

Organic Farming

Organic farming is a way of producing food which recognises the essential connections between the soil, plants, animals and people. Organic food is ecologically produced which means that farmers use methods which mimic and enhance natural systems. For food to be sold as organic there is a legal requirement for it to be produced and handled according to a set of standards and each farm is independently inspected every year.



There is often a great diversity of farming operations on organic farms. This includes the growing of cereal crops, fruit and vegetables and rearing beef and dairy cattle, pigs, sheep, goats and poultry. Other activities such as growing hops, apples and vines for organic beer, cider and wine, or bee keeping (for honey), may also be part of an organic farm.

Fields tend to be smaller than those on conventional farms and boundaries such as hedges, ditches and dry stone walls are valued for providing homes for predatory insects and animals which help control crop pests. This in turn tends to give the farm a more traditional landscape. Organic farmers strive to conserve natural resources and, by avoiding the use of synthetic fertilizers or pesticides, keep pollution to a minimum. The countryside and its wildlife are an integral part of an organic farming system and indeed the care of the natural environment is crucial if the farm is to operate successfully.

The UK has the fastest growing organic market in Western Europe and the third largest in the world after America and Germany. In 2003 sales of organic food reached £1 billion for the first time. Consumer surveys show that shoppers are increasingly purchasing organic food: 77% of UK consumers made an organic purchase in 2004. At present, 56% of all organic food consumed in the UK is imported. One of the reasons is that produce such as bananas and oranges cannot be grown here. Another reason is that supermarkets and food processors choose to buy cheap imported produce from abroad. The problem with this approach is that it can price UK growers out of the market. Interestingly, the promotion of vegetable boxes and farmers' markets has meant that 10% of organic food in the UK is sold direct to customers. In this way farmers can get a fair price for their produce.

Due to the increased labour costs involved in organic farming and other factors, organic food is generally more expensive than that produced conventionally. However, the price we pay for conventionally produced food has not tended to reflect the real cost of its production. For example, £120 million is spent each year to remove pesticide residues resulting from conventional farming from our drinking water.

At present 4% of land in the UK is farmed organically by approximately 3,995 producers. There has been a growth of 400% since 1998. This increase is likely to be have brought about by the increase in consumer demand, changes in agricultural policy and the provision of grants to those farmers wishing to convert to organic farming. The conversion period is two years and it is during this time that farmers need grants to help them succeed. Once they are established, well-managed organic farms, in some cases, can be more profitable than well-managed conventional farms. Organic farms can achieve yields of up to 80% of those achieved by conventional farms, and over a period of years organic yields can actually match conventional yields.



Principles and practice in organic farming

The most valuable natural resource on an organic farm is soil and so it is not surprising that organic farmers place great emphasis on building up a healthy and fertile soil. Many organic farming methods involve this fundamental principle.

A healthy, fertile soil is rich in a huge variety of living things. Fungi and microbes help to rot and decompose dead plants and animals, recycling organic material back into the soil. Humus is that part of the soil made up of this partially decomposed plant and animal material. Organic farmers add composted manure and other farm wastes to soil in order to increase humus content which, in turn, ensures that more nutrients are available for plant growth. Such applications occur on some conventional farms, but often not to the same degree.

Crop rotations are an important component of most UK farming systems. Crops such as clover and grass improve soil structure and add nutrients. Others, like wheat and potatoes, take a lot of the goodness out of the soil. To 'rest' the soil and build up nutrients, farmers use rotations; growing a variety of crops in different places and at different times. Clover is especially helpful in building up soil fertility as it has special 'nodules' on the roots which contain bacteria. These bacteria are able to change nitrogen gas into nitrate (a chemical form of nitrogen that plants can use easily).

Animals are often involved in rotations as they can graze on the 'resting land' or ley, which would be sown with grass or clover. Sheep or pigs may feed on the root crops in a rotation and their manure feeds the soil and enriches it.

Organic farmers make best use of natural predator-prey relationships, rather than using chemical pesticides to destroy the flora and fauna that may damage a crop. For example, those insects that are beneficial include ladybirds and hoverfly larvae, which feed on aphids. Other predators, such as birds, bats, beetles are encouraged by providing them with good habitats. This practice of rotating farm crops helps to break the life cycles of weeds and pests that may thrive if only one crop was grown over a large area of land.

Animal Welfare

High standards of animal welfare are essential to organic farming. In all cases, animals provided with comfortable, clean shelter and plenty of space, will be less stressed, more content and able to behave instinctively. Animals on organic farms are reared less intensively than on conventional farms, so are less likely to pick up diseases. On organic farms animals are outside in the natural light as much as possible. Pigs and sheep are moved to new ground regularly and this prevents a build up of parasites in the soil so the animals are, in turn, less susceptible to infestation.

Organically reared animals are fed a diet of organically grown food of plant origin. To comply with the regulations for feeding dairy cattle, for example, farmers must ensure that 90% of the cow's daily dry food is organically grown. The remaining 10% must come from specified sources and must not include any animal protein or genetically engineered products. Similar specifications exist for other farm animals.

Many organic farmers use homeopathic and herbal medicines successfully in the treatment of disease, only resorting to vaccines and antibiotics when the situation demands and not as a matter of course. Growth hormones, used, in some countries (but illegal in the UK), to make animals grow faster, are not given to organically-reared animals.



Caring for the countryside and encouraging wildlife

It is in the interests of all farmers to care for the countryside and to encourage wildlife as much as possible. Keeping pollution to a minimum, conserving resources and providing wildlife habitats are all essential. As chemical pesticides and fertilisers are not used on organic farms, toxins do not build up in the soil or in water where they might harm wildlife. Smaller fields are needed when crops are rotated and the hedges around them provide good wind breaks, helping to prevent soil erosion which can be a major problem on very large fields. Small units of land with more boundaries, such as hedges and dry stone walls also provide valuable habitats for wildlife.

The Soil Association

The Soil Association is the leading UK charity campaigning for sustainable, organic farming and responsible forestry. 'Organic' is a term with legal status and all production of food intended for sale as organic must be inspected annually by an authorised body such as the Soil Association. The Soil Association logo is only awarded to food produced according to the rigorous standards required for organic certification. The consumer is guaranteed safe, nourishing food from healthy plants and animals, produced from a farming system where animal welfare and care of the environment are priorities.

Further Reading/Resources

All the educational resources below can be ordered on the Soil Association website www.soilassociation.org/education or by calling 0117 3145000. Alternatively you can write to the Education department at Soil Association, 40-56 Victoria Street, Bristol, BS1 6BY.

Food for Life Curriculum Pack (£5 inc. p&p or download free from our education web page): The Food for Life Curriculum Pack provides a wide range of engaging and informative activities for both key stage one and two. It is linked to the National Curriculum through Science, Geography, PSHE and Citizenship and covers the issues of food production, farming, healthy eating and responsible consumerism.

Your Food, Your Choice. Video (£5 inc p&p): A 20-minute fun and fast-paced video featuring TV presenter Michaela Strachan who currently works on BBC1's Countryfile. The video supports Citizenship QCA (Qualifications and Curriculum Authority) Unit 2: Choices, and looks at animal welfare, wildlife, food chains and food miles.

Little Book of Organic Farming (Free to schools): Packed with information on organic farming, the book provides an insight into the animals and wildlife on an organic farm. The book is ideal for family learning or use in schools.

What a waste! Reducing, reusing and recycling waste on farms (Download from www.soilassociation.org/waste): This full colour resource contains four activities to engage key stage two pupils in the issue of waste management on farms.

Farm Trails: Discover more about organic farming by 'walking' one of 17 web-based farm trails. www.soilassociation.org/farmtrails.

Biodiversity Poster (Free): An A2 poster showing a wide range of farmland wildlife. Facts and figures about threats to biodiversity on UK farmland are shown on the back.

Organic Experience Guide (Free): Organic farms open to the public and schools

Farmers' talk for primary schools: A set of 12 laminated colour photos and accompanying speakers' notes that cover the basics of organic farming: welfare, wildlife and soil. Call 0117 914 2440 for more information.

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