

## Pig Case Study United Kingdom 4

# Free-range organic breeding system, Eastbrook Organic Farm, Wiltshire

Breeding system with sows kept free-range and with late weaning of piglets (pigs finished at Courtyard Farm, Norfolk, United Kingdom)

Eastbrook farm is one of the UK's leading organic producers. The farm is owned by Helen Browning, a key figure in the Soil Association, the UK's leading organic certifying body. The Soil Association has tougher rules on some welfare issues (e.g. mutilations like castration and nose-ringing) than are required by EU organic regulations.

According to IFOAM, the International Federation of Organic Agricultural Movements, 'organic livestock husbandry is based on the harmonious relationship between land, plants and livestock, respect for the physiological needs of livestock and the feeding of good-quality organically grown feedstuffs.' Organic farming rules do not permit the routine use of antibiotic growth promoters and rely on natural means of disease control. Rotations and the maintenance of high standards of animal welfare are required to ensure health while minimising the need for antibiotics and other medicines. Organic producers also believe that natural immunity develops best in the absence of unnecessary medication.

The farm has 1300 acres (approx 600 hectares) of clay and chalk soils. Clay drains badly and is not normally considered suitable for pigs, but the pigs are kept on higher downland where the drainage is better.

In line with organic rules, the sows are moved just before farrowing to land which hasn't had pigs on it for at least four years. This would be extended to seven if a disease or parasite problem built up.

EU organic regulations do not allow piglets to be weaned before 40 days. Soil Association regulations further recommend that piglets should not be weaned until at least 8 weeks and that they must not be weaned until they are taking sufficient solid food. Early weaning can compromise the immune system and health of piglets and is therefore contrary to the organic philosophy.



Artificial weaning is delayed until 8-10 weeks for the health and welfare of sow and piglets

Eastbrook farm wean their piglets between 8 and 10 weeks. Tony Connolly, assistant to the Managing Director and an authority on organic pig production, believes that three weeks is the worst time to wean from the piglets' point of view. By this stage their level of passive immunity absorbed from their mother's colostrum has dropped to a low level whilst their own antibodies have not yet developed significantly. Three weeks' old is a critical time for the development of muscle fibre and the growth-check caused by the stress of weaning can have a long-term effect on later growth.

Tony further believes that weaning at 40 days in line with basic organic requirements is a bad time for the sow. At this stage her milk production is at a maximum and many sows will have lost condition. Artificial weaning at this stage induces oestrus at a time when the sows are not physiologically ready for it. Some organic farmers have found that weaning at 40 days can result in an increase in sows coming back into oestrus, a reduction in future litter size and/or poorer sow condition when her next litter is weaned.

By eight weeks, the piglets' digestive systems have expanded. Provided that dry food is available ad libitum the piglets will be eating more of this and drinking less milk.

Delaying weaning until at least eight weeks allows the sows to recover condition before their next oestrus is induced by weaning.

In short, by eight to ten weeks, the piglets will have become more independent of the sow, both socially and nutritionally. The sow will have started to recover her condition as a result of increased feed consumption. Later weaning is a less stressful event for both sow and piglets, resulting in better growth and fewer health problems. For example, when the farm was infected by PMWS, Tony Connolly believes that the reason that death rates from the disease didn't rise above 3-5% was because good organic husbandry keeps stress levels low.

The farm has 200 sows, most of them Saddleback, now a rare British breed. The Saddleback has a largely dark skin which helps protect from the sun. Unfortunately, the fat content of their meat is fairly high so the farm are experimenting by crossing the sows with boars of other breeds, e.g. Large White. Some of the offspring have a lighter skin, but they can wallow in mud to keep cool and provide sun-block.

## Dry sows

The key welfare aspects for the sows are:

- Access to pasture for foraging activity and gut-fill
- No nose-ringing (not permitted by the Soil Association)
- Sows remain in small stable groups at this stage



**Foraging is essential for the welfare of sows**

When the piglets are removed at weaning, the sows remain in the same group. Dry sows are kept on a restricted diet to prevent obesity, but they have access to pasture for grazing and rooting and the fibrous food obtained helps them to deal with their hunger. In due course the pasture becomes degraded, though Tony Connolly believes this happens more slowly with

Saddlebacks than with other breeds – his view is that they graze more and root slightly less. Nevertheless, it was clear that the pasture does become degraded and they are either moved to another paddock or additional silage is provided if this vital source of fibrous food runs out.

## Farrowing sows

The key welfare aspects for the farrowing sows are:

- The sows have freedom of movement
- They are provided with plenty of straw to make a nest
- Late weaning helps ensure that sows can recover condition before becoming pregnant again



**Sows farrow in individual pens and the families are grouped together after about four weeks**

Just before farrowing, the sows are moved to a new group on fresh land. The sows are placed in individual pens, separated by an electric fence. Each is provided with a hut with plenty of straw bedding for comfort and nest-building.

Once the piglets are about five weeks old, the dividers between the pens are removed and the sows become part of a new group. There is usually some minor jostling for dominance at this stage but, with plenty of space for weaker sows to escape, this rarely escalates into serious aggression. Tony Connolly further believes that the sows have had a chance to eye each other up

over the fence and that aggression is reduced since they have partly worked out their hierarchy already. However, this is not everyone's experience.



**Plenty of straw for comfort and nesting**

A day or so later, a team of boars is introduced to the group. About a third of the sows come naturally into oestrus before weaning and are mated. Tony Connolly believes that these sows are physiologically ready for another pregnancy and farrowing. His evidence is that these sows produce large healthy litters. The boars remain with the sows until two weeks after weaning (the process of artificial weaning brings the rest of the sows into oestrus). After this, a single chaser boar is kept with the sows for a further 8-9 weeks in case any of them come back into oestrus.

## Piglets

The key welfare aspects for the weaned piglets are:

- Enriched environment to encourage play and foraging behaviour
- Late weaning at 8-10 weeks
- Piglets are free to mix with the larger family group as soon as they are ready to
- Gilts farrow in individual pens to reduce piglet mortalities
- No mutilations of any kind

The piglets are born on straw in the huts, but they are immediately free to explore outside. Although this risks an occasional piglet catching the cold, it reduces the build-up of faeces inside the hut. Nevertheless, it is normal practice for free-range pig farmers to place a barrier outside the hut to prevent recently-born piglets from getting out of the hut (see Case Study United Kingdom 3).

Although each family group is separated by an electric fence, the piglets can get underneath this and are free to associate with piglets from other groups. This means that they can begin to develop their hierarchy at their own rate (piglets weaned early usually suffer the stress of mixing at the same time as the stress of early weaning). By the time the piglets are weaned, they are already living together as a social group of piglets partly independent of their mothers.

The Soil Association does not permit mutilations such as tail-docking, tooth-clipping or castration. Permission may be given for castration in exceptional circumstances which follow veterinary advice, but the meat may not be sold as organic.

## Weaned, growing and finishing pigs

At weaning, the group of piglets is removed to an insulated ark with an outdoor straw-filled run. They remain here for ten days whilst they adjust to the stresses of artificial weaning. They are then transported on a five hour journey to Courtyard Farm, an organic enterprise in the East Anglian county of Norfolk (run by Lord Melchett, informally known as Peter Melchett, another leading figure in the Soil Association).

It is acknowledged that a long journey like this is not ideal for welfare. However, the heavy nature of the soil at Eastbrook farm is not ideal for growing pigs. It was also found that the drier atmosphere and light well-draining soils at Courtyard farm resulted in fewer disease and welfare problems than when they were reared at another farm closer by. Tony Connolly believes that his pigs do travel well - the varied experience of free-range organic pigs helps to prepare them for the novel stresses of travel.



**Large enclosures for growing pigs at Courtyard Farm**

The key welfare aspects for the pigs once they reach Courtyard Farm are:

- Family groups are kept together without mixing
- They have access to shelter in tents with plenty of straw
- They are kept in free-range enclosures with access to pasture
- They are kept on land which hasn't had pigs for several years to avoid the build up of disease

The sexes are separated, but not at once. Again, the system is designed to ensure that not all the stresses of life occur simultaneously. Access to pasture ensures that the pigs have plenty to do so that tail-biting does not become a problem.

Most of the pigs at Courtyard farm are slaughtered at an abattoir 20 minutes away because Peter Melchett believes that journeys should be kept as short as possible for the sake of the pigs' welfare. Unfortunately, the supermarket Eastbrook farm deals with requires its pigs to be transported to a slaughterhouse in Bristol which involves a 6 hour journey. With the active co-operation of their meat processor, Eastbrook farm are now developing opportunities to send pigs from Courtyard to a slaughterhouse which is 2 hours away. Deep bedding is provided during transport to improve welfare.

## Boars

The key welfare aspects for the boars are:

- They are kept in free-range enclosures with access to pasture

- Pairs of boars reared together since weaning are kept together for companionship
- They spend all of their life in the company of groups of sows
- When one dies, the survivor is kept as a "chaser boar" in the company of a group of dry sows

Boars, like sows, have to be kept on a restricted diet at times to prevent obesity. Access to pasture helps to ensure that they can satisfy their hunger by grazing and rooting. Boars can be aggressive, but with plenty of space to escape a weaker boar can usually avoid serious injury.

Since aggression can be a serious problem between boars which have not been reared together, once one boar dies the other is not paired up with another. This is considered particularly important since Eastbrook farm do not de-tusk their boars. However, the survivors still have the company of sows.

## General

Meat from Eastbrook farm, and approximately 12-15 other local organic farms, is marketed under the name of the founder as 'Helen Browning's Organic'. The meat is sold to a meat processor who organises slaughter and butchering. Some of the meat is then bought back to sell as branded products. Some of it is marketed directly by mail-order from [www.helenbrowningorganics.com](http://www.helenbrowningorganics.com). Some of it is sold to a major UK supermarket and to one or two minor ones. Having their own label gives Eastbrook farm more control over prices.



**A pair of boars remain with the sow until two weeks after weaning**

**Extensive production system**

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| Date of visit                                  | 18 January 2005  |
| Certification scheme                           | Soil Association Organic   |
| Number of sows                                 | 200 sows   |
| Breed  | British Saddlebacks x Large White/Landrace boar  |
| Food   | Bought in organic concentrate. Grass silage if pasture bare. Dry sows fed once per day   |
| Average and maximum farrowings per sow         | Average 7; max 14  |
| Farrowings per year                            | 1.8  |
| % piglets stillborn                            | 10% (1 per litter)   |
| % live born piglet mortality                   | 8-9%   |
| Average number of piglets weaned per farrowing | 8-9 (16-17 per sow per year)   |
| Mutilations                                    | None. No nose-ringing, castration, tail-docking, tooth-clipping or de-tusking  |
| Weaning age                                    | 8-10 weeks   |
| Growth rate                                    | 600-650g/day   |
| Food conversion rate                           | 3.4  |
| Weight when sold on or slaughtered             | Moved to another farm at weaning; sold for bacon and fresh pork at 100kg liveweight  |
| Transport to slaughter                         | 5 hour journey to further fattening in Norfolk; 6 hour journey to slaughter in Bristol   |
| Price to farmer                                | Price to farmer around £2 (3 Euros)/kg<br>Branded product sells in supermarket as:<br>back bacon - £18 (26 Euros)/kg<br>streaky bacon - £10.50 (15 Euros)/kg<br>sausages - £8.50 (12 Euros)/kg |
| Market   | Part of group of 12-15 farmers who sell to Tulip UK. Part of meat bought back to sell as Helen Browning Organics, sold mail-order and to supermarkets as a premium branded product             |
| Number of stockpersons                         | 1 full-time with help  |
| Number of inspections                          | Approx 3 times per day – stockman there all day  |
| Health problems                                | Range of usual pig diseases eg minor worms, PMS, PMWS, PRRS, meningitis. Some ruptures in growing pigs at growing farm   |
| Other welfare issues identified                | Occasional piglet lost to cold or predation; occasional lameness in sows. Transport of weaners to another farm. Long journey to slaughter  |