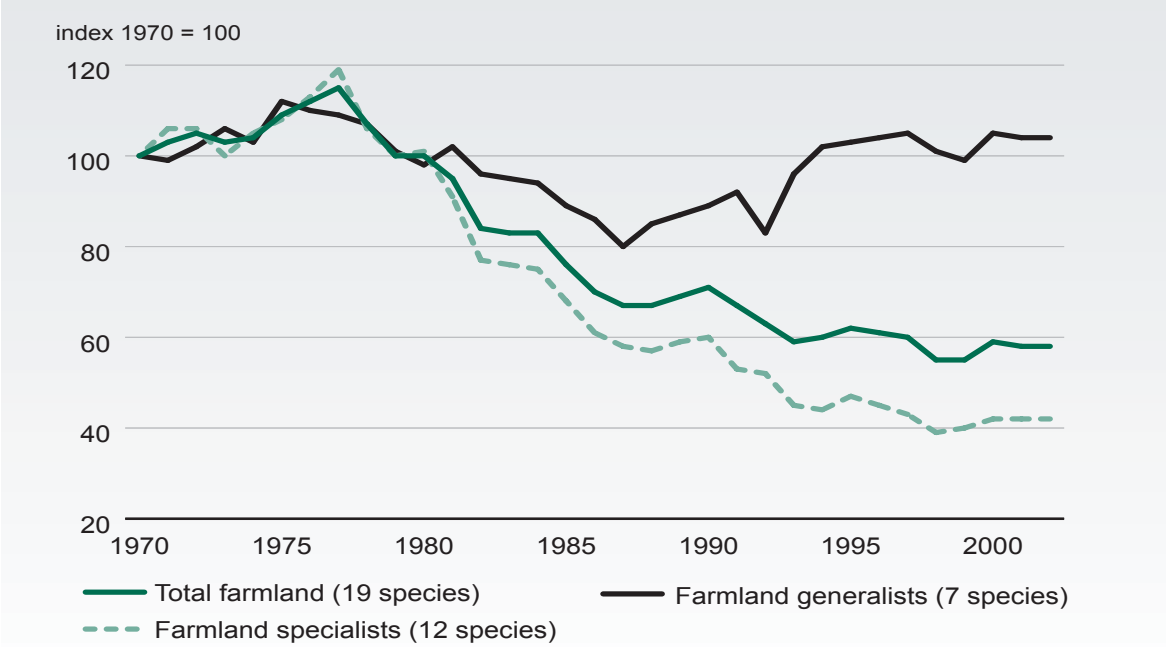
For definitions of broad habitats used in CS2000 see the definitions page in the Land section of the Defra e-Digest.

Enquiries: Barbara Norton on +44 (0)1904 455577 email: barbara.norton@defra.gsi.gov.uk

	England and Wales			Scotland			Northern Ireland			United Kingdom		
	Total 1998	Change 1990 - 98		Total 1998	Change 1990 - 98		Total 1998	Change 1990 - 98		Total 1998	Change 1990 - 98	
	thousand ha		%	thousand ha		%	thousand ha		%	thousand ha		%
Woodland habitats												
Broadleaved, Mixed and Yew Woodland	1 171	42	4	300	25	9	51	4	9	1 522	72	5
Coniferous Woodland	380	- 16	- 4	993	7	1	61	6	12	1 435	- 3	-
Intensive agriculture												
Improved Grassland	4 431	- 102	- 2	1 051	- 1	-	568	141	33	6 050	37	1
Arable and Horticultural	4 609	49	1	639	38	7	59	- 20	- 25	5 307	67	1
Semi-natural habitats												
Neutral Grassland	444	38	10	168	- 30	- 15	254	- 118	- 32	867	- 109	- 12
Bog	180	- 1	- 1	2 038	- 17	- 1	148	- 13	- 8	2 367	- 32	- 1
Dwarf Shrub Heath	485	-	-	1 002	- 58	- 5	13	- 1	- 8	1 500	- 59	- 4
Acid Grassland	547	- 116	- 17	748	- 39	- 5	28	- 2	- 8	1 324	- 157	- 10
Fen, Marsh and Swamp	210	43	27	337	55	19	53	- 12	- 19	600	86	17
Bracken	273	24	8	166	4	3	4	-	5	443	28	6
Calcareous Grassland	38	- 9	- 19	27	- 5	- 16	1	-	- 7	66	- 15	- 18
Montane	1	-	-	48	-	-	. .	. .	. .	. .	. .	. .
Inland Rock	17	- 8	- 28	38	15	59	6	. .	. .	56	. .	. .
Water												
Standing Open Water and Canals	106	1	1	85	1	1	. .	. .	. .	. .	. .	. .
Rivers and Streams	43	- 1	- 3	21	-	1	. .	. .	. .	. .	. .	. .

Source: CS 2000, Northern Ireland Countryside Survey 2000, e-Digest of Environmental Statistics

Chart 12.7 UK farmland bird index 1970 to 2002



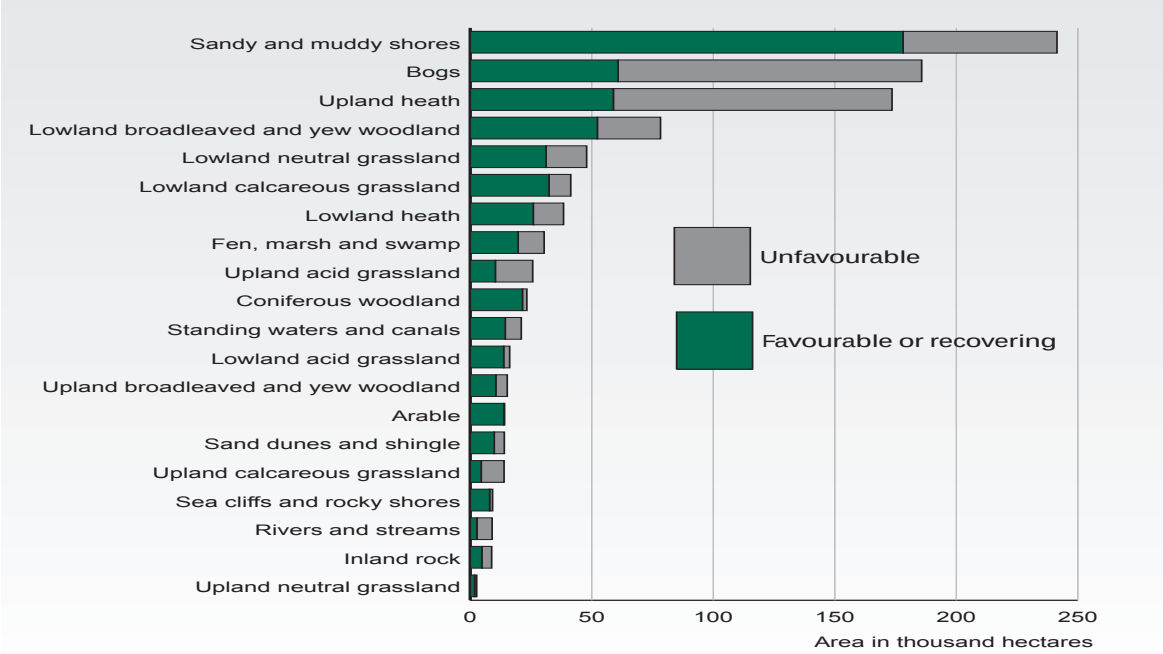
source: Defra/RSPB/BTO - published in December 2003

15 Sites of Special Scientific Interest (SSSIs) and Areas of Special Scientific Interest (ASSI) in Northern Ireland protect and conserve the most important wildlife and geological sites in the UK. English Nature assesses the condition of SSSIs in England using categories agreed for the UK through the Joint Nature Conservation Committee (JNCC). The following charts are taken from their report, England's Best Wildlife and Geological Sites: the Condition of Sites of Special Scientific Interest in England in 2003, which can be found at:
http://www.english-nature.org.uk/news/news_photo/SSSI_Condition_Report.pdf.

16 Chart 12.8 shows how the extent and condition of SSSIs varies across the English regions and between the different habitats. Bogs and upland heaths together account for over a third of the SSSI area. They are particularly sensitive to overgrazing and burning, which cause changes in vegetation and physical damage to the land. As a result less than a third of either bog or upland heath SSSI area is in a good condition. Over 90 per cent of both upland calcareous and acid grasslands have been damaged by overgrazing. In general SSSIs in lowland areas are in a more favourable condition than those in upland areas.

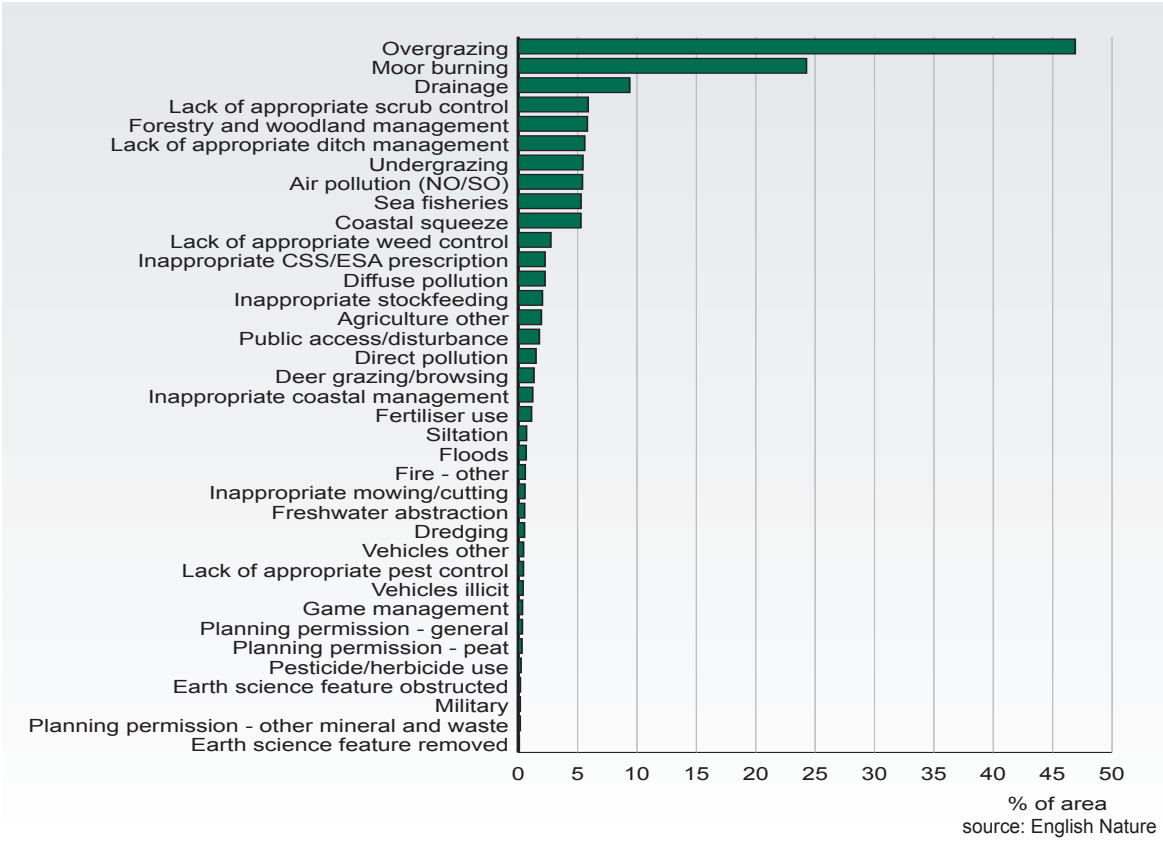
17 Chart 12.9 shows the major reasons for unfavourable conditions on all SSSIs in England. Currently (2003) 58 per cent of SSSI land area is in a favourable or recovering condition, leaving 42 per cent in an unfavourable condition. Across the whole series of SSSIs the main cause of unfavourable conditions include overgrazing, inappropriate moor burning, lack of scrub control, inappropriate forestry and woodland management and lack of appropriate ditch management. A large proportion of sites have damage by more than one factor. Generally, if an SSSI is in a favourable or recovering condition, it means that the habitats and species are in a healthy state and are being conserved for the future by appropriate management. If an SSSI is assessed as unfavourable, it means there is a current lack of appropriate management, or that there are other damaging impacts which need to be addressed.

Chart 12.8 Condition of habitats on SSSIs (England)



source: English Nature

Chart 12.9 Reasons for unfavourable conditions on SSSIs (England)



source: English Nature

Waste and manure

18 An estimated 100 million tonnes of slurry/manure and waste is produced by agriculture each year. The vast majority of this is natural products; slurry, manure and straw that can be reused. Of the remaining half a million tonnes of waste to be disposed of, the largest components are animal health products, agrochemicals and plastics. An agricultural waste survey in 2003 found that 90 per cent of farms disposed of some waste by burning, 32 per cent of farms buried some waste, 72 per cent kept some waste in long term storage and 77 per cent disposed of some waste through the household collection system.

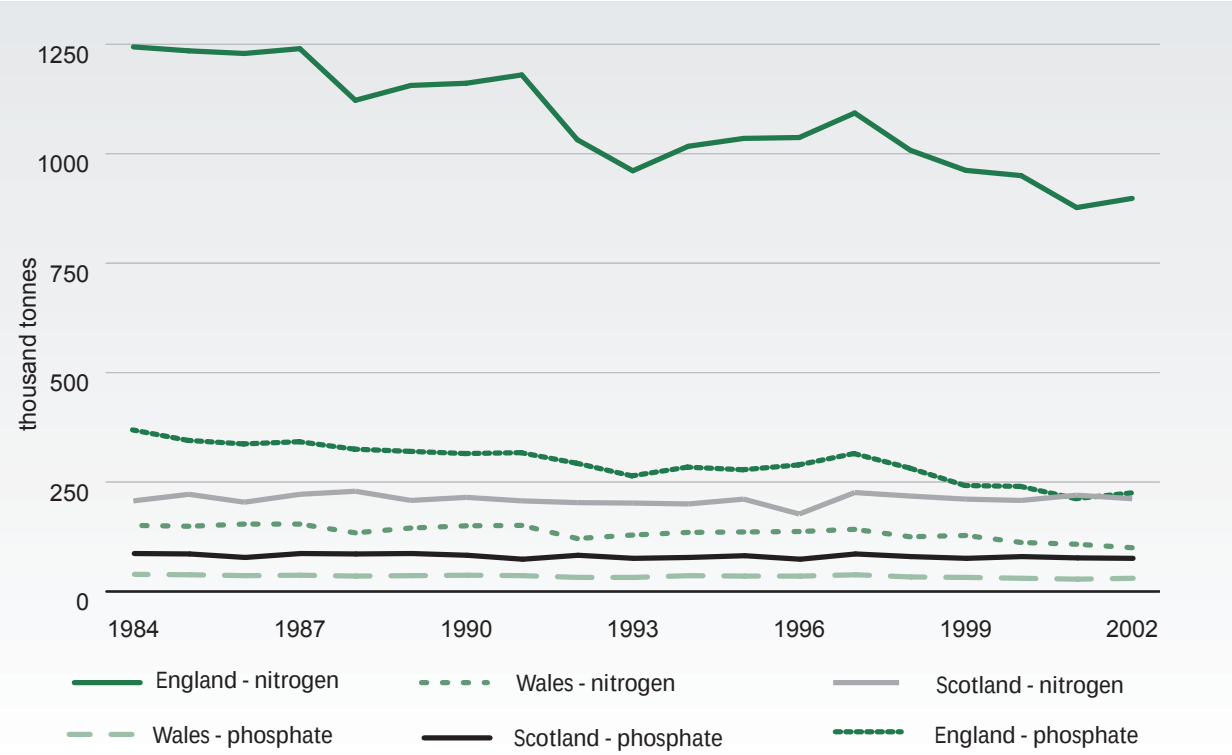
19 As well as slurry and manure being used to fertilise the land, some farm waste, such as straw and poultry manure is now being used as a source of energy.

Non renewable resources

(Table 12.3 and chart 12.10)

20 Agriculture uses inputs of renewable resources such as water, air and soil, and uses finite resources such as oil and diesel. These are used both directly and indirectly in the use of fossil fuels in electricity production and in the manufacturing of fertiliser. Chart 12.10 shows a gradual decline in fertiliser use in Great Britain. Fertiliser is applied at a higher rate on arable land than grass land. As England accounts for over 85 per cent of the arable area of the UK (86 percent of GB), mainly in the south and east, it therefore uses the majority of the fertiliser.

Chart 12.10 Nitrogen (N_2) and Phosphate (P_2O_5) fertiliser use in GB 1984 to 2002



source: GB fertiliser practice survey 2002, Defra Census data.

21 The power used both directly and indirectly by agriculture comes from mainly finite resources. Table 12.3 shows estimated direct and indirect use expressed as PetaJoules - Joules x 10^{15} (PJ) for purposes of comparison. This is the energy consumed in agricultural production and not in the processing and distribution of food. Energy used directly (for heating, lighting and power) by the agricultural industry represented 0.5 per cent of overall UK energy demand in the year 2002. In the table, biomass is the renewable energy used on farm. The indirect energy component of agricultural inputs (for the manufacture of fertilisers, pesticides and machinery) was 1.4 per cent of overall demand. The most dominant indirect input of energy arises from the manufacture of fertilisers. Reductions in the use of fertilisers and pesticides has led to a reduction of 24 per cent since 1985 in the energy used to manufacture them.

22 In 2002 renewable energy from agricultural biomass and farm waste showed little change and accounted for 12 per cent of renewable energy in the UK. The fall from 15 per cent from the previous year follows from an increase in capacity of other forms of renewable energy.

Table 12.3 UK direct and indirect energy consumption

Enquiries: Barbara Norton on +44 (0)1904 455577 email: barbara.norton@defra.gsi.gov.uk

units: petajoules (PJ) Years

		1985	1990	1995	2000	2001	2002
Direct energy		59.0	56.3	62.0	48.8	49.8	44.9
of which:	Coal	-	0.5	0.4	0.2	0.1	0.2
	Biomass	. .	3.1	3.1	3.0	3.0	3.0
	Natural gas	2.9	4.0	4.5	5.5	5.8	5.4
	Electricity	14.4	13.9	14.1	15.8	16.0	15.0
	Petroleum	41.7	34.8	39.9	24.3	24.9	21.3
Indirect Inputs		181.0	172.5	164.4	145.2	137.8	143.6
of which:	Fertiliser	133.8	128.8	115.8	107.5	98.2	101.2
	Pesticide	10.6	10.1	9.8	8.2	8.6	9.4
	Tractor purchases	15.0	11.4	14.6	9.3	10.3	12.3
	Animal Feeds	21.6	22.2	24.2	20.2	20.7	20.7

source: ADAS, Reports prepared for Defra using : Digest of UK Energy Statistics, Agriculture in the UK, Fertiliser Manufacturers Association, Agricultural Engineers Association, Crop Protection Association.

Valuation of environmental impacts

23 Environmental accounts are satellite accounts to the main National Accounts compiled by the Office for National Statistics (ONS) for the UK as a whole and are undergoing developments. They provide information on the environmental impact of economic activity and on the importance of natural resources to the economy. Environmental accounts use similar concepts and classifications of industries to those employed in the National Accounts They reflect the recommended European Union and United Nations frameworks for developing such accounts.

24 The Environmental Accounts compiled by the ONS provide a set of physical accounts. They do not take the step of constructing a value based set of accounts. The stage for the creation of a value led set of environmental accounts is data demanding and methodologically complex. Breakdown at a sectoral level such as for agricultural enables the process to be more manageable.

25 The Department for Environment, Food and Rural Affairs along with with the Department of Agriculture and Rural Development (Northern Ireland), the Scottish Executive and the Welsh Assembly Government has commissioned a research project to develop a framework showing the impacts, positive and negative, of agriculture on the environment. The following is a short summary of the project interim report. The final report is due in June 2004 and will put available values in the framework and identify gaps in the available data.

26 The project, undertaken by eftec (Economics for the Environment Consultancy Ltd, London) and IEEP (Institute for European Environmental Policy, London), aims to identify the full positive and negative impacts of UK agriculture on the environment and to assign economic costs and benefits to these impacts, as far as possible. Including the economic value of agriculture's impact on the environment allows the accounts and accounting aggregates to better reflect the contribution of agriculture to the quality of life of UK citizens and contributes to a better understanding of the sustainability (or otherwise) of the sector.

27 The main steps involved in the project research are:

Step 1: Accounting framework - identifying the accounting issues that apply to the environment and reflect sustainable development;

Step 2: Environmental impacts - identifying the annual changes in these entities in physical terms, through a search of physical data sources;

Step 3: Economic value of environmental impacts - identifying, through a review of the economic literature, market and non-market monetary values that match the environmental impacts; and

Step 4: Aggregation of costs and benefits - aggregating annual monetary values for the physical impacts, in line with the accounting framework.

Table 12.4 Categorisation of environmental impacts of agriculture

Main categories	Environmental outcomes associated with agriculture
1 Water	a) Change in water quality (+ / -) b) Change in water availability (+ / -)
2 Air	a) Change in air quality - local and global impacts (+ / -)
3 Soil	a) Changes in soil composition and attributes (+ / -) b) Soil loss (-)
4 Landscape	a) Change in landscape (+ / -) b) Maintenance of landscape (+)
5 Habitats and species	a) Change in biodiversity (+ / -) b) Maintenance of biodiversity (+)
6 Waste	a) Generation of waste (-) b) Disposal of waste (-)
7 Nuisance	a) Odour (-) b) Noise (-)
8 Non renewable sources	a) Depletion of non-renewable resources (-) b) Provision of alternative resources (renewable energy) (+)

source: eftec

28 The accounting framework adopts the weak sustainability approach and explores a number of potential accounting aggregates. Table 12.4 presents the categorisation of environmental impacts used in the research. These same categories will also be used to present the monetary data on positive or negative changes. In classifying physical data on environmental impacts the DPSIR model (Driving forces, Pressures, State, Impact and Responses) is used, which traces environmental pathways from driving forces to pressures on the environment and finally to impacts on society. In assigning economic values to environmental impacts, the project does not conduct any new economic research but uses a procedure known as value transfer.

29 Regardless of whether monetary adjustments for environmental impacts are made to the accounting aggregates, presenting monetary valuations of environmental impacts in the accounts increases the usefulness of the physical data for policy making. It provides answers to a range of policy questions, such as 'how important is a given impact compared to other impacts?' and 'how much is it worth spending to reduce the negative impacts?' This information should help to set priorities for public spending and facilitate cost-benefit analysis.

30 The project will also identify impacts for which no data are available and thereby identify the information gaps. A large part of the project will be devoted to proposing methodologies to fill the gaps in both physical and economic data to facilitate updating the partial accounts over the years.

31 Please contact Barbara Norton for any general enquiries regarding this chapter, telephone +44 (0)1904 455577, or email: barbara.norton@defra.gsi.gov.uk. For specific queries relating to the charts, follow the website links indicated in the text.

Chapter 13 Public expenditure on agriculture

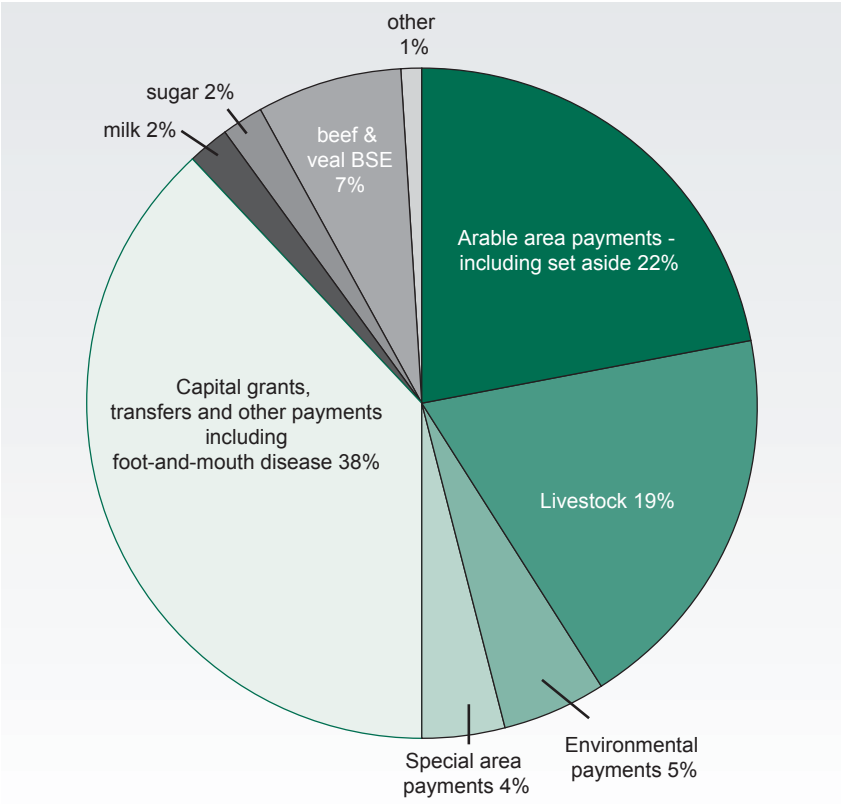
Introduction

1 Please note, there have been no changes made to this chapter, as new data was not available. When the data becomes available, table 13.1 will be updated on the internet.

2 Table 13.1 shows public expenditure under the CAP and on national grants and subsidies. The table does not include other expenditure of benefit to farmers and the farming community such as expenditure on animal health, research, advice and education.

3 The figures for the financial year 2001/02 represent actual expenditure recorded in the Rural Payments Agency (RPA) resource account for the year ended 31 March 2002 combined with actual expenditure figures for the national agriculture departments. The figures for 2002/03 are the latest estimates of expenditure. From 2001/02 accrual accounting has been used and the figures reported are based on these accrual accounts. This accounting change means that directly comparable historical figures cannot be provided as cash figures were previously used for the table.

Chart 13.1 UK public expenditure under CAP



source: Defra website, www.defra.gov.uk/esg/

4 The RPA was established in October 2001 as an executive agency of Defra. It is an accredited EU paying agency responsible for CAP schemes in England and for the administration of certain schemes throughout the UK. The RPA is also the UK funding body responsible for receiving and accounting for payment of all CAP guarantee funds, including those made by devolved administrations. Defra retains overall responsibility for all policy matters relating to the CAP.

5 The Scottish Executive, Welsh Assembly Goverment and Department of Agriculture and Rural Development, Northern Ireland, retain responsibilities for other schemes within Scotland, Wales and Northern Ireland respectively.

6 Total expenditure in 2001/02 was £4.7 billion compared with £3.0 billion in 2000/01. The increase in 2001/02 was mainly attributable to the impact of the foot-and-mouth disease outbreak in 2001. Expenditure in 2002/03 is forecast at £3.1 billion.

CAP (Table 13.1)

7 Under the CAP, direct subsidies for arable and livestock production during 2001/02 were £1.9 billion. Market support measures were £555 million, including £307 million expenditure on the Over Thirty Months Scheme. The Over Thirty Months Scheme was introduced as a public health measure in response to BSE and to give aid to farmers, and is co-financed by the EU. Net expenditure on rural, conservation and agri-environment schemes was £214 million.

8 In 2001/02 other payments amounting to £1.8 billion related principally to foot-and-mouth disease compensation payments and disposal schemes.

9 Forecasts for expenditure in 2002/03 suggest that the overall Arable Area Payments Scheme will not change significantly from 2001/02. However, within this total, expenditure on cereals is forecast to increase while expenditure on oilseeds and set-aside is forecast to fall. Expenditure on rural, conservation and agri-environment schemes is forecast to increase. The foot-and-mouth disease restrictions impacted on the number of Over Thirty Months Scheme presentations in 2001/02. In 2002/03 expenditure on this scheme is expected to rise by 30 per cent to reach similar levels to those before the foot-and-mouth disease outbreak.

Modulation

10 Modulation money is not necessarily spent in the year of modulation, but if it is not spent by the end of the third scheme year following modulation it is refunded to the EU. In 2001/02 modulation deductions totalled £31 million of which £9 million (matched by equivalent UK Exchequer funding) was used to fund rural development measures. The balance of £22.1 million was retained for use in future years.

11 Expenditure on schemes subject to modulation is shown in table 13.1 gross of modulation. Where payments are made out of modulation funds on rural development measures, the modulation funds are applied as income against total expenditure.

2003

Table 13.1 UK public expenditure under CAP and on national grants and subsidies

Enquiries: Rural Payments Agency on +44(0)118 953 1725 email: ian.thomas@rpa.gsi.gov.uk

£ million (a) Accounting years

	actual 2001/02	forecast 2002/03
A. Total direct product subsidies	1 888.2	1 922.7
Arable Area Payments Scheme	1 015.5	1 037.3
cereals	648.7	737.3
oilseeds	109.7	85.8
other	66.6	66.6
set-aside	186.9	147.1
agrimonetary compensation	3.6	0.5
of which EU funded (%)	100%	100%
Livestock subsidies	870.8	885.4
cattle and calves	650.9	688.3
sheep	166.7	191.9
agrimonetary compensation	51.6	4.8
of which EU funded (%)	100%	100%
Additional agrimonetary compensation (DARDNI)	1.6	0.4
Milk (b)	1.9	. .
of which EU funded (%)	100%	100%
B. Total other subsidies on production	392.6	484.5
Total rural, conservation,agri-environment (c)	214.4	294.5
agri-environment and conservation schemes	210.5	264.9
rural schemes	3.9	29.6
Total special area support (d)	175.6	187.9
less favoured areas: remnant schemes	20.9	24.7
less favoured area: current schemes	154.7	163.2
Total animal disease	2.6	2.0
of which EU funded (%)	0%	0%
C: Total capital grants, transfers and other payments	1 828.0	11.6
Total diversification and capital grants	6.5	9.8
Total animal disease (e)	1 819.9	1.1
foot-and-mouth disease compensation payments	1 116.4	-
foot-and-mouth disease welfare disposal schemes (f)	37.0	-
foot-and-mouth disease cleansing, disinfecting and disposal costs	666.1	0.4
other	0.4	0.7
Total other (structural and guidance)	1.6	0.7
D: Total CAP market support	555.1	700.4
Cereals	4.8	8.7
of which EU funded (%)	100%	100%
Sugar	106.0	94.8
of which EU funded (%)	100%	100%
Milk products	83.1	142.1
of which EU funded (%)	95%	95%
Processed goods	28.3	28.7

continued

Table 13.1 continued

£ million (a) Accounting years

	actual 2001/02	forecast 2002/03
of which EU funded (%)	100%	100%
Total beef and veal (BSE)	114.4	145.6
BSE (disposal)	114.4	126.2
TSE surveillance (g)	-	19.4
of which EU funded (%)	0%	0%
Beef and veal (BSE compensation)	192.3	253.7
of which EU funded (%)	70%	70%
Beef and veal (non-BSE)	0.5	1.0
of which EU funded (%)	100%	100%
Sheepmeat	0.1	-
of which EU funded (%)	100%	100%
Pigmeat	4.1	4.1
of which EU funded (%)	100%	100%
Others (h)	21.4	21.7
of which EU funded (%)	100%	100%
Total public expenditure (A + B + C + D)	4 663.9	3 119.2

source: RPA and Defra

(a) The figures are net of receipts which are treated as negative expenditure.

(b) Dairy agrimonetary compensation was paid during 2001/02 but was accrued back to the previous year (2000/01) and therefore is not shown in this table.

(c) These schemes are partly EU funded. Funding varies from 35 to 50 per cent depending on the national contribution to the scheme.

(d) These schemes are partly EU funded. Funding varies from 15 to 20 per cent depending on the national contribution to the scheme.

(e) These schemes are partly EU funded. The level of funding for foot-and-mouth disease payments is not available.

(f) Actual cash expenditure on RPA-administered foot-and-mouth disease welfare disposal schemes in 2001/02 was £331m but this was mainly paid out of provisions made under the 2000/01 resource budget.

(g) TSE - Transmissible Spongiform Encephalopathies.

(h) Includes fish, fresh fruit and vegetables, hops, protein and textile plants, seeds, wine, eggs and poultry.

Internet sites

Additional information is available on the internet at:

ADAS www.adas.co.uk
British Potato Council www.potato.org.uk
British Trust for Ornithology www.bto.org
Countryside Agency www.countryside.gov.uk
Countryside Council for Wales www.ccw.gov.uk
Defra - Economics and Statistics http://statistics.defra.gov.uk/esg/
Department of Agriculture and Rural Development (Northern Ireland) - Statistics www.dardni.gov.uk/econs/stats.htm
Department of the Environment (Northern Ireland) www.doeni.gov.uk
England Rural Development Programme www.defra.gov.uk/erdp
English Nature www.english-nature.org.uk
Environment Agency www.environment-agency.gov.uk
Eurostat www.europa.eu.int/comm/eurostat
Forestry Commission www.forestry.gov.uk
HM Customs and Excise www.hmce.gov.uk
Home-Grown Cereals Authority www.hgca.co.uk
Livestock and Meat Commission for Northern Ireland www.lmcni.com
Milk Development Council www.mdc.org.uk
Meat and Livestock Commission www.mlc.org.uk
Office for National Statistics www.statistics.gov.uk

Internet sites (continued)

Royal Society for the Protection of Birds www.rspb.org.uk
Rural Payments Agency www.rpa.gov.uk
Scottish Agricultural College www.sac.ac.uk
Scottish Executive - Statistics www.scotland.gov.uk/Topics/?pageID=62
Scottish Natural Heritage www.snh.org.uk
Valuation and Lands Agency (NI) http://vla.nics.gov.uk
Valuation Office Agency (GB) www.voa.gov.uk
Welsh Assembly Government - Statistics for Wales www.wales.gov.uk/keypubstatisticsforwales/index.htm

The following Defra publications can be found on the Defra website. These publications contain additional information which may be of further use.

Defra National Statistics Year Ahead Programme

http://statistics.defra.gov.uk/esg/natstats/release.asp

Publication dates and formats of Defra National Statistics publications.

June Agricultural Census Analyses

http://www.defra.gov.uk/esg/work_htm/publications/cs/farmstats_web/default.htm

A wide variety of detailed data covering England are available on the Census web pages including the following features:

- a query facility allowing selection of census data from regional down to ward level
- frequency distribution tables for main census items
- agricultural Atlas containing colour maps showing the distribution of main census items in England
- historical agricultural data covering the last 50 years available at county level for England

Farm Accounts in England

http://statistics.defra.gov.uk/esg/publications/fba/default.asp

Farm Accounts in England provides an authoritative and detailed source of information on the incomes of the agricultural industry in England.

Agricultural Market Reports

http://statistics.defra.gov.uk/esg/publications/amr/default.asp

Prices and quantities sold of cereals, feedingstuffs, hay and straw, potatoes, livestock, finished stock and eggs and poultry; national average wholesale prices of home grown fruit, vegetables, flowers and pot plants.

Basic Horticultural Statistics

http://statistics.defra.gov.uk/esg/publications/bhs/default.asp

This publication provides comprehensive statistics for the United Kingdom horticulture industry. Each publication covers a 10 year period.

Digest of Environmental Statistics

http://www.defra.gov.uk/environment/statistics/des/index.htm

This key reference document for environmental data information provides a handy tool to assist informed discussion of environmental policies and developments both in the UK and in the international arena.

Family Food in 2001/02

http://statistics.defra.gov.uk/esg/publications/efs/default.asp

Family Food in 2001/02 is available via the above internet address. Data for 2002/03 is due in May 2004. Both reports relate to data collated on food consumption, expenditure and nutrient intakes.