

The Farming World

General Statistics

- 17m of the 24m hectares making up the UK is down to agriculture
- 6m hectares of this are down to crops of which 50% is cereals
- There are 222,000 registered farm holdings.
- 104,000 of these are of less than 20 hectares.
- One –third of farms are tenanted
- There are 295,000 farmers/family/farm directors.
- There are 171,000 farm workers of whom 62% are part time and seasonal.
- The gross output from UK agriculture is around £20.6bn.
- Farm incomes amount to £4.4bn
- EU support payments total £3bn
- Overall farm borrowing amounts to around £13.3bn.
- The UK is 58% self-sufficient in food.

LIVESTOCK GENERAL

The main elements of the national herd are: -

- Cattle 10m
 - Sheep 32m
 - Pigs 4.7m
 - Poultry 159m
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- The sector has undergone major changes in the last thirty years.
 - The demand for dairy, pork and beef products is in long term decline. Cattle and pig numbers have fallen by 25% and 50% respectively; sheep numbers have risen by 40% but show a recent decline.
 - Marts have reduced in number from 800 to less than 150 and abattoirs from 3000 to less than 500. The changes have resulted in more animal movements leading to an increase in the risk of disease spread.

The Diseases

- Farm animals are at potential risk from a number of diseases such as foot-and-mouth (FMD), TB and BSE.
- However, there are many other diseases that receive no publicity because they present little current threat.
- The OIE (also known as The World Organisation for Animal Health) is an international agency that records and monitors disease outbreaks, world-wide. The OIE classifies diseases according to their virulence.
- All diseases that provide any threat are “notifiable” i.e. any outbreak, confirmed or suspected, must be notified to DEFRA, the government agency responsible for agriculture.

Containment and Eradication

DEFRA will act according to the disease and the degree of risk posed. The actions it can take include: -

- Slaughter of the infected animals and any others that may have been in contact.
- Restrictions on the movement of animals, people and vehicles in the area.

Compensation and Insurance

- Compensation is generally paid for any animal compulsorily slaughtered; the amount paid being the market value of the animal, usually based on an official monthly guide.
- A major area of potential financial loss for a farmer occurs when he is caught up in a geographical movement restriction order, even though his own farm is not infected. Government compensation is not available for this or other consequential losses.
- There is private insurance available for such consequential losses although the take-up is small.

Livestock Identification and Movement.

- To minimise the spread of diseases there are strict controls on the movements of farm animals. There are also standstill periods that apply to all animals on a farm following the arrival of new animals. The periods are 6 days for cattle and sheep and 20 days for pigs although some exemptions apply.
- Records of the herd and the movement of individual animals must be kept.
- Cattle are identified with a tag in each ear and issued with a passport. Any movement of the animals on and off the farm must be notified to the British Cattle Movement Service.
- Sheep only require a single ear tag within six months of birth or movement off the farm if earlier. These requirements are under review.
- Pigs must be identified with slapmarks or tagging before movement off the farm.

DAIRY FARMING

- The dairy industry is worth around £3.1bn at market prices.
- The UK produces 13bn litres of milk per year meeting 90% of the national requirement.
- The number of herds is 15,000 and falling but the average size is rising and efficiency is increasing.
- The price a farmer receives for milk is effectively controlled by the major supermarkets and processors. The price is currently around 29p per litre with low production causing the price to rise. The price depends upon the quality of the milk, calculated on a number of factors.
- The market is dominated by a small number of large processors and farm co-operatives.

Production methods.

- The most popular breed of milk cow in the UK is the black and white Holstein-Friesian producing a consistently high yield of milk.
- Other popular breeds are the Jersey and Guernsey, producing less milk but of a higher quality.
- A cow produces milk for 305 days (lactation period) and is rested for 60 days (dry period). Daily milk production will vary between 15 and 45 litres during the lactation period giving approximately 8000 litres per year.
- Milk production and quality depend upon the feeding regime. This usually consists of grazing in summer and hay and silage (a mixture of grass and molasses) indoors in the winter. Both are supplemented with high protein concentrates.
- Milking is carried out in a modern highly automated and expensive dairy parlour.

- The milk is stored on the farm in a bulk milk tank where it is cooled to await collection every other day, by road tanker for delivery to the wholesaler or processor.
- Samples are taken at each stage to check for the presence of antibiotics or other deleterious matter that would detract from the quality of the milk. It is important to identify any problems before the milk is discharged into the huge silos from the road tanker.

Milk Quotas

- These were introduced in 1984 under the EU Common Agricultural Policy (CAP) to curb excess milk production and are due to end in 2015.
- The quota year starts on 1st April, quota is normally attached to the land holding but the formula can be complicated.
- There is a national quota, which is divided up amongst individual producers with some kept in reserve. The UK quota is currently 14.2bn litres; there are levies (fines) for exceeding the national and individual quotas.
- Individual quotas can be bought, sold and leased. Prices rise when production is high and farmers are seeking to avoid an over-production levy.

BEEF REARING

- The beef industry production amounts to £2.2bn at market prices.
- There are a number of co-operative marketing and quality assurance schemes aimed at improving the return for the farmer members.
- Beef cattle are raised on several distinct systems:-
 - **Cereal/barley beef** – where calves bred from a dairy herd are fed barley based rations. This encourages rapid weight gain and animals are slaughtered at around 12 months old. Animals are housed and feed is bought in. A variation is where cattle are fed grass silage.
 - **Grass/cereal beef** – where autumn born calves are turned out to grass in the spring and fed silage in the winter. Supplements (e.g. barley) are added as needed. Animals are slaughtered at around 20 months old.
 - **Suckler beef** – where calves are produced mainly in autumn for fattening as store cattle. Hill and upland producers tend to sell the calves on to lowland farmers for fattening. Animals are slaughtered at around 24 months.

SHEEP REARING

- The sheep industry production is worth £962m at market prices.
- Sheep are bred and farmed for both meat and wool although the latter is now a minor reason accounting for less than 10% of income.
- Like beef, there are a number of co-operative marketing and quality assurance schemes.
- Sheep farming is divided into three distinct geographical areas, namely hill, upland and lowland. Each area has breed with varying degrees of hardiness suitable for the prevailing conditions. Examples of the breed are:-
 - Hill – Swaledales
 - Upland – Cheviots
 - Lowland – Suffolk
- The areas are interlinked and crossbreeding is common to maximise the best features of each breed.
- The average size of a flock is 220 breeding ewes
- The major ram sales take place in the autumn. Rams are usually sold with a guarantee of their fertility and with short-term mortality insurance cover.

- Rams are put to the ewes for lambing to take place in February/March or April /May in hill areas.
- Ewes are often scanned to confirm their pregnancy and the number of lambs they are carrying.
- Shearing is done in the summer with the wool going to the British Wool Marketing Board.
- Lambs go for slaughter from 4 months old.
- Lamb prices are highest from Christmas through to the spring when supplies are short and lowest in late summer when supplies are plentiful.
- Annual dipping, to control parasites, is no longer compulsory. Organophosphate dips (OPs) have long been suspected of causing health problems but this has never been proven; court actions have failed because of a lack of firm proof.
- Scrapie is a disease similar to BSE in cattle and has been widespread in the national sheep herd. The National Scrapie Plan has been initiated to eradicate it by breeding disease resistant animals.

PIG REARING

- The pig industry production is worth £1.1bn at market prices.
- Most pig rearing is carried out in the eastern counties of England, particularly East Yorkshire and Humberside.
- Rearing is carried out in intensive units where the pigs are housed in a controlled environment. Security and hygiene on intensive sites is high.
- There is an increasing number of extensive (outdoors) pig rearing sites.
- Pigs are reared for various cuts of pork and bacon.
- The market for pigmeat is very competitive with constant pressure from imports.

POULTRY & EGGS

- The poultry meat industry is worth £1.6bn with eggs worth £526 and is the second largest in Europe.
- Much of the industry is situated in the Midlands and Southwest of England.
- Most of the fresh meat on sale in the UK is home produced.
- Large quantities of poultry meat are imported from Brazil and Thailand by food processors because of their low prices.
- Most poultry and egg production is carried out by very large enterprises operating the whole chain from farm to processing to table.
- The industry is highly efficient and operates on large throughput and low margins.

OTHER LIVESTOCK

Other livestock enterprises are sometimes encountered, these usually operate on a small scale and their success is often limited. Examples are ostriches, llamas and deer. Fur farming has disappeared over the last decade.

ARABLE FARMING

- “Arable” refers to any crop other than grass pasture.
- Many farms are “mixed”, i.e. having both arable and livestock.
- Farms that are arable only tend to be the larger ones and particularly in Eastern England.
- The commonest types of crops are:-
 - **Cereals** – barley, oats, wheat, maize.

- **Pulses** – peas, beans.
- **Root crops** – potatoes, turnips, swede, carrots, sugar beet.
- **Oilseed crops** – oilseed rape, linseed, flax.
- **Specialised crops** – mushrooms, rhubarb
- The cereal harvest amounts to 24m tonnes of which 85% is barley and wheat.
- 67% of the crops land area is down to cereals.
- The usage of cereals is split fairly evenly between UK human consumption, export and animal feed.
- The choice of arable crops depends upon soil type, climate, availability of suitable buildings, labour and equipment and anticipated profit.
- Crops are rotated so that different ones are grown in a particular field each year to reduce the build up of disease, pests and weeds.
- “Break crops” are so called as they break the pest/disease/weed cycle. Oilseed rape is a popular choice for this.
- A mixture of arable crops is usually grown and efficiency is increased if they can be harvested and processed at different times using the same equipment.
- Sugar beet is grown under contract to British Sugar for processing so tends to be restricted to areas near the few processing factories.
- The last few decades has seen a move to winter cereal sowing rather than spring and the spread of oilseed crops for the production of oils and fats for the food industry.
- In the past crops have been grown exclusively for human and animal consumption but increasing use is being made of cereals, oilseeds and fast growing timber in the manufacture of biofuels and to fire power stations.
- Seed varieties are constantly being improved to increase yield and resistance to drought, pests and diseases.
- Genetic modification of seed for these purposes has come to the fore in recent years. The use of such seed is currently banned in the EU but it is in use elsewhere in the world.
- Fertilisers are applied at the time of ground preparation and again during the growing cycle. Crops may also be sprayed against pest and diseases.
- Organic crops are not treated with chemicals and, on average, will produce 30% lower yields. The Soil Association is the largest organic certification body in the UK claiming that 80% of organic products carry its symbol.
- Different crops and varieties ripen and mature at different times. The process is also affected by geographical location, the south and east of the UK having the earliest harvests.
- Grain needs to have a low moisture content before going into store, to prevent deterioration. If it is too high then it will be artificially dried. This can be done by hot or cold air systems but means an added cost to the farmer.
- Harvested grain may be stored on the farm, it may go for storage elsewhere especially if the farmer is part of a co-operative or it may go straight to the merchant or buyer.
- A number of large grain storage and marketing groups exist in the UK, normally owned by the farmer members. Their centralised facilities make the best use of plant and equipment and their size ensures a stronger negotiating position.
- Other crops may be:-
 - Stored on or off farm for sale at a later date when prices are higher
 - Moved straight from the farm to processing e.g. peas for freezing and potatoes for crisp manufacture.

- Sold to other farmers e.g. straw to livestock farmers.
- Kept for own use e.g. as animal feed and bedding.

HORTICULTURE

- The term “horticulture” is generally use to cover salads, vegetables, fruits and plants and flowers. These may be grown in the open or under glass.
- The total market is worth around £2.5bn
- Much is carried on in large glasshouse with expensive and sophisticated controlled environment systems.
- Large area of such glass is to be found in East Yorkshire, Worcestershire and Southern England.
- The market for salad crops is competitive with pressure from imports from Mediterranean countries with much lower heating and production costs.

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