

7. AGRICULTURAL LAND USE

Wiltshire has a proud farming tradition going back for thousands of years. Around 72% of the county is currently farmed (2,497 km² out of a total area of 3,485 km²) and farming continues to be an essential determinant of landscape character in all areas of the county. The following summary of the influence that farming has on Wiltshire's landscape is drawn from Defra's agricultural June census³, a study undertaken for the Wiltshire Wildlife Trust and partners⁴ and from the South West Chapter of the England Rural Development Plan⁵.

Farm types

At June 2003, there were 3,529 agricultural holdings in Wiltshire. Analysis of the size distribution and farm types of these holdings suggests that about half of these are small holdings (less than 5 ha in size) not engaged in commercial farming, leaving the number of individual businesses actively engaged in agriculture or horticulture at around 1,800. The average holding size in Wiltshire is 84.1ha, compared to 47.7ha in the South West region.

Defra classify holdings into a number of 'robust farm types' on the basis of their predicted economic output of crops and livestock. The distribution of these farm types in 2003 is shown in **Table I.1**. The location of the dominant farm types (based on a simplified analysis at parish level) is shown in **Illustration I** below. These show that the largest group of farms are cattle (beef) and sheep farms and that these are distributed, with dairy farms in the western side of the county. Arable farms (many of which will include some grassland in rotation with arable crops and may keep some livestock) account for a quarter of holdings and are concentrated in the east of the county. There are relatively few pig and poultry farms and horticultural units. There is a concentration of field vegetable growers between Melksham and Devizes. Most of the farms in the 'other' category shown on Illustration I are in urban or peri-urban areas.

Table I. Proportion of agricultural holdings of different farm types, 2003

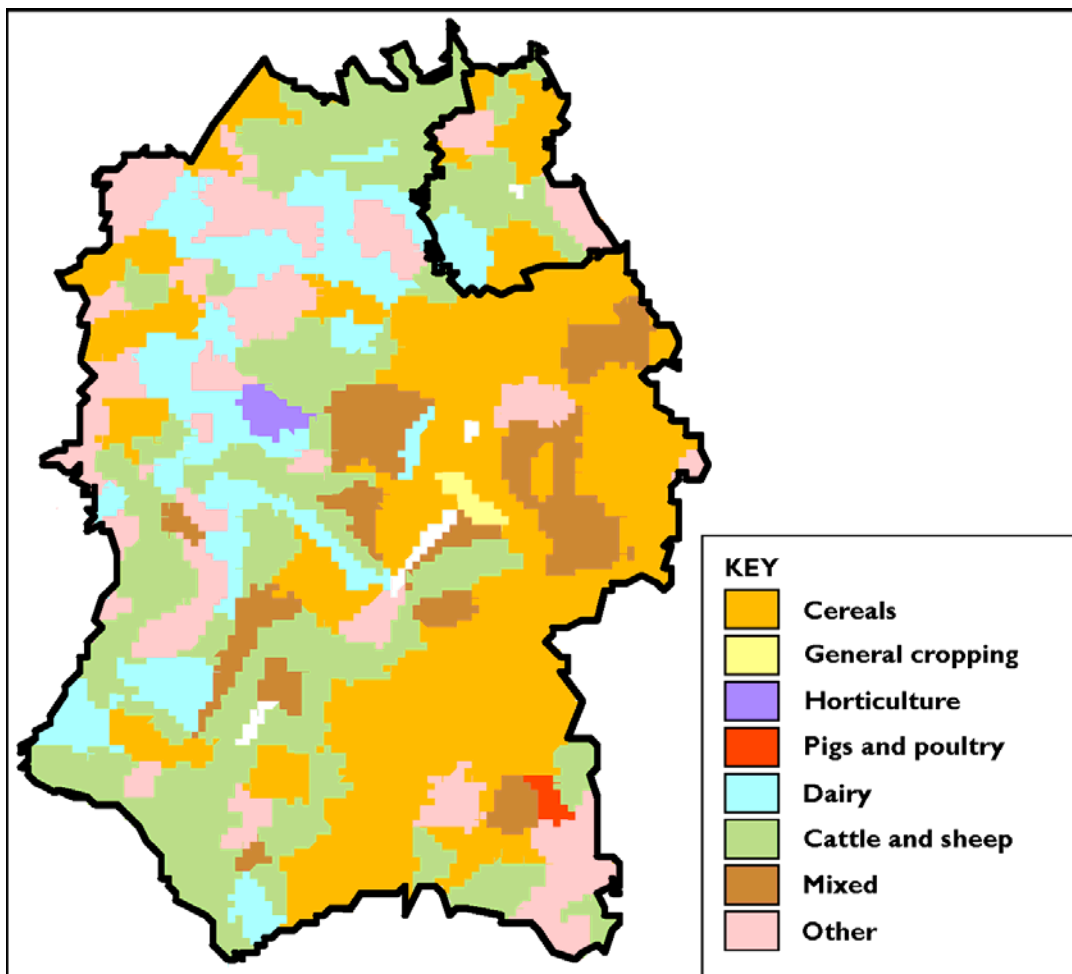
Farm type	Proportion of all holdings excluding those in the 'other' category
Arable (cereals and general cropping combined)	25%
Cattle and sheep	39%
Dairy	16%
Pigs and poultry	6%
Horticulture	4%
Mixed	10%

³ www.defra.gov.uk/esg/work_htm/publications/cs/farmstats_web/default.htm

⁴ GFA-RACE Partners Limited, 2002. *A sustainable future for agriculture in the wider economy of Wiltshire*. Report to Wiltshire Wildlife Trust and partners

⁵ www.defra.gov.uk/erdp/docs/swchapter/default.htm

Illustration I. Dominant farm types, 1997



Adapted from England Rural Development Plan, SW Chapter, Map 23 (p 70)

Land use

In June 2003, there was a total of 249,726 ha of cropped and grazed land, as shown in **Table I.2.** Cereals accounted for a third of this area, other 'broad acre' combinable crops such as oilseed rape 18% and set-aside 17%. Permanent grassland accounted for a third of the agricultural area, temporary grass 9% and rough grazing a further 7%.

Table I.2. Areas in agricultural use

Crops, fallow and set-aside	129,321 ha		
	Of which:	Cereals	81,757 ha
		Set-aside	21,635 ha
		Oilseed rape	13,378 ha
		Combining peas and beans	6,195 ha
		Stock feed crops	6,383 ha
		Field vegetables	411 ha
		Orchards	38 ha
Grassland and rough grazing	120,405 ha		
	Of which:	Permanent grass	82,784 ha
		Temporary grass	21,296 ha
		Rough grazing (excl. common land)	16,324 ha

Livestock

Sheep were the most common livestock with 83,149 breeding ewes kept on 616 holdings. 49,944 dairy cows were kept on 466 holdings and 16,689 beef ('suckler' cows were kept on 499 holdings. As shown in **Illustration 1**, the majority of these animals are found in the western side of the county, although it is likely that significant numbers of sheep are also grazed on the arable dominated eastern half, particularly on Salisbury plain. 156 farms kept 64,801 pigs.

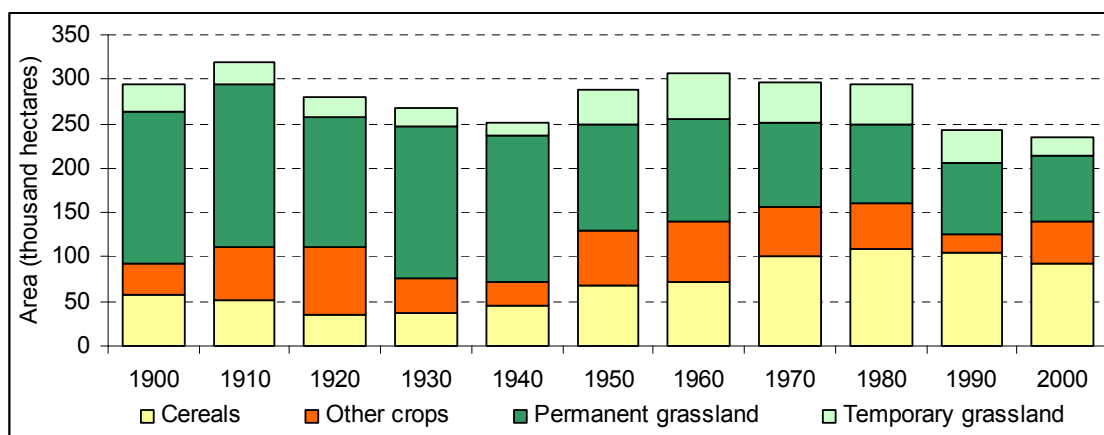
Agricultural labour

In June 2003, there were 6,716 people employed on farms in the county. Of these, 4,544 were business principals (sole traders, partners or directors), 247 were managers, 1,753 were salaried staff and 517 were casual workers.

Past trends

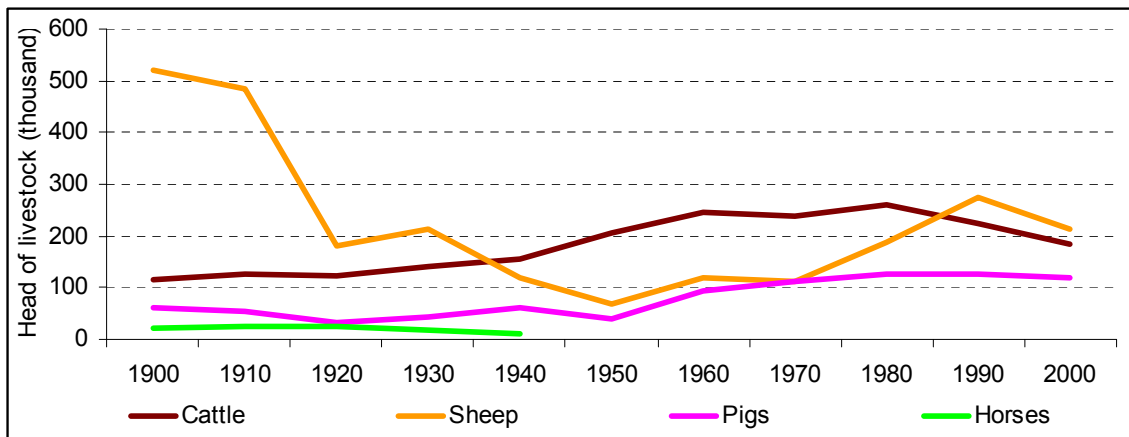
Analysis of agricultural census data collected at ten year intervals since 1900 paints a picture of the ebb and flow of agricultural land use and practice. **Graph 1** shows the changes that have occurred in the area of the main categories of agricultural land. The agricultural depression during the 1920s and 1930s is shown as a decline in the area of cropped land and increase in the area of rough grassland. The four decades after the Second World War saw a substantial increase in the arable area, particularly of wheat, but there appears to have been a decline in the cropped area in the last two decades (this can not be accounted for by the introduction of set-aside which is included in the area of 'other crops'. The area of permanent grassland has declined throughout the century while the area of temporary grassland has remained roughly the same. Rough grazing is not shown in the chart since data is not available for the whole period. However, the area has fallen very substantially since a peak in the 1930s.

Graph 1. Trends in agricultural land use



Trends in the numbers of livestock are shown in **Graph 2**. The number of sheep has fluctuated significantly, falling to a low in 1950, rising until 1990 and then falling in the last decade. The numbers of cattle and pigs both rose steadily until 1980 but have fallen since. The chart shows that horses, as working animals, were significant in the first part of the century but were replaced by tractors (data is not recorded after 1940). The number of horses and ponies kept for recreational purposes is now likely to be significant. The agricultural workforce has more than halved since 1930.

Graph 2. Trends in agricultural livestock



The agricultural census data for the last few years suggest a reversal of some of the changes that took place over the previous decades. The cropped area has fallen by 7% between 2000 and 2003 (with the cereal area falling by 11%) while the area of permanent grassland has increased by 11%. There has been a sharp reduction in the number of pigs (down 46%), the number of sheep has fallen by 14% and the number of cattle by 9% (with a 19% fall in the dairy herd). The major cause of these changes has been caused by a major decline in agricultural prices and the value of agricultural subsidies since the mid 1990s (largely due to international currency movements) and similar changes have occurred throughout the UK. The total labour force has decreased by 22% from 1990 to 2003, representing an acceleration of a long term trend (farm labour has fallen by 57% since 1930).

Since 1990, there has been a significant increase in the number of smallholdings – many of which can probably be described as ‘lifestyle’ farms – while the number of holdings in all the other size categories has fallen. Nevertheless, large holdings continue to dominate the landscape, with over 40% of the land being managed by just 6.5% of holdings greater than 300ha in size. Conversely, less than 1% of the land is on 24% of holdings smaller than 5ha in size.

Pressures for change

The greatest influences on agricultural land use are the Common Agricultural Policy (CAP) and the market prices of agricultural commodities. Following EU agreement in 2004, the CAP is under-going a major reform that will be phased in between 2005 and 2012. Initially, most payments to farmers are being made on the basis of the support payments they received during the period 2000-2002 and are ‘decoupled’ from their current land use and numbers of livestock. During the years to 2012, these historic payments are being converted to standard area payments, with all farmers in lowland England receiving the same amount per hectare. The total amount of these support payments is likely to fall as money is diverted to fund rural development programmes (covered below) and to adhere to overall budget limits set for the growing size of the EU.

The impact that these reforms of the CAP will have are not yet clear. However, many industry pundits are predicting further falls in the numbers of livestock (the incentives of a

headage payment having been removed), particularly of cattle (both dairy and beef). Land that is marginal to productive agriculture, such as on thin, stony or heavy soils, is likely to be managed less intensively or, in some cases, will be abandoned for agricultural purposes altogether.

Future changes in the price of agricultural commodities are much less easy to predict. However, it is likely that the volatility of prices will increase as the stabilising effect of EU export subsidies and import tariffs are reduced. Many people are predicting that increasing competition from the new EU member states (particularly in cereals and horticultural crops) will further restrict production of the mainstream agricultural commodities to the most productive land. The large commodity producing farms (such as arable and dairy farms) will tend to become more specialised and grow larger to cope with the increasing competition.

However, growing demand for high value and speciality products such as organic produce or farmhouse cheeses will create new opportunities. The businesses taking up these opportunities will rely more on their own skills and interests rather than the quality of the land or its location, suggesting that these value-adding farms will not have the same geographical concentrations as the commodity producing businesses.

Environmental incentives and controls are likely to have an increasing influence on land management. The introduction of the Environmental Stewardship scheme in England, with its universally available Entry Level and competitively funded Higher Level (replacing the Countryside Stewardship and Environmentally Sensitive Area (ESA) Schemes) will gradually increase the funding for agri-environment measures on farms. This scheme will tend to spread agri-environment funding out of the ESAs (such as the South Wessex Downs ESA), which have received most funding in the past, to priority areas in the wider countryside.

Implementation of the EU Water Frameworks Directive through River Basin Plans will result in the introduction of a series of measures addressed at water quality, likely to involve a mixture of statutory controls, advice and targeted incentives.

The implications of these pressures for change on Wiltshire's landscape are complex. On the one hand, it is likely that arable cropping will be concentrated onto the better quality soils in the south east of the county, with dairy farming shrinking to the larger units around processing plants (such as the milk drying plant at Westbury). Marginal land, such as on some of the thin chalk or heavy clay with flint soils of Salisbury plain may cease to be farmed. This implies significant changes in landscape character in some areas.

On the other hand, the way in which land is farmed is likely to become more environmentally sustainable with a mixture of controls and incentives reducing pollution incidents and increasing the areas of semi-natural habitats such as low input grassland and woodland.

Farming and land management Initiatives in the County

There are a wide variety of initiatives aimed at assisting agriculture in Wiltshire to become more environmentally sustainable. Several of these come under the England Rural Development Programme (particularly the Environmental Stewardship scheme).

- Defra's **Environmental Stewardship Scheme** was introduced in 2005 and has two tiers. The **Entry Level** is available to all farmers and pays a payment of £30 per ha over the entire holding to farmers who agree to a series of basic environmental measures (choosing from a menu of options to reach a minimum threshold).

- The **Higher Level** is competitively funded and contains a range of different area payment targeted to priority objectives which are defined for each Joint Character Area. In Wiltshire, these objectives include:
 - Management of SSSIs and restoration, maintenance and/or creation of species-rich chalk grassland on the downs, species-rich meadows in valley bottoms, heathland in the Savernake Forest and wood pasture.
 - Maintain or increase populations of farmland birds such as Stone Curlew, Lapwing, and Tree Sparrow, rare arable plants and other UK BAP Priority Species such as fritillary butterflies, Juniper and Water Voles.
 - Restoration of historic landscapes characteristic of the area such as designed parklands, prehistoric ritual sites (including delivery of the Stonehenge World Heritage Site Management Plan) and water-meadows.
 - Introduction of measures to prevent soil erosion that will contribute to reducing diffuse pollution in priority areas such as the catchment of the River Avon.
 - Improve countryside access by providing permissive routes and educational access opportunities.

- The **Wiltshire Grazing Animal Programme (Wiltshire GAP)** (formerly the Wiltshire Interactive Grazing Initiative) is a partnership project between English Nature, the RSPB and Wiltshire Wildlife Trust, which is part of the national Grazing Animals Project. It provides a brokering service between owners of land with high environmental quality, graziers with animals suitable for grazing these sites, and voluntary helpers who can keep an eye on livestock grazing remote sites.

- The Environment Agency's **Landcare** project operates in the Avon catchment and aims to address diffuse pollution and soil erosion issues through demonstration events and farmer workshops.

- English Nature lead the **Salisbury Plain LIFE Project** which operated between 2001 and 2005 to improve the conservation management, including the removal of scrub and reintroduction of appropriate grazing, to the Natura 2000 sites⁷ on the Plain.

- The '**Sustain The Plain**' initiative on Salisbury Plain is using funding from the LEADER+ European Community Programme. The initiative encompasses a range of projects designed to improve the quality of life and to make the most of natural and cultural resources to benefit people living in rural towns and villages.

- The **Great Western Community Forest** covers 168 square miles around Swindon and is creating a mosaic of woodlands, green spaces and areas for wildlife on farmland using the Farm Woodland Grant Scheme and other funds. The rise in value of land for development works against this initiative to some extent so that despite the grants available and the support of the Community Forest there are still not the incentives to see a major move towards woodland.

⁷ Natura 2000 sites are those designated under the EU Birds and Habitats Directive. On Salisbury Plain these are the Special Areas of Conservation on Salisbury Plain and Pewsey, Parsonage and Porton Downs.