

Embedding fieldwork into the curriculum

Farming fieldwork can only really be undertaken with the help and cooperation of a farm or farm manager. However, if approached properly, this fieldwork can provide a valuable insight into the economics and processes of a working farm.

Themes which can be explored include:

- The geographical distribution of farming (looking at location and reasons)
- The impact of new technologies and initiatives
- Economic activity and environmental impacts e.g. soil erosion, over production, salinisation, inappropriate technology, water quality, hedgerow removal, irrigation, burning
- Inputs, processes and outputs on a commercial farm
- The influence of the environment on farming systems e.g. physical factors such as landform, climate and soil
- Human influences on farming systems e.g. market, finance, labour, Government grants, politics and choice
- Different types of farming e.g. hill sheep, pastoral, arable, mixed and market gardening, subsistence, intensive, extensive
- Diversification of the rural economy, farm tourism and recreation.
- The growth of organic farming and appropriate technology

There are several cross curricular themes such as:

- Links to other topics such as industry and employment, physical environments and weather and climate
- Opportunity to use ICT, including internet searches and presentation of data
- Key skills developed such as working in groups or independently
- Links to mathematics such as handling data, using number (ratio/proportion), shape, space and measure (coordinates)
- citizenship links including topical social issues, expressing and explaining viewpoints

QCA unit schemes available to download for:

Geography http://www.standards.dfes.gov.uk/schemes2/secondary_geography/?view=get

Science: http://www.standards.dfes.gov.uk/schemes2/secondary_science/?view=get

Accompanying scheme of work

QCA has no scheme of work based around farming, so the scheme below has been developed based around general ideas mentioned in various schemes. Farming fieldwork is then used to provide pupils with a real life example of a farm system, and the chance to speak to a farmer about changes in farming practice and policy.

Farming

Where does our food come from?			
<ul style="list-style-type: none"> • To discover where in the world our food is from • To describe and explain the global distribution of food • To describe and explain food shortages and surpluses • To calculate food miles • To respond to and ask geographical questions • To use and draw maps 	<ul style="list-style-type: none"> • Ask pupils to suggest a list of enquiry questions to be investigated. • Provide pupils with an outline of a world map and data about which countries have food surpluses and shortages. Colour surplus countries blue and shortage countries red. Compare and describe the patterns and suggest reasons. • Pupils make a list of 10 items from cupboards at home, including their country of origin. On a world map on the wall, pupils write items onto post-it notes and stick them to the map, showing where our food comes from. Think about why and how far the products have traveled. • Think about ways to increase food production and increase output in LEDCS. 	<ul style="list-style-type: none"> • Be able to understand maps and locate places with the use of an atlas • Transfer data into graph format • Use graphs to describe patterns within data • Give valid examples of food surplus and deficit countries • Identify reasons for surplus and deficit 	<ul style="list-style-type: none"> • Pupils will learn to link ideas, which provides an opportunity to write structured comparisons and explanations of patterns
What types of farming are there in the UK? An example from field investigation			
<ul style="list-style-type: none"> • To investigate agriculture in the UK • To describe the different types of farm and their distribution throughout the UK • To look at how farms vary depending on human and physical differences 	<ul style="list-style-type: none"> • Give pupils an outline map of the UK, onto which they should shade areas where each type of farming occurs (data should be found in a textbook). Pupils to annotate maps with details about weather in that area, type of land, crops grown etc (related to the geography of the UK in general) • Pupils to think about types of industry, and why farming is found in the primary sector. • Investigate farming types and what human and physical reasons there are for these types of farming in certain areas. Link this to actual examples and case studies. Write an example of farming in your local area, i.e. what type of farming is done and why. • Look at farms on OS maps from different areas of the country. Look up farms on internet to see what type of farming they do, then link this to reasons 	<ul style="list-style-type: none"> • Understand the human and physical factors that can determine where certain types of farming are found. • Use an atlas to identify areas of highland and lowland, and attribute this to climate and land use • Give examples of how farming has changed over the years, using real examples and secondary data (particularly 	<ul style="list-style-type: none"> • Contact local farmer for historical information and fieldwork access.

	<p>based around what can be seen on map i.e height of land, amount of land etc</p> <ul style="list-style-type: none"> • Look at climate graphs, and draw some examples to show how climate varies in the north, south, east and west of the UK. Link these graphs to a map showing where different farming types are. Think about why climate in area A is more suitable to a certain type of farming than area B etc • Using historical maps and information about your local farm, look at how it has changed over the years. Think about reasons for the change and how this might change how the farmer runs his farm. Discuss hedgerows, technology, organic farming, restrictions on greenbelts. 	about farming in the local area)	
How does the farm system work? A fieldwork investigation			
<ul style="list-style-type: none"> • To look at farming as a system that includes inputs, processes and outputs. • To investigate what the farmer decides to produce and how this influences the working of his farm 	<ul style="list-style-type: none"> • Pupils should draw a simple diagram to show the farm system, including inputs, processes and outputs. • Brainstorm what might determine the farming system ie. markets, demand, costs, climate, farm size, geology, relief, land use • Field visit to a local farm, looking at processes and production, interview with farmer, markets etc. 	<ul style="list-style-type: none"> • Draw and understand process • Link external forces to the farming system 	<ul style="list-style-type: none"> • More able students should be able to look at the farm system and think about external impacts on the farm and how this may mean the farmer must alter his system i.e. Foot and Mouth, rising market competition, organic farming etc
What changes have recently occurred in farming?			
<ul style="list-style-type: none"> • To describe and explain recent changes in the distribution of farms in the UK • To investigate hedgerow removal, technological changes, the growth of organic farms and the various Government initiatives available 	<ul style="list-style-type: none"> • Chose a case study about GM foods/crops, preferably one that has been in the media recently. Provide newspaper articles, internet articles, text, web links, TV footage etc. Set up class into groups, giving each group a role ie farmer, environmentalist, scientist, government etc. Each group must think about GM foods from their point of view i.e scientist doesn't want research wasted, government wants to be able to help other countries, environmentalist warns about mutations and ecosystem impacts etc. Pupils debate about the issues, present arguments and produce a display. • Introduce ideas about hedgerow removal, CAP, intensification, comparing farming in LEDCs and MEDCs, organic farming, changes in demand. Look at yield figures, pesticide sales etc. 	<ul style="list-style-type: none"> • To consider the conflicts of interest and opinions of different groups, and accurately attribute the views of different groups to the overall piece of work 	<ul style="list-style-type: none"> • Provides the opportunity to distinguish fact from opinion • The outcome might be written, a display, spoken, videoed, performed etc.

Potential fieldwork locations

Farming and Countryside Education: Farms to Visit

http://www.face-online.org.uk/index.php?option=com_content&task=view&id=118&Itemid=272

To arrange a visit to a farm in your local area contact one of FACE's regional contacts. This site also offers information about health and safety during farm visits, advice for farmers who run school visits and ideas for activities on the farm.

South west representative:

Paul Hillard paul@face-online.org.uk 01935 863270

TeacherNet: Growing Schools

<http://www.teachernet.gov.uk/growingschools/>

Growing Schools is a Government initiative which focuses on encouraging schools to use the outdoors (focusing on food, farming and the countryside). Farms recommended by this site in the South west found at

<http://www.teachernet.gov.uk/growingschools/searchresults.cfm?keywords=&button=Go+%BB&targetdate=na§ion=4000003&keystage3=on&keystage4=on&keystage5=on&keystage6=on®ion=11&subject=8> . List includes:

Fowlescombe Farm (mixed farm undergoing organic conversion)

Ugborough

Ivybridge

Devon

PL21 0HW

www.fowlescombe.com

01548 821000

Blacklake Farm (mixed farm)

East Hill

Ottery St Mary

Devon

EX11 1QA

www.blacklakefarm.com

01404 812122

Farms for Schools

<http://www.farmsforschools.org.uk/countyandarea2.htm>

This page allows you to search for member farms within each county. South West farms recommended include:

Court Farm Country Park

Type: Farm visitor centre

Wolvershill Road

Banwell

Weston Super Mare

Somerset,

BS29 6DL

Tel/Fax: 01934 822383

Website: www.courtfarmcountrypark.co.uk

Lyng Court Farm (Organic mixed farm on the Somerset Levels)

Lyng Court
West Lyng
Taunton
Somerset
TA3 5AP
Tel: 01823 490510

The Federation of City Farms and Community Gardens

http://www.farmgarden.org.uk/index.php?option=com_content&task=view&id=39&Itemid=84

The Federation of City Farms and Gardens have created a map of the Bristol area showing the community farms and gardens in the area. For a copy please contact:

Paul Jayson, Development Worker

c/o The GreenHouse

Hereford Street

Bristol BS3 4NA Tel: 0117 923 1800

Fax: 0117 923 1900

west@farmgarden.org.uk

Or go to <http://www.farmgarden.org.uk/Documents/Bristolmap.pdf>

Fieldwork activities

Farming fieldwork can only really be undertaken with the help and cooperation of a farm or farm manager. Without the relevant permissions, access to land and information will be limited and the fieldwork experience will be compromised. The best solutions to finding a good farm to use as a study centre and case study are to:

- Speak to current / previous members of your department about local locations they have used or heard about
- Speak to other schools in the area to see if they have any contacts they would be willing to share
- Speak to farmers in your local area to see if they are interested in forming links with a local school
- Go through one of the organisations mentioned above, who have farms all over the UK who are willing to help with school visits.
- Use pupils' parents as a contact resource- ask around.

Land Use Mapping

Land use mapping is an ideal way to ensure students are aware of the different functions within a working farm, and also to develop their spatial awareness and map skills. Students should be given a base outline of the farm showing all the field boundaries, a scale of 1:10,000 should be adequate. Land use on the farm should be categorised (perhaps through an initial discussion in the classroom about what land use may be found on the farm). An example is shown below:

AC	Arable cereals	RG	Rough grazing including moor lands and heaths
AV	Arable vegetables (e.g. root crops)	DW	Deciduous or mixed woodland

A	Arable other (must specify)	CW	Coniferous woodland (plantation)
P	Pastures	O	Orchards
OS	Open space	SA	Set aside land
IL	Industrial land	FB	Farm building
R	Residential land	LR	Leisure and recreation
Q	Quarry	W	Water, rivers, lakes, bogs etc
FL	Flat land	HL	High land

A tour of the farm should be arranged, with the farmer discussing crop types, any environmental initiatives, livestock, field sizes etc. Students should make notes and annotate their maps during the tour, with the outcome being a coloured map showing areas of differing land use, annotated with other interesting and relevant information to help them understand more about the functions within a farm. Students should also be encouraged to take photographs or video at various points throughout the tour, so they can illustrate each land use type with an example.

Questions could be placed into a 'hat', so students can pick questions to ask the farmer during the tour. Students could also be given a decision making exercise linked to land use, such as 'Where should the new campsite go?'

Maps from memory is also a good exercise to use during the farm visit, with students stopping at the furthest point from the start to draw a map of the farm from memory, including buildings, crops, livestock, land uses etc.

Back in the classroom, students could be given the opportunity to plan their own farm. Provide them with information about the approximate running costs of a farm, and the income generated from various farming types. This could also include field sizes, need for rotation, soil types, Government initiatives etc.

Field surveys

Soil, slope and infiltration rates can be investigated in a range of fields, which is especially useful if the farm has a range of land use and topography. This is a good way of looking at how physical factors can affect the use of a field.

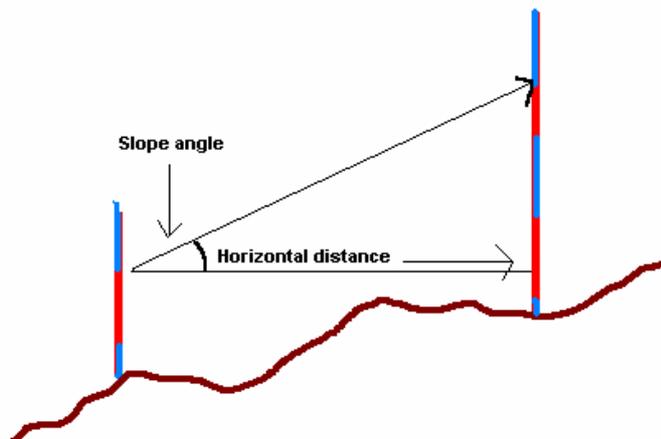
Soil survey

Soil texture is the easiest way to assess the soil type on a farm. Soil can be split into three basic categories: sand, silt and clay. Students should take a small handful of soil, wet it then feel it between the thumb and forefinger. Sand should feel gritty, silt should feel smooth and clay is stickier. If you are planning to survey the soil you will need a supply of water (bottled water is best as it means you can survey anywhere on the farm), and also wet wipes for students who have handled the soil. Soil maps could be used to compare results and look at how types of farming are linked to land characteristics.

Measuring slopes

The gradient of the land found within the farm will have an impact on the type of activity that goes on there. Fields may have varying gradients, and their land use will change accordingly. Select several areas with different gradients (perhaps ask the farmer for advice on which areas are 1) best to compare, and 2) easily accessible without trampling crops or causing unnecessary risk).

1. Decide on a line of transect across the field or area of land.
2. Break the transect into sections, using any breaks in slope if possible.
3. Put a ranging pole in the ground at the start of the transect, and another at the end of the first section. They should both be standing at around the same height.
4. Pull a tape measure tight across the poles, making sure it is directly horizontal. This will be known as the horizontal distance, and should be thought of as the bottom of a triangle:



5. Using a clinometer, place it at a fixed height on the ranging pole.
6. Level the clinometer with the same point on the pole at the end of the first section.
7. Read and record the slope angle for this section.
8. Move the first pole to the end of the second section and repeat the process until the whole transect is covered

To calculate for each section the slope angle use the following sum:

$\tan(\text{angle reading}^\circ) = y \div \text{horizontal distance}$

So $y = [\tan(\text{angle reading})] \times \text{horizontal distance}$

For overall slope height difference add the sections together.

9. The results can then be plotted onto a graph, showing overall slope height change and the change for each section.
10. The graph can then be annotated with any points of interest, for example areas of the sections in which crops would not grow properly, evidence of erosion, different vegetation cover etc.

Please note: For less able students, keep the distance between the ranging poles the same to eliminate the need to use the sum above. Students can then plot results on to graph paper to see slope gradients.

Transect location:
 Total transect length:
 Number of sections:
 Slope aspect:

Section no	Horizontal distance	Slope angle	Height difference	Comments

Measuring infiltration rates

Infiltration rates will give you an idea of the type of soil within a field, vegetation cover, and also of the field's suitability for growing crops effectively. An infiltration experiment can be done at various points throughout the farm visit, to give an idea of how topography, soil type and surface cover affect infiltration. (Ensure adequate water supply is available).

1. The infiltration tube can be made from a length of plastic drainpipe (about 30 cm in length with a diameter of 10cm).
2. Hammer the tube into the ground gently, using a piece of wood over the drainpipe if necessary to stop it breaking.
3. Place a ruler inside the tube
4. Pour water into the tube up to a designated point.
5. Measure each minute how many millimetres have been absorbed by the ground.
6. The results should be recorded using a graph, which should show the time in minutes and the millimetre drop in water level per minute.
7. You should be able to see from this how quickly that water is infiltrated, and also when the soil has reached saturation point, as the water level drop will level off.

Location:
 Weather:

Minute	1	2	3	4	5	6	7	8	9	10

mm drop										
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Total water absorbed within 10 minutes:

Be aware when measuring infiltration rates that they will be affected by other variables as well as soil type. These may include slope gradient, recent weather, bedrock type and vegetation. You will need to link soil saturation to soil erosion issues, perhaps looking for evidence of erosion to support the infiltration results and determine which fields are most suitable for certain types of farming.

Interviews

Before the farm visit you should ask your students what information they may need from the farmer. Several students should then create a questionnaire to ask the farmer, so you should factor in a short space of time into your day when these students can talk to the farmer away from the group (with a teacher present). Information to cover may include:

- Farm size in hectares
- Type of farming
- Who owns the land
- Information about the farmer (age, education, feelings about the job)
- People who work on the farm (full and part time)
- Farm equipment
- Livestock details
- Crop yields for each season
- Information about fertiliser / pesticide use, and organic farming
- Other farm inputs like vets bills etc
- If they participate in any government schemes for farming
- Distribution methods and markets
- Any difficulties which have occurred due to external factors
- Environmental initiatives and difficulties
- Any diversification which has occurred and the impacts of it
- How the farmer feels about traditional and modern farming methods, income, external influences on farming practice, organic farming etc.

The answers that the farmer gives will vary depending on the size and type of farm, how the farmer has been educated and also by their age and background. To maximise the added value of this exercise, the same questionnaire can be used on two farmers who work in different areas e.g. one organic, one not (especially useful if the physical characteristics of the farm are similar), or two farmers who work in different ways (one traditional methods, one modern technology and subsidies).

Things to think about

- If your students are taking pictures or videoing the farm, ensure you have the relevant permissions beforehand. Also offer the farm owner access to any footage or images if they so wish.
- When asking the farmer to discuss anything about the profits and financial side of the farm it is usually best to ask for percentages of, for example, total financial inputs or outputs, rather than actual figures.
- Health and safety risks on a farm can be quite different to your usual field risks. Speak to the farmer before the visit to ensure you have covered all eventualities.
- Ensure students wash their hands after visiting the farm and during visit before eating food.

- Students must be aware that the land belongs to someone else and it is their livelihood. Warn about picking plants, trampling, dropping litter etc.
- Farmers should have documentation concerning the history of the farm, including photographs and maps.

Adding value to your fieldwork with additional data

Using the Soil Association website

<http://www.soilassociation.org/web/sa/saweb.nsf?Open>

The Education section of the Soil Association website contains a wealth of information including links to the 50+ farms in their network, ideas about how farming fits in across the curriculum, workshops run by the Soil Association, teacher training, information about organic food and the 'Food for Life' school meals project.

Possibly the most useful section of the website is the farm trails area <http://www.farmtrails.org.uk/index.html> which links to a range of farms all over the country

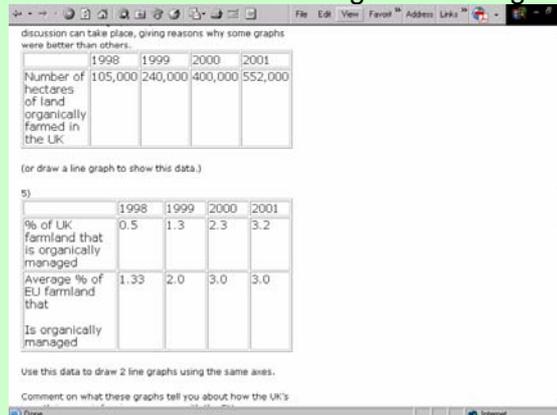


The trails take you through details about the farms centred around economic activity, animals, river studies, sustainable farming, food, managing the environment and fieldwork techniques. During the field day, you could ask students to collect data and information according to one of the topics above. On return to the classroom, students could then produce their own farm trail for your study area. The pages also have links to the farms own websites and also details about how to organise a visit.

Using organic food facts and figures

<http://www.soilassociation.org/web/sa/saweb.nsf/Library?OpenForm&Cat= Facts and Figure S>

The Soil Association website contains a variety of facts and figures about organic farming, such as those below about % of land used for organic farming:



Using information about the Countryside Stewardship Scheme

<http://www.defra.gov.uk/erdp/pdfs/cssnews/060CSSIntro.pdf>

Countryside Stewardship was introduced as a pilot scheme in England in 1991 by the then Countryside Commission and operates outside the Environmentally Sensitive Areas. Payments are made to farmers and other land managers to enhance and conserve English landscapes, their wildlife and history and to help people to enjoy them. The site <http://www.defra.gov.uk/erdp/schemes/css/#5> contains an interactive map so you can search for Stewardship areas in your region.

Defra have recently launched a new initiative similar to the Countryside Stewardship Scheme, called Environmental Stewardship <http://www.defra.gov.uk/erdp/schemes/es/default.htm>. This programme focuses on providing funding for farmers who deliver effective environmental management on their land. See also <http://www.defra.gov.uk/erdp/pdfs/es/es-promotional-booklet.pdf> for further details.

This information can be used to show students about the Government initiatives and funding available to farmers in order to preserve the countryside and environmental quality of their land. Get students to look at the positives and negatives about the scheme, and prepare questions for the farmer if they are part of these schemes. Students could also use this information as part of a resource pack in order to develop their own initiative for farmers.

Using Countryside Agency publications

<http://www.countryside.gov.uk/Publications/articles/index.asp>

The countryside Agency has a wealth of publications that may be of use both for background knowledge and providing secondary data for use with primary data collected on or by the farm. Useful publications include 'The State of the Countryside' reports- available for regions and different years, the 'Landscape Assessment Studies' and the research notes (which include information about CAP, farmers markets, rural economies and rural leisure. These are available for a small cost.

Using the Defra Introduction to Farming

<http://www.defra.gov.uk/farm/farmindx.htm#quicklinks>

Information available can be used as background information so that you and your students are aware of the options for farmers and information available to them:

Farming policy

Material on farming policy, including CAP Reform and the Single Payment Scheme, Farm Regulation and Charging Strategy and the sustainable farming and food strategy

Working in farming

General material that is relevant for people working in farming - including business advice for farmers, the Whole Farm Approach, guidance and support services, the Agricultural Wages Order and the Fresh Start initiative

Farming and the environment

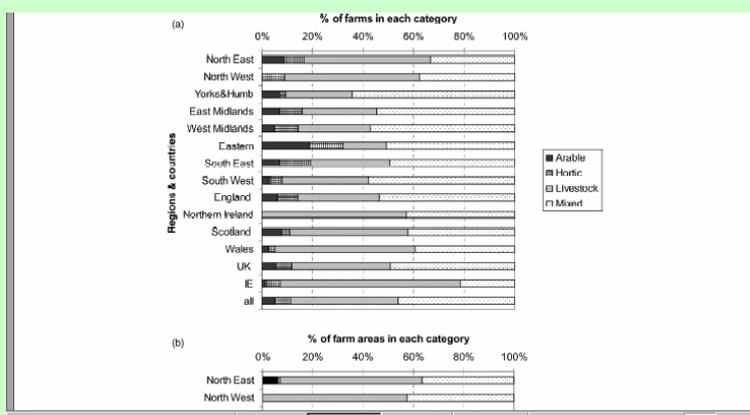
Information and guidance on a variety of agri-environment issues, schemes and initiatives

Farming sectors

Including arable crops, cattle and sheep, fertiliser, industrial crops, eggs and poultry, milk and milk products, organic production, and pigs and pigmeat

Using the 'Survey and Analysis of Labour on Organic Farms in the UK and Republic of Ireland'

[http://www.essex.ac.uk/bs/staff/pretty/Organic%20Jobs%20IJS%20\(Morison%20et%20al%20%202005\).pdf](http://www.essex.ac.uk/bs/staff/pretty/Organic%20Jobs%20IJS%20(Morison%20et%20al%20%202005).pdf)



This document, written by experts from the University of Essex, contains facts and figures about organic farming in the UK, including the types of farms in each region and the % of those which is organic. This will give you an idea of the type of farming to expect in your fieldwork area, and also information about the economic behind farming (i.e. labour and farm size)

Using Agricultural census

http://statistics.defra.gov.uk/esg/index/list.asp?i_id=032

Includes information about diversification and farming tourism

<http://statistics.defra.gov.uk/esg/statnot/jundiv.pdf>

A survey of Agriculture in England http://statistics.defra.gov.uk/esg/statnot/june_eng.pdf

A survey of farm labour http://statistics.defra.gov.uk/esg/statnot/jun_eng_labour.pdf

A survey of Agriculture in the UK http://statistics.defra.gov.uk/esg/statnot/june_uk.pdf

There are a variety of data sets available as part of the survey

http://www.defra.gov.uk/esg/work_htm/publications/cs/farmstats_web/datamap_links/search_menu.htm as well as a schools section about the survey

http://www.defra.gov.uk/esg/work_htm/publications/cs/farmstats_web/Schools_pages/schools.htm

Using Defra agriculture statistics

<http://statistics.defra.gov.uk/esg/quick/agri.asp>

Defra's agricultural quick statistics are an excellent way to find general and useful facts and figures to use to add value to fieldwork.

The screenshot shows the 'Agricultural Quick Statistics' page with three tables. The first table, 'Production & income', lists outputs at market prices. The second table, 'National economy', shows the agri-food sector's contribution to total economy gross value added. The third table, 'Land, crops & livestock', details land use in thousand hectares.

Production & income	Average 1994-96	2004	2005
1 Cereals	2443	1675	1389
2 Industrial crops	905	736	779
3 Forage plants	97	93	97
4 Vegetables & horticulture	1677	1715	1784
5 Potatoes (including seeds)	814	633	482
6 Fruit	265	319	369
7 Other crop production including seeds	37	31	31
8 Livestock production	6039	4710	4794
9 Livestock	3868	3046	3000

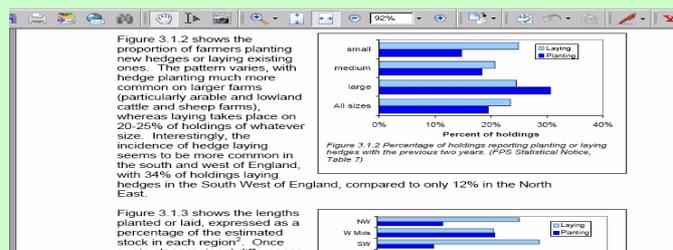
National economy	Average 1994-96	2004	2005
Agri-food sector	70651	7591	5238
of which Agriculture	9798	7591	5238
% of total GVA	7.6		
Agri-food sector (Thousand persons)	3208	3211	
of which Agriculture	621	546	541
% of total workforce in employment	14.7	14.5	

Land, crops & livestock	Average 1994-96	2004	2005
Crops	4578	4593	4443
Bare fallow	42	29	140
All grasses under 5 years	1419	1246	1193
All grasses over 5 years	5372	5620	5711
Sole right rough grazing	4790	4326	4354
Set aside	623	560	559
Other land and woodlands	733	825	872

For example, statistics about net income for each type of farm can be used if the farm owner kindly offers general information about their own farm. This can show the impact of subsidies, diversification, going organic etc.

Using the Defra Farm Practices Survey 2005

<http://statistics.defra.gov.uk/esg/publications/fps/FPSreport2005.pdf>



This document contains data, statistics and general information about a variety of agricultural topics, and is a great background document to use. Topics covered include hedgerows, pesticide use, soils, soil erosion, water quality, economic sustainability and livestock. The document contains some great graphs which could be used to add value to data collected during fieldwork, along with links to other useful websites that provide statistical data

Using the National Statistics website

<http://www.statistics.gov.uk/CCI/SearchRes.asp?term=farming&x=23&y=11>

The National Statistics website contains a variety of information about farming, including links to other websites where farming statistics are available. This includes information about the size of farms, fertiliser and pesticide use, land ownership, economics, attitudes towards farming methods, labour etc. The information comes in the shape of reports, graphs and tables.

Using the Farm Business Survey

<http://statistics.defra.gov.uk/esg/asd/fbs/default.htm>

The primary objective of survey results is to contrast the different groupings of farm, such as between regions or other geographical or environmental designations, farm types, farm size, age or education of farmer etc.

The Government Office Region Reports <http://www.farmbusinesssurvey.co.uk/> provide a wealth of information which can be selected by topic and region. For example, you can find data about how much income farms get in the area from each crop (average), how much average income farmers receive from subsidies, diversification etc, labour and machinery costs etc. This data can be used to help students look at the farm as a process, with input and outputs which can be affected by a variety of external variables. This means the students can work out the finances of a 'typical' farm in your study area, which can then be compared to information supplied by the farmer. There is also a general summary of an area: such as below which shows the results for mixed farming in the South West region (taken from <http://www.farmbusinesssurvey.co.uk/index.asp>)

Land Use	hectares	% of England
Crops	481,509	12.2
Bare Fallow	2,748	13.8
Grass under 5 years old	221,279	32.8
Grass over 5 years old	855,986	28.4
Sole right rough grazing	94,707	14.7
Set aside	65,110	13.7
Other land and woodland	90,549	21.0
Total area on agricultural holdings	1,808,992	19.7

Crops	hectares	% of England
Cereal crops	320,963	12.3
Other arable crops	5,085	20.9
Potatoes	6,581	5.9
Horticulture	11,781	7.5

Livestock	Head	% of England
Cattle and calves	1,802,694	31.7
Sheep and lambs	3,304,556	20.8
Pigs	472,650	11.2
Fowl	636,893	10.2

Labour	Persons	% of England
Workforce in agriculture	79,264	21.6
Regional workforce	2,547,000	
Agricultural workforce as a percentage of total	3.1%	

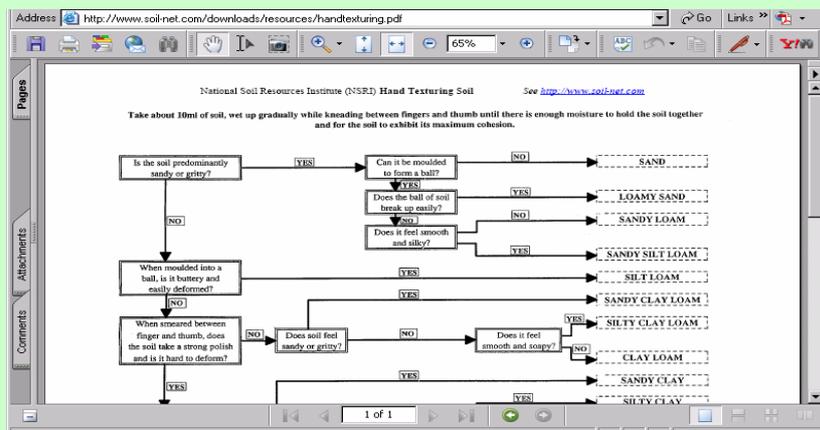
Using soils information

Soil-net.com <http://www.soil-net.com/> has some extremely useful downloads that could be used both for background information for soil profiling etc and also to help with soil identification.

Produced by Cranfield University., the Soil Structure Brochure found at http://www.soil-net.com/downloads/resources/structure_brochure.pdf (shown below) provides information about examining soil structure, problems with soils and provides maps, data and images which can be incorporated into fieldwork.



Cranfield University also provides a National Soil Resources Institute hand texturing soil identifier guide to download <http://www.soil-net.com/downloads/resources/handtexturing.pdf> which is an excellent accompaniment to any fieldtrip, particularly if your student don't mind getting a bit muddy.



Using pesticide usage statistics

<http://pusstats.csl.gov.uk/>

This resource is searchable by region, year and crop. It can give you an idea of the amount and type of pesticides which have been used on what crops; ideal if you are looking at the impacts of pesticide use on water quality

Using Local Live.com

<http://local.live.com/>

Use this website to zoom in on aerial pictures of a farm, to look at layout and land use. Searchable by postcode.

Web links

Farming and Countryside Education: Farming resources

http://www.face-online.org.uk/index.php?option=com_content&task=blogcategory&id=147&Itemid=680

Includes 'Farming as a business' PowerPoint presentation, with ideas about how you can present your own study farm to a class, and also resources centred around the local environment e.g. footpath erosion, farmers making decisions etc

Farms for Schools

<http://www.farmsforschools.org.uk/wholoteachers.htm>

Provides information for teachers about farm visits, health and safety and events.

Linking Environment and Farming

<http://www.leafuk.org/leaf/>

Country Land and Business Association

<http://www.cla.org.uk/>

General information about recent issues in farming and agriculture.

The Countryside Agency

<http://www.countryside.gov.uk/>

The Countryside Foundation for Education

<http://countrysidefoundation.org.uk/>

Field to Fork resource (free site but requires you to register)

<http://countrysidefoundation.org.uk/GFG/index.htm>

The Dairy Council

http://www.milk.co.uk/content/resources/careers_pack/pdfs/dairy_farming.pdf

Dairy farming careers information

National Farmers Union

<http://www.nfu.org.uk/>

Defra Farming pages

<http://www.defra.gov.uk/farm/farminde.htm>

A wealth of information and statistics about farming including working in farming

<http://www.defra.gov.uk/farm/farm-work.htm> and farming and the environment

<http://www.defra.gov.uk/farm/farm-env.htm> Information is given about

Countryside Survey 2000

<http://www.cs2000.org.uk/>

Field survey

Module 1 [Survey of broad habitats and landscape features](#)

Module 2 [Survey of freshwater habitats](#)

Module 3 [Survey of agricultural key habitats](#)

Module 4 [Survey of uplands in England and Wales](#)

Module 5 [Bird populations and Countryside change](#)

Module 6 [Soil quality and pollution](#)

1999 British Social Attitudes Survey

<http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=3648>