

## Pig Case Study Hungary 2

# Four more traditional breed systems

Extensive rare breed Mangalica systems

(see also Pig Case Study Hungary 1 – organic traditional breed system Nyírbogdány)

### Introduction

The Mangalica, or hairy pig, is a traditional Hungarian breed. Their coat of hair and very thick layer of fat adapt them to the cold. They have been bred to be hardy enough to withstand outdoor conditions all year around, despite winter temperatures which can average  $-4^{\circ}\text{C}$ . More details on the Mangalica can be found in Pig Case Study Hungary 1.

In all four case studies below, dry sows and growing pigs are kept outdoors all year, though with access to shelter with straw bedding. In the first two case studies, the sows farrow indoors in individual pens. In the third case study, sows are transferred to group-farrowing paddocks. In the last, in a farm which demonstrates traditional breeds, all the pigs live together in the same paddock throughout the summer with natural farrowing and weaning.

### 1. Mangal Ilona Kft., Kapoly, Hungary

#### Large contracted, semi-extensive breeder and grower unit

Mangal Ilona Kft. is a large farm with 200 sows. The pigs are all blond or red Mangalicas. The farm was formerly an intensive unit that has now been restructured for breeding Mangalicas to take advantage of the premium prices paid for the meat. The farmer at Mangal Ilona receives 340 Ft per Kilo. All the pigs, except the farrowing sows and young piglets, have access to outdoor runs. This allows the pigs to carry out their natural foraging behaviours such as rooting.



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Piglet protection rails are fitted to the sides of the farrowing pen

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The thick hairy coat helps keep them warm in the cold Hungarian winter

The farm used to house the farrowing sows in farrowing crates. These have now been dismantled and farrowing pens installed. Craftsmen on the farm constructed the pens. The farmer is testing 3 different designs, all of which are larger than EU standards. The pens give the sows plenty of room to move around. They are also bedded with straw. This enables the sow to build a nest at farrowing. It alleviates the pre-farrowing stress experienced by sows that are normally confined in farrowing crates at this time.

The farrowing pens are well designed in terms of piglet safety. The pens all have grids that allow the piglets to escape from the sow. They also have piglet protection bars along the solid walls. As a result, the sows on average wean around 6 piglets with a mortality rate of less than 10%. The piglets also benefit from later weaning at 6 weeks. The piglets are not tail-docked. This is because the pigs remain in enriched environments throughout their lives and therefore are unlikely to bite each other's tails.

After weaning, the piglets are transferred into indoor pens with straw bedding. The pens measure 3x6m and contain up to 30 piglets. The piglets also have access to an outdoor run. The growers are kept in similar accommodation until they reach a weight of 140-170kg.

All the pigs enjoy a varied diet that includes hay, carrots and green fodder. Pigs are naturally used to a varied diet that contains a good deal of fibre.



The farrowing pens have straw bedding and plenty of space for nest building

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Rooting in the mud is a favourite occupation



The pigs dig out hollows to lie in



The pigs have ample shelter in extreme weather

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### Rare breed pig production system

Date of visit	18 February 2004
Certification scheme	OMMI (Országos Mezőgazdasági Minősítő Intézet – National Institute for Agricultural Quality Control) – <a href="http://www.ommi.hu">www.ommi.hu</a>
Number of sows	200
Breed	Mangalica (blond and red)
Food	Hay, carrots and green fodder
Average and maximum farrowings per sow	6-7
Farrowings per year	2
% piglets stillborn	0.1%
% live born piglet mortality	10-15%
Average number of piglets weaned per farrowing	6
Number piglets per sow per year	12
Mutilations	Castration and teeth-clipping, no tail-docking
Weaning age	6 weeks
Growth rate	120kg/8 months
Food conversion rate	4:1
Weight when sold on or slaughtered	120kg
Transport to slaughter	350km
Price to farmer	340Ft (1.3 Euros)/kg
Market	local
Number of stockpersons	4
Number of inspections	Frequently
Health problems	None observed or reported
Other welfare issues identified	Mutilations

## 2. Ökorex Bio Kft., Fiad, Hungary

### Extensive, medium sized, organic breeder and grower unit

Ökorex Bio Kft. is a large organic farm that keeps Mangalica pigs, both the blonde and swallow stomached varieties. The farm also breeds sheep and grows a variety of vegetables and fruits. There are 60 sows and their progeny which occupy an area of about 5 hectares.

The main welfare benefits of the farm are:

- The breed of pig is hardy enough to remain outdoors all year round
- The dry sows and growers are free to roam around in the paddocks during the day
- The paddocks are enriched with various forms of vegetation including mature trees
- There is no teeth-clipping or tail-docking
- The sows are not confined at farrowing

### Sows

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The paddocks contain mature trees that also produce food for the pigs

The sows live outdoors in extensive paddocks. The paddocks are enriched with pasture cover, edible plants, shrubs and mature trees. The sows can therefore supplement their diet with grass and other plants

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The extensive paddocks contain many plants and shrubs for foraging



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The pigs have simple straw bedded huts for shelter

growing in the paddocks. The sows are fed twice daily a total of 2kg of milled feed. They also receive hay and green fodder. Access to fibrous food such as grass and hay helps to prevent hunger without the risk of obesity. In conventional intensive systems, sows are fed a restricted diet that leaves them feeling hungry. If food were not restricted, sows used on intensive farms would grow too fat and not be able to reproduce as effectively.

The sows are not pushed to high levels of production. They have 2 litters a year with 5 or 6 piglets in each litter. This means that they remain in good condition and can live for much longer than conventional intensive sows.

### Farrowing sows

At farrowing, the sows are housed in pens with straw bedding. This allows them to perform nest-building behaviour. Because the sows are free to move around, they do not suffer from the stress experienced by sows in intensive systems that are closely confined in farrowing crates.

### Piglets

Even though Mangalicas are adapted to outdoor life it would appear that the piglets still benefit from protection from both the weather and from accidentally being crushed by the sow. The Mangalica farms that have indoor farrowing do slightly better in terms of reducing piglet mortality. It may be that in outdoor farrowing, the sows are more inclined to farrow in nests rather than use the shelters. Or it may be that the huts are not designed well enough.

To start with, the farmer used to practise teeth-clipping where the tips of the eye-teeth are removed with pliers. This is practised in intensive production to reduce the risk of damage to the piglets and the sow's udder. Teeth-clipping causes acute pain and can cause teeth to



Even the young piglets get access to the outdoor runs

become infected. On this farm, the farmer soon realised that it was not necessary. This is because the Mangalicas have small litters and there is less competition for milk at the udder. The piglets are not tail-docked because tail-biting is unlikely to occur in the enriched environments used to keep the growing pigs.

## Growing pigs

After weaning at 6-8 weeks, the piglets are transferred to outdoor paddocks where they remain until going for slaughter at 100-145kg. The paddocks have straw bedded huts for shelter in poor weather.



The growing pigs are fattened outdoors on milled feed

### Organic rare breed pig production system

Date of visit	February 2004
Certification scheme	OMMI and Biokontroll Hungaria (organic)
Number of sows	250-300
Breed	Mangalica (blonde and red)
Food	Corn, hay and green fodder
Average and maximum farrowings per sow	10-12
Farrowings per year	2
% piglets stillborn	Rare – no data
% live born piglet mortality	Thought to be very low – no data
Average number of piglets weaned per farrowing	5-5.5
Number piglets per sow per year	10-11
Mutilations	Castration, no teeth-clipping or tail-docking
Weaning age	6-8 weeks
Growth rate	120kg in 12-14 months
Food conversion rate	5:1
Weight when sold on or slaughtered	120kg
Transport to slaughter	180km
Price to farmer	600Ft/kg (2.4 Euros/kg)
Market	local
Number of stockpersons	6
Number of inspections	At least daily
Health problems	None observed or reported
Other welfare issues identified	Mutilations (castration)

### 3. Primagro Bt, Kozárd, Hungary

#### Independent, medium sized, free-range breeder and grower unit

Primagro Bt farm breeds and grows blond Mangalicas. All the pigs are kept outside throughout the year.

The farm has around 30-40 sows and their progeny that are looked after by one stockperson, with some part-time help. The pigs are all fed a home-mixed diet

that consists of corn, wheat, peas, fodder with extra vitamins and minerals added. The food is all grown on this and a neighbouring farm. The pigs are exported to a lucrative market in Spain.

The main welfare benefits of this farm are:

- All pigs have access to outdoor runs
- The hardy breed of pig can be kept outdoors all year round
- Production rates for the sows are low
- The piglets are not weaned until they are 8-10 weeks old

The sows are kept in groups of 45. They share large paddocks measuring 4 hectares with open straw-bedded huts. At farrowing, they are moved to group farrowing



The pigs are kept in large paddocks

paddocks where they are provided with individual huts measuring 2x3m. The sows farrow twice a year and each time give birth to around 5 piglets. This level of production does not make huge metabolic demands on the sow. As a result, they remain in better condition and can live longer.

The piglets remain with their mothers for 8-10 weeks. This is much longer than the 3-4 weeks seen on conventional intensive systems. Early weaning can cause stress because of a number of reasons:

- Sudden change from milk to solid food
- Moved to a strange environment
- Mixed with unfamiliar piglets causing fighting

After weaning, the piglets are housed in large groups of 200 in deep-bedded sheds measuring 100x150m. The piglets also have an outdoor run measuring 0.5 hectares. The large amount of space and enriched environment means that the piglets have good opportunity for play and recreation.



The pigs are given a high fibre diet in long troughs

<b>Rare breed pig production system</b>	
Date of visit	27 November 2003
Certification scheme	OMMI
Number of sows	400
Breed	Mangalica (blond)
Food	Corn, wheat, peas and fodder
Average and maximum farrowings per sow	6-10
Farrowings per year	2
% piglets stillborn	< 1%
% live born piglet mortality	10%
Average number of piglets weaned per farrowing	4.5-5
Number piglets per sow per year	9-10
Mutilations	Castration, no teeth-clipping or tail-docking
Weaning age	8-12 weeks
Growth rate	450g per day
Food conversion rate	5:1
Weight when sold on or slaughtered	140-150kg
Transport to slaughter	220km
Price to farmer	Premium paid for Mangalica meat
Market	Local
Number of stockpersons	1 full-time + 1 part-time
Number of inspections	At least daily
Health problems	None observed or reported
Other welfare issues identified	Mutilations (castration)

#### 4. Dél-Cserhádi Ökológiai Tájéközpont Kht, Jákotpuszta, Hungary

##### Demonstration farm for traditional native breeds

Jákotpuszta farm is known locally as 'happy pig valley'. This is because the pigs are kept in free-ranging conditions that have a high potential for good welfare. The farm is run by the Agrarian University of Godollo as a centre for indigenous Hungarian breeds like Mangalica pigs, Grey cows, turkeys, bald-necked chicken, geese, donkeys, horses and water buffalos.

The methods of husbandry used in production of the Mangalica pigs are very low tech. Production is not separated for the different categories of pigs like they are in conventional production. Instead, all the pigs including the boars, the dry sows, the farrowing sows and their progeny all share the same paddocks together. A key welfare benefit of this system is that piglets are weaned naturally, minimising stress both for them and for the sow.



The young are weaned naturally and remain in the family group throughout their lives

The paddocks contain simple wooden huts with straw bedding so that pigs have somewhere to shelter in extremely poor weather. They also have wallows that the pigs could use if it becomes hot.

In spring, the pigs are moved to larger paddocks measuring about 70 hectares. In these paddocks, the animals feed on whatever is being grown in the fields.

They receive no other food ration. These feeding conditions most closely resemble those seen in wild and feral pigs. The pigs can be seen to spend most of their time in foraging activities. Opportunity to carry out these behaviours can prevent the development of abnormal behaviours such as stereotypies that are seen in more restricted environments.

The abundance of space means that the pigs get plenty of exercise and this can help reduce the incidence of lameness. The Mangalica pig is a hardy, traditional breed that has very few problems with disease. The pigs do not have to receive any vaccinations. Veterinarians are seldom if ever required.

The level of production puts little demand on the sow. The target is to

produce 2 farrows per year with 4-5 piglets in each litter. The piglets remain with their mothers throughout their lives and are weaned naturally. Although the male pigs suffer castration without anaesthetic, the piglets are not teeth-clipped or tail-docked.

The meat from the pig is sold locally.



The sows remain in stable social groups where there is little fighting

On the farm there are 3 boars, 80 sows plus all their progeny. In winter, they are kept in a smaller paddock of about 30 hectares (illustrations show winter paddock). This is so the 3 stockpersons can feed them and look after them more easily. The feed rations are based on corn and fodder with a vitamin and mineral supplement mixed in.



All the pigs are kept outside throughout the year in spacious paddocks



The paddocks contain several mature trees and provide plenty of opportunity for foraging

### University-based rare breed farm

Date of visit	27 November 2003
Certification scheme	OMMI
Number of sows	28
Breed	Mangalica (blond)
Food	Corn and fodder in winter, crops in paddocks for rest of year
Average and maximum farrowings per sow	No data
Farrowings per year	2
% piglets stillborn	Rare – no data
% live born piglet mortality	Thought to be low - 5% estimated
Average number of piglets weaned per farrowing	4.5-5
Number piglets per sow per year	9-10
Mutilations	Castration, no teeth-clipping or tail-docking
Weaning age	Natural weaning
Growth rate	450g per day
Food conversion rate	5:1
Weight when sold on or slaughtered	140-150kg
Transport to slaughter	Usually a few km
Price to farmer	Premium paid for Mangalica meat
Market	Local
Number of stockpersons	3
Number of inspections	At least daily
Health problems	None observed or reported
Other welfare issues identified	Mutilations (castration)