

What is organic farming?

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Organic farmers rely on:

- ?? Sound rotations
- ?? Natural nitrogen fixation
- ?? Biologically active soil life
- ?? Recycled farm manures and crop residues
- ?? Appropriate cultivation
- ?? Biological pest control
- ?? Ethical livestock systems

Organic farmers do not use:

- ?? Synthetic fertilisers
- ?? Synthetic pesticides and herbicides
- ?? Growth regulators or promoters
- ?? Antibiotics and hormone stimulants
- ?? Intensive livestock systems

Why farm organically?

The underlying principle of organic agriculture is to produce food of optimum quality and quantity, using methods which seek to co-exist with, and not dominate, natural systems.

There is clear evidence that conventional agriculture has led to:

- ?? Damage to the environment
- ?? Loss of wildlife biodiversity
- ?? Loss of wildlife habitat, such as hedgerows
- ?? Potentially hazardous residues in our food
- ?? Ethically unacceptable livestock systems
- ?? Damage to soil structure and fertility
- ?? Increasing economic burden to society
- ?? Overuse of finite, non-renewable resources

Organic farming helps to avoid these problems

Organic crop rotation

A sound rotation is an essential component of the organic farm. It balances fertility building and cropping and provides the principle means of weed, pest and disease control.

A good organic rotation involves:

- ?? A balance between nitrogen fixing crops and nitrogen demanding crops
- ?? Alternation between deep and shallow rooting crops
- ?? Cover crops to keep the soil protected where possible
- ?? Balancing crops which suppress and are susceptible to weeds
- ?? Crops with different pest and disease susceptibility
- ?? Balance of seasonal labour requirements and availability

The rotation brings the diversity of land use over the whole organic farm, involving both crop and animal production from a stable agro-eco system which has inherent aesthetic, ethical, social, environmental and productive attributes.

Weed, pest and disease control

A sound rotation, coupled with an ecologically diverse crop and farm environment, is the basis of weed, pest and disease control in an organic system.

- ?? Ploughing and seed bed preparations
- ?? Mechanical weed control techniques
- ?? Use of resistant varieties
- ?? Mixed cropping
- ?? Naturally derived biocides with low residual activity
- ?? Biological control methods

Organic farmers do not seek to rid their crops of weeds. A diverse crop ecosystem is an essential aspect of an organic farm. It can support a wide range of beneficial organisms. For example, studies of birds on organic and conventional farms have demonstrated the importance of weeds as a source of feed for birds.

Organic livestock production

The success of organic livestock production relies upon a respect for the individual animal and good animal husbandry.

The main features of organic husbandry systems are:

- ?? Natural rearing systems
- ?? Housing appropriate to the animals' needs
- ?? Natural feeding suited to animal physiology
- ?? Maintaining positive health
- ?? Use of alternative veterinary treatments

Most organic farms in the UK have a mixture of livestock and crops providing a balanced system; the legume based grass and clover pastures which feed the animals also supply nitrogen to the subsequent crops and provide a break to help control weeds, pests and diseases.

Conservation and organic farming

Conservation of the environment is an integral part of organic farming. Farmed and wildlife components of the farm interact.

Organic farmers maintain or improve 'environmental capital' of the farm by:

- ?? Caring for existing habitat and landscape
- ?? Creating new habitats
- ?? Increasing plant and animal diversity and abundance
- ?? Organic farmers manage non-farmed areas to benefit the whole farm system

Organic farming maximises the wildlife and landscape value of productive farmed land as well as non-farmed areas.

Organic food quality – a new definition

Elm Farm Research Centre has developed a new definition of food quality.

- ?? It encompasses both objective and subjective components and takes account of the whole chain of production, processing, distribution and consumption.

The food industry tends to use the term quality in a way that confuses – often for deliberate marketing purposes.

- ?? Quality may only involve the external ('cosmetic') appearance, or measurable food safety and hygiene;
- ?? Quality may also refer to specific or general health, ethical, environmental or social attributes of the food.

The EFRC Definition of Food Quality combines six criteria which represent the important components of quality.

These criteria can be used to determine the *real* quality of food.