

## Pig Case Study Sweden 2

# Organic rotation pig production system, Hånsta Östergärde Farm, Vattholma

Free-range system targeted at Christmas market with full utilisation of the pig's rooting behaviour for cultivation

On Hånsta Östergärde farm the pigs are rotated between a number of different areas including forest, cropland and pasture. The pigs play an integral role in the management of the farm and the recycling of nutrients. The sows farrow on pasture in the spring, then move with their piglets to clear forest brash in the summer. In the autumn they clear crop-land after harvest, helping to prepare it for planting in the spring.

This variety of different environments closely resembles those naturally inhabited by wild and feral pigs. The farm therefore has a very high potential for good welfare. This is because the pigs have the opportunity to carry out almost all their natural behaviours. The normal feed ration is supplemented by a variety of other different food sources that the pigs can forage for themselves.

The key welfare aspects for the pigs are:

- All pigs remain outdoors in highly enriched environments throughout their lives
- All pigs remain in stable family groups with natural weaning
- The sows only produce one litter of young per year, helping to keep them in good condition
- The environment provides excellent opportunity for foraging and a varied diet



The forest environment provides good opportunity for rooting

This is an organic farm that keeps a small number of pigs as well as other livestock. The pigs are especially reared for the premium Christmas market. In Sweden, it is traditional to have hams at Christmas. The farmer explained that at Christmas, people were more willing to pay extra for good quality hams to celebrate.

### Spring

The small group of 10 sows remain together at all times. The familiarity that builds up within the group ensures that aggression is reduced to a very low level. In spring, the sows are moved to special farrowing paddocks that contain huts for the sows. When they are close to farrowing, each sow is allocated an individual hut with an outdoors run. The huts are quite spacious and provide plenty of room for the sows to move around. The separation of the group ensures that there is no risk of disturbance at farrowing. Sows normally seek isolation at farrowing in a natural environment.

The wooden huts provide good protection from the weather. They also contain a generous supply of straw bedding for nest building and safety areas for the piglets. These reduce the risk of the piglets being accidentally crushed by their mothers. After two days the sows are allowed out of the huts daily for exercise.



The pigs are provided with simple shelters and straw bedding

The piglets are not teeth-clipped. This is because the sow has freedom of movement and is able to leave the piglets if they begin to damage her udder with their teeth. There is also no need to dock the piglets' tails because they remain in enriched environments throughout their lives and are therefore unlikely to bite each others' tails. Unfortunately the slaughter company insist that the males have to be castrated.

After 1 week of age, the piglets are also allowed to leave the huts so that they can begin to experience their new environment. After 3 weeks, the outdoor runs are opened up and the sows and litters are free to congregate and socialise. The piglets are therefore able to establish their social hierarchy at a very early age when fighting is less intense and the number of injuries is lower.

## Summer

During the summer months, the sows and their litters are all moved together to the forest. The sows and piglets are therefore allowed to wean themselves naturally. This normally occurs once the piglets are 10-17 weeks of age. Natural weaning ensures that the piglets do not suffer from the stress caused by early weaning as seen in conventional production.



The pigs assist in clearing the forest for the regeneration of native woodland trees

Pigs naturally inhabit forested areas. The forest environment provides plenty of opportunity for both the sows and their litters to engage in foraging behaviour. The pigs evidently receive plenty of nutrients from the forest as their food ration can be reduced to almost 75% of what they would get in conventional production. Nevertheless, the pigs still became very excited at feeding time. The farmer was keen to develop some kind of mobile feeding system to reduce the amount of aggression when the food was presented.



The growing pigs stay with their mother and are weaned naturally

The areas used in the forest by the pigs have been recently felled. The areas measure approximately 1 hectare and are surrounded by an electronic fence. The activities of the pigs helps to clear the brash, fertilise the soil, and thereby assist with the regeneration of native woodland trees. After one area has been cleared, they are moved onto a new one. This continues until mid September.

In the forest, the pigs are provided with crude shelters that basically consist of a roof under which a pile of straw was placed. By the watering point, the pigs had constructed their own wallow. The pigs were also seen to make good use of the tree stumps as scratching posts. Wallowing and scratching are important behaviours for keeping the skin in good condition and in the case of wallows, for cooling down.

## Autumn

In September, the sows and growing pigs are moved together onto fields that have been used to grow crops. They clear the land by feeding on any remaining plant material and fertilise the soil with their dung. Any remaining food is an important supplement to their daily feed ration. The rooting activity of the pigs removes weeds and effectively ploughs the fields preparing them for re-sowing. The pigs are moved around the different fields as required thereby receiving a very natural and varied diet.

In the paddocks, the farmer has a mobile feeding stall that can enclose up to five sows at any one time. This method of feeding is very effective at preventing aggression. The growing pigs have their own feeding area that only they can access.



The farmer is hoping to improve the feeding system in the forest to reduce aggression

Once the growing pigs have reached 120 kg they are ready to go for slaughter. The pigs are sold for the special Christmas market for which the farmer receives a premium price.

The Large White/Landrace sows are then mated with a Duroc boar so that they are ready to give birth again in the spring. The cross with the Duroc boar ensures that the offspring are hardier and more suited to outdoor conditions. Unlike conventional systems in which sows have around 2.3 litters a year, the sows on this farm have just one litter per year. This regime is typical of the natural birth pattern seen in wild and feral sows. The reduced metabolic demand means that the sows remain in good condition all year round. It also means that the sows can live for much longer than conventional sows that are often culled after their third or fourth litters because of breeding difficulties. On this farm, all the sows had produced their fourth litter and all looked to be in good health.

#### Organic rotation pig production system

Date of visit	18 September 2003
Certification scheme	Ecologic
Number of sows	10
Breed	Large White/Landrace sows x Duroc
Food	Bought in concentrate plus a variety of natural food material
Average and maximum farrowings per sow	All have had 4 litters so far
Farrowings per year	1
% piglets stillborn	
% live born piglet mortality	10%
Average number of piglets weaned per farrowing	9
Mutilations	Castration. No teeth-clipping or tail-docking
Weaning age	Weaned naturally
Growth rate	Not known
Food conversion rate	Not known
Weight when sold on or slaughtered	Not known
Transport to slaughter	3-4hr
Price to farmer	20 Kronor (2.2 Euros)/kg deadweight
Market Premium	Christmas market for hams
Number of stockpersons	1 (2h per day)
Number of inspections	2 per day
Health problems	None reported or observed
Other welfare issues identified	Mutilations (castration)