



## Dairy cows on an organic farm: a case study

This information sheet illustrates how high standards of animal welfare are achieved on an organic farm.

In the 1980s Karl Barton 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 1000 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 homeopathic vaccine, he deliberately makes sure that calves are introduced to tick-infested areas when they are 8 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 acre 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 tonnes will feed 1.1 cows during winter," says Karl, "whereas the conventional farmer's 10 tons will feed just one cow."

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, unless they go to the continent to be reared as white veal – but this not an option for organic farmers as the export of their livestock is prohibited. 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.

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**Soil Association** Campaigning for organic food and farming and sustainable forestry  
Bristol House, 40-56 Victoria Street, Bristol BS1 6BY  
T: 0117 929 0661 F: 0117 925 2504 E: [info@soilassociation.org](mailto:info@soilassociation.org)  
[www.soilassociation.org](http://www.soilassociation.org)

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