

# **Batteries not included**

organic farming and animal welfare

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**Soil Association**

endorsed by



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# Foreword

The British are renowned as a nation of animal lovers. Animal charities are generously supported, and animal welfare campaigns led by organisations like Compassion in World Farming have had a significant impact on livestock farming in this country. Veal crates are banned, free range and organic eggs are a growing feature of the fresh egg market, and non-organic breeding sows have moved to better conditions before the rest of the EU. The live export of farm animals has been reduced, although it still, unacceptably, persists.

But when concerned citizens become consumers, too many of us remain distressingly efficient at blanking-out any connection between the lives of farm animals and the meat, eggs and dairy products we buy. There is deep ignorance about what actually happens to animals on farms, and some people find pictures of the reality of industrial livestock production so distressing that they look away rather than take them in.

This report, written by an independent author with extensive agricultural experience, shows that we can all make a dramatic difference to the lives of farm animals if we open our eyes to the realities of food production and choose organic products. Like people, animals get injured or sick and sometimes die prematurely. Unlike humans, they depend entirely on the production system they are part of, and the care and skill of the farmer. These two things will determine whether they live a full, comfortable and happy life, or endure a deprived, pain-filled and miserable existence, as far too many do.

Animal welfare is a guiding principle of organic agriculture, and the public expects the highest standards from organic farmers. This report shows that those expectations are being met, and independent research quoted in the report backs this up. The report also highlights where improvements in organic systems can and should be made. There is a danger in being open about organic farming's weaknesses. Some might think that there are animal welfare problems on organic farms that compare to the horrors inflicted in industrial production. There aren't.

But if we are going to reconnect food production with the public, and foster a sense of trust in organic food, we have to be completely transparent. We can be clear in the light of this report that Soil Association standards are better for animal welfare than any others, organic or non-organic. We can be clear that organic systems deliver better animal welfare than non-organic. But our standards are not perfect. There are some animal welfare problems on organic farms, and we must be clear about that too.

Healthy children need fresh air, a good diet and plenty of exercise, and that's what organic farmers want for their livestock. This report shows animals on organic farms generally enjoy positive health and welfare, and that many organic farmers constantly strive to improve the welfare of their animals. This report recognises their achievements, and will help us all achieve even more in future.



Peter Melchett  
*Soil Association policy director*

# Executive summary

## Introduction

Intensive methods of livestock production have led to spectacular increases in productivity. But there has been a high price to pay in terms of animal welfare. This report looks at animal welfare from the perspective of organic agriculture. It asks whether organic farming can provide a humane and sustainable alternative to intensive methods of livestock production

## Non-organic chickens and turkeys

The cock birds used to breed broiler chickens are kept in a state of chronic hunger and this leads to high levels of aggression and feather pecking. Fearfulness and high rates of stereotypical pecking are common in females. To reduce aggression, breeder flocks are kept in semi-darkness, and the males often have their beaks trimmed. Every day 100,000 broiler chickens die prematurely in UK factory farms as a result of intensive methods of production.

There are now approximately 29 million egg-layers in the UK, over 70 per cent of which are housed in battery cages. Today three-quarters of the UK's eggs come from fewer than 300 units, each with 20,000 or more layers. Some battery operations have as many as half a million birds. Most battery cages house four or five birds, each having 550 square centimetres of space – or about as much room as an A4 sheet of paper.

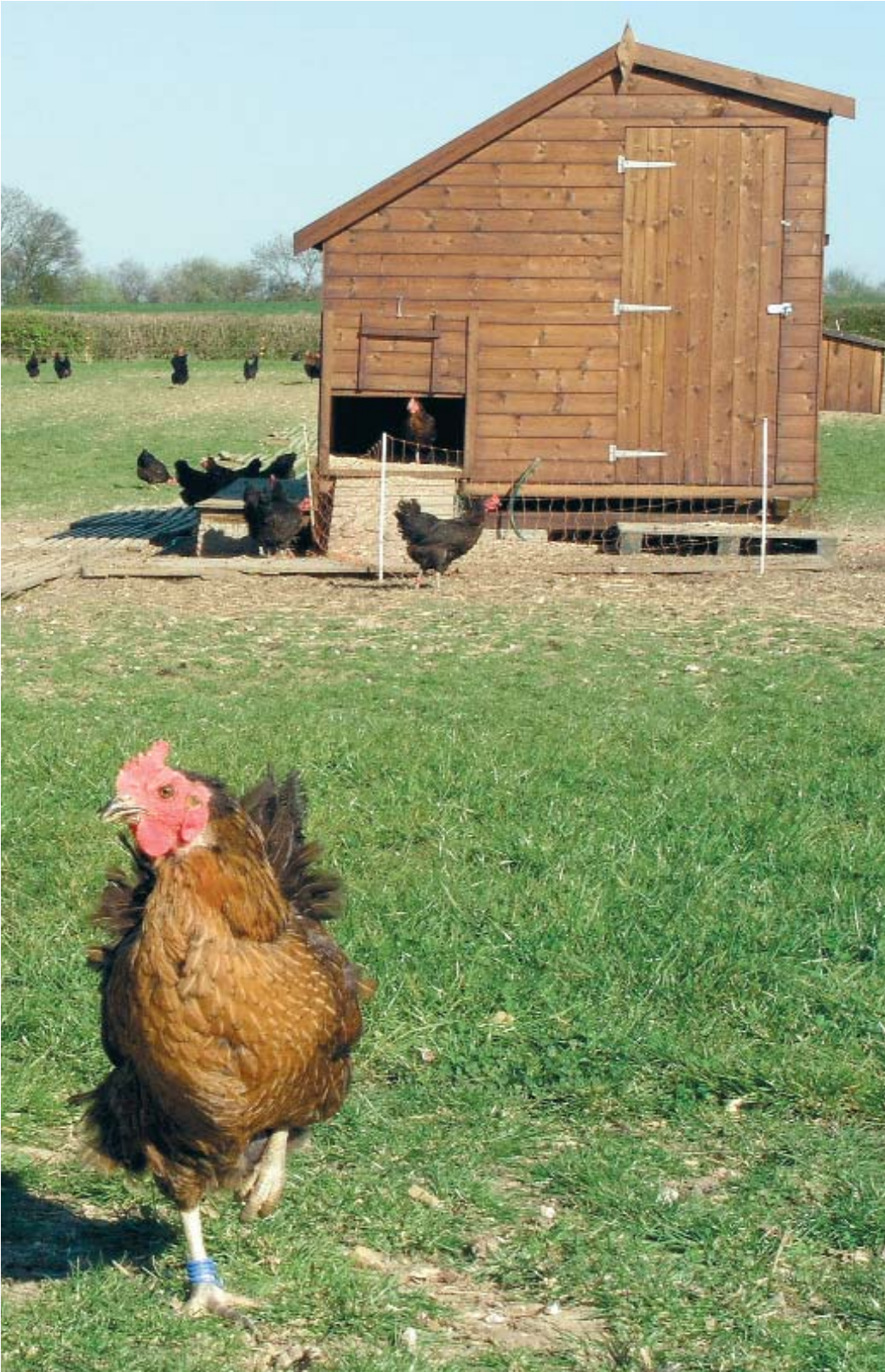
Of the 35 million turkeys bred for the table in Britain each year, the vast majority are fattened in sheds which contain up to 25,000 birds. Conditions are similar to those in the intensive broiler industry, and the birds suffer from a variety of ailments which stem from overcrowding, a lack of dry litter and aggressive behaviour. They never feel the sun on their backs; never roost in trees, as wild turkeys do; never graze outdoors.

Under organic systems battery cages are banned and birds must have access to the open air. Various other practices which are widespread in non-organic poultry meat, egg and turkey production are also banned on organic farms.

## Non-organic pigs

There are approximately 500,000 sows in the UK, and between 70 to 75 per cent of these spend their entire life indoors. A week before they give birth most are placed in a farrowing crate, which is little more than a metal cage on a concrete, partially slatted floor. They remain in the crate until their piglets are weaned at around three weeks. Close confinement can cause muscle weakness, lameness and inflammatory swellings of the joints. Organic pigs must have access to the open air for most of their lives, and farrowing crates are banned.

When pigs are kept in overcrowded and barren spaces, they frequently bite one another's tails. This is why the majority of farmers dock their piglets' tails, using either pliers or a hot docking iron. According to the European Union's Scientific Veterinary Committee, this can sometimes lead 'to prolonged pain'. Tail docking is banned by organic standards.



### **Non-organic dairy cows**

Modern dairy cows are bred to produce as much milk as possible, and most are culled as soon as their productivity – and their health – goes into decline. Because of infertility and disease, caused in part by metabolic stress, the majority of cows have to be culled after three or four lactations, when they reach about five years old. Wild cattle, in contrast, average around ten lactations, as do many suckler beef cattle, and organic dairy cattle can give eight lactations or more. For a significant portion of the year, many high-yielding dairy cows are kept indoors on concrete, and many suffer from lameness.

### **Organic livestock**

Organic livestock must spend most of their lives outdoors, and farmers aim to provide them with the sort of conditions which their wild ancestors favour, or favoured. Organic farmers are encouraged to choose breeds which are well adapted to local conditions and capable of resisting disease. Organic farmers aim to avoid and control diseases without using conventional veterinary treatments, although these must be used if a veterinary surgeon believes they are necessary to save lives and prevent suffering. In short, organic farming aspires to ‘positive welfare’. This implies that animals are kept in a state of excellent health and that all their needs, both physical and behavioural, are satisfied.

The report looks at the difference between organic and non-organic practices for a whole range of livestock. Technical discussions, for example of how organic farmers tackle specific diseases, or how livestock fit in to a farm’s crop rotation system, are accompanied by detailed case studies which explore the considerable achievements of organic farmers in the UK, as well as the difficulties and problems they face.

### **Conclusions**

The report concludes that organic farming, when practised by skilled stockmen and stockwomen, does indeed provide great benefits for farm animals and generally guarantees high standards of animal welfare. However, it is clear that in some cases organic farmers do encounter considerable welfare problems. This has been especially true of sheep farmers in the Scottish uplands during the past few years. The report also suggests that certain organic standards – particularly those which relate to the rearing of organic table birds and organic laying hens – are too lax. The report concludes by suggesting that much more could be made of the considerable animal welfare benefits of well-managed organic farms when promoting organic food to the general public.

### **Soil Association’s response**

The Soil Association welcomes these conclusions. Our aim is to see animal welfare further improve on Soil Association licensed organic farms, and in doing so to influence livestock farming in general. The final section of the report, written by the Soil Association, details our response. We will be consulting consumers, farmers, animal welfare experts, vets, government officials and other non-governmental organisations about the report and our response.

We need to address the concern raised over whether organic farmers are always treating sick animals in the most appropriate way. We propose to add to our inspection programmes so that animal welfare problems can be better recorded and be used to trigger additional training or education for organic farmers or greater involvement by the farmer's vet.

We also want to work positively with the veterinary profession to further improve animal welfare on both organic and non-organic farms. We believe special training in organic livestock farming for vets is desirable, and that trained vets should then always be involved in helping farmers when converting to organic farming. We plan to review whether certain breeds are suitable for organic systems and to review our organic poultry standards. In particular we need to limit and phase out current derogations given for the sourcing of non-organic day-old chicks and larger flock sizes. We briefly discuss work in progress on Soil Association slaughter standards and we open discussions on long-term goals for achieving even higher animal welfare, for example by looking more closely at the natural habitat and behaviour of the wild relatives of farmed animals.

The Soil Association believes that the key to ensuring that farm animals truly thrive is the system of organic farming because it nurtures a state of positive health, promoting natural vitality and disease resistance. This vitality comes from a natural diet derived from a living soil, and from allowing animals to fully express their natural behaviour. For organic farmers, achieving high animal welfare is not just right in itself, it is of fundamental importance to the whole organic system.

# Introduction

The vast majority of hens, turkeys and pigs are produced in what are aptly described as factory farms. They spend their lives tightly packed in often windowless sheds, and they are treated – and often talked about – as harvestable crops, rather than as sentient beings with individual needs and desires. Broiler chickens now reach the weight at which they are killed twice as fast as they did 30 years ago. Modern high-yielding strains of turkey now have such large breasts that they are incapable of having natural sex. Dairy cows may not have been ‘industrialised’ in the same way as poultry and pigs, but the holy grail of high productivity has affected them too. While the average dairy cow produced some 3,000 litres of milk a year in 1940, the modern Holstein now yields 10,000 litres a year or more.

There has been a high price to pay for these spectacular increases in productivity. Broiler chickens now grow so fast that their skeletons and hearts cannot keep pace with muscle development. 100,000 birds die each day in UK broiler sheds as a result of heart failure, disease and afflictions caused by intensive methods of production.<sup>1</sup> Many sows in the UK are confined in narrow crates when they farrow, and consequently suffer from swollen joints and skin abrasions. Most of their progeny have their teeth clipped to prevent them from causing udder damage, and their tails docked so that they do not fall prey to tail-biting later in life – painful mutilations only made necessary by the intensive nature of production. As for high-yielding cows, lameness caused by high concentrate feeding and long housing periods on inadequate surfaces leads to pain and discomfort.

Factory farming is at one end of a scale of intensity. At the other end are the extensive livestock systems of the uplands, where sheep wander over large tracts of rough grazing land. In between these extremes are a whole range of other farming systems of varying intensity. Clearly, factory farming systems such as those described above prevent animals from fulfilling their full behavioral repertoire, and sometimes subject animals to severe stress and suffering. But extensive systems are not necessarily ideal: lamb mortality on upland farms, for example, tends to be higher than mortality on more intensively managed lowland farms. Animal welfare on similar sorts of farms may also vary greatly, according to the skills of the people who are looking after the livestock. Many farmers take a great pride in their livestock. They do all they can to prevent suffering and ensure that their animals remain in good health. But that isn't always the case.

There are some basic rules which dictate how farmers treat their livestock, and what they can and cannot do, and these are laid down by UK and European Union (EU) law. Many livestock farmers join farm assurance schemes – there are separate ones for poultry, sheep, beef, pigs and dairy cows – but these schemes often do little more than insist that farmers comply with existing legislation. However, a recent report by Compassion in World Farming (CIWF) found that the standards of one scheme far exceed, in welfare terms, those of all the others.<sup>2</sup> These are the organic farming and production standards set by the Soil Association.

This report looks at animal welfare from the perspective of organic farming. The organic standards laid down by EU law and refined by certifying bodies like the Soil Association stipulate a range of measures which between them should result in good animal welfare. Free-range conditions are required; stocking densities both on the land and in buildings



are limited; the most intensive practices – such as early weaning of piglets, intensive feeding of dairy and beef cattle, and the use of battery hen cages – are prohibited, as are certain mutilations.

However, organic farming has its welfare critics. Some argue that although the standards themselves may be satisfactory, a failure to enforce them rigorously means that they are not delivering the welfare benefits they should. There is also particular concern about the standards which relate to the control of disease and parasites. Besides prohibiting the use of artificial fertilisers and pesticides, organic standards aim to minimise the use of conventional veterinary medicines, and encourage farmers to control diseases by good management and the use of homeopathy and other ‘alternative’ therapies. Some critics argue that this is leading to greater suffering, rather than less.

A brief word about the shape of this report. Chapter 1 describes the various moves – legislative and otherwise – which have been made to improve farm animal welfare over the past century. This is followed by a chapter which explores the philosophy behind organic farming, and its relevance to animal welfare. The development of *positive* animal health and welfare – in other words, a state of health which amounts to more than the absence of disease and maltreatment – is a key guiding principle for organic livestock farmers. Chapter 2 explains precisely what this means.

This is then followed by a series of chapters which look at the implications of organic farming for different types of farm animal. Each chapter consists of two parts. The first part looks at technical matters: for example, at how organic farmers tackle specific diseases; at housing conditions and stocking densities; at the way in which livestock fit in to a rotation of crops and grass leys. The differences between organic and conventional practices are considered here. The second part of each chapter consists of a case study, the purpose of which is to describe how a particular farmer, or farming family, is putting organic principles into practice. The case studies provide a warts-and-all view of organic livestock farming, and tell of the difficulties and problems which farmers face, as well as their achievements.

Organic farming, when practiced by skilled stockmen and stockwomen, can provide great benefits for farm animals and guarantee high standards of welfare, but welfare problems do exist on some organic farms. Furthermore, it could be argued that some organic standards, particularly those relating to poultry, are too lax. The conclusion summarises the strengths and weaknesses of organic farming as far as animal welfare is concerned.

The final section is the Soil Association’s response where they make recommendations, based on the conclusions, to improve animal welfare.

# Farm animal welfare – a brief history

The key pieces of legislation relating to the welfare of farm animals in the UK are the *Protection of Animals Act 1911* and subsequent amendments, and the *Agriculture (Miscellaneous Provisions) Act 1968*. The Protection of Animals Act makes it an offence to cause unnecessary suffering to any animal. The Agriculture Act specifically deals with the welfare of farm animals. It makes it an offence to cause unnecessary pain; it gives state veterinary officers the powers to inspect farms on welfare grounds; and it empowers agriculture ministers to introduce statutory binding regulations, of which there are now several. The Act also gives agriculture ministers the authority to prepare *Codes of Recommendations for the Welfare of Livestock*. These codes, which are voluntary, exist for all farm livestock. The *Welfare of Farm Animals (England) Regulations 2000* implement four European Union directives which establish minimum standards of welfare throughout Europe. Similar regulations exist for Scotland and Wales. Two other pieces of legislation – the *Welfare of Animals (Slaughter or Killing) Regulations 1995* and the *Welfare of Animals (Transport) Order 1997* – govern the treatment of animals beyond the farm gate.

One of the defining texts about animal welfare was Ruth Harrison's *Animal Machines*, a critique of factory farming published in 1964.<sup>1</sup> This generated widespread public concern and prompted the government to set up a technical committee to enquire into the welfare of animals kept in intensive systems.<sup>2</sup> This became known as the Brambell Committee, after its chairman. The Committee was strongly influenced by recent research which suggested that there was a genetic basis for much animal behaviour. If animals are prevented from performing their normal behaviour patterns, went the thinking of the day, they might well respond in an abnormal way. The Brambell Committee concluded, among other things, that animals kept in barren surroundings such as battery cages exhibited behavioural patterns which were a sign of frustration. In short, their welfare was compromised. The *Agriculture Act 1968* was largely a response to the Brambell Committee's report.

The idea that farm animals have behavioural requirements was later enshrined in the *1976 European Convention for the Protection of Animals Kept for Farming Purposes*, with which all current UK laws must comply. The convention states that farm animals must be managed with respect to 'their physiological and ethological needs.' Defining physiological needs is easy enough. If an animal has insufficient food or water, its physiological needs are clearly not being met. It would therefore constitute an offence if a farmer failed to provide sufficient food and water. However, defining ethological, or behavioural, needs is far harder. Take, for example, the hen and the pig. Hens are genetically programmed to dust-bathe and flap their wings. Similarly, sows are genetically programmed to make nests when they farrow. Yet these activities are all denied under intensive systems of farming. As these systems remain legal, this suggests that legislators take a very narrow view of what constitutes an ethological need.

The Brambell Committee was particularly concerned about the lack of space afforded to factory-farmed animals, and stated in its report: "An animal should at least have sufficient freedom of movement to be able, without difficulty, to turn round, groom itself, get up, lie down and stretch its limbs." These became known as the 'Brambell Five Freedoms'. The idea of five freedoms took on a broader meaning when they were redefined by the Farm Animal Welfare Council (FAWC), which was set up to advise the government on

animal welfare issues in 1979. In FAWC's view, good animal welfare implies both physical fitness and a sense of well-being. In short, animal welfare is about much more than the avoidance of suffering.<sup>3</sup>

The five freedoms are:

- *Freedom from hunger and thirst*  
By ready access to fresh water and a diet to maintain full health and vigour
- *Freedom from discomfort*  
By providing an appropriate environment including shelter and a comfortable resting area
- *Freedom from pain, injury or disease*  
By prevention or rapid diagnosis and treatment
- *Freedom to express normal behaviour*  
By providing sufficient space, proper facilities and company of the animal's own kind
- *Freedom from fear and distress*  
By ensuring conditions and treatment which avoid mental suffering.

FAWC points out that these freedoms “define ideal states rather than standards for acceptable welfare.” They are, in short, aspirational. The same could be said for the provisions listed under most of the *Codes of Recommendations for the Welfare of Livestock*. These encourage livestock farmers to adopt the sort of practices implied by FAWC's five freedoms. The provisions suggest that animals should have freedom of movement; the company of other animals of their own kind; the opportunity to exercise most normal patterns of behaviour; flooring which does not harm the animal; and adequate shelter. The provisions also suggest that animal should not be subjected to unnecessary mutilations. These guidelines are not legally binding, and indeed animals kept in intensive conditions are denied at least some of the provisions which the codes promote. For example, many animals still suffer mutilations of one sort or another.

Over the past decade or so, public disquiet, stimulated by campaigns led by organizations like CIWF and the Royal Society for the Prevention of Cruelty to Animals (RSPCA), has encouraged the UK government and the EU to introduced legislation to curb what are widely seen as the most inhumane practices in factory farming. Not long ago, veal calves in the UK could be reared in narrow crates, in almost total darkness, and fed on a diet deficient in iron and fibre. Veal crates were banned in the UK in 1990, and will become illegal throughout the European Union in 2007. Not long ago, many sows in the UK were confined for virtually all their lives, rather than just some of the lives, in concrete-floored stalls so small that they were unable to turn round. These are now banned in the UK; other EU countries must phase them out by 2013. Not long ago, EU law defined farm animals as ‘agricultural products’. Now, under a Protocol annexed to the Treaty of Amsterdam in 1997, farm animals are recognised as ‘sentient beings’ capable of experiencing pain and suffering.

The farming industry, with the support of food retailers, reacted to growing consumer concern about animal welfare issues and intensive methods of meat production by creating farm assurance schemes. In England alone, over 90 per cent of pigs, almost 80 per cent of cattle and 60 per cent of sheep are sold under these assurance schemes.

The presumption, from the consumers' point of view, is that these schemes provide them with the assurance that methods of production comply with certain agreed standards that address, among other things, public concerns over animal welfare. Otherwise, they would be without meaning as far as consumers are concerned.

Most of the schemes come under the umbrella of the British Farm Standard, established in 2000 and managed independently by Assured Food Standards (AFS). Its logo is a little red tractor. According to AFS, the standard represents a "promise to consumers that, when they buy food carrying the British Farm Standard mark on the label, it has been produced to meet exacting food safety, environmental and welfare standards." It also suggests that food produced under the little red tractor logo is "kind to animals."

A recent study by CIWF Trust analysed the welfare standards of UK farm assurance schemes by comparing them with what it described as "15 key determinants of high welfare systems."<sup>4</sup> The report found that mutilations such as the de-beaking of chickens and the tail-docking and tooth-clipping of pigs are permitted under some schemes, as is the farrowing of sows in narrow crates. Assurance schemes countenance the rearing of beef cattle indoors in large groups without bedding, and the keeping of broiler chickens at higher stocking densities than those recommended by government. Some schemes also allow restrictive feeding practices which keep chickens and pigs in a state of permanent hunger. The welfare standards set by the main farm assurance schemes covering beef, lamb, pork, chicken, milk and eggs assured the fulfilment of just four to seven of CIWF's 15 key animal welfare determinants. In contrast, CIWF Trust found that the Soil Association's organic standards assured the fulfilment of 11 to 14 of the 15 key determinants.

Most farm assurance schemes cover a whole range of issues, from animal welfare to hygiene, standards of stockmanship to housing. Only one scheme is specifically concerned with animal welfare. This is the Freedom Food scheme managed by the RSPCA and set up in 1994 to "improve the lives of as many farm animals as possible."<sup>1</sup> The standards have been devised by RSPCA animal welfare specialists in consultation with veterinary experts and the farming industry. They are based on the concept of FAWC's five freedoms. The standards, according to the RSPCA, "work towards these 'ideals' within a practical farming context."

The RSPCA's Freedom Food scheme allows certain practices which a strict reading of the five freedoms would proscribe. For example, it permits nose-ringing and tail-docking of pigs in certain circumstances. Nose-ringing prevents outdoor pigs from exercising one of their main behavioural traits – digging and rooting. Tail-docking, according to the European Union's Scientific Veterinary Committee, is likely to be painful when carried out and can lead to 'prolonged pain'.

An independent audit of Freedom Food, commissioned by the RSPCA and conducted by welfare specialists at Bristol University, looked at the welfare of dairy cattle on Freedom Food and non-Freedom Food farms.<sup>5</sup> The Freedom Food farms were found to have better results than non-Freedom Food farms for 12 of the welfare indicators investigated by the researchers, including indicators for mastitis, non-hock injuries, cleanliness and body

condition. However, the latter fared better for a further eight welfare indicators, including those for hock injuries and lameness. There was no significant difference in the proportion of Freedom Food and non-Freedom Food farms on which intervention was required, according to the experts' assessment.

The Freedom Food stamp of approval fared reasonably well in an earlier analysis of the animal welfare standards of various farm assurance schemes, but not as well as the Soil Association's organic certification schemes.<sup>6</sup> The study looked at six key areas relating to animal welfare: the origin and traceability of livestock; management and stockmanship; housing; health; nutrition; and transport and slaughter. These six welfare categories were assessed using 15 criteria. For example, under housing, the researchers looked at housing design, the area set aside for animals to lie up and rest, and air quality and temperature. Under transport and slaughter, the researchers looked at the equipment used to move the animals, the training of the hauliers, the length of time between farm gate and abattoir, and the process of slaughter itself.

The report lists the assurance schemes which exceed by the greatest amount the minimum standards suggested under the *Codes of Recommendations* for each welfare criterion. None of the major schemes – Farm Assured British Beef and Lamb, Scottish Quality Beef and Lamb, Farm Assured British Pigs – come first for any of the criteria. The Scottish Pig Industry Initiative, a relatively small scheme, is joint first when it comes to one health criterion, a position it shares with the RSPCA, Tesco and the Soil Association. The RSPCA's Freedom Food scheme is considered best or equal best for six of the 15 welfare criteria. The Soil Association, whose organic standards cover all aspects of farm management, not just animal welfare, comes first for nine out of the 15 criteria.

### **Defining animal welfare**

Many attempts have been made to define animal welfare, but no one has come up with a definition that is acceptable to all. Most people now agree that high standards of animal welfare depend on more than just the avoidance of suffering. "Welfare on a general level is a state of complete mental and physical health where the animal is in harmony with its environment," is one definition.<sup>8</sup> A former director of the Universities Federation for Animal Welfare (UFAW) believes that there might be merit in replacing the word welfare with the term 'health and well-being.' In his view, "Health is more than the absence of disease and well-being is more than just the absence of discomfort and emotional distress."<sup>9</sup> This resonates with one of the objectives of the Farm Animal Welfare Council (FAWC), which is to promote 'positive welfare'. FAWC sees this as a state of well-being which depends on meeting the basic needs identified by its five freedoms. Marian Dawkins, an animal behaviourist, believes that endless debates about the definition of animal welfare are unnecessary. "There is only a need to know two things," she says: "are they healthy? And do animals have what they want?"<sup>10</sup>

Organic farming is a form of production which is designed to produce food of high nutritional quality using sustainable management practices that avoid the use of agrochemicals, minimise damage to the environment and wildlife, and optimise animal health and welfare. Although stockless organic farming systems exist, the majority of organic farms integrate livestock production with grass/clover leys and, where the climate is favourable, with the cultivation of arable and vegetable crops. Livestock provide the fertility needed to grow healthy crops and they play an additional role by utilising arable crop residues.

Organic livestock farming aspires to what the Farm Animal Welfare Council (FAWC) describes as 'positive welfare'. This means far more than the avoidance of ill-treatment; it implies that the animals are kept in a state of excellent health and that all their needs, physical and behavioural, are satisfied. Organic farmers seek to avoid the appearance and spread of diseases and parasites without recourse to conventional veterinary treatments, although there is a requirement that animals which become ill must be treated immediately. Antibiotics and other veterinary medicines can be used under the guidance of a veterinary surgeon "to save life, to prevent unnecessary suffering, or to provide the only way to restore the animal to full health."

It is worth describing in some detail the main principles of organic farming. These include choosing the right breed, allowing animals to exercise their natural behaviour patterns in predominantly free-range conditions, maintaining good standards of hygiene, providing good housing, and feeding livestock a healthy, nutritious, organic diet. These principles apply just as much to a small-holding with a few hens and pigs as they do to a large estate running hundreds of head of cattle or many thousands of sheep

Organic farmers are encouraged to select breeds which are adapted to local conditions and able to resist diseases. In particular, farmers are encouraged not to use the breeds and strains developed for intensive production which are susceptible to specific health problems. These include, for example, strains of pig which are susceptible to porcine stress syndrome and cattle whose calves have to be delivered by Caesarean operation. Beef and sheep farmers in the uplands are encouraged to use traditional breeds which are well adapted to long winters and cold weather. Pig farmers are encouraged to use coloured breeds such as Saddlebacks and Tamworths, rather than modern pink strains which are susceptible to sunburn. Preference should be given to indigenous breeds and strains, although farmers must obviously consider what the market demands.

Organic livestock must have access to pasture whenever conditions permit, and indeed the free-range lifestyle is considered to be of fundamental importance, both for animal welfare and animal health reasons. The outdoor world allows the animals to exercise their natural behaviour and provides them with mental stimulation. Organic farmers also maintain that animals kept outdoors are exposed to pathogens as well as benign micro-organisms, and this helps them to build up a natural immunity to disease.

Obviously, a whole variety of factors will determine precisely how much time animals spend outside. During the summer, it would be imprudent to let young chicks out when carrion crows and buzzards are searching for food to feed their young. In areas with



poorly drained soils, cattle, pigs and sheep may have to be housed indoors during the winter months. In principle, organic livestock should be allowed to express the same sort of behavioural patterns as their ancestors in the wild. Turkeys and hens, for example, should have access to wooded areas as well as open pasture; pigs should be able to wallow in mud in summer.

Wherever possible, organic farmers are encouraged to have closed herds and flocks – in other words, herds and flocks reared exclusively on the farm – for both welfare and health reasons. If animals have to be bought in, they will experience the stress of transport, which can be considerable. There is also a risk of introducing diseases from outside. If organic farmers need to get animals from elsewhere, they should ideally come from other organic farms.

The housing conditions for livestock must meet the animals' biological and ethological needs. There should be sufficient space for the animals to move freely, and they must have good access to food and clean water. The buildings should be well ventilated and levels of dust, temperature and humidity should be kept within limits which are not harmful to the animals. Organic farming standards invariably insist on lower stocking densities than those laid down in the government's *Codes of Recommendations*. The animals must also be provided with adequate bedding in lying areas – preferably straw from organic sources – and the lying areas should consist of solid floors, rather than slatted floors, which can cause foot problems.

The health and vitality of organic livestock is based on sound nutrition. Organic stock must primarily graze, or be fed, grass or forage, at least 60 per cent of which must come from organic land. Livestock can currently receive a supplementary feed of up to 10 per cent from non-organic sources. This was originally designed to ensure that organic stock did not go short of protein. This 'non-organic allowance' will be removed in 2005, when there should be an adequate supply of organic proteins. The rest of the diet, amounting to 30 to 40 per cent of total intake, can come from land in its second year of organic conversion. However, on most fully organic farms the vast majority of the feed is fully organic.

All organic farms must have an animal health plan which is reviewed annually. This has to be approved by the certification body, and together with the management plan, it provides an outline of the strategies the farm will adopt to diagnose and remedy any health and welfare problems. The measures mentioned above – choosing the right breed, good nutrition, low stocking densities, well-designed buildings – all help to create the conditions which encourage good health. However, a number of other measures must also be taken to control diseases and parasites.

Internal parasites like worms are generally species-specific. In order to keep them at bay, organic farmers are encouraged to practice mixed grazing. Cattle, for example, might graze a pasture one year, and sheep the next. This helps to break the parasite life cycle. Another option is known as clean grazing. This is particularly important on organic pig and poultry farms. A piece of land should only be used by pigs for a maximum period of six months. It should then be kept free of pigs for at least four years.



Organic farming standards have long prohibited the use of antibiotics for 'growth promotion' purposes – seven out of the 11 antibiotics formerly licensed for use as growth promoters have now been banned throughout the EU – as well as the routine use of antibiotics and some other antimicrobial drugs. In intensive farming systems, most antibiotics are given to healthy animals as a form of insurance policy, to prevent them from getting a disease. Almost all non-organic dairy cows are given antibiotics to control mastitis during the dry period. Around 90 per cent of all pigs receive antibiotics in feed after early weaning to control or prevent ileitis, which causes diarrhoea. Antibiotics are also widely used in broiler chicken production to control necrotic enteritis, a bacterial infection which causes high mortality.

Besides outlawing the routine use of antibiotics, the organic standards lay down strict rules about the use of vaccines. Vaccination on organic farms is only permitted where there is a known risk of a disease which cannot otherwise be controlled, either on the farm itself or on neighbouring land. Instead, organic farmers are encouraged to use complementary and natural therapies where they are appropriate. These must have been shown to be efficacious and they should be used under professional veterinary guidance. However, antibiotics and other conventional medicines can be used when complementary therapies are inappropriate and when a veterinary surgeon considers them necessary. Indeed, the failure to treat a sick animal can lead to an organic farmer losing his or her certification as an organic operator.

Organic standards impose longer withdrawal periods than is legally required before an animal, or its products, can be sold as organic following treatment with conventional veterinary medicines. If an animal receives more than three courses of antibiotics in one year, it automatically loses its organic status.

The prophylactic use of antibiotics and other drugs can help to mask poor standards of animal welfare on non-organic, intensive farms. The organic farmer is potentially more exposed to disease, not having recourse to the great range of veterinary medicines that are available non-organic farmers. This means that good stockmanship is even more necessary on an organic than on a non-organic farm if animal welfare is not to suffer.

Consumption of white meat has risen dramatically over the past few decades, and this is reflected by the scale of the intensive poultry industry. Every year 800 million broiler chickens – young birds bred for the table – are reared in the UK, the vast majority in intensive conditions. Turkey production now stands at around 35 million birds a year, most of which are reared intensively. Broiler chickens are normally housed in groups of up to 40,000 in large sheds; turkeys in groups of up to 25,000. The temperature, ventilation system and lighting are all carefully controlled, and breeds have been developed for their ability to put on meat as fast as possible. Broiler chickens now reach the average weight at which they are slaughtered in 42 days, half the time it took 30 years ago.

Intensive poultry production has caused a variety of serious welfare problems. If breeding flocks are to produce the eggs needed to supply the fast-growing chicks required for the broiler system, the cock birds must be fed restricted rations. If fed *ad lib*, they would suffer from obesity, sterility and many of the ailments, described below, which can affect their progeny, the broiler chickens. The cock birds are kept in a state of chronic hunger and this leads to high levels of aggression and feather pecking. Fearfulness and a high rate of stereotypical pecking are common among females.<sup>1</sup> To reduce aggression, breeder flocks are kept in semi-darkness, and the males often have their beaks trimmed. According to the EU's Scientific Committee for Animal Health and Animal Welfare (SCAHAW), feeding restrictions result “in unacceptable welfare problems.”<sup>2</sup>

The broilers themselves are subject to a range of welfare problems. A common cause of early death is ascites, a form of heart failure which has been on the increase in recent years. This and sudden death syndrome stem from the inability of the birds' hearts and lungs to keep pace with the rapid muscle growth experienced by modern strains. Rapid growth also means that broilers are particularly susceptible to skeletal disorders. One report found that a quarter of broiler chickens suffered chronic pain as a result of arthritis and other leg problems.<sup>3</sup> According to SCAHAW, leg disorders, dermatitis, breast blisters and other problems are largely the result of high stocking densities. It suggests that if welfare problems are to be avoided, stocking densities should not exceed 25 kilograms per square metre. In the UK, the maximum recommended stocking density is 34 kilograms per square metre – in other words, about 18 birds per square metre.

In theory, intensively reared broilers, when managed to high standards, should be able to exercise, dust-bathe and choose warmer areas in the house for their resting periods. However, skeletal problems, dim lighting and limited space will often restrict normal behaviour.<sup>4,5</sup> Overcrowding also means that turkeys reared under intensive conditions suffer painful hip disorders, lameness and ulcerated feet. In short, their welfare problems are similar to those of intensively reared broiler chickens, for much the same reasons.

There is widespread concern about the use of antibiotics in poultry units. Low doses, administered in feed and water, prevent diseases and make the birds grow faster. It is thought that long-term, low-dose exposure is far more likely to create resistance to antibiotics, many of which are also used to treat humans, than short-term doses used to treat specific problems. As a result, the British poultry industry imposed a voluntary ban on the use of growth promoters in 2000, but in 2003 Assured Chicken Production –

which sets standards for most of the industry – lifted the prohibition, ostensibly on welfare grounds.<sup>6</sup> However, EU legislation will ban the use of antibiotic growth promoters from 2006 onwards.

### **Organic systems**

Ideally, poultry operations on organic farms should be integrated into the farming system in terms of manure and pasture management, and poultry should be part of a grazing management regime in tandem with sheep or other livestock. Organic poultry must have continuous daytime access to pasture and range land, except during bad weather.

To suppress diseases and parasites, pastures must be rested from poultry for at least two months a year in the case of broiler chickens. Soil Association standards stipulate, additionally, that pastures should be rested for one year out of every three. Poultry must have access to shelter at all times and be provided with protection from predators; for example, electric fences should be used to keep foxes out. Wherever possible, organic farmers are encouraged to provide trees, shrubs and cover crops such as maize to simulate the sort of conditions the birds experience in their native habitat.

Although organic farmers can keep poultry in fixed houses, mobile houses are preferred, as these allow much greater flexibility of management and enable farmers to integrate poultry into their farming systems more efficiently. The houses must be emptied of birds, cleaned and disinfected thoroughly between batches. The maximum stocking rate in fixed housing is 10 birds per square metre for broilers or two birds per square metre for turkeys. This is well below the maximum stocking densities laid down by the government's *Codes of Recommendations*. Normally, the maximum number of birds permitted by the Soil Association is 500 per housing unit for broilers and 250 for turkeys. However, in specific circumstances derogations allow farmers to keep up to 1,000 chickens and 1,000 turkeys in each housing unit. This is still way below the maximum of 4,800 birds stipulated by the EU for organic chicken production. Many non-organic free-range poultry units have flocks of up to 10,000 birds.

The use of growth-promoting antibiotics – routinely used by the intensive broiler industry – is prohibited on organic farms. The minimum age of slaughter for chickens reared organically is 81 days; the minimum age for turkeys, 140 days. Farmers are encouraged to choose relatively slow growing breeds.

### **Key issues**

Under free-range conditions, hens should be able to exercise their full behavioural repertoire of grazing, pecking the ground, scratching and dust-bathing. Free-range conditions also provide birds with the opportunity to augment and vary their diet. Provided slower growing breeds are used, and flocks are well managed and properly fed, organic birds should not suffer the vascular and skeletal problems common among intensively reared broilers. Likewise, free-range turkey farms allow the birds to behave much as their wild relatives do, and they should experience none of the problems – leg

disorders and the like – associated with intensive production. In short, the welfare of genuinely free-range birds is potentially vastly better than that of intensively produced meat birds.

However, the Farm Animal Welfare Council suggests there are certain potential drawbacks to even the best free-range systems, whether organic or non-organic. Predation, or fear of predation, may be a problem; there may be some discomfort as a result of climatic extremes; large pop holes can adversely affect environmental conditions inside hen houses; and there is a disease risk associated with contact with droppings and wild birds.<sup>6</sup>

As far as disease is concerned, organic farmers must rely on good management to maintain high levels of health among their flocks without recourse to conventional veterinary medicines. One review suggests that coccidiosis is a potential health problem for organic systems, especially when poultry breeds unsuited to organic production are used.<sup>7</sup> However, rotational and clean grazing practices, and meticulous attention to hygiene, should help to suppress diseases such as coccidiosis and keep external parasites like ticks under control. A survey of small-scale organic producers in the UK found that producers did not consider that they had a problem with the health of their flocks.<sup>8</sup> However, independent on-farm surveys are needed to assess the true health of organic flocks.

Mortality rates are generally higher for birds kept under free-range conditions than for birds reared indoors. One study suggests that mortality rates for organic table birds are around 10 per cent, double that of intensive systems.<sup>7</sup> However, mortality levels vary considerably from one organic farm to another, and some producers experience very low mortality rates. A key factor for free-range producers is predation, but good management can reduce attacks by foxes and aerial predators to very low levels.

In the wild, jungle fowl – the ancestor of modern hens – live in small groups, and each group has a regular roosting and foraging area.<sup>9</sup> Much the same applies to small backyard systems, and ideally organic flocks should mimic these. It is thought that in groups of 40 or less, chickens can recognise each other and build up a stable social system. However, most organic poultry units have flocks far in excess of this optimum size.

The Soil Association introduced derogations in 1999 which allowed organic farmers to increase maximum flock size. This was done for economic reasons. It was thought that the relaxing of organic standards would help to get organic poultry meat into the major retailers in reasonable quantities, and thus meet growing consumer demand, something which was unlikely to happen if flock size was limited to 500 birds. However, there has been a price to pay in terms of the birds' health and welfare. Increased stocking density leads to greater pressure on pasture, a greater likelihood of parasite build up, and a greater likelihood of bullying and feather-pecking, especially among laying flocks (see Chapter 4). There is plenty of evidence to suggest that in large flocks some birds never venture outdoors, and the more aggressive birds control the use of pop holes and chicken runs.<sup>10</sup> Indeed, many non-organic 'free-range' birds are nothing of the sort.

The vast majority of organic table birds – whether chickens or turkeys – begin their life in precisely the same way as intensive broilers. They are hatched from eggs produced by broiler house breeder flocks which are subject to restrictive feeding practices that lead to chronic hunger. In other words, organic farming has till now continued to support a system which has been condemned by the EU's Scientific Committee on Animal Health and Animal Welfare – as well as by many organic farmers and animal welfare groups.<sup>13</sup> However, from 1 January 2004, organic table bird farmers will have to source their one-day old chicks from organic units, or rear them themselves. This will constitute a major advance in organic poultry welfare.

## Case study **The Riggs**



One day, in 1988, Pammy Riggs (above) heard Lady Eve Balfour, the founder of the Soil Association, talking on the radio about organic farming. "I'd never even heard of organic till then," she recalls, "but from that moment I knew what I wanted to do." Her husband Ritchie (facing page), a bricklayer by trade and one-time sound engineer for Status Quo and Diana Ross, was just as keen. He used to work on a farm as a boy, and had even done a course on dairy goat husbandry. They read Lady Eve's *Living Soil* to one another in bed at night, decided to become organic farmers, sold their Dorset home and headed with their two young boys for North Devon, where they bought a field outside the market town of Holsworthy.

The Riggs are now doing what most people in the farming world say is impossible: they are making a living from less than 20 acres of land. Having spent 10 years living in rented accommodation nearby and four years in caravans, the Riggs have just moved into a brand new house, built by Richie with a view over their paddocks of hens, ducks, geese, pigs and cattle. Providence Farm now employs a butcher full-time in the small farm shop, also built by Richie, and a shop assistant part-time.

"At first, people thought we were mad," explains Pammy. "We were living in abject poverty on family credits and minced goat." They tried various other animals besides goats, but with limited success. They decided to breed pigs, but realised as soon as winter came that their sows would bury themselves in mud, as there was no concrete or indoor accommodation. So they had to kill these and eat them too.

Years of muddling along, when they spent more money on feeding the animals than themselves, convinced them that they needed to change their ways. Various ventures during the 1990s led to Pammy going on a book-keeping course for farmers, and the Riggs then decided that their financial salvation might lie in raising organic chickens for the table. In autumn 1997, their 13 Friesland cross ewes produced 35 lambs. They sold some of these remarkably fecund sheep for "a whacking sum of money" at Holsworthy market, and the money paid for their first batch of day-old chicks, a ton of organic feed, and some small chicken huts. They are now selling 3,000 table birds a year directly to the consumer.

The difference between the Riggs' organic table birds and the 'crops' of broilers produced by the industrial units which dominate the business could hardly be more marked. Most broilers are reared in vast sheds, often with 25,000 birds, and by the time they are killed – most at 45 days – they are so tightly packed that the floor is invisible. They never see daylight, let alone a grass field, and diseases and parasites are kept at bay by routine vaccination programmes. Significant numbers die of heart disorders and suffer from painful leg and skeletal problems.

The Riggs birds, in contrast, are reared in flocks of 180 or less. They can spend most of their relatively long lives – they are killed when they are 12 to 14 weeks old – grazing outdoors, and they stay in excellent health without the use of synthetic drugs. "We want all our animals to thrive, not just survive," says Pammy.



The seasonal presence of foxes and crows – Ritchie shoots both – means that young chicks must be provided with a small pen, protected by wire-netting and tacked on to the end of their hut. Here they can peck at insects, grass and soil. The Riggs believe this helps them to build up immunity to the pathogens and parasites they will encounter when they gain full access to their grass paddocks. This happens at any time from three weeks onwards, depending on the weather and time of year.

“So far we’ve hardly had any disease problems,” explains Ritchie. He attributes this partly to the fact that the chickens build up their immunity from an early age, partly to the Riggs’ efforts to ensure that chickens are not stressed, and partly to their rotation system, which helps to prevent an explosion of parasites and soil-based diseases. Chickens are followed by sheep or beef, then by pigs, and possibly by ducks or geese, and it will be at least five years before chickens return to the same block of pasture.

The Riggs are uneasy about the organic standards for poultry, which they believe are far too lax. For one thing, they think the flock size allowed is excessive, with the Soil Association, for example, stipulating a maximum of 1,000 birds per housing unit. The larger the flock, the greater the likelihood of bullying and disease. Even more worrying, in their view, has been a dispensation which has enabled organic farmers to source their one-day old chicks from the conventional broiler industry. These chicks are the progeny of fast-growing breeding stock whose development has to be arrested by keeping them in a state of perpetual hunger. If they were fed ad lib, most would die of heart disorders and other complaints before they reached laying age.

From 1 January 2004, organic farmers will have to either buy in chicks from organic breeding flocks kept outdoors, or rear them themselves. However, there are fears that derogations may enable farmers to continue as they have in the past. While conventionally



reared one day-old chicks cost around 30 pence each; organically reared one day-old chicks cost 60 to 90 pence each.

Since organic table chicks have been available, the Riggs have paid the extra and bought their one-day old chicks from Andrew Gunther, one of the few organic farmers in England to specialise in their production. Recently, Gunther helped the Riggs to set up their own parent flock of 24 hens and two cockerels. In mid-2003 they were in the process of installing an incubation room in their new house, and by 2004 they will be producing all their own chicks.

The Riggs are particularly concerned about the way most chickens are killed. All intensively reared broilers and most organic chickens are shackled by their feet and suspended upside down on a conveyor belt. Their heads are then dragged through electrically-charged water. This is supposed to render them unconscious before they move on to an automatic neck-cutter. “Some of them get through the water and the neck-cutter without being properly stunned and killed, just mutilated,” says Pammy with a shudder. “That’s why there’s always someone there waiting to finish them off if they’re not dead.”



When Pammy or Richie take their birds for slaughter they go in small batches, having been carefully loaded into plastic crates early in the morning. The chickens arrive at an abattoir in nearby St Giles-in-the-Heath at 8.30 in the morning, and they are immediately dealt with. The slaughterman individually stuns each bird, then cuts its throat. The birds are hung for a week before being eviscerated. The Riggs pay £1.60 for the killing, plucking, gutting and packing of the birds. It is worth every penny in their view.

Similar care and attention goes into the slaughter of their pigs, offspring of a Duroc boar and five sows of mixed Saddleback, Tamworth, English Lop, Berkshire and Gloucester Old Spot ancestry. A few days before they go to the abattoir, Ritchie brings the five-month old weaners indoors to accustom them to concrete and straw. The night before they go to the abattoir, he entices them into his trailer with food. The next morning, the pigs rush into the trailer without needing any encouragement. Then Ritchie takes them to an old-fashioned abattoir. "The four men there are very good," he explains. "They care about the animals. You don't get Radio One pop music blaring like you do in many abattoirs. They do the job carefully and quietly."

The Riggs sell a third of their livestock produce in their farm shop, a third at the weekly farmers' market in Tavistock and a third by mail order. Each week, they sell 60 table birds, two pigs, a quarter of a bullock or two or three lambs. During the course of the year they will also sell 200 ducks, 50 geese, 60 or so turkeys and a fair number of guinea fowl. For the last three years they have won first prize for their pork in the Organic Food Awards sponsored by *The Mail on Sunday's YOU magazine*. One year two of their birds – a duck and a guinea fowl – shared the organic poultry award. Their beef has also been highly commended. "We are convinced that the quality of the meat is a reflection of the way we have reared the animals," says Ritchie. "Happy animals, living in a stress-free environment and killed as humanely as possible, will produce the best meat."



## Case study **Andrew Dennis**



When Andrew Dennis (above) took over the family farm in 1996, he made a radical break from the past. His father, an outstanding non-organic farmer in the modern idiom, had grown wheat, sugar beet, potatoes, peas and brassicas at Woodlands Farm. Crops such as these thrive on the rich fenland soils behind the Wash in southern Lincolnshire, but this sort of farming did not appeal to Andrew. "To me, the farm in some ways resembled a food factory," he explains. "I wanted to change it, and I decided to go organic."

Farming in this part of the world is large-scale. Vast machines work vast fields, most separated from one another by dykes rather than hedges. Woodlands Farm, encompassing some 1,700 acres of flat land, was little different from its neighbours when Andrew took over. His vision involved not just becoming organic, but establishing a series of small-scale enterprises. He has introduced a suckler herd of pedigree Lincoln Red cattle. He has set up a market garden and the farm is now celebrated for its box scheme: 900 local families regularly receive home deliveries of in-season organic vegetables and fruit, most grown on the farm. And then there are the turkeys.

"I ended up with the turkeys almost by accident," admits Andrew. He thought it would be nice to have some animals around the farmhouse and he bought a few turkeys. Before long, he had some birds to sell. He decided to expand the business, and he now has a breeding flock of some 40 hens and four stags, and rears up to 700 birds a year to supply the Christmas market.

Every year 35 million turkeys are bred for the table in Britain. The vast majority are fattened in sheds which contain up to 25,000 birds. Conditions are similar to those in the intensive broiler industry, and the birds suffer from a variety of ailments which stem from overcrowding, a lack of dry litter and aggressive behaviour. They never feel the sun on their back; never roost in trees, as wild turkeys do; never graze outdoors. The breeding flocks fare no better. Modern hybrid turkeys have such heavy breasts that the stags are incapable of serving the hens. Artificial insemination, rather than natural sex, is what keeps these hybrids going.

"In their natural habitat, in New Mexico and the southern States, turkeys are woodland birds," explains Andrew. "What we're trying to do here is provide them with the sort of conditions they might find in the wild." He admits that when he started, he knew very little about turkeys, or how to raise them, and it has been a steep learning curve: "We've had to learn what sort of bedding they like best, how large each group should be, what temperature the chicks like, what conditions they need when you let them out for the first time."

Towards the end of the laying season, the hens are allowed to sit on their own eggs and brood their own young naturally, but the majority are hatched in an incubator. They are then put in groups of 40 to 50 inside cardboard rings, approximately four feet in diameter, under an electric heater in an old outbuilding. After a week, the cardboard rings are lifted so that the chicks can join another two or three batches of 40 or 50 birds. They remain in the same place, with pop-hole access to a grass courtyard, for another four to five weeks.



This is potentially the most hazardous period for young turkeys. The reason why Andrew raises the chicks in cardboard rings is because the rings have no corners. Young chicks are easily scared, and when disturbed they are likely to rush into the nearest corner – if there is one. This often leads to several chicks being suffocated. Magpies are also likely to attack young chicks when they venture outside, and they are particularly prone to disease when young. “Three years ago we had a terrible problem with coccidiosis,” recalls Andrew, “and it was entirely our own fault.” He followed one batch of chicks with another in exactly the same place. “Now we’ve learnt that you can’t do that,” he explains.

The turkeys are then transferred to the converted barns beside the main farmhouse. The indoor accommodation is palatial, and for the next six to eight weeks the birds can roam freely around a mature apple orchard. Once they are larger, they are given access to grass paddocks sown with strips of maize. The Soil Association standards stipulate that outdoor stocking densities should not exceed 800 birds a hectare. At Woodlands Farm, 150 turkeys get that amount of land.



Mortality amongst factory-farmed turkeys is estimated at between seven to 10 per cent. Andrew loses no more than two per cent of his birds to disease. Unlike intensive turkey units, he does not use any vaccines. Various factors ensure that his flock remains healthy. The housing density is exceptionally low. The paddocks are rested every other year to control worms and other parasites. The birds are kept in relatively small groups – never more than 200 – and this helps to reduce the risk of feather-pecking. “And if we do see any feather-pecking,” says Andrew, “we’ll hang up some cauliflowers. That gives them something to peck at.”

Andrew sees this as a work in progress. He is now happy with the breed of turkey he has developed, a cross between the Bronze and the Black. The Black has superior taste; the Bronze better conformation, or a better build. However, he is uneasy about the fact that he has had to buy in a proportion of his chicks each year from non-organic breeders. In 2003, his breeding flock supplied him with around 150 chicks; the rest he had to buy in. Revised organic standards mean that from 2004 he will have to source his chicks from organic farms, or rear them himself. He intends to do the latter, and hopes before long to have a closed flock, reared entirely at Woodlands Farm.

According to Andrew, his customers buy his turkeys not just because they like the idea of organic farming, but because they believe they taste so much better than conventional turkeys. This is partly a reflection of the breed and the outdoor, free-range life the turkeys lead. However, Andrew believes that the meticulous care which is taken during the process of slaughter is just as important. “I am convinced that if a turkey – or any other animal – is stressed at the time of slaughter, it will affect the taste,” says Andrew.

The vast majority of turkeys suffer a similar fate to broiler chickens at the end of their lives. They are transported in crates to an abattoir, where they are hung upside down on a conveyor belt with their legs in shackles. They are then dragged through



electrified water. Unlike broiler chickens, they have their necks cut manually rather than by machine. A significant proportion experience painful electric shocks before they are rendered unconscious, and a small number are still alive when they are dunked into scalding water prior to plucking.

In December 2002, the man who had agreed to slaughter Andrew's turkeys failed to a turn up, so Andrew killed every one himself. "It may sound strange," he says diffidently, "but each turkey is killed individually by hand in a separate room so the others can't see what's happening." The man from Defra who came to observe the process told Andrew that it couldn't be done better or more humanely than it was here. "When I set up this turkey enterprise," reflects Andrew, "I wanted to demonstrate that turkey production could be done in a compassionate way." And that means a decent death, as well as a decent life.

## Poultry – laying flocks

In 1950, less than five per cent of laying hens in the UK were kept in flocks of more than 1,000 birds. By 1995, 97 per cent were.<sup>1</sup> There are now approximately 29 million egg-layers in the UK, over 70 per cent of which are housed in battery cages. Today three-quarters of the UK's eggs come from fewer than 300 units, each with 20,000 or more layers. Some battery operations have as many as half a million birds. Most battery cages house four or five birds, with each having 550 square centimetres of space – or about as much room as an A4 sheet of paper.

From a purely financial point of view, the battery system makes good sense. The birds tend to lay more eggs, eat less food and require less labour than those housed in barn systems or kept under free-range conditions. The lack of predators, good hygiene and comprehensive vaccination programmes – by the time a pullet reaches laying age at around 18 weeks it may have had nine different vaccines – mean that mortality tends to be lower in battery systems than in free-range systems.

However, battery cages are far from ideal from the hen's point of view. According to the EU's Scientific Veterinary Committee (SVC), the forerunner of SCAHAW, the battery cage "has inherent severe disadvantages for the welfare of hens."<sup>2</sup> As there is no litter in the cages – the birds are kept on metal mesh floors – hens are unable to peck, scratch or dust bathe. Hens like to perch, especially at night, but they cannot do this in battery cages. Hens like to lay their eggs in a nest, but this is impossible in a battery cage. In other words, hens can do few of the things they are genetically programmed to do, and which they naturally do when kept outdoors.

Welfare concerns have led to recent changes in legislation. Under the 1999 EU Hens Directive, battery cages of the type used now must be phased out by 2012. However, it will still be legal to use what are described as 'enriched cages'. These provide 750 square centimetres per bird, rather than 550 square centimetres. However, many doubt whether these will provide any significant welfare advantages over the present system.

### Organic systems

The principles which guide organic broiler farming also apply to laying flocks. Laying flocks must be an integral part of the farming system and birds must have continuous daytime access to pasture. Ideally laying flocks form part of a rotation with sheep and other livestock, and diseases and parasites are kept under control through good nutrition and good animal welfare. Pastures must be rested for at least nine months between each batch of layers. Organic farmers will generally use this period to grow other crops or establish grass/clover leys. The Soil Association favours mobile houses over fixed housing, although the latter can be used. Organic birds are allowed to lay their eggs in nests, unlike battery hens.

There are some significant differences between the standards laid down by the UK Register of Organic Food Standards (UKROFS) – now replaced by Advisory Committee on Organic Standards (ACOS) – which interprets and administers EU organic regulations, and those which apply to farmers certified by the Soil Association. For example, UKROFS stipulates a maximum of 3,000 layers for each hen house; the Soil Association, 2000. The

UKROFS standards state that hens, whether broilers or layers, must have access to open-air runs for at least a third of their lives. In contrast, the Soil Association insists hens have access to open-air runs throughout their laying lives. UKROFS standards stipulate that there must be no more than eight birds to each nest. The Soil Association standards allow for a maximum of six birds. Both the UKROFS and the Soil Association standards impose a maximum stocking rate of six birds per square metre in indoor housing. The birds must also have a minimum perching space of 18 centimetres each (The UKROFS standards are still in place, but will shortly be replaced by ACOS standards which are not likely to introduce any significant changes).

### **Key issues**

For much the same reasons as those which apply to broiler flocks, the welfare of organic layers is potentially vastly superior to that of birds kept in battery cages. They can exercise their full behavioural repertoire, and seldom suffer from the physical problems which result from close confinement in battery cages. Organic farmers are encouraged to use the breeds which are best suited to free-range systems. These include traditional breeds such as the Light Sussex and the Rhode Island Red. Black Rocks hybrids are also popular with organic farmers. Some organic farmers have found that the breeds favoured by battery systems, such as ISA Browns, can also work well in free-range conditions, but the Soil Association has some misgivings about the use of these birds. For one thing, their use means that organic farmers are supporting intensive breeding systems. For another, these birds lay so many eggs that providing adequate nutrition can become a problem.

Free-range laying flocks, whether organic or not, can suffer from feather pecking and cannibalism. A range of factors are thought to encourage feather pecking, including overcrowding, boredom, stress and high light intensity.<sup>1</sup> Battery hens are kept in small, stable groups at moderate light intensities which are artificially maintained. Outdoor birds, in contrast, often find themselves subjected to high light intensity and they are frequently kept in very large groups, especially on non-organic farms. Current limits on stocking density for organic layers do not preclude overcrowding. The recent restrictions introduced by the EU on the use of synthetic amino-acids in organic poultry feeds means that birds may seek certain amino-acids elsewhere if they are not to suffer from malnutrition. This could lead to an increase in feather-pecking.

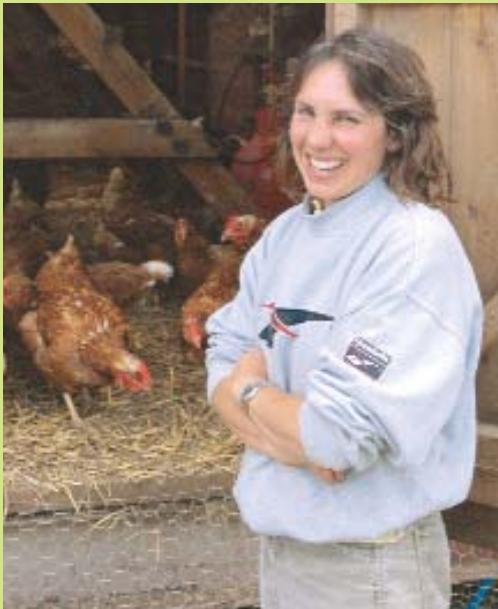
Organic certifiers like the Soil Association admit that feather-pecking is a serious problem on farms which maintain relatively large flocks of laying birds. A recent postal survey of 'alternative' poultry systems in the UK found that over 55 per cent of respondents reported feather-pecking in laying flocks.<sup>3</sup> The severity of feather-pecking can range from gentle pecking to extreme aggression and may lead to cannibalism.<sup>4</sup> Needless to say, the victims experience various degrees of pain and suffering. Feather-pecking can also lead to serious economic losses for farmers if birds have to be put down.

Under non-organic outdoor systems, the vast majority of hens have their beaks trimmed. This prevents them from gripping feathers. It also prevents them from

foraging effectively, which is one of the reasons why the practice is restricted by the Soil Association. According to the Farm Animal Welfare Council, when beak-trimming involves the removal of approximately a third of the upper and lower beak, and is carried out at 10 days of age or less, there is little long-term pain. However, FAWC still considers this a “most undesirable mutilation which should be avoided, if at all possible.” However, the practice is evidently widespread on many organic farms. A survey by the RSPCA found that 19 out of 20 organic farms visited by its inspectors had laying flocks which had been beak-trimmed.<sup>5</sup> Many birds are beak-trimmed by suppliers before they are sold to producers



## Case study **Liz Findlay**



During the 1980s, Liz Findlay (above) worked as a stockwoman on dairy farms in Lancashire and Wales. "I became convinced that intensive farming wasn't the best way to treat livestock," she says. She was especially concerned by the way in which modern dairy cows had been bred to produce vast quantities of milk – as much as 10,000 litres a year – at the expense of their own welfare. "Just this morning, I watched 80 Holstein cows cross the road," she says. "All of them were suffering from lameness." Liz was also concerned about non-organic farming's dependency on agro-chemicals and veterinary drugs, and she knew that sooner or later she would become an organic farmer.

In 1989 Liz and her partner bought 30 acres of grassland in the rolling countryside to the east of Aberystwyth, where she had studied agriculture as a student, and where she now took up a part-time research job. In 1990 they planted an acre of organic strawberries, and had such a good crop that they could begin building a new house. Over the coming years they turned their two large fields into a mosaic of smaller fields, planting hedges and shelter belts. They had two children. They increased their flock of autumn-lambing Dorset sheep from five to 35. And they grew vegetables in polythene tunnels, for sale in local shops.

When Liz arrived at Nant Clyd, she never anticipated that such a small plot of land could support a family. But when she and her partner split up, she realised that it would have to if she and the children were to remain here. "If I was going to make it pay better, I had to grow more vegetables, and the only way I could do that was by either growing crops as a green manure or by bringing in animals to provide the fertility," she explains. An organic feed company in Derbyshire was offering free advice, and this prompted Liz to consider setting up an organic egg business. There were few organically certified laying flocks at the time, and none near Aberystwyth. In 1998 Liz bought two wooden sheds and 600 Black Rock hens. Now she has 1,400 hens split among five paddocks on the land below her house. Thanks largely to the hens, which produce 3,000 to 7,000 eggs a week and provide the manure on which her fruit and vegetables thrive, Liz has managed to stay at Nant Clyd.

Liz's previous experience with laying hens had been minimal. On several occasions she had walked through the windowless sheds which housed 30,000 hens, kept in tiers of battery cages, on one of the farms where she worked. But this was a far cry from the sort of enterprise she has established at Nant Clyd. Here the hens are free to indulge in the full behavioural repertoire of their jungle fowl ancestors. They can eat grass, peck at insects, dust-bathe, lay their eggs in nestboxes, spend the daylight hours outside, perch in gorse bushes and take refuge from predators – real or imaginary – in hedges and trees.

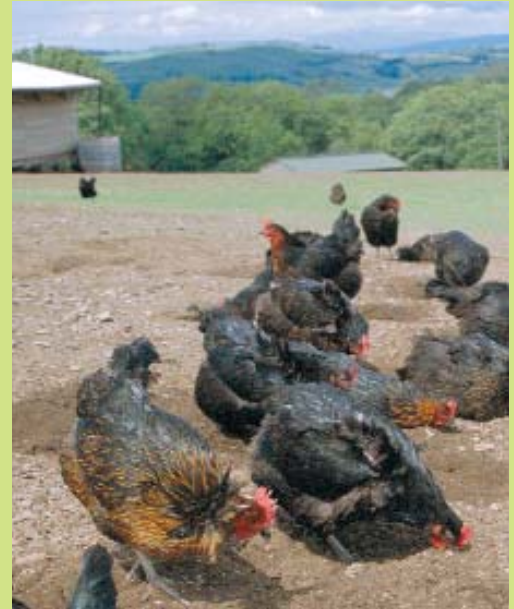
The life of most egg-laying hens is brief. They are bought in as pullets, aged 16 weeks, and come in to lay at around 18 to 20 weeks. They will then lay non-stop until the 76th week, when they are slaughtered and incinerated. Liz's hens do much better. Once the birds get to 76 weeks, they stop laying and go into moult. Liz times this for the winter months, and the birds then have another season of laying the following summer. Instead of being slaughtered, many of her hens are sold off in small batches to farmers and others who

want to keep a few chickens in their backyard. Many will live to be six or seven years old. They won't be producing an egg a day – but sufficient numbers to satisfy their owners.

Babcocks and Shavers – two of the main breeds used in industrial egg production – make up the bulk of Liz's flock, although she also has some 300 Black Rocks at any one time. According to Liz, Babcocks and Shavers are frequently disparaged by people within the organic movement as they are modern, high-yielding strains. Liz takes issue with this. "I have found they adapt very well to free-range conditions," she explains. "They tend to be more efficient grazers than the Black Rocks, spend more time outside scratching and pecking, and they produce more eggs." However, Liz says that if she could find a market for the meat of her end-of-lay hens, she would favour Black Rocks over Babcocks and Shavers as they are bigger birds.

Feather-pecking is a serious issue for many free-range farmers. It is particularly prevalent on larger units, and wherever hens are crowded into small spaces. Once blood has been drawn, the victim is likely to be attacked more vigorously, and feather-pecking can lead to death. To prevent feather-pecking, the majority of non-organic free-range hens are beak-trimmed – a mutilation which prevents them from grazing properly.

"My pullets are not beak-trimmed – I make sure of that – and I haven't had any serious problems with feather pecking," says Liz. "That's not to say there isn't a pecking order. There always is, and you can tell which hens are at the top and which ones at the bottom." The lack of serious feather-pecking at Nant Clyd is partly a reflection of good housing conditions and good litter management. Liz's five mobile hen houses have a maximum of 300 birds each. The Soil Association's organic standards stipulate a maximum of 500 birds, with derogations for housing units of up to 2,000 birds. Many conventional free-range units have many thousands of birds in a single house. Under these conditions feather-pecking is much more likely.



Predators can cause problems for organic and free-range poultry farmers, but good management can keep losses to a minimum. A well-maintained system of electric fences keeps foxes away from Liz's birds, and the fox population is controlled locally by shooting. Buzzards frequently circle around the farm and take a few young pullets each year, but not enough to be a serious nuisance.

Considerable efforts are made to minimise diseases and parasites. Take, for example, red mites, which can spread diseases like salmonella. Most intensive operations spray insecticide inside the sheds to control red mites, with the birds *in situ*. Liz treats the timber in the hen houses if there is an infestation. Dust-bathing, one of whose purposes is to get rid of mites and other external parasites, helps too. This is something which battery hens cannot do.

When reared under intensive conditions, hens must be routinely vaccinated if they are not to suffer from a whole range of diseases. In Liz's case, her pullets are vaccinated against Newcastle disease and salmonella, but otherwise she relies on good management and good nutrition, rather than drugs, to control diseases. Besides ensuring that the hen houses are kept as clean as possible and

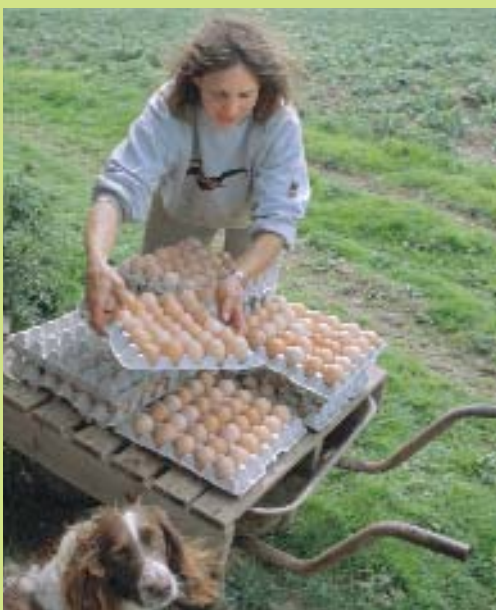
disinfected between generations, she practises rotational grazing. After each generation, the hen houses are moved on to a new patch of grass ley, and hens will not return to the same plot of land for at least a year. By rotating the birds around the farm, parasites which commonly afflict hens are kept at bay.

The Nant Clyd poultry fit into a complex rotation system. After two years of poultry, the land is sown with a forage crop – turnips, rape, kale – which is then grazed by sheep. With its fertility high, the land is now in good condition to support a cash crop of vegetables – carrots, parsnips, leeks, potatoes – or strawberries. Liz then sows a grass/clover ley. She might silage this to provide winter fodder for the sheep, or devote it once again to poultry.

From 2004, organic farmers will have to either rear their egg-layers themselves or buy in organic pullets, rather than acquire them from conventional, non-organic sources. Liz approves of the new organic standards, but she is understandably concerned about the effects this will have on her balance sheet. Conventional pullets cost around £3.00; organic pullets almost double. But it's not the hens we need to worry



about, she says as she collects another batch of eggs prior to the school run. "If there's a welfare issue on this farm, it's me that's got a problem!" She gets up at five o'clock every morning, and works till late at night. A girl comes in to help one day a week, and Liz's children work on the farm after school. Otherwise, Nant Clyd relies on her ingenuity and hard work.



Intensive pig farming denies the breeding stock at least two of the ‘five freedoms’ promoted by the Farm Animal Welfare Council (FAWC) for some of their lives. Sows kept in farrowing crates are not free from discomfort and they are not free to express their normal behaviour. Sometimes they are not free from pain either.

In terms of appearance, the modern strains of pig favoured by intensive producers have little in common with their wild ancestors – they are short-snouted, pink and relatively hairless – but they have retained most of their behavioural traits.<sup>1</sup> By nature, pigs are omnivorous forest dwellers. They enjoy hunting. They tend to operate in groups of around 10 mature females, together with their offspring, and these groups develop strong social bonds. They will forage for seven hours or more a day, often travelling long distances at considerable speed. In the wild, they can cover over 30 miles in a night. Pigs have good hearing and an excellent sense of smell. They are highly inquisitive, and have a language which contains some 40 different expressions for passing on information. They are also fastidious: pigs will avoid urinating and defecating in the areas where they rest or farrow.<sup>2</sup>

There are approximately 500,000 sows in the UK, and between 70 to 75 per cent of these spend their entire life indoors. A week before they farrow most are placed in a farrowing crate, which is little more than a metal cage on a concrete, partially slatted floor. They remain in the crate until their piglets are weaned at around three weeks. Close confinement can cause muscle weakness, lameness and inflammatory swellings of the joints. Sows in farrowing crates frequently take many hours to farrow, and often require assistance. Sows kept under free-range conditions, in contrast, are much fitter. As a result, they seldom require assistance and generally produce all their piglets in a matter of an hour or so. Sows kept in farrowing crates frequently exhibit stereotypical behaviour, such as bar-biting and head-shaking. This is a sure sign of distress, and indeed the EU Scientific Veterinary Committee suggests that in intensive systems “sows may well be depressed in the clinical sense.”<sup>3</sup>

In recent years, economic problems for intensive producers, coupled with a growing concern about the welfare of pigs, have led to an increase in the number of sows reared outdoors in the UK. However, around 90 per cent of their piglets will be finished in indoor fattening units, under the same conditions as the progeny of indoor sows. While some are fattened in straw barns which allow reasonable freedom of movement, many weaners are fattened in crowded conditions on slatted floors. Such floors frequently cause foot problems, and they deny the pigs the opportunity to root and explore. In 1997, the EU Scientific Veterinary Committee recommended that pigs should be given at least 50 per cent more space than is commonly provided in factory farming systems.

When pigs are kept in overcrowded and barren spaces, they frequently bite one another’s tails. This is why the majority of farmers dock their piglets’ tails, using either pliers or a hot docking iron. According to the Scientific Veterinary Committee, this can sometimes lead to ‘prolonged pain’. The committee suggests that good management, rather than mutilation, is the solution.

All the same, there have been some significant improvements in pig welfare in the UK during recent years. Most of the sows raised indoors are now housed in groups, often on

straw, before they go into the farrowing crate. In this sense, they fare much better than most sows in Europe, at least half of which spend their entire breeding life in a stall, or tethered in a confined space. Tethers and sow stalls have been banned in the UK since 1999, but tethers can be used in EU countries until 2005, and sow stalls will not be phased out until 2013. New laws which came into force in 2003 require farmers to provide material such as straw to all pigs; they also prohibit routine tail-docking. However, pig meat produced by methods which are illegal in the UK is still being sold in supermarkets

### **Organic systems**

Organic pig enterprises must be free-range. The pigs should be integrated into a mixed farming system which enables the farmer to rotate the pigs around the farm. As pigs can be very destructive to the land, organic free-range systems require suitable soil type, climate and topography. As a general rule, well-drained, light soils on flatish land provide the ideal conditions for outdoor pig farming. Organic pigs must be provided with adequate shelter throughout the year, and wallows during the summer months.

Organic farmers are encouraged to choose a breed which is well suited to free-range conditions. Breeding policy in the intensive industry has been geared towards producing pigs which are fast growing, lean and fecund. Most sows produce two and a half litters a year, compared to two litters on organic farms. However, different traits are important in outdoor units, especially if they are organic. Fecundity still matters, but the sows should also have good maternal instincts, good fat reserves to provide protection against inclement weather and sufficient fat reserves to provide energy for an active life. They should also be easy to handle. As organic farmers cannot use conventional medicines on a routine basis, pigs should also be chosen for their ability to resist diseases.<sup>1</sup> The pigs favoured by intensive breeders tend to be pink, and their susceptibility to sunburn makes them less suitable for outdoor production. Outdoor pig farmers tend to favour darker breeds such as Saddlebacks and Saddleback crosses which can tolerate long exposure to the sun.

Organic pigs must be managed in such a way as to prevent excessive nitrogen leaching and erosion and maintain good soil structure. EU organic standards specify that the nitrogen in manure must not exceed 170 kilograms per hectare per year. This means that stocking density is generally much lower under organic systems than non-organic systems. FAWC recommends a maximum stocking density of 20 sows per hectare, although many outdoor units have higher stocking densities than that. On organic farms stocking density rarely exceeds eight sows per hectare.

Organic standards recommend that pigs should remain on the same plot of land for no more than six months, and once removed the land should remain free of pigs for a period of four years. This is to control the build up of intestinal worms and other parasites. Conventional outdoor pigs, in contrast, are often kept on the same plot of land for one or two years, and parasites have to be controlled by the routine use of conventional veterinary medicines.

Under organic systems, each sow is provided with a farrowing arc, or other suitable housing, and straw bedding. Farmers are encouraged to allow the sows plenty of time to settle into their farrowing accommodation. EU organic standards stipulate that piglets should not be weaned earlier than six weeks of age. This is beneficial for the health and welfare of both the sows and the piglets. For example, it helps the latter to build up immunity to diseases through their mothers' milk.<sup>4</sup> Under most non-organic outdoor systems, piglets are weaned at three to four weeks of age, as they are in intensive indoor systems.

The Soil Association prohibits tail-docking, routine teeth-cutting and castration. The nose-ringing of pig, a practice which prevents them from digging and making a mess of pasture, is also prohibited or restricted by UK certifiers, but practiced by organic pig producers in Denmark.

### **Key issues**

In terms of animal welfare, the gulf between pigs reared under organic system and pigs reared in intensive indoor units is huge. Organic pigs are free to move around, wallow in mud, forage and dig. They are never kept in isolation, except when they are sick. There are significant differences, too, between organic pig production and non-organic outdoor pig production. Many non-organic units practise tail-docking, teeth-clipping and nose-ringing. The first two practices can cause pain, sometimes prolonged, while the third prevents pigs doing what they naturally wish to do, which is dig and root. Conventional outdoor units wean their piglets at between three to four weeks, and the majority of piglets are then fattened indoors in intensive systems. In contrast, organic farmers wean their piglets at a minimum of six weeks, and the weaners are then reared outdoors with their siblings. By keeping them in family groups, organic farmers are helping to reduce the levels of stress. The relatively intensive nature of most non-organic outdoor pig units – most sows produce two and a half litters a year – means that the sows are often slaughtered after their sixth or seventh parity. Organic sows tend to have much longer lives.

There are no obvious weaknesses in organic pig farming from a welfare point of view. A survey of organic pig farmers in The Netherlands found that the general health status on farms was satisfactory, although it suggested that more research was needed on lung problems and parasitic infections. Abnormal behaviour such as tail-biting and vulva-biting – commonly found in intensive farms – was rarely observed.<sup>5</sup> Researchers in the UK have concluded that the outdoor housing of pigs provides significant welfare benefits, in terms of greater behavioural freedom and a varied environment, but the shelter provided on farms may be inadequate during extreme weather events. However, some breeds are likely to cope better with winter storms and searing summer heat than others. It makes sense for organic farmers to choose these.<sup>6</sup>

## Case study **The Wades**



At Eastleach Downs Farm, Sam and Helen Wade (above) do their best to provide their 80-odd breeding sows and their progeny with the conditions that enable them to behave as pigs like to behave. Before they farrow, the sows can create nests to their own liking in their farrowing arcs, using straw and clods of earth. The young pigs are kept together in family groups throughout their lifetime. There is ample opportunity for the pigs to dig and wallow in mud. Boars, sows and weaners spend their lives outdoors, and are not subjected to mutilations such as teeth-clipping and nose-ringing, painful practices which are common in non-organic outdoor piggeries. "Good welfare makes good business sense," suggests Sam Wade. "If pigs are stressed, they are much more likely to succumb to diseases, and much more likely to indulge in activities like tail-biting."

Sam and Helen Wade met in the late 1980s when they worked for the Abingdon-based Pig Improvement Company (PIC) Ltd, an international group which specialises in creating commercial breeding stock. "When we worked at PIC," recalls Helen, "we were dealing with a very intensive system. The pigs were finished on slatted floors, and we still had sow stalls." Under this system, now banned in the UK, sows spent

their entire life in a confined space, on concrete or slats.

When the Wades married in 1991 they decided they wanted to set up on their own. First, they went to work for Robert Bowden in Hampshire on a 2,000-sow outdoor unit. Then they moved up to where they are now, in the heart of the Cotswolds, and rented land from the Hatherop Estate, whose owner was looking for a source of fertility for his arable land. Here they set up a 600-sow outdoor unit as contract growers for Robert Bowden. The latter supplied the sows and the feed; the Wades supplied labour, expertise and a constant supply of three-week-old piglets.

As the years passed, the Wades became progressively more uneasy about the welfare of their pigs. For one thing, the piglets were being weaned very early, at three weeks. This was done for a reason. The new oestrus cycle starts a few days after the piglets are weaned: sows with early-weaned piglets can therefore be mated sooner than late-weaning sows. "When we weaned at three weeks, both the sows and the piglets suffered," explains Helen. The sows were still heavy with milk, and the piglets were sent off elsewhere to be fattened up indoors, on slats. "We began to ask ourselves: 'What's the point of doing this, of rearing pigs outdoors, and then sending them into an intensive system with lots of welfare problems?'" The Wades decided to fatten up the weaners themselves, and go organic. Wades Pigs was set up in 1999, with 75 sows retained from Robert Bowden's herd.

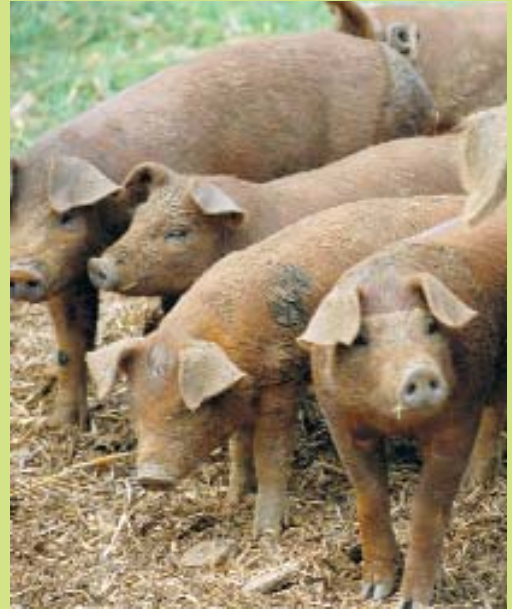
Going organic entailed some significant changes, although the Wades had already ceased tail-docking and teeth-clipping, both of which are prohibited under organic rules. Sam believes that these practices are unnecessary if pigs are reared outdoors and properly managed. "Tail-biting happens when pigs are bored," he explains. "When they are kept indoors, boredom is a big problem. Outdoors it isn't." When they began as contract breeders, they clipped the piglets' incisor teeth, a practice designed to prevent damage to

the udder and biting among piglets. The Wades found that there was no need to teeth-clip, providing they evened the number of piglets out between sows. "If a sow has 14 piglets fighting for 12 teats, fighting can lead to udder and facial damage," says Sam. "Switch two of the piglets to a sow with 10 or less of her own, and there won't be a problem."

When the Wades were contract breeders, they would routinely vaccinate against post-farrowing scours, which can seriously damage the health and development of young piglets. The Wades no longer use this vaccine, which was given to sows before they farrowed. "We now rotate our pigs around the farm at regular intervals and this prevents the build up of bugs that cause scours," explains Sam. In conventional outdoor units, pigs are often kept on the same patch of land for two years, and this encourages a build up of worms and pathogens. Under the organic system, pigs can remain for a maximum of six months on any one plot of land, which must then remain pig-free for a period of four years.

The Wades also used to dose all their piglets against coccidiosis when they were five days old. Now they don't. They haven't got rid of coccidiosis, which is transmitted from piglet to piglet, but the problem is not severe enough for them to seek a derogation from the Soil Association to use conventional medicines. When they were contract growers the piglets were kept in the arcs where they farrowed till they left the farm; now they are free to leave the arcs after 48 hours. "This means they can get to water," says Sam, "and this seems to help them overcome attacks of coccidiosis." Thorough disinfection of the arcs between litters and disposal of the bedding help too.

The only serious disease problem the Wades have encountered is post-weaning, multi-systemic wasting syndrome, or PMWS. Many of the pig farms in this part of southern England have suffered losses of around 30 per cent as a result of PMWS. Losses at Eastleach Downs Farm, in contrast, have amounted to around 10 per cent. The Wades



attribute this to the fact that under organic conditions pigs suffer less stress and are better able to cope with the virus. Although there is still much uncertainty about the cause of PMWS, it is widely agreed that reducing stress among young pigs reduces the incidence of the disease.

In fact, the Wades' whole system of management is geared towards reducing stress. Take, for example, the life of a weaner. The piglets are weaned after eight weeks – the recommended time stipulated by the Soil Association is six weeks – and Helen believes this is good both for the piglets and for the sow. During the last two weeks the piglets take on more solid food and less milk. This helps them to adapt gradually to a changing diet. It also helps the sow to gain weight, even though she is still lactating. "And after eight weeks," suggests Helen, "mum is ready to leave the piglets." The young weaners stay where they are, living in family groups with other weaners they have known since birth, until just before they go to the abattoir. The Wades believe that this makes for happier, healthier pigs.

Choosing the right breed for an organic piggery is vital. Saddlebacks and other traditional breeds like Gloucester Old Spots and Tamworths are particularly favoured by organic farmers as they



make good mothers, they are relatively hardy and are not prone to sunburn. However, the Wades began with Camborough 12 pigs, a high-performance modern strain developed by their former employer, PIC Ltd. When they went organic they put their sows to a Duroc boar, and they now have a crossbred animal they are happy with. "We feel the Saddleback has rather too much fat for the modern market," explains Sam. "The offspring of the sows we've got now have plenty of colour, so they don't suffer from sunburn, and they perform well under organic conditions."

A couple of days before the pigs leave the farm they are brought into a concrete enclosure, in family groups, and provided with straw bedding. This helps them to get used to the sort of environment they will encounter at the abattoir in Wolverhampton. A family-run transport company with skilled livestock handlers takes the pigs on Tuesday mornings. They then have a night to settle in before they are killed the next day. Until recently, the Wades sold all their pigs through Eastbook Farm Organic Meats, which supplies major supermarkets. They will continue to supply the cooperative, but they also plan to market meat locally and have their pigs slaughtered in nearby Witney.



From the pigs' point of view, the shorter journey will be welcome, but it is not just for the pigs' sake that the Wades hope to establish a local market for their meat. During the past year there has been an oversupply of organic pigmeat, and supermarkets are sourcing their produce wherever it is cheapest. This has led to a significant increase in imports from Germany, although organic farmers like the Wades dispute whether this produce should really be labelled as organic.



In order to prevent their animals from contracting a disease that affects wild boar, German producers have been allowed to keep their farrowing sows indoors, along with the weaners till they are 10 weeks old. "This is plainly unfair on organic farmers here," says Sam. The Wades have had to lay-off a farm worker and slightly reduce the number of sows as a result. If they increase local sales, the Wades will be less at the mercy of supermarket buying policy – and a lax interpretation of organic standards in some other countries.

The images used by the food industry to promote dairy products – milk, butter, cheese, yoghurt – invariably depict glossy-hided, cheerful-looking cows living in idyllic pastoral surroundings. The reality, however, is often very different. Modern dairy cows are bred to produce as much milk as possible, and most are culled as soon as their productivity – and their health – goes into decline, often after just three lactations. For a significant portion of the year, dairy cows are kept indoors on concrete, and many suffer from lameness. What is more, many bull calves are shot soon after they are born – on organic as well as non-organic farms.

The nature of the dairy industry has changed considerably over the past four or five decades. In 1965, there were over 124,000 milk producers in the UK, and average herd size stood at 26. Thirty years later, the number of milk producers had fallen to around 36,000, and average herd size had almost tripled to 71. Prior to the Second World War, the Dairy Shorthorn was the main breed used in England and Wales. A dual purpose animal, the breed provided good quality beef as well as milk. In Scotland, brown-and-white Ayrshire cows remained the dominant breed till the 1970s. However, the drive to produce greater quantities of milk per cow led to a change in the breeds favoured by the industry throughout the UK. Today over 90 per cent of dairy cows are black-and-white Holstein Friesian crosses or Holsteins, a high-yielding breed developed in North America. Average milk yields have risen from around 3,000 litres a year to well over 5,000 litres, with some Holsteins producing 10,000 litres or more.<sup>1</sup>

It would be wrong to suggest that the welfare of dairy cows was necessarily better in the past than it is today. Traditionally, cows were housed and milked in cowsheds and had little opportunity for exercise. Nowadays, most dairy cows, when indoors, are kept in loose housing systems which are better ventilated, cleaner and lighter than old-fashioned sheds. However, the drive towards higher productivity has brought with it a whole range of new problems.

Some dairy cows produce 40 litres of milk a day, four times more than a lactating suckler beef cow. High-yielding cows must consume large amounts of feed, much of which is provided in concentrated form and based on grains. Often dairy cows have difficulty meeting the demand for nutrients created by their genetic make-up, and they are forced to spend much more time than, say, a suckler beef cow, eating rather than lying down and ruminating. Recent research funded by the Universities Federation for Animal Welfare (UFAW) found that high-yielding cows spent significantly more time grazing than low-yielding cows. This means they have less time for lying down, and according to the researchers, this “may be indicative of the intensity of hunger being experienced.”<sup>2</sup>

High-yielding dairy cows eat three times as much food as an animal fed for maintenance only.<sup>3</sup> One of the reasons why the majority of cows have to be culled after four lactations or less – wild cattle average around 10 lactations, as do many suckler cattle – is because of infertility and disease. This stems, in part, from metabolic stress.

Lameness is a major welfare problem for dairy cattle. A survey of 90 herds in 1992/93 reported that 24 per cent of the cows were lame at any given time.<sup>4</sup> Lameness is most usually associated with the winter months, when cows are feeding on silage and standing

on concrete, and with the period immediately after calving. It is also associated with high productivity: extremely large udders distort the stance of cows, and high-concentrate rations may result in poor horn quality of the feet. This leads to lameness.<sup>1</sup> Laminitis, the inflammation of the laminae below the outer wall of the foot, is particularly painful. “To understand the pain of laminitis it helps to imagine crushing all your fingernails in the door then standing on your fingertips,” suggests one authority.<sup>5</sup>

Another key welfare problem associated with dairy cattle is mastitis, a painful infection of the udder which causes a significant reduction of milk yield on many UK farms. Clinical cases normally run at under five per cent, but in some instances well over half a herd may be affected at any one time. The Farm Animal Welfare Council (FAWC) suggests that a high metabolic turnover in cows such as Holsteins and Friesian Holstein crosses may be associated with a greater risk of mastitis, as well as lameness, infertility and other production diseases.

### **Organic systems**

Organic dairy farmers are encouraged to choose breeds of cattle that are well adapted to free-range, organic conditions. Ideally, they should opt for indigenous species which possess good vitality and disease resistance. However, this is a recommendation rather than a stipulation.

Housing conditions must be designed to meet the cows' biological and behavioural needs, offering good access to feed and water and freedom of movement, as well as adequate ventilation and natural light. Under Soil Association standards, loose housing is preferred, but existing cubicles can be used providing there is sufficient bedding. Cow mats are only allowed if additional bedding material such as straw is provided. Cubicles must be of an adequate size, and there should be five per cent more cubicles than cattle, so that cows have a degree of choice.

The diet of organic dairy cows must be based on organic grass/clover or conserved forage and roots, with moderate amounts of cereals where necessary. At least 60 per cent of the dry matter must consist of roughage, fresh or dry forage, or silage, rather than concentrated feeds, and at least 60 per cent of the dry matter in the diet must come from fully organic feedstuffs. The accent should be on ensuring good health, rather than maximising production.

Ideally, calves should be reared by their own mothers.<sup>6</sup> However, this is an aspiration which is seldom met: most dairy-bred calves are taken away from their mothers within 24 hours. Organic standards stipulate that the calves must be kept in groups in open-fronted straw yards, and bull calves must be reared for beef or sold as stores – providing, that is, that they have not been shot soon after birth, as many are. Calves must be fed on natural, organic milk for a minimum of three months. Veal production under conditions which encourage anaemia is expressly forbidden (see Chapter 8).

As with other types of livestock, disease prevention must be based on good husbandry, high quality feed, appropriate selection of breed and free-range conditions which

allow for regular exercise. The preventive use of antibiotics and other allopathic medicines is prohibited, although these may be used, on a case by case basis, to prevent unnecessary suffering.

### **Key issues**

The number of organic dairy farmers in the UK has increased dramatically over the past few years. Some farmers have opted for traditional breeds such as the Dairy Shorthorn (see case study below), but the vast majority continue to use Holsteins or Holstein Friesian crosses. However, there is growing concern about their suitability for organic dairy production. As one expert in the Soil Association puts it, “These cows were not designed to be fed 60 percent roughage and fodder. They were designed to be fed on Mars bars and hammered as hard as possible to produce as much milk as possible.” For Mars bars, read concentrate feeds.<sup>7</sup> This is undoubtedly an important welfare issue. If an organic diet fails to provide sufficient energy, then the cows are likely to suffer. It could be argued that these high-yielding cows, genetically designed to thrive on concentrate feeds, should not qualify for organic status.

Research suggests that most organic dairy cows are maintained in a state of reasonably good or very good health. The only disease which causes serious problems in the UK is mastitis. A survey of mastitis on 16 organic dairy farms in England and Wales, conducted in 1999, found that levels of mastitis varied greatly between farms.<sup>8</sup> While some farms were able to control the disease, others suffered significant levels of infection. The researchers found that most organic farmers underestimated the scale of the problem.<sup>9</sup>

There appears to be less mastitis among lactating cows on organic farms than on non-organic farms. The reasons for this are unclear, but may relate to the lower yields of organic cows and lower stocking densities. On organic farms cows may be less stressed than cows on non-organic farms, and have stronger immune systems. During dry periods – in other words, between lactations, when the cows are in calf – the incidence of mastitis is higher on organic farms than it is on non-organic farms. The latter, of course, can rely on the prophylactic use of antibiotics to suppress the disease: approximately 90 per cent of non-organic dairy cows are given four antibiotics injections – one in each quarter – at the start of the dry period.

A survey of Danish dairy farms found that mastitis was again the main disease problem on both organic and non-organic farms. However organic dairy farms in Denmark tended to have a lower incidence of lameness than non-organic farms. A study of 22 Norwegian organic dairy herds found that the organic herds had a lower incidence of mastitis, milk fever and ketosis. In the Netherlands, researchers found a lower incidence of lameness, ketosis and milk fever in organic dairy herds. Mastitis levels were similar to those on non-organic farms.<sup>4</sup>

Experience on organic farms suggests that mastitis can be controlled without recourse to allopathic medicines, but control requires high standards of husbandry and skilled stockmanship. Organic farmers must maintain high standards of hygiene, regularly test their milking machines and disinfect teats after milking. Cows with high cell counts

should be milked last and if necessary culled. Farmers should also seek to minimise stress to cows and reduce the causes of udder injury, for example by improving farm tracks. Farmers are also encouraged to use appropriate homeopathic remedies.

Most organic farmers, like their non-organic counterparts, remove calves from their mothers soon after they are born. In some European countries, most notably Finland, organic farmers are now favouring a new approach: they are allowing calves to stay with their mothers for three weeks or more. The thinking is that this causes less stress to both cow and calf. Although the farmer gets less milk to sell, single-suckling is beneficial to the health of the cow and provides better care for the calf. It also causes less distress to both.<sup>9</sup>

However, there are arguments against the introduction of single-suckling dairy cows, besides the obvious economic ones. Karl Barton, whose organic dairy practices are described in the case study, believes that it causes much greater stress to both cows and calves to separate them after three weeks, once they have bonded closely, than it does to separate them after a few hours. He also suggests that on a large commercial unit such as the one he runs, taking cows into the milking parlour with their calves would be chaotic and lead to calves getting injured.

## Case study **Karl Barton**



In the 1980s Karl Barton (above) was managing a farm in Dorset. He had been trained in non-organic agriculture and was none too pleased when the landowner announced that he wanted to go organic. "The main reason I agreed to go along with it was to prove organic farming didn't work," recalls Karl. "I was convinced it didn't make sense. But as time went on, I became more and more fascinated by what was involved, and I realised that farming naturally, without artificial chemicals, was the way forward." For a couple of years Karl couldn't even go into the village pub as the locals – many of them farmers – believed he was ruining what had once been a good farm. But the farm thrived, and by the 1990s Karl was managing 1,000 acres of organic land in Dorset, as well as a further 2,500 acres of land elsewhere.

Karl's reputation as a skilled organic manager encouraged the Goodwood Estate to approach him in 2001. The estate had already converted 500 acres of poor land on the slopes of the Sussex Downs to organic production, mostly for fattening beef and sheep. Now the landowner, the Earl of March, wanted to gain organic certification for a further 2,300 acres of better farmland, together with a dairy herd. Karl was

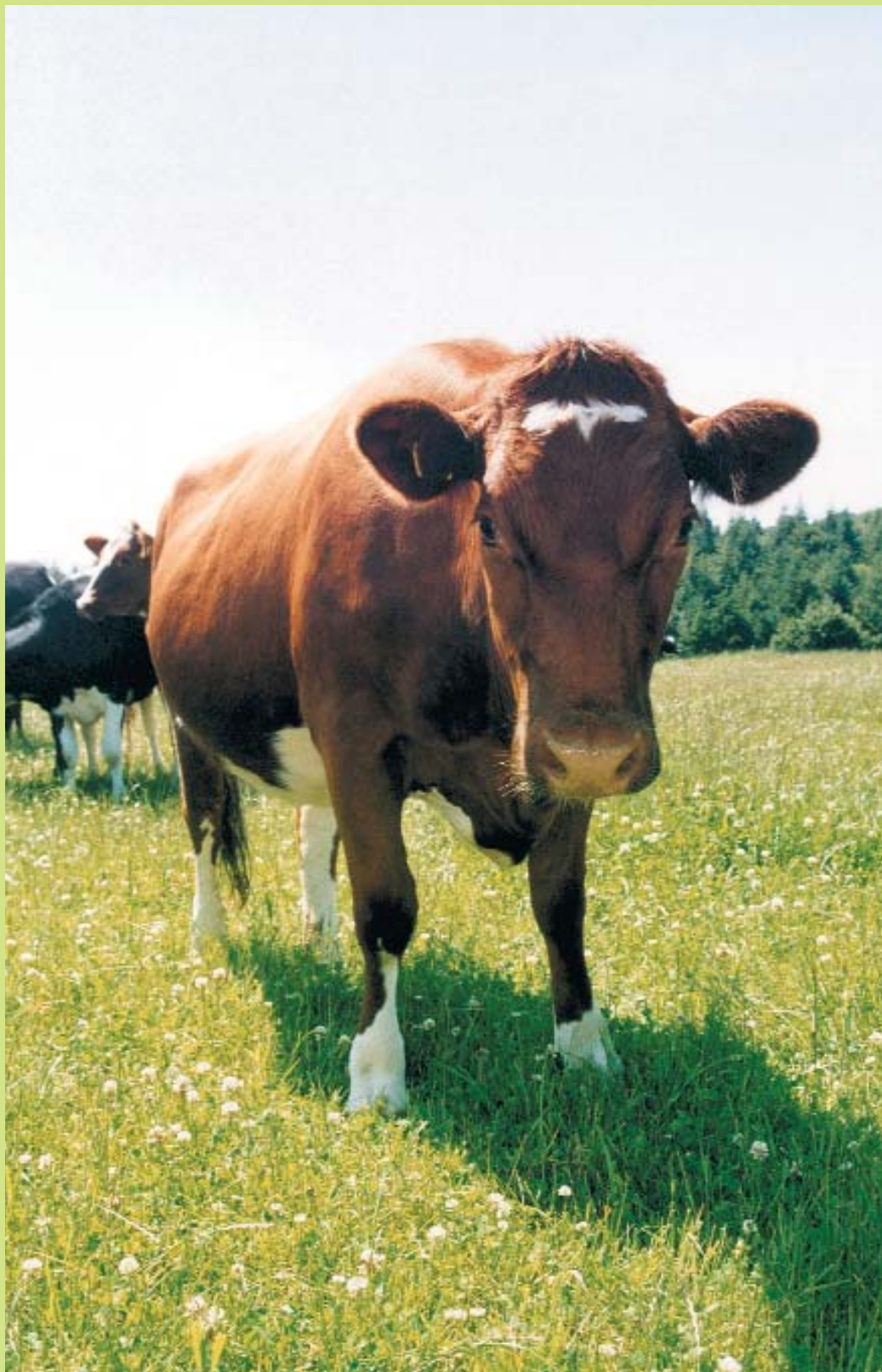
taken on as the new farm manager and he has set about a radical programme of transformation.

"The first thing I had to do was completely redesign the dairy enterprise," explains Karl. "The sheds where the cows spent the winter were inadequate and the milking parlour had been designed to suit the dairyman, not the cows." The estate spent a considerable sum of money on refurbishing old sheds, erecting new ones and replacing the old equipment in the herring-bone parlour. Most of the cows have gone too. "The black-and-white cows simply weren't suited to an organic system," explains Karl. He sold off the majority of the farm's 160 Holstein Friesian crosses and drafted in Dairy Shorthorns from the herd he had established in Dorset.

In his view, Dairy Shorthorns have much to recommend them. They are very efficient at converting grass into milk. They are excellent dual purpose animals: their bull calves make excellent beef animals, unlike those of high-yielding black-and-white cows. "And they are much hardier than modern black-and-white cows like Holsteins," explains Karl. "If you get a really hot day, or if it's raining hard, you'll find the black-and-white cows hiding in the shade, fighting flies. Red-and-white cows like my Shorthorns are out there grazing, whatever the weather. That's what they should be doing."

Modern, high-yielding dairy cows may produce over 10,000 litres of milk a year, but there is a price to pay in terms of their welfare. Mastitis, lameness and a number of other diseases and afflictions mean that a significant portion of the British herd suffers pain and discomfort. While non-organic farmers can use a whole battery of the drugs to keep their cows in production, organic farmers are restricted: ingenuity, good management and homeopathy are their principal weapons against disease.

"I think one of the biggest problems for any farm animal is stress, which makes them much more vulnerable to disease," says Karl. Stress,

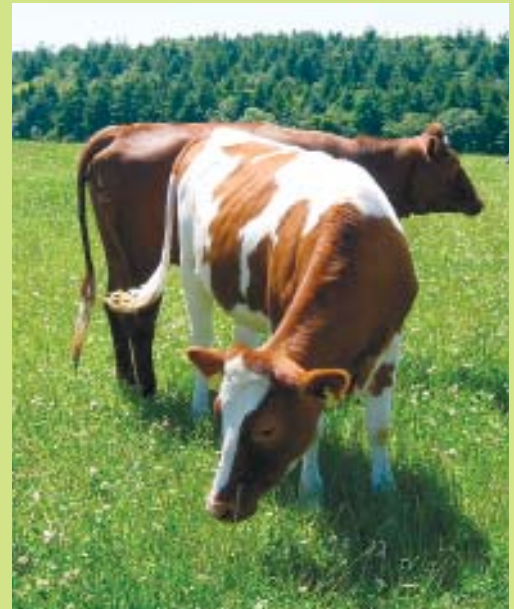


he explains, might be caused by dirty water or badly ventilated buildings or poor food. This means that water troughs should be refreshed and cleaned regularly, and farmers should ensure that their livestock receive a balanced diet. The descendants of domestic cattle could forage over vast areas, eating ivy, herbs like chicory and a great many other plants which are not found in a grass/clover ley. "That means we have to provide the things they are missing, and especially the trace elements," suggests Karl. He makes sure that all his animals are fed small quantities of seaweed, which contains nearly all the trace elements they need.

Karl believes that although there are many excellent non-organic farmers and some poor organic ones, good organic farmers tend to think more seriously about their livestock's behavioural needs. Take, for example, the age issue. The wild descendants of modern farm animals are mostly to be found in mixed-age social groups, in situations where the young can learn from the old. In contrast, animals tend to be kept in even-aged groups in most non-organic livestock units. "I think it's important to build the sort of family atmosphere that exists in the wild," says Karl.

During the next few months, he explains, 140 heifers will come into the milking parlour for the first time. This is potentially a very stressful experience. Karl has retained 14 barren cows – cows which most farmers would have culled – because he believes they will give the heifers confidence by leading them into the milking parlour and showing them that there is nothing to be afraid of. A similar philosophy guides Karl's care of the small herd of Saddleback pigs. He likes to put young gilts with older sows so they can watch the latter farrow and observe their relationship with the stockman. That way the gilts can see what farrowing involves before they are put to the boar for the first time.

No matter how low the stress levels among livestock, the organic farmer must tackle a range of diseases. The most significant threat in a dairy



herd is mastitis, a painful bacterial disease of the udder. If one of Karl's cows gets mastitis, he puts it in a pen with some calves. By suckling, the calves help to "strip out" the mastitis. At the same time, a sample of milk will be sent for analysis to identify the precise strain of mastitis. If the cow is in obvious pain – "Any suffering is unacceptable," says Karl – the cow will go straight on to antibiotics, prescribed by the local vet, as it will if the calves fail to strip out the disease.

Once Karl has received the analysis from the laboratory, he will know what strain of mastitis he is likely to be dealing with if another cow goes down with the disease a couple of days later. "Then I will go straight on to homeopathy, and I will know exactly what to use," he explains. Instead of throwing away the milk from infected cows that have not had antibiotics, Karl feeds it to his calves. That way, it helps them to build up an immunity which will help them resist the disease later in life. While he was in Dorset, Karl reduced the incidence of mastitis in his Shorthorn herd from around 20 per cent to just four per cent. In other words, just four cows in every 100 were infected each year. This is an exceptionally low level of infection, even for non-organic farms which use routine antibiotic 'therapy' to prevent mastitis among dry cows.



The only vaccine which Karl now uses on a regular basis is a homeopathic nosode (a form of inoculation) against blackleg, clostridial disease and redwater, which is transmitted by ticks. The latter, which is often fatal, can be particularly problematic for conventional farmers as there is no allopathic vaccine. Karl has adopted a two-pronged approach. Besides using a homeopathic nosode, he deliberately makes sure that calves are introduced to tick-infested areas when they are eight months old or less. This helps them to develop immunity to the disease.

So how do organic Dairy Shorthorns compare with non-organic herds of high-yielding black-and-white cows in terms of production? The latter may yield more milk, although by the time Karl left Dorset, his cows were averaging 6,500 litres a year, more than many cows on non-organic farms. Non-organic farmers like to point out that they get more grass per hectare than organic farms. True. They might average 10 tons of silage an acre, compared to eight tons on an organic farm. However, artificial fertilisers increase the amount of water in the silage, rather than the amount of sugar and carbohydrate. "My eight tons will feed 1.1 cows during winter," says Karl, "whereas the conventional farmer's 10 tons will feed just one."



On many non-organic dairy farms, cows are worn out after two or three lactations, and culled to make way for replacements. Karl reckons that he gets up to eight lactations from most of his cows, which suffer relatively few health problems compared to high-yielding Holsteins and Holstein Friesian crosses. The male progeny of his Dairy Shorthorns are fattened outdoors on grass and make good beef, to be killed after 24 months or so. In contrast, there is no market for many of the bull calves produced by high-yielding black-and-white cows. It is frequently said that longevity, or the lack of it, is not an animal welfare issue. But it is an ethical issue, and many would question whether there is a place on the organic farm for the massive-uddered, high-performing, short-lived Holsteins whose male offspring are, quite literally, useless. Karl Barton doesn't think there is.

The harsh climate, steep terrain and poor growing conditions of the British uplands render almost a third of our landscape unsuitable for any form of husbandry other than sheep production. Approximately half of the national flock is found in the uplands. The upland flocks act as a reservoir of breeding stock for the entire country, and around four-fifths of the ewes on lowland farms are crossbreeds from the uplands. On lowland farms, sheep are nearly always integrated into a mixed farming system, and in terms of their economic importance to the farmer they are often less significant than other livestock.<sup>1</sup>

No other system of animal husbandry in the UK is less labour intensive than extensive sheep farming, where the animals are left to graze over vast areas of rough grassland with little interference from the farmer. Under this 'easy care' system, the sheep are rounded up a few times a year to be vaccinated, de-wormed and dipped. In the spring, farmers bring their ewes onto better land or indoors for lambing. Otherwise, the breeding flocks are left pretty much to their own devices.

Even the small hardy breeds which are adapted to the difficult conditions of the uplands experience prolonged periods of stress, particularly from early pregnancy to early lactation.<sup>1</sup> This is when most deaths of hill ewes occur. It is estimated that in the UK as a whole, 10–25 per cent of all lambs die within three days of birth.<sup>2</sup> Mortality in the uplands is much higher than mortality in the lowlands, and lambing rates are much lower, ranging from 114 lambs per 100 ewes in the uplands in 1998 to 173 in lowland flocks.<sup>3</sup> Of course, lambing rates are a reflection of fecundity as well as mortality.

Exposure and predation are more significant than disease when it comes to the death of young lambs. However, older lambs and ewes are susceptible to a remarkable range of diseases and parasites. No doubt this is why the American writer, Aldo Leopold, described sheep as animals that are just looking for a way to die. Most sheep farmers prophylactically blitz their animals with chemicals to control diseases and parasites. Multi-vaccines provide protection against as many as eight different diseases; sheep are routinely drenched – this involves administering an oral treatment – with drugs which help control stomach worms, tapeworms, liver fluke and coccidia; and dipping and spraying are used to control external parasites such as ticks, mange mites and blowfly larvae. The use of organophosphorus dips was obligatory until recently, and of particular importance in the control of scab, or sheep mange. The problems caused for human health by organophosphorus dips have been well documented.

### **Organic systems**

Organic sheep farmers are encouraged to choose breeds of a suitable disposition and physique capable of thriving under organic, free-range conditions. Stocking rates must suit conditions on the farm and they will generally be lower than those under non-organic management.

The key issue – some would say problem – for organic sheep farmers is maintaining high standards of health without using conventional medicines and prophylactic treatments. Wherever possible, organic farmers are encouraged to maintain closed flocks, but many have to buy in breeding stock from elsewhere. Organic standards currently allow farmers

to buy in up to 10 per cent per year of non-organic replacements if organic replacements are not available. If non-organic ones are brought in they must be younger ewe lambs (or gimmers). Producers are required to check the health status of sheep before buying in replacements, and quarantine them before they run with the main flock. These measures help to maintain the health status of organic farms without the need for extra veterinary treatment; they also help to control the spread of infectious diseases.<sup>4</sup>

On lowland farms, where sheep are part of a mixed stocking system, rotational grazing, clean grazing and the resting of pastures should help to control liver fluke, nematodes, coccidia and a range of other parasites. A number of measures should be taken to prevent scab. Besides having close flocks, farmers are encouraged to double-fence their property to prevent cross-infection. When scab infection is present, organic farmers can use a single injection of an avermectin-based product. They can also treat infected stock with flumethrin dips. However, there are considerable problems related to the safe disposal of these dips and their use is not encouraged.

### **Key issues**

Experience suggests that sheep fit well into a mixed livestock system on organic farms. However, there are concerns about whether extensive single-species sheep farms in the uplands can be adapted to organic standards without compromising the welfare of the livestock. These concerns were brought into sharp focus over the past few years on upland farms in Scotland. During 1998 and 1999, lamb prices plummeted and many upland sheep farmers found themselves facing a financial disaster. The availability of generous grants for organic conversion encouraged many hundreds of farmers in Scotland to pursue the organic route. The experience has been instructive.

According to David Younie of the Scottish Agricultural College, an organisation which has done considerable research on organic livestock systems, “One of the most difficult types of farming system in which to establish the concept of minimal prophylactic use of conventional veterinary medicines is the hill sheep system.”<sup>5</sup> On large extensive farms, often covering many thousands of hectares, it is difficult to practise a preventive approach when it comes to suppressing sheep scab, liver fluke and ticks. It is impossible to fence off every poorly drained patch of land infested by liver fluke snails, and it is simply not possible for economic reasons to erect double fencing to prevent the spread of scab. When sheep are the only livestock on an upland farm it is impossible to create a clean grazing system and parasite infection is almost inevitable. This was one of the reasons why Gwyn Thomas, whose farm is described in the accompanying case study, introduced cattle on to his Snowdonia farm.

Some of the farmers who converted to organic production in Scotland failed to realise that they could still use – indeed, were obliged to use when necessary – conventional medicines to tackle certain diseases and parasites. There is anecdotal evidence that sheep mortality and ill health increased significantly on some of these holdings. Some farmers also failed to read the organic standards thoroughly.<sup>6</sup> Some assumed they would no longer be able to use routine liver fluke treatment. In fact, the main certifier in

Scotland, the Scottish Organic Producers Association (SOPA), never prohibited routine worming for liver fluke. Similarly, some farmers ceased their vaccination programmes immediately, ignoring SOPA's guidelines for gradual withdrawal. The idea was that farmers should reduce vaccination use if and when appropriate, in consultation with a veterinary surgeon.

Five years ago, fears about the impact of organophosphorus dips on human health led to the lifting of compulsory dipping to control sheep scab. Since then sheep scab has become a major problem in some parts of the country. Organic farmers are frequently blamed for this, although there is no evidence to suggest that they are responsible for the rise in sheep scab. Many conventional farmers also stopped using organo-phosphorus dips.

However, the recent experience of sheep farming in Scotland has undoubtedly tarnished the reputation organic farming in the uplands. It is predicted that once the grants for organic conversion run out – they last for five years – up to a third of the farmers who converted to organic systems may revert to conventional systems. This, needless to say, is speculation, but it does indicate the scale of the problem. If this does happen it will mean that large amounts of public money will have been spent on ventures which have failed, in so far as land which was supposed to come permanently under organic production has not done so. Nevertheless, those farmers who have been ideologically dedicated to making a change to organic systems, rather than simply motivated by the carrot of public cash, have shown that organic sheep farming in the uplands is not an impossibility. Experience, however, suggests that organic farming works best where there is a diversity of livestock and a diversity of crops.<sup>5</sup>

## Case study **Gwyn Thomas**



"I think farmers often ask the wrong question," explains Gwyn Thomas (above). "They ask: 'What do I want to get from this farm?' What they should be asking is: 'What does this farm need if land and livestock are to thrive?' And the answers to these two questions are often very different."

In 1996 Gwyn took over the tenancy of Blaen y Nant farm, a magnificent piece of heaving Welsh upland. For many years, farming strategies round Snowdonia, and for that matter throughout upland Britain, had been dictated by subsidies. More sheep meant more subsidies – even if the quality of the sheep, and their impact on the environment, left much to be desired.

Gwyn realised that if the farm was to flourish he had to change the way the land was used. "I knew I had to get cattle on to the land as soon as possible," he explains. He now has a small suckler herd of 20 Welsh Black cattle. The cattle help to manure pastures where machines can't go, they suppress bracken, something which light-footed sheep cannot do, and they prevent rushes from spreading into the grassland.

Sheep, however, remain at the heart of the enterprise. By the time Gwyn arrived, the

landowner, the National Trust, had already signed up to a government conservation scheme. However, Gwyn decided that if the farm was to flourish there had to be further reductions in stocking density, and he reduced the number of sheep from 1,200 to 600. The following year he selected the best 300 Welsh Mountain ewes as a nucleus flock, with the aim of improving their quality without losing their good mothering qualities and hardiness. In the third year he went organic.

To comply with the conservation scheme Gwyn has to clear the land of all livestock for six months a year. During the winter his sheep and most of his cattle go down to organic farms in the lowlands. This arrangement suits everybody. The lowland farmers receive an income for looking after the animals and a plentiful supply of manure. Blaen y Nant – renowned for its rare upland plants and rich birdlife – gets a rest from livestock. And the welfare and health of the sheep has dramatically improved.

"When the sheep wintered on the farm, they had to survive off heather and bilberry, and by April they were in no condition to lamb well," explains Gwyn. Now, after wintering in the lowlands, his ewes are in much better shape. In the spring he heads down to the lowland farm in Bridgnorth in a caravan and lambs his flock there. He now has a lambing average of around 165 per cent. In other words, 100 ewes produce 165 lambs. In contrast, many hill farmers get less than one lamb per ewe, and some have a lambing average as low as 50 per cent. Furthermore, by the time Gwyn brings his lambs back to the farm in June, they are appreciably larger than those born in the hills.

A non-organic farmer could heft his stock from uplands to lowlands in a similar manner, but non-organic farmers, unlike organic farmers, use a whole armoury of vaccines and drugs to protect their livestock from the diseases that habitually affect sheep. Virtually all non-organic farmers have a vaccination programme for their

breeding stock, often using an eight-in-one vaccine; most dose their animals to control parasites such as liver fluke; many use organophosphorus dips to control sheep scab. Although organic farmers are allowed to use certain drugs and dips when homeopathic remedies and clean grazing systems fail, their use is discouraged, and in the case of organophosphorus dips proscribed.

"I've had very few disease problems," says Gwyn. By practising clean grazing and rotational grazing, he has avoided a build up of parasites in the soil and grass, and his sheep have not suffered from worms. Nor has he had a problem with clostridial diseases, which are common on farms where sheep are lambed indoors or kept outdoors at high stocking densities. However, in 2002 some of his sheep developed scab, a particularly unpleasant disease. This was contracted from his neighbour's sheep, presumably by rubbing on the fence posts that divided their land, and Gwyn had to get a derogation to use an approved dip.

When his first marriage broke up in 1990, Gwyn headed for New Zealand to work as a sheep shearer. He missed his two young daughters so much that he returned home after a few months, but his time there was instructive. "One day I picked up a lamb that had a small patch of maggots on its back end, and I walked a couple of miles back to the farm with it under my arm," he recalls. He gave the lamb to the farmer, who took one look at it, then whacked its head against the nearest fence post. "I was shocked at first," says Gwyn, "but the farmers in New Zealand taught me something important. Once their subsidies were slashed, they realised they had to concentrate on breeding the best possible sheep – sheep of the right conformation that would lamb easily and develop resistance to diseases. That's what I'm now trying to do here." If a ewe has difficulty lambing, Gwyn might be forced to treat it with antibiotics. If the same thing happens to the ewe the following year, he will sell it. If a poor quality lamb is sick, he will cull it, rather than treat it – just as they do in New Zealand. In short, he is selecting for the healthiest livestock.



During the summer months Gwyn walks round his flock at least once a day. He believes this is something that should be done quietly: sheep like peace and quiet. In his view, shepherds who make a lot of noise, or allow their dogs to harry their sheep, cause unnecessary stress, and stress renders animals more vulnerable to disease. In fact, he believes that some measures which are designed to protect the health of sheep – dipping, drenching, vaccinating – are often unnecessarily stressful.

Some of the most stressful events in a sheep's life are reserved for its final hours. Three-quarters of Gwyn's lambs are sold to Tesco, and these must make the long journey south to an abattoir in Merthyr Tydfil. This, as Gwyn admits, is far from ideal, and he is not present to witness what happens to the lambs on arrival and slaughter. However, the rest of his lambs, which he sells direct by mail order or from his own van, are slaughtered nearby. "I go to the abattoir and I watch them being killed," says Gwyn. The abattoir workers know they must treat Gwyn's animals with respect.

Gwyn's family has been farming sheep and working in the slate quarries in this valley for

over 300 years. The chances are that one of his ancestors would have known a celebrated herbalist who farmed at Blaen y Nant in the 18th century. Gwyn recently found some records from those times. "I was pleasantly surprised to see that I now have exactly the same number of sheep and cattle as this gentleman had in the 1750s," says Gwyn. "He was somebody who knew what he was doing." He adds that his farm, like many others in the area, has a field called Hospital Field. This would have been full of herbs which helped to counter livestock diseases, and ailing sheep and cattle would have been turned into these fields to find what they needed for themselves.

Gwyn concedes that he would not have been able to farm at Blaen y Nant had it not been for the conservation grants and, for a limited period, the organic aid scheme. But he believes that the EU headage payments for livestock have encouraged farmers to think in terms of quantity, not quality. He is trying to buck the trend by improving both the quality of his livestock, as well as that of the landscape. He has recently fenced off the river that runs through his in-by-land and planted the banks with oak, alder and other native species. He lists some of the birds which can be seen on his farm – snipe, twite,



raven, ring ouzel, dipper – and he seems as proud of the wildlife, and the study centre for school children that has been set up in one of his barns, as he is of his livestock.



The beef industry is remarkably diverse. On the one hand there are the suckler beef systems typical of the British uplands, in which animals graze outdoors for most of the year and calves are raised with their mothers. On the other, there is the intensive veal industry, now banned in the UK, which denies calves most of the five freedoms and represents the apogee of inhumane farming practice. In between these two extremes is a range of other rearing systems.

The British beef industry has very close ties with the dairy industry. Approximately half of the calves produced by dairy cows are sired by a beef-breed bull such as a Charolais or Simmental. They are then reared for beef and killed between 12 and 24 months. In contrast, a significant portion of the pure-bred bull calves produced by the dairy industry are shot, as worthless, soon after they are born. At one time, prior to the restrictions introduced in the wake of the bovine spongiform encephalitis (BSE) crisis, there was a significant movement of young bull calves across the English Channel. By the mid-1990s, over half a million British calves were annually exported to European veal producers, a threefold increase over the previous decade and a reflection of the increase in poor-quality calves being produced by a dairy industry increasingly dominated by Holstein genes.

Prior to 1997, continental veal calves were denied dry food and dietary iron, thus keeping them in a permanent state of malnourishment and anaemia. Under EU law, veal calves must now be provided with solid food and iron supplements, but many are still confined in individual crates and once over a certain size they cannot adopt normal resting and sleeping postures or groom themselves. They are also denied direct social contact and the opportunity to exercise, and they frequently suffer high levels of enteric and respiratory diseases.<sup>1</sup> However, veal crates will be banned throughout the EU from 2007.

The most intensive system of beef production in the UK involves the rearing of bull calves of poor conformation. These are given the highest density feed available and finished as quickly as possible. They are kept indoors or in yards and fed on a combination of grass silage plus concentrates, maize silage plus concentrates, or cereals. The animals are confined at a high stocking density which increases the risk of infectious diseases such as pneumonia, a problem which can be particularly acute for young calves.<sup>1</sup>

Somewhat less intensive systems, also based on calves from the dairy industry or beef dairy crosses, involve turning cattle out to graze for one or two summers. These cattle will generally be finished in yards during their second winter, or after a second summer on grass, at 20 to 24 months. The least intensive system involves the rearing of suckler beef, where calves remain with their mothers until they are weaned, generally in late summer. During winter most suckler beef cattle are kept indoors and the young stock are usually given grain as well as silage. However, where climatic conditions allow, hardy beef breeds may spend most or all of their lives outdoors.

The most desirable traits for beef cattle are a rapid growth rate and lean tissue; good carcass conformation without too much subcutaneous fat; and a good appetite, especially for grass and forage.<sup>1</sup> Over the past 40 years or so Charolais and Simmental bulls have taken over from Herefords as the first choice sire of prime beef calves from the dairy



industry, although traditional breeds have recently made something of a come back. The continental breeds, and especially Limousin bulls, are also popular as sires for suckler beef cows. The majority of suckler cows are not pure-breeds, but crosses between two pure breeds. In the uplands traditional breeds such as Aberdeen Angus, Beef Shorthorn, Galloway and Welsh Black are well suited to the relatively poor grazing and harsh climate. Extensive farms using traditional breeds of beef cattle can take advantage of the markets which award a premium for high quality.

### **Organic systems**

Many of the organic standards which apply to the dairy industry apply equally to the beef sector. Farmers are encouraged to choose breeds which are well adapted both to local conditions and the free-range way of life. They are also encouraged to choose breeds which show good disease resistance and vitality, and can thrive on a diet which is based on grazing. At least 60 per cent of the dry matter in rations must consist of roughage, fresh fodder or dry fodder, or silage.

Organic beef animals graze pasture for most of their lives but they can be finished in well-bedded spacious yards, providing this period does not exceed a fifth of their lifetime, and with an absolute maximum period of three months. When cattle are kept indoors, the size range between the smallest and largest animals must not be so great as to allow bullying. Housing during winter is not mandatory, but animals kept outdoors must be provided with sufficient shelter, as well as good access to feed and water.

As with dairy cattle, disease prevention should be based on breed selection, good husbandry, high-quality feed, free-range conditions and appropriate stocking densities. Intestinal worms, a common problem with cattle, can be controlled by intelligent grazing management and pasture rotation; lungworms can be controlled by allowing suckler calves to develop a natural immunity by grazing and suckling their mothers. Buildings used to house cattle in winter must be thoroughly cleaned out and disinfected before the next batch of cattle is brought in.

In the UK, certifying bodies allow routine disbudding/dehorning, providing the operations are carried out under existing animal welfare regulations. Castration is also allowed under two months of age.

### **Key issues**

Organic beef production, based on free-range suckler herds, is one of the most natural systems of livestock management. It guarantees the animals all the five freedoms, and more besides. Organic farmers seldom encounter any significant disease problems with suckler beef. Indeed, a survey of 112 organic beef herds in the UK found that there were very few animal health concerns.<sup>2</sup>

Organic standards do not proscribe the use of any particular breed. However, certifying bodies might well refuse to give their stamp of approval to producers of Belgian Blues. Over recent years these have been selected for their heavy muscling, and Belgian Blues

are now the bovine equivalent of steroidally-enhanced human muscle-builders. Double-muscling of the hindquarters has led to abnormalities of skeletal development and a reduction in the size of the pelvis.<sup>1</sup> As a result, pure-bred animals are often unable to give birth naturally and need to have a Caesarean section.

Castration and dehorning are controlled by the *Protection of Animals (Anaesthetic) Acts 1954 and 1964*. All forms of castration have been shown to be painful for several hours, and in some cases animals continue to suffer for two to three weeks.<sup>1</sup> Trials in Denmark suggest that the least painful method of castration involves the crushing of the spermatic cord using a burdizzo.<sup>3</sup> Routine dehorning, although accepted under European Union organic regulations, is generally forbidden in most European countries apart from the UK. Were dehorning to be disallowed in future, organic producers would require larger buildings in which to house their horned cattle.

## Case study **The Coombs**



As far as Carey and Penny Coombs (above) are concerned, Beef Shorthorns are the ideal cattle for the rough terrain of the British uplands. "All too often," says Carey, "when people talk about breed improvement in the beef industry, they are simply talking about developing a leaner, faster-growing animal. They are not talking about breeding for the environment." Carey does not think there is anything inherently wrong with the continental breeds of cattle which dominate the beef industry, but he believes that some breeders place too great an emphasis on achieving high growth rates, and not enough on adapting their cattle to the local environment. However, he is unequivocally critical of the Belgian Blue, which has become so heavily muscled that most pure-bred cows must now have their calves delivered by Caesarean operation.

Penny swiftly lists the virtues of Shorthorns as we tramp round their 800-acre tenanted farm near the village of Dunsyre, in the Scottish borders. Shorthorns thrive on grass; they are relatively docile; they have wide pelvises and calve easily; they have good resistance to disease; and they happily winter outdoors, even here, at 900 feet above sea-level. "Dairy cross suckler cows can lose a lot of condition if overwintered," says Penny, "but cattle like ours tend to be hardier. She recalls an occasion when

two Shorthorn calves disappeared during a snowstorm. Twenty-four hours later they hopped out of a snowdrift, unaffected by the ordeal. Less robust breeds might not have survived. "If you're an upland beef farmer," says Penny, "it's essential that you get the right breed to suit the land and the climatic conditions."

The Coombs have always favoured Shorthorns. After they left university – they met at Bangor, where they studied marine biology – they took over a Forestry Commission smallholding near Hawick. Carey worked as a tree-feller; Penny milked a few Dairy Shorthorns. Then they moved to a larger farm in Argyll, and switched to breeding Beef Shorthorns. They took some of these with when they moved to Weston Farm in 1989, but the bulk of their herd consisted of 60 Simmental cross cattle which they inherited from the landowner. They immediately decided to phase these out, not least because they were wild and difficult to handle, having previously been herded by tractor rather than by a stockperson on foot. The cows were put to a pedigree Shorthorn bull, bought for 1,000 guineas in the Perth sales, and the Coombs now run a herd of 120 Beef Shorthorns alongside 450 Cheviot cross Texel ewes.

At first the Coombs used some nitrogen on the grassland and routinely vaccinated their livestock against a range of diseases. "But we were already worrying about some of the things that were happening in modern farming," says Carey. A knacker told them that ground-up material from slaughtered cattle was being put in animal feed. They contacted various feed merchants in Edinburgh. All but one refused to divulge what went into their feed. "And then it all went pear-shaped when BSE broke out," recalls Carey. The Coombs had been using less and less artificial fertiliser, but the outbreak of BSE – a disease which may have been caused by feeding animal remains to ruminant livestock – encouraged them to become fully organic. They had also found it galling that their traditional suckler beef, reared outdoors on grass, was classified in the

marketplace exactly the same as animals fattened indoors on barley and kept on slats. Going organic would provide them with a premium that recognised, among other things, their high standards of animal welfare.

“If you’re concerned about animal welfare,” suggests Carey, “I think you should imitate natural systems as much as you can.” Rearing suckler beef can be one of the most natural farming systems, whether it is done organically or not. The animals are kept outdoors in mixed age groups; they live mostly on a diet of grass, rather than on concentrate feeds made from barley and soya; and the calves remain with their mothers, weaning themselves off milk onto grass in their own good time. In short, suckler cattle live in social groups that are similar to the ones that existed among the wild cattle from which they are descended.

The Coombs’ oldest suckler cow is 17 and most get to around 14 or 15 before they are culled. Death, of course, intervenes more swiftly as far as the fat stock are concerned, with most going to the abattoir at 24 months. One of the few unnatural events that occurs in the lives of the steers is castration. This operation is performed at a very young age using burdizzos, or if necessary by a vet at a slightly older age. “I imagine it’s like having a tooth taken out – unpleasant at the time, but swiftly forgotten about afterwards,” says Carey. This, presumably, is conjecture on his part. He admits that in an ideal world they wouldn’t castrate, but the butcher they supply will not take bull beef. They might also have to reinforce the fencing on the farm if they decided not to castrate, although they often have half a dozen bulls, bred for sale as breeding stock, running together without any problems.

When farmers convert to organic systems, protecting the health of livestock without resorting to synthetic drugs is often seen as a major challenge. “We are trying to treat the whole farm as a living thing,” explains Carey, “and that means that all parts of the living system must be individually healthy and in balance. We have to



accept that parasites and pathogens will always be present. What we have to do is build positive health and vigorous immune systems in the livestock, and work out management systems that keep parasites under control.” Simply put, the Coombs are trying to design agro-ecosystems that mimic nature as much as possible.

Some of the parasites which affect sheep and cattle can be controlled by rotational grazing. Land which carries sheep one year will have cattle the next, and this helps to control parasites that are species-specific, such as coccidia and various intestinal worms. However, liverfluke and nematodirus, an intestinal worm, can cross the species barrier, and rotational grazing will not control them.

The experience at Weston Farm illustrates the importance of developing good immunity to diseases and parasites. “When the cows calve in spring, the calves get a degree of exposure to lungworm by grazing a little to supplement the milk they get from suckling,” explains Penny. “They will pick up a few larvae from the grass, and gradually develop immunity.” Spring calves are seldom bothered by lungworm. But the Coombs also calve in the autumn. These calves

don't come across the parasite during the winter months, and frequently go down with lungworm in spring, simply because they have had no exposure to lungworm larvae, and had no chance to develop immunity. Affected calves have to be treated with anthelmintic drugs whose use is approved in such situations by the organic certifying body, in this case the Soil Association.

"I've got no problems with using vaccines when they are really needed," says Carey. "But they should be used to target a specific problem." Most conventional sheep farmers in Scotland adopt a blunderbuss approach, using an eight-in-one vaccine, which means they are often vaccinating against diseases which aren't present, as well as those which are. The use of vaccines may make life easier for farmers – enabling them, for example, to over-stock their land, or keep animals in overcrowded, unhygienic conditions – but vaccines do not necessarily lead to better animal welfare, nor do they encourage livestock to build up a natural immunity to disease. The Coombs no longer use clostridial vaccine for sheep, or the rota virus vaccine for cattle, as they used to when they farmed conventionally. "Pathogens are always going to challenge livestock, but if their immune systems are



strong, they will be able to resist most of them," suggests Carey.

Carey stresses that animal welfare depends on the skills of the men and women who look after the animals. "Well-managed conventional upland farms will have better animal welfare than badly managed organic farms," he says. The Coombs, like all other farmers, must operate within the world defined by the Common Agricultural Policy. "We have to make a living," says Carey, "and that means we have to take into account the subsidies that are available for cattle and sheep, as well as what we think works best for the farm." Carey suspects that they are carrying a few too many stock, and they may reduce the number of cattle they keep. In an ideal world, he believes they should be growing some cash crops, but with just two people running the farm that isn't possible. Whatever happens, their farming activities will continue to revolve around their Beef Shorthorns, which they are further developing to suit the landscape.



# Conclusions

There has been relatively little systematic research comparing animal welfare on organic farms with animal welfare on non-organic farms. However, the research which has been carried out suggests that organic farming can provide considerable welfare benefits. A study commissioned by the Scottish Executive Environment and Rural Affairs Department (SEERAD), based on interviews with a range of experts – some of whom were hostile to organic farming – and on an extensive review of the existing literature concludes that: “Whilst it is obvious that the organic standards do not automatically provide high animal welfare status to livestock reared on farms registered as organic, organic standards provide a collective framework for production systems that are likely to create conditions where high animal welfare status can be achieved.”<sup>1</sup>

The authors of the report identify certain common features which between them tend to favour high standards of welfare. On organic farms the maximisation of production through intensive feeding practices is limited, and organic farms therefore avoid the welfare problems associated with early weaning, rapid body growth and stress related to high production levels, problems commonly associated with intensive livestock systems. Stocking densities on organic farms are also limited, both indoors and outdoors. This means organic livestock are potentially exposed to ‘a lower disease challenge’ than non-organic livestock and have greater freedom to express their natural behaviour. On organic farms closed systems are strongly encouraged and enforced. Limited numbers of livestock can be brought in, bio-security measures are required and organic stock can only be sold at certain registered markets. This means, once again, that organic livestock are exposed to a lower disease challenge than non-organic livestock; it also means that they live in a relatively stable and stress-free environment. On organic farms free-range conditions are encouraged and enforced, and practices such as the prolonged tethering of cattle and the confinement of hens in battery cages and sows in farrowing crates are prohibited. As a result, organic livestock have greater freedom to express their natural behaviour than animals reared on intensively managed farms. On organic farms mutilations are limited, and this removes one possible source of pain and injury.

The authors of the SEERAD report suggest that certification bodies need to make sure that the misinterpretation of standards does not lead to welfare problems. In particular, they are concerned that organic farmers might withhold efficacious treatment when the organic status of their livestock is threatened. They also express the fear that in some situations organic farmers might withhold strategic preventive medicines – for example, they might discontinue the use of vaccines and anthelmintics – without first putting in place appropriate grazing practices or other bio-security measures. Recent experience in Scotland suggests that in certain situations these concerns are well founded.

According to Malla Hovi, lead author of the SEERAD report, some of the most fundamental organic standards are not properly implemented at the farm level. “This message comes out from almost every case study or survey of organic standards,” she suggests, and among the reasons cited for non-compliance are lack of labour, lack of money, low or non-existent price premiums and lack of advice.<sup>2</sup> If the organic sector is not to lay itself open to criticism, certification bodies must not only ensure that organic standards are correctly interpreted through a programme of targeted inspections and careful guidance, they must make the process thoroughly transparent.



The SEERAD report suggests that existing organic standards are satisfactory. But are they? The evidence of this study suggests that when it comes to poultry, at least, the organic standards are urgently in need of revision if the organic sector is to claim – as it should be able to – that organic farming delivers high standards of animal welfare throughout the whole production system. There is no doubt that animal welfare on organic poultry farms is potentially superior to that on farms where birds are reared in intensive conditions, whether in battery cages or broiler sheds. However, there are two critical issues which need to be addressed. First, the flock size allowed under present organic standards is far too high, and in the case of laying hens leads to serious problems of feather-pecking. The larger the flocks, the greater the pressure on available pasture, the greater the likelihood of a parasite build up, and the greater the likelihood of bullying. When flocks are large, some birds never venture outdoors and the more aggressive birds control the use of pop holes and chicken runs.

The second issue of concern relates to the sourcing of day-old chicks and pullets. The vast majority of the birds bought in by organic farmers come from conventional growers. The one-day old chicks are the progeny of parent flocks which are kept in a state of permanent hunger and reduced light. Organic farmers are thus helping to perpetuate one of the most inhumane systems of animal husbandry. It seems that many organic laying flocks, bought in from non-organic growers as pullets, have been de-beaked. This means they are unable to graze efficiently. From 1 January 2004, organic standards stipulate that poultry farmers must acquire their stock from organic farms or rear them themselves. This should lead to a major improvement in welfare – unless certification bodies choose to provide derogations which allow farmers to continue sourcing their birds from conventional growers.

The Soil Association's organic standards recommend that the breeds used on organic farms should be "of a suitable disposition and physique to thrive under organic conditions." The Soil Association also recommends that organic farmers should avoid breeds which are likely to experience problems at birth. This presumably means that Belgian Blue beef cattle, whose calves often have to be delivered by Caesarean section, would not be considered suitable for organic certification, although the standards make no explicit recommendations about particular breeds.

The presumption is that organic farmers will tend to opt for the older, traditional breeds which have had a long history of use in this country. Organic pig farmers tend to favour Saddleback crosses, with smaller operators often concentrating on breeds such as Tamworth, Gloucester Old Spot and Berkshire – all of which are well suited to free-range conditions. However, as the case study on pigs indicates, hybrids based on modern strains such as the Camborough 12 can also adapt well to organic conditions. Similarly, some organic egg farmers have found that Shavers and Babcocks, two modern breeds favoured by intensive producers, are just as well suited to the free-range, organic lifestyle as the more traditional breeds such as Black Rocks.

However, this does not mean that all modern breeds designed for high productivity are suitable for organic farming. It is estimated that approximately 90 per cent of organic dairy herds in the UK are made up of Holstein Friesian crosses. There are serious



concerns about whether the diet allowed under organic standards – 60 per cent of dry matter must come in the form of fresh or dry forage or silage – is suitable for a breed of cattle designed to thrive on a diet of concentrated feeds. It is clear that this is one area where more research needs to be done. If it can be shown that these high-yielding breeds are experiencing a degree of hunger as a result of an organic diet, then their use within an organic system should be prohibited. In any case, certification bodies should do their utmost to encourage farmers to opt for dual-purpose dairy cattle such as the Dairy Shorthorn. At present many organic dairy farmers who rely on Holstein Friesian crosses are producing bull calves which cannot be successfully fattened up under an organic regime.

While on the subject of dairy cattle it is worth mentioning the recent research, first referred to in Chapter 1, on the welfare benefits of the RSPCA's Freedom Food scheme.<sup>3</sup> This research suggests that as far as dairy cows are concerned Freedom Food animals do not experience significantly better welfare than cows on conventional farms. This should certainly concern the RSPCA. But it is not without significance for the organic movement either, as many of the Freedom Food standards – especially those relating to space allowance, freedom of movement and bedding requirements – are similar to organic standards. This is something the certifying bodies, and standards setters, should look into.

There are various other issues which the organic sector needs to address. For example, there are obvious concerns about the way in which certain animals – particularly poultry – are slaughtered. High standards of animal welfare on the farm are all very well; but these standards need to be maintained beyond the farm gate.

At present, organic farmers are not obliged to hire the services of a vet when drawing up their animal health plans. Some observers believe that this is a serious shortcoming and that veterinary support on organic farms needs to be strengthened. Obviously, veterinary services cost serious money, and that is one of the reasons why certification bodies such as the Soil Association have resisted calls to make veterinary involvement in health planning mandatory. However, there is clearly a good argument in favour of establishing compulsory training courses for those who wish to become organic livestock farmers. Organic farming has the potential to deliver exceptionally high standards of animal welfare – but it requires very high standards of stockmanship. Animal welfare on a poorly managed organic farm can be worse than animal welfare on a well-managed conventional farm, as many of the case study farmers admit.

There is no doubt that organic farming can deliver tremendous welfare benefits for farmed animals, and much more could be made of these benefits when promoting organic food to the general public. This is not suggest that certifying bodies can rest on their laurels. The organic sector must continually aim to improve its standards, and thus the health and welfare of livestock on organic farms.

# Maintaining and extending high animal welfare

## Soil Association recommendations and action

In organic agriculture good health is inextricably linked with good husbandry. The Soil Association believes that the key to ensuring that animals truly thrive is not obsessive hygiene, biosecurity and antibiotics freely administered but a system that nurtures a state of positive health, promoting natural vitality and disease resistance. That system is organic farming, which builds vitality through a natural diet, derived from a living soil and through an environment in which natural behaviours are given their full expression. For organic producers high animal welfare standards are not merely a welcome bonus or an optional extra – they are of fundamental importance to the whole organic system.

These principles reflect the ideas of Sir Albert Howard, one of the pioneers of the organic movement. Howard argued that pests, diseases and parasites should be regarded as ‘nature’s professors of good husbandry’, teaching us how to farm for positive health. “Nature has never found it necessary to design ... vaccines and serums for the protection of livestock,” he wrote. “It is true that all kinds of diseases are to be found among the plants and animals of the forest, but these never assume large proportions. The principle followed is that the plants and animals can very well protect themselves, even when such things as parasites are to be found in their midst. Nature’s role in these matters is to live and let live.”

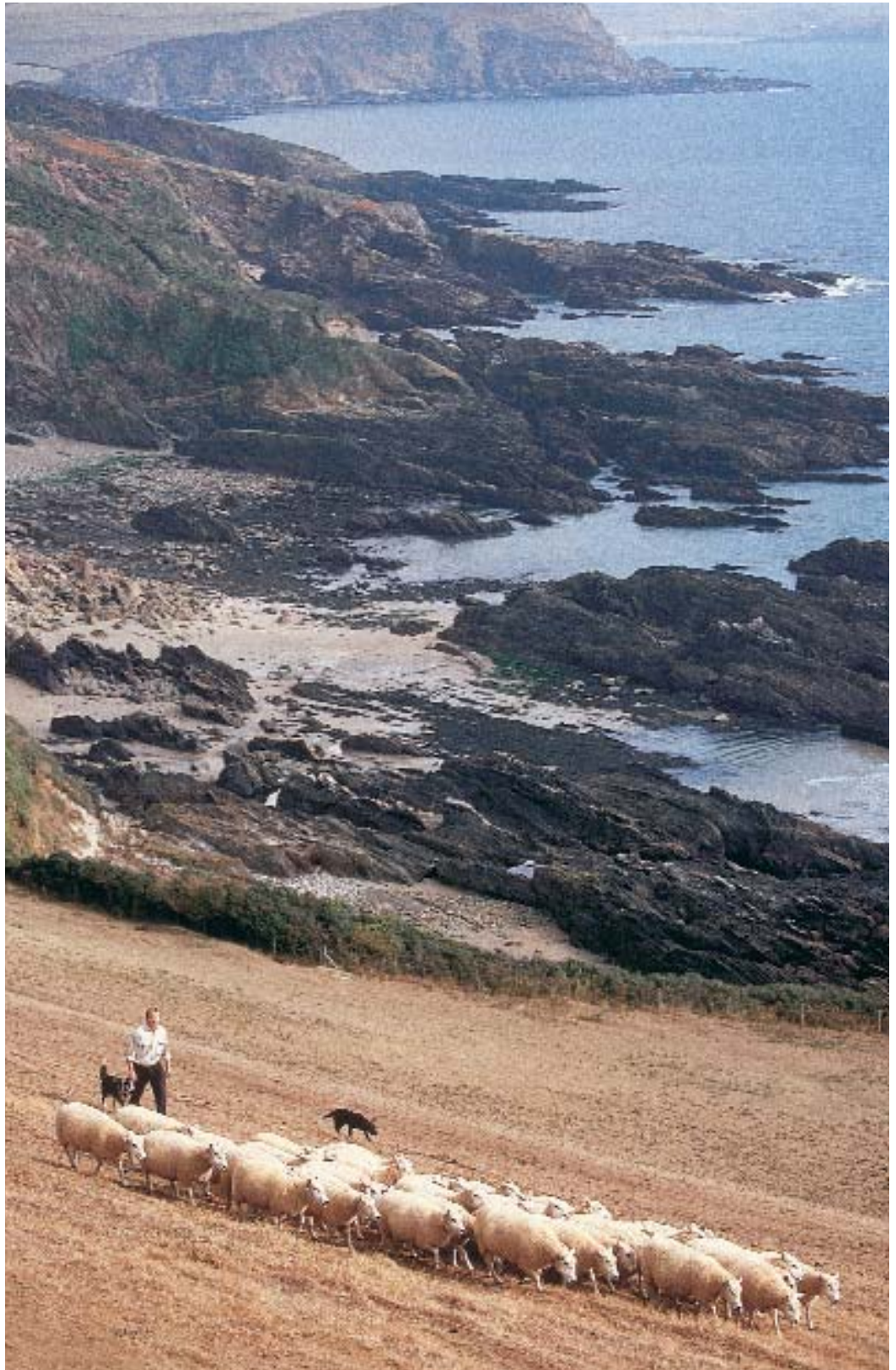
The Soil Association commissioned this report because we wanted an independent writer with extensive knowledge of farming to examine the extent to which the organic movement practises what it preaches on animal health and welfare. We wanted a definitive and objective overview of animal welfare standards and the performance of Soil Association-certified organic farms. We also wanted to highlight areas within the organic system that could be improved from an animal welfare point of view.

We are delighted with the author’s conclusion that organic farming delivers high levels of animal welfare but we are by no means complacent. We welcome the challenges he identifies:

- The need to have far more clarity about exactly what veterinary treatments animals should have and in what circumstances
- The suggestion that vets should have more involvement in overseeing organic livestock farming
- Strengthening the animal welfare aspects of organic inspections
- Introducing appropriate training for farmers who need support in improving welfare
- Reappraising which breeds are suitable for organic systems and reviewing particular standards issues in relation to organic poultry farming and how animals are transported and killed.

In this final chapter we take each of his main conclusions in turn, summarising what we plan to do in each case and explaining our thinking and decisions. First we restate the Soil Association’s basic approach to animal welfare, elaborating further on the principles that guide us.





### **The Soil Association and organic livestock**

Improving animal welfare is one of the Soil Association's key aims. Our standards for organic livestock are constantly being reviewed by our four organic livestock standards committees which are made up of stakeholders from throughout the food and farming sector, including animal welfare experts from CIWF and the RSPCA, other technical experts including organic farmers, organic business owners, vets, consumers and government regulators and Soil Association staff.

We believe that the foundation stones of animal welfare are good nutrition, diligent management and the use of appropriate breeds. These all have a part to play in building vitality and making organic livestock less susceptible to the health and welfare problems suffered by most farm animals.

Many health and welfare related problems on non-organic farms are usually tackled with mutilations, with routine drug treatments or by obsessive attention to biosecurity protocols to prevent exposure to pathogens. Organic farmers work to ensure that their livestock develop a natural vitality and disease resistance, and this can only be achieved through the very high standards of animal welfare that are intrinsic to organic production. Organic farmers simply do not have the option of masking or mitigating the health consequences of poor animal welfare provision.

The principles at the heart of the organic approach are underpinned by organic standards set out in a European Union regulation and further refined both by the UK's standards umbrella body which requires annual inspection and certification of farms by a government-accredited body such as Soil Association Certification Limited (SA Cert), providing a mechanism for monitoring and enforcing animal welfare standards on farms. Ultimately, however, good organic livestock farming relies on the farmer to develop and maintain management systems that achieve the highest levels of animal health and welfare.

The key organic principles that inform the Soil Association's ongoing development of organic standards include:

- Food production based on natural biological processes
- Farms managed holistically, recognising that changes in one area (such as increases in livestock productivity) will affect other areas (such as animal health and welfare)
- Problems prevented from the outset through the design and management of the system rather than relying on measures to remedy problems when they arise
- Addressing the fundamental causes of problems rather than just the most immediate symptom. For example it may be the presence of pathogens that triggers disease in poultry but the underlying blame for their susceptibility to that disease may relate to overcrowding and the stress it causes.

The Soil Association also believes that all farming should be sensitive to consumer expectations, so organic farming must deliver healthy food that consumers can trust. Where we face real dilemmas or where the way forward is unclear, we look to the natural habitat and behaviour of the wild relatives of farm animals as a guide.

## **Veterinary treatments and advice**

### *Report conclusions*

- Farmers misinterpreting organic standards could neglect timely and appropriate use of conventional veterinary treatments
- There should be more veterinary involvement in drawing up animal health plans for organic farms.

### *Soil Association response*

- Any vet who wants to work on an organic farm should undertake organic livestock training
- In due course organic certification should be conditional upon the involvement of an appropriately trained vet in drawing up the first animal health plan for every Soil Association-certified organic farm.

### *Context*

In a study by SEERAD quoted in this report, it was stated that organic certification bodies “need to make sure that the misinterpretation of standards does not lead to welfare problems... organic farmers might withhold efficacious treatment when the organic status of their livestock is threatened.” The report then says that “recent experience in Scotland on organic sheep holdings suggests that these concerns are well founded.”

That organic standards somehow prohibit or discourage the timely use of conventional veterinary treatment when required is untrue. Homeopathy (under veterinary guidance) and the cultural or management control of diseases are encouraged, and that the routine or preventive use of some veterinary products is prohibited. However, the targeted and responsible use of conventional treatments is not only perfectly acceptable, but also mandatory if it is needed to prevent animal suffering.

The distinction between an organic system and a non-organic system with regard to the use of veterinary drugs is that organic farmers are only permitted to treat sick animals, whereas non-organic farmers may give them to healthy animals routinely as a precaution. This routine use of drugs has become the cornerstone of many intensive livestock production systems, leading to concerns over pathogens becoming immune to certain antibiotics. In addition, routine drug use weakens an animal’s immune system thus increasing reliance on drugs. By contrast, organic systems aim to prevent an animal becoming ill through a positive management approach to health and welfare.

Soil Association standards prohibit the routine use of drugs. In addition the EU regulation defining organic production in the EU states that an organic animal may receive a maximum of three complete courses of antibiotics in one year before losing its organic status. The fact that the use of antibiotics as growth promoters is now being phased out in the EU because of concerns about growing antibiotic resistance vindicates the stance taken by the organic movement.

It is argued by some that organic producers could be tempted to withhold veterinary treatment because of the extended withdrawal period after treatment before the animal can be sold as organic, or because of the EU limit on three courses of antibiotics in a year.

This has not generally been the experience of (SA Cert), for three fundamental reasons. Firstly, most organic livestock farmers care passionately about the welfare of their animals. Secondly, it makes little long-term agronomic sense, as an organic farmer needs to maintain the positive health status of all his or her animals. Finally, if SA Cert detects that a producer has withheld treatment the consequences are much more serious (and could even lead to decertification) than would be the case for a non-organic farmer withholding treatment.

If certification were withdrawn the costs could be higher still, including the possible repayment of government organic conversion payments. Consequently, there is a real financial incentive for organic farmers to ensure that all livestock are treated promptly and appropriately.

What is of concern to the Soil Association is that some new entrants to organic farming may now believe some of these misconceptions, as the SEERAD report suggests, and we need to deal with this issue. Requiring veterinary involvement in aspects of organic conversion, discussed below, would be a positive first step. However, it is our experience that most organic farmers interpret the standards correctly and realise they can use antibiotics responsibly when they are needed on individual animals.

On the issue of veterinary involvement in drawing up animal health plans, this report notes that “at present, organic farmers are not obliged to use the services of a vet.” A survey cited in the report, conducted by Malla Hovi *et al*, states that “there is a need for more veterinary involvement in the design and implementation of health plans for organic farms.”

Veterinary involvement in drawing up an animal health plan is presently a recommendation rather than a requirement in Soil Association organic standards (and all other UK organic standards). We agree that in some situations some organic farmers, just like non-organic farmers, would benefit from a vet’s knowledge and experience. However, it is also clear to us that a vet’s presence is not always necessary.

We are well aware that our qualified support for increased involvement of vets on organic farms may appear unduly defensive. Some in the farming sector, including vets and consumers, may even suggest we are keeping vets away to hide animal welfare problems on organic farms. Although unfounded, this could be a hard perception to dispel, as vets are highly trusted by consumers, by the Government and by government regulators.

Nonetheless it is our view that the involvement of vets should not be compulsory, for example in revising annual health plans or in inspecting organic livestock on a regular basis. This view has firm foundations. First, many organic farmers are very knowledgeable and are managing their organic livestock with the skills required to achieve high standards of animal welfare. The same will apply to non-organic farmers with good knowledge and experience in managing livestock. Veterinary visits that are required by some farm assurance schemes are seen by many farmers as a waste of time because they do not lead to any improvement in animal welfare.

In addition there is a shortage of vets who are sympathetic towards and knowledgeable about organic farming, and understand the different approach required. Without such expertise, the resulting advice could well lead to greater animal welfare problems, rather than reducing them. The current role of vets and indeed their education emphasises cure and not prevention, which means that their perspective on the treatment of animals does not always naturally support the organic approach.

Finally veterinary visits are costly. Many small-scale farmers, organic and non-organic, would struggle to meet the extra charges involved in regular, compulsory inspections or check-ups by vets. This would be especially acute for organic producers whose farms are on average smaller than their non-organic counterparts’.

Most large animal vets make a significant part of their income from prescribing and selling conventional veterinary products to farmers. These include wormers and antibiotics for routine use in ways prohibited by organic standards. Organic management not only delivers massive reductions in whole herd drug use, but also aims to produce positively healthy animals that will require less veterinary attention. This provides an important incentive for organic farmers to optimise the positive health approach and pay for the higher husbandry costs, as well as helping to make organic farming more attractive to non-organic farmers. Any legal requirement for additional veterinary inspections or visits to farms will create additional paid work for vets but undermine this incentive.

The Soil Association wishes to work positively with the veterinary profession. By working together we can not only improve animal welfare on organic farms but also lead the whole farming industry towards better animal welfare, further enhancing consumer confidence in organic livestock products and tackling some of the problems on organic farms outlined in this report. What we propose is that organic livestock training for vets should be a requirement for any vet who wants to work on an organic farm. The Soil Association’s producer services department already runs such training events as part of its annual programme and this could be further developed.

On this condition, and once there are sufficient trained vets throughout the UK, the Soil Association would be happy to see the involvement of a vet trained in organic systems made compulsory in drawing up the first animal health plan for an organic farm, known as the conversion plan. This would ensure that the welfare of livestock is safeguarded by linking new organic farmers with vets who have real knowledge and understanding of organic systems from the start.

## **Inspection and training**

### *Report conclusions*

- The scope of livestock farm inspections should be broadened beyond checking of stocking densities and other quantitative measures of welfare provision
- There is a case for establishing compulsory training courses for those who wish to become organic livestock farmers.



### *Soil Association response*

- Inspections and their reporting will be extended to incorporate a more qualitative animal welfare assessment involving careful observation of temperament and physical condition
- Where problems are highlighted, SA Cert will be authorised to require further measures such as a veterinary visit or farmer training.

### *Context*

Although the setting of high organic standards and training have a part to play, good livestock management systems are built primarily through experience, careful observation and attention to detail. Real commitment is needed from the farmer to look after his or her organic livestock properly. The Soil Association's substantial experience in this area indicates that the vast majority of the farmers we license have this commitment.

We also find that the help we provide to producers is freely utilised by those comparatively lacking in expertise. We have a producer services team who are dedicated to providing technical support to organic and non-organic farmers, and nearly two thirds of the 600 calls they take each month relate to animal welfare issues. We produce a range of technical literature and run at least 12 livestock-related training days each year, open to members and non-members. Farmers converting to organic production receive money for training as part of their organic conversion payments, and the training and support we offer is much in demand.

Despite all this, the Soil Association is concerned that not all farmers who may need it are gaining access to the information we provide. This report states that "there is clearly a good argument in favour of establishing compulsory training courses for those who wish to become organic livestock farmers." We accept that there may be a small number of organic livestock that are suffering due to a lack of knowledge on the part of organic farmers, and we need to address this.

The report also cites a study on the animal welfare benefits of the RSPCA's Freedom Food Scheme which "suggests that as far as dairy cows are concerned Freedom Food animals do not experience significantly better welfare than cows on conventional farms." The report goes on to say this "is not without significance for the organic movement either, as many of the Freedom Food standards – especially those relating to space allowance, freedom of movement and bedding requirements – are similar to organic standards. This is something the certifying bodies, and standards setters, should look into." We agree.

At the moment the requirements for animal welfare are based on meeting specific standards covering areas such as stocking densities, appropriate housing and feed. A farmer may meet all these standards but in some cases still have an animal welfare problem. Although Soil Association inspectors already make a general comment on animal welfare in their reports, we propose to make this more explicit and add to the annual inspection a section that goes beyond adhering to Soil Association standards and the UK and EU regulations. We will request that our inspectors make an assessment of

animal welfare based on criteria such as the degree of nervousness animals show in response to human presence; their physical condition including the condition of their coats or skin; evidence of lameness; the intensity of veterinary drug use; and fertility, illness and mortality rates.

Some work has already undertaken in making such assessments as objective as possible (although we acknowledge that some degree of subjectivity is unavoidable) and we will build on this experience. If problems are highlighted our inspectors will ask farmers to address these problems in their health plans. Inspectors will also be authorised to require additional measures if appropriate such as a compulsory visit from a vet with experience in organic livestock management or attendance at an appropriate training event.

As noted above, another recommendation in the report is to introduce an element of compulsory training when the farmer converts from non-organic to organic. We would welcome comments on this proposal, but our initial view is that this would be an unnecessary additional burden on most farmers. Many will already have had extensive experience with stock in their farming careers, and conversion to organic is demanding enough without imposing additional costs, such as compulsory training. We believe that the involvement of a vet with real experience of organic systems in drawing up the initial plans for the new organic enterprise, and the changes to the inspection regime we have outlined above, will ensure that any organic farmer having problems managing livestock will be encouraged as soon as possible to undergo appropriate training.

## **Breeds**

### *Report conclusions*

- Some breeds used by organic farmers may be unsuited to organic systems due to welfare issues such as hunger among high-yielding breeds fed on a low-concentrates organic diet
- Farmers should be encouraged to use dual-purpose dairy cattle to reduce the culling of unproductive bull calves prevalent in dairy production.

### *Soil Association response*

- The suitability of breeds for organic farming will be scrutinised by Soil Association standards committees with a view to tightening standards and restricting or prohibiting the use of some breeds
- This standards review will also address how best to increase the use of dual-purpose breeds and promote their use.

### *Context*

The positive characteristics of many native breeds that are important in organic farming have been lost in the development of high performance animals in non-organic systems. These characteristics include suitability to locality (climate, elevation and soils), hardiness, thriftiness, disease resistance, a quiet temperament, maternal instinct, and ability to thrive on a high roughage diet.

Breeds used in the most intensive systems have been bred to be faster growing and to produce more milk or meat. As a result the welfare of some breeds has been seriously

compromised. This can put animals under excessive stress, weaken their natural immune systems and increase reliance on veterinary medicines. This drive for production has significant implications for both farmers and consumers.

For instance, the report says that there “are serious concerns about whether the diet allowed under organic standards... is suitable for a breed of cattle designed to thrive on a diet of concentrated feeds... if it can be shown that these high-yielding breeds are experiencing a degree of hunger as a result of an organic diet, then their use within an organic system should be prohibited.”

The Soil Association’s standards already offer guidance on which breeds should be used on organic farms. However, no breeds are currently prohibited by our standards. We have recently started considering the issue of breeds on organic farms, with a view to tightening standards where appropriate and prohibiting the most unsuitable breeds.

Our experience indicates that many breeds adapt well to organic systems on individual farms. The specific production system and the quality of management can in many cases be at least as important as the choice of breed. However we do appreciate the need to introduce some more precise requirements, not least to meet consumer expectations. This could lead to the exclusion of some of the most ‘high performance’ breeds that have been bred for high input, high output, intensive systems.

The report goes on to state that “certification bodies should do their utmost to encourage farmers to opt for dual-purpose dairy cattle.” Whilst accepting the desirability of this, in practice it is not always achievable, and there may be other solutions to the issue of unwanted bull calves. Although some organic farmers are looking at ways meat from bull calves from dairy cattle can be marketed, the majority of bull calves are still shot at birth. The best solution would be for organic farmers to use dual-purpose breeds and therefore their availability and suitability needs to increase. This is another issue that is being covered by our review.

## **Poultry**

### *Report conclusions*

- Organic producers should move away from reliance on chicks and pullets from non-organic producers
- Permitted flock sizes are currently too big, contributing to feather pecking, bullying and parasite problems.

### *Soil Association response*

- After January 2004 Soil Association-certified producers will only be allowed to source non-organic chicks where an organic supply is not available and where there are clear plans to establish an organic supply in the near future
- Flock sizes and other poultry welfare issues will be the focus of a consultative forum convened by the Soil Association in 2004 with a view to formulating appropriate standards changes.

### *Context*

Fifty years ago poultry meat was much more expensive than red meat. Now it is the cheapest. Non-organic eggs are cheap and readily available all year round. This is because of the intensive way poultry is bred and reared.

Organic standards prohibit many of the practices allowed in intensive systems because of the negative impact they have on animal health and welfare. But organic producers are facing a major challenge in developing sustainable and welfare-friendly alternatives to non-organic systems, and are having to work hard to build an organic poultry sector that the consumer can trust.

Although the Soil Association's organic poultry standards are the strictest organic standards available, we know – as this report makes clear – that we still have a long way to go in certain areas. We need to continue the work we are doing to reverse the trends of poultry production over the last 50 years.

One major area of concern is the sourcing of day-old chicks to be reared for organic poultry meat and the rearing of pullets as organic layers. As stated in the report, “the vast majority of the birds bought in by organic farmers come from conventional growers...organic farmers are thus helping to perpetuate one of the most inhumane systems of animal husbandry.”

Several years ago there were no organic poultry breeders and just three breeding companies dominated the entire poultry industry. This made it almost impossible for organic poultry producers to source organic day-old chicks. Because of this the Soil Association made a decision not to make organic day-old chicks compulsory within its standards.

We are now in a much stronger position to address this issue. This is because the availability of organic day-old chicks is increasing in response to a growing demand for organic poultry products and pressures from some of the deadlines in the EU organic livestock regulations. The report points out that “from 1 January 2004, organic standards stipulate that poultry farmers must acquire their stock from organic farms or rear them themselves. This should lead to a major improvement in welfare – unless certification bodies choose to provide derogations which allow farmers to continue sourcing their birds from conventional growers.”

Our view is that any derogations from this new regulation should be restricted only to situations where organic chicks cannot be sourced and where there are clear, timetabled plans to secure a supply of organic chicks – either from outside sources or by breeding on the farm. This development will increase costs for organic producers and the consumer, but we are clear that it will deliver what consumers are right to expect from organic systems.

By making the sourcing of organic day-old chicks a requirement we will also address the welfare problems highlighted by a recent RSPCA survey. This showed that many pullets arriving on organic farms have already had their beaks trimmed or clipped because

intensive poultry breeders automatically beak trim or clip their pullets as chicks. This compromises the Soil Association organic standards, which prohibit most mutilations.

The Soil Association faces another dilemma: the problem of flock sizes. The report states that “the flock size allowed under present organic standards is far too high, and... leads to serious problems of feather-pecking... greater... likelihood of a parasite build up, and the greater likelihood of bullying.” It adds that “some birds never venture outdoors and the more aggressive birds control the use of pop holes and chicken runs.”

We accept that on a few organic farms all of this could be the case. But we are aware of examples of well managed, large-scale units with high animal welfare, just as there are small-scale units that do not automatically deliver good animal welfare. So animal welfare is crucially dependent on the expertise and management skills of the farmer, in addition to the requirements and limitations of the system.

At present most of the Soil Association organic poultry producers have flock sizes of less than 500 (usually between 50 and 300). Although flock sizes are important, the most important consideration is whether high animal welfare standards are being achieved. A second consideration is whether consumer expectations are being met.

Although 500 as a flock size is specified in our standards, some of our poultry producers are permitted to have larger flock sizes under derogations (up to 1,000 for table birds and 2,000 for layers). Other UK organic certification bodies allow much larger flock sizes still. We plan to hold a consultation forum meeting with all interested parties – including our relevant standards committee, animal welfare experts and consumers, poultry producers and breeders – to discuss the issues raised by this report and make recommendations for changes in our standards.

The wild relatives of the modern farmed chicken are jungle fowl. These birds flock in small groups in woodland with trees and shrubs providing a good natural shelter from predators. It is certainly true that poultry birds range best in well-sheltered runs, and this is why organic farmers must provide shelter and shade for their organic flocks. However, a question that needs to be addressed is whether in the long term we should see organic poultry returned to a habitat much closer to that enjoyed by their wild relatives. This in turn raises questions about the optimum balance between rotating farm animals around arable fields and providing access to woodland for chickens. Rotation is vital to control diseases, and to spread the fertility provided by livestock evenly around a farm, but this could be at odds with the proposal that poultry should have regular access to woodland. Our standards committees will keep these issues under review, aiming to learn from new research and best practice on organic farms.

## **Pigs**

### *Report conclusion*

- Conditions for organic livestock should reflect and be informed by the natural habitat enjoyed by their wild relatives.

#### *Soil Association response*

- Consideration will be given within the work of the relevant standards committee as to the extent to which producers should be encouraged to give pigs regular access to woodland.

#### *Context*

The report states that “there are no obvious weaknesses to organic pig farming from an animal welfare point of view” except the problem of appropriate breeds. However the Soil Association takes the view that this does not mean that our organic standards for pigs could not be improved.

A pig’s wild relative is the wild boar, which inhabits woodland and whose diet consists of woodland food such as acorns. There are now virtually no farmed pigs that inhabit woods and it is illegal to keep pigs in woods where the planting or management has been grant-aided under the Farm Woodland Scheme, for fear that the pigs will destroy the trees. Pigs are sensitive and intelligent animals that need stimulation. They occupy a lot of their time with some activity, mainly foraging and digging. These are issues that our standards committee will consider, although early changes to our standards are unlikely, and this is an area that would benefit from further research.

### **Standards beyond the farm gate**

#### *Report conclusion*

- High standards of animal welfare on the farm should be maintained beyond the farm gate.

#### *Soil Association response*

- A comprehensive review and revision of Soil Association slaughtering standards is already underway.

#### *Context*

The Soil Association has comprehensive standards that relate to the handling and transportation of live animals, including the minimisation of stress, and prohibition of the use of electrical goads. Vehicles used for the transportation of animals must be in a clean and hygienic condition and driven with care in order to avoid injury to the animal. The journey times for the transport of organic livestock between farm and destination must not exceed eight hours from loading to unloading. If the animal has to wait to be slaughtered, bedding must be provided. The animal must also have sufficient space to lie down and be provided with organic feed. In addition the use of any tranquilliser, prior to or during transport, is prohibited.

There are also standards for the slaughtering of animals. These require that, in addition to compliance with all relevant legislation, animals must be slaughtered in a humane way, which incorporates concerns for their welfare and minimises stress. For example, “animals must be stunned prior to slaughter by means of a stunning system which renders them instantaneously unconscious and insensitive to pain and maintains that state until the point of death.”

The Soil Association is currently working with experts on humane slaughter, animal welfare organisations and other stakeholders on a complete revision of its standards for slaughtering. This includes assessing the need for training abattoir staff, and the issue of unloading and lairage standards prior to slaughter.

## Comment

### by Compassion in World Farming Trust

Organic farming has never adopted the close confinement methods associated with factory farming – veal crates, battery cages and sow stalls. From the animal welfare perspective, this is a huge bonus. It is these truly horrendous systems that have rightly been the focus of animal welfare campaigns by Compassion in World Farming (CIWF) and others.

Already some of these systems are banned in the UK and are being phased out in the EU, although entrenched in North America and growing globally in, for example, Asia.

But animal welfare is more than freedom to move and live in a more natural environment – although this is absolutely vital. There are debates within the organic movement on group size and stocking densities, as this report has made clear. We have a genuine concern over group sizes for organic poultry. It would be tragic if the organic movement were to settle for a lowering of standards in order to be more commercially competitive.

Farmed animals must be kept in a state of good health. This report pays due respect to the organic vision of healthy soil = healthy crops = healthy feed = healthy animals, but it does raise concerns about the possibility that some farmers may be tempted to withhold necessary medication for fear of losing organic status. It is hard to see how this can easily be addressed without a tighter inspection/penalty regime.

CIWF Trust believes that the single most important issue which the organic movement must address is the issue of breed. Selective breeding has produced a grotesque array of farmed animals, from the double muscled Belgian Blue cattle to the elongated, metabolically stressed Holstein dairy cows to the ultra fast-growing broiler chickens whose legs and hearts often give way under the strain. Whilst organisations like the Soil Association advise against using these breeds, they do not forbid their use.

The sad truth is that a fast-growing broiler chicken on an organic farm could suffer even more, as their lives are prolonged to 81 days rather than the commercial 41 days, thus giving them several extra weeks of possible suffering. What is the point of having a field to range in if your legs can't carry you there or your over-stressed heart makes you breathless on the way?

Selectively bred fast-growing chickens or high yielding dairy cows are not intrinsically healthy creatures. The organic movement has a holistic vision of farming which already embraces the environment and the welfare of the animals on-farm. CIWF Trust believes this vision must move to include the genetic make-up of the animals themselves, so that their personal well-being and fundamental fitness can be truly assured.

CIWF Trust always advises its supporters to buy organic or free-range meat and eggs. We do so as we believe such systems have the potential to deliver far higher standards of animal welfare. Well-run organic farms using more traditional or dual purpose animals are as close to the ideal as possible. This report confirms us in our belief.





# Appendix 1 Tables

Table 1

## National farm assurance schemes and farm animal welfare<sup>1</sup>

	British food standard (red tractor logo)					BEIC <sup>5</sup> lion mark eggs
	FABBL* beef	FABBL* lamb	ACP† pigs	ACP† chickens	NDAFA‡ milk	
<b>Housing</b>	Welfare determinant fulfilled or standards set beyond regulatory requirements for all animals in scheme?					
No close confinement	Yes but not specified	Yes but not specified	No allows farrowing crates indoors	Yes	Yes	No
Stocking densities lower than required by regulation	Yes	No	No	No	Yes	No excluding non-caged
Access to outdoors	No	Yes	No	No	No not specified	No excluding free-range
Proper shelter	Yes	Yes	Yes for outdoor pigs	n/a for indoor rearing	Yes	Yes free-range
Bedding/litter to be provided	No	No	No with exceptions	Yes	Yes	No excluding non-caged
Small group sizes	No	No	No	No	No	Yes in cages
<b>Breeding</b>						
Breeds adapted for welfare	Yes	No	Yes	No	No	No
<b>Feeding</b>						
Appropriate feed	Yes	Yes	No	No	No	Yes
Adequate feed to satisfy hunger	No	Yes	No	No	No	Yes
No yield or growth promoters	No	No	No	Yes	No	Yes
<b>Harmful practices</b>						
No mutilations	No	No	No	No debreaking of breeders	No	No
No embryo transfer	No	No	n/a	n/a	No	n/a
No genetic engineering	No	No	No	No	No	No

British food standard (red tractor logo)

FABBL beef	FABBL lamb	ACP pigs	ACP chickens	NDAFA milk	BEIC lion mark eggs
---------------	---------------	-------------	-----------------	---------------	------------------------

**Husbandry**

Encouragement of high quality stockmanship	Yes	Yes	Yes	Yes	Yes	No
No electric goads or rough handling	Yes	Yes	Yes	Yes	No not specified	No not specified
<b>Welfare score</b>	<b>12/15</b>	<b>11/15</b>	<b>13/14</b>	<b>14/14</b>	<b>11/15</b>	<b>13/14</b>

\* Farm Assured British Beef and Lamb

† Assured Chicken Production

‡ National Dairy Farm Assured Scheme

§ British Egg Industry Council

Table 2

**Soil Association standards and farm animal welfare<sup>1</sup>**

	<b>Beef</b>	<b>Lamb</b>	<b>Pigs</b>	<b>Chickens</b>	<b>Milk</b>	<b>Eggs</b>
<b>Housing</b>	Welfare determinant fulfilled or standards set beyond regulatory requirements for all animals in scheme?					
No close confinement	Yes	Yes	Yes	Yes	Yes	Yes
Stocking densities lower than required by regulation	Yes	No	Yes	Yes	Yes	Yes
Access to outdoors	Yes	Yes	Yes	Yes	Yes	Yes
Proper shelter	Yes	Yes	Yes	Yes	Yes	Yes
Bedding/litter to be provided	Yes	Yes	Yes	Yes	Yes	Yes
Small group sizes	No	No	Yes	Yes	No	No
<b>Breeding</b>						
Breeds adapted for welfare	Yes	Yes	Yes	Yes	No	No
<b>Feeding</b>						
Appropriate feed	Yes	Yes	Yes	Yes	Yes	Yes
Adequate feed to satisfy hunger	No	Yes	No	Yes	No	Yes
No yield or growth promoters	Yes	Yes	Yes	Yes	Yes	Yes
<b>Harmful practices</b>						
No mutilations	No	No	Yes	Yes	No	Yes
No embryo transfer	Yes	Yes	n/a	n/a	Yes	n/a
No genetic engineering	Yes	Yes	Yes	Yes	Yes	Yes
<b>Husbandry</b>						
Encouragement of high quality stockmanship	Yes	Yes	Yes	Yes	Yes	Yes
No electric goads or rough handling	Yes	Yes	Yes	Yes	Yes	Yes
<b>Welfare score</b>	<b>12/15</b>	<b>11/15</b>	<b>13/14</b>	<b>14/14</b>	<b>11/15</b>	<b>13/14</b>

Table 3

**Assurance scheme showing the greatest exceeding of MAFF codes, by welfare criteria<sup>2</sup>**

<b>Welfare category</b>	<b>Criterion</b>	<b>Scheme most exceeding MAFF codes</b>
Origin and traceability	Livestock origin/traceability	Soil Association
Management and stockmanship	Livestock inspection	RSPCA
	Livestock records	Soil Association
	Livestock weaning	Soil Association
	Stockmanship	RSPCA/Tesco
Housing	Housing design	Soil Association
	Lying area	Soil Association
	Temperature/air quality	RSPCA
Health	Veterinary tasks	Soil Association/ RSPCA/SPII/Tesco
	Veterinary medicines	Soil Association
Nutrition	Animal feeding systems	Soil Association
Transport and slaughter	Moving equipment	All schemes equal
	Haulier training	RSPCA/SPII
	Transport duration	RSPCA
	Slaughter	Soil Association

Schemes considered as part of this study include:

- Farm Assured British Beef and Lamb (FABBL)
- Scottish Quality Beef and Lamb (SQUABLA)
- Farm Assured British Pigs (FAB)
- Scottish Pig Industry Initiative, (SPII)
- Freedom Food Ltd (RSPCA)
- Soil Association
- Farm Select (Marks and Spencer)
- Farm Assured
- Welfare Assured (Tesco).

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## Soil Association

The Soil Association is an independent membership charity and one of the UK's most respected environmental groups, playing a crucial role in the transformation of attitudes to food and farming in the UK and internationally.

Working with the public, farmers, food processors, retailers and policy makers, it aims to bring about change by highlighting the relationship between a healthy, living soil and the well-being of plants, animals, people and the environment. It promotes and supports organic food and farming as a sustainable alternative to intensive agriculture through a wide range of activities:

- *Awareness raising and education*  
Through the media, policy reports and other publications, events, curriculum-linked schools materials and a network of 40 organic farms open to the public
- *Lobbying for change*  
Liaising with government and non-government organisations to improve the policy climate for organic agriculture
- *Promoting local food*  
Supporting initiatives such as box schemes, farmers' markets, co-operatives and community supported agriculture
- *Transforming food provision in schools and hospitals*  
Establishing healthy, local and organic food schemes in partnership with public institutions, to improve public health



- *Advice and representation*  
Supporting farmers and other organic businesses
- *Safeguarding integrity*  
Leading the field in setting and developing the rigorous standards that underpin the trusted Soil Association symbol on organic products
- *Inspection and certification*  
Soil Association Certification Limited, the Soil Association's not-for-profit subsidiary, is the UK's largest organic certification body.



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