

Pig Case Study Spain 2

Organic Iberian woodland systems, Dehesa San Francisco, Santa Olalia del Cala, Andalucia

Medium sized organic (ecologic) extensive oak forest production system

The farm breeds and grows Iberian pigs that are a local, traditional breed suited to outdoor conditions (see Pig Case Study Spain 1 for a general introduction to traditional Iberian pig production). The pigs are kept outside all year round. The growing pigs are kept in large oak forests where they feed on the acorns. The farm has developed a successful export market sending premium hams to Germany, Holland and Japan.

The farm is part of the Fundacion Monte Mediterraneo and is a multi-functional organic farm. The farm has been organic since 1996. It produces Iberian pigs that are a local breed that have lived in the area for centuries. The pigs are highly adapted to living outdoors in the oak forests. The pigs' skin has a dark pigment to help protect them from strong sunlight.



Traditional production system using modern organic principles

Most Iberian pig production occurs intensively. Of those that feed on acorns, most are reared indoors for the first 9-12 months before being finished on acorns. The difficulty with this management practice is that the pigs do not get time to adapt to the outdoor life. They are less likely to roam extensively around their ranges. Partly as a result of this, and partly due to lack of experience, they are less likely to sample the many beneficial plants that grow in their surroundings. Pigs that are allowed to grow up in the forests will learn to chew grasses that can cleanse their palates and eat other plants that can rid parasites and benefit the gut.

The fatty acid content of the acorn-fed Iberian pig is very similar to the acorn and olive oil. Of those fats, 60% are unsaturated. This makes for a healthier product. The organisation has two companies, one for the production and one for processing and marketing the meat. Meat is marketed under the 'de la Sierra'

organic brand. The farm exports products to Germany, Holland and Japan. They have just started exporting their products to Switzerland, which has one of the strictest import regulations.

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Pigs are kept active foraging for acorns

The farm includes cattle that graze the forest and sheep that then further fine graze the pasture. The cattle and sheep are also important for eating new oak trees that sprout. These can present a serious fire hazard if allowed to grow. The farm provides a clear example of how ecologic farming on marginal land can be made into a successful business.

Sows

The farm has 63 sows and 13 boars. The sows are fenced in paddocks to protect them from wild boar. Wild boar can transmit many infections including TB and Erysipalis. Wild boar will also impregnate the females if they get a chance.



Pigs have access to wallows and running water for drinking and cooling

The paddocks adjoin a river and the farmer believes that it is important for the animals to have access to a natural source of running water. The paddocks also contain many mature oak trees. Access to water for wallowing and the shade provided by the trees are important for cooling the animals down. The vegetation growing in the paddocks allows the sows to supplement their diet. Sows are normally fed a maintenance ration and in intensive production they become hungry because they do not have anything to augment their diet.

Farrowing sows

The sows farrow twice a year in March and October, giving birth to around 6 piglets each time. In comparison, sows in conventional intensive production have 2.3 litters and give birth on average to 10-12 piglets. This level of production makes huge metabolic demands on the sow. They can soon lose condition and are often culled after their third or fourth litters because of breeding difficulties. On this farm, the sows may have 6 or more litters.

At farrowing time, the sows are moved to a special farrowing paddock that is rotated each year to prevent the build up of disease. Prior to giving birth, the sows are given an organic pro-biotic.

All the sows are grouped together at farrowing. Each sow is provided with an A-frame hut that has an insulated roof that is also reflective to reduce the build up of heat. The huts are provided with straw bedding so that the sow can build a nest. The huts also have an outer run that can be closed off with a gate. These are closed during farrowing and opened after 1 or 2 days. This leaves the sow free to come and go as she needs. The lower part of the gate has a roller to prevent the sow from damaging her teats.

Piglets

The rear of the farrowing hut is fenced off so that the piglets have a safe area. The shape of the roof also means that they also have a safe area along the sides of the walls. However, there is still a problem with piglets being accidentally crushed by their mothers. The piglet's safe area is also drained to keep the bedding dry.

The piglets are not teeth-clipped. The litter size is close to the natural number for a pig and there is little competition at the sow's udder. The piglets are not tail-docked. This is because the pigs remain in enriched environments throughout their lives and therefore unlikely to bite each other's tails.

The males are castrated to prevent boar taint. The females are spayed to prevent mating with wild boar. To reduce the pain and stress caused by both operations, the pigs are given a local anaesthetic. The pigs are also nose-ringed to prevent them from destroying the pasture with their rooting behaviour.

The lower part of the gate prevents the piglets from leaving the farrowing area. The piglets are able to jump over the lower gate after 2-3 weeks. The organic probiotic that is given to the sows is also given to the piglets at 2 weeks of age. This helps to reduce problems with diarrhoea. Earth is also thrown into the paddock. Black earth, high in humus is good for the piglets' digestive system; red earth provides a good source of iron.



Farrowing paddock with large A-frame huts with nesting material



According to the farmer, the sow's milk production peaks at around 30 days and then begins to decline. The piglets are weaned at around 40-45 days, after which the mothers appear to get some relief away from the constant attention of the piglets.



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Boar teams live in their own separate paddocks

By this age, the piglets are better able to cope with the stresses caused by weaning:

- Removal from their mother
- Change in diet
- Being taken away to an alien environment
- Mixing with other unfamiliar piglets



Rolling in mud is good for cooling, sun-screen and skin condition

The piglets become exposed to each other over time so that disputes over positions in the hierarchy are settled gradually.

Growing pigs

The farm keeps approximately 250 growers that can be supported by the acorn crop and any pigs in excess to this are sold on to other ecologic farms.

The pigs also receive a small ration of organic, cereal-based concentrate each day. This is so that the pigs can all be attracted to a feeding area where they can be counted and inspected. The growers take 18-24 months to reach slaughter weight. This is nearly four times the age at which conventional pigs go for slaughter. According to the farmer, the success of the enterprise is dependent on the combination of the acorn mast, the right genetics and good management.

Organic extensive woodland system

Date of visit	18 November 2004
Certification scheme	Ecologic (organic)
Number of sows	63
Breed	Iberian
Food	Ecologic concentrate. Growers finished on acorns from October to March
Average and maximum farrowings per sow	5 or 6 litters
Farrowings per year	2
% piglets stillborn	
% live born piglet mortality	3.3-8.3%
Average number of piglets weaned per farrowing	5.5-5.8
Number piglets per sow per year	11-11.6
Mutilations	Castration of males and spaying of females with local anaesthetic. Nose-ringing
Weaning age	40-45 days
Growth rate	Slaughter weight at 18-24 months
Food conversion rate	
Weight when sold on or slaughtered	150kg
Transport to slaughter	1 hour 20 minutes maximum
Price to farmer	400 Euros per 150kg pig
Market	Traditional Iberian hams and fillets
Number of stockpersons	2 on whole farm
Number of inspections	2 or more times a day
Health problems	Outbreak of Parvo in beginning. Developed own vaccine from dead pig
Other welfare issues identified	Mutilations