

Farming Connect Management Exchange

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Effective management of the Mangalitza pig with a focus on feeding

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1 Background

[Why did you go? Provide some background information about yourself and your farming system, what were your intentions and give an overview of your exchange aims and objectives]

We bought a herd of Mangalitza pigs from John Osborne of Paddock Farm, Oxfordshire in 2016. He had imported the herd from Isabell and Christoph Wiesner of Wischathal in Austria, who are widely acknowledged to be amongst the most expert in the world on the farming, slaughter and processing of mangalitza pigs.

We are pioneering a natural, outdoor, slow maturing approach to farming our Mangalitzas in West Wales and have struggled to find the information we need because of the overwhelming predominance of fast maturing more modern pig breeds, indoor systems and composite feeds in the UK and in Wales especially. We have made progress on finding our first customers and sourcing natural food resources but cannot respond to our customers' questions about the impact of different types of feeding on meat and fat quality nor on butchery and charcuterie of the mangalitza pig in particular.

This Farming Connect Management Exchange provided me with an opportunity to see the farm where our pigs were bred, observe the way in which pigs are housed and fed, how the serving by the boar is managed, how sows farrow and also to see Christoph Wiesner in action with his pigs and butchering and making charcuterie on his farm.

2 Itinerary

[What did you learn? *Provide a description of your activities on each day of your visit and outline your key learning outcomes and knowledge gained*]

Day 1 – Housing, Feeding and Breeding

The Wiesners feed is based on cooked potatoes, a local, very cheap resource and on grains. I saw how these were stored, cooked and distributed to fattening paddocks, boar pens, sow paddocks and farrowing pens. Christoph advised on how he builds his pig housing and showed us his breeding pens. What did I learn?

- The pens were built much more simply than ours and I quickly understood how to build many more pens of different varieties, increasing our housing capacity more cost effectively.
- The farrowing area was much smaller than ours with several small pens where each sow has her own pen but also has the company of other sows. It also means all the farrowing sows and piglets are in one place for easy management.
- Feeding straw or hay each day gives roughage and also gives the pigs something to fill them up and occupy them.
- Pigs will farrow well into their teens so long as they are kept in pig and not allowed to get too fat.
- It is not unusual for pigs to only breed with one chosen sow or boar – we should watch out for this.
- Christoph uses a 'back-up' boar – allowed to roam with the served sows – which will ensure a second chance for a sow who hasn't conceived as hoped.
- The fattening pigs were housed in mixed groups because Christoph castrates all his boars as small piglets. He recommends doing this for ease of management and I will take this up with our vet.
- Our concerns about the mud – an inevitability where we farm – were shown to be largely unfounded. Heat rather than cold is a Mangalitza's problem, and a layer of mud protects from both cold and heat.
- It may be better for us to have arks without floors both for mobility and to avoid water being trapped inside the ark.
- A raised platform of palettes topped with straw allows pigs to climb up out of the mud.
- Throwing straw into the arks every 2-3 days should be sufficient to provide a dry area.

Day 2 – Slaughter, butchery, nutrition

I got the opportunity to witness the traditional slaughter and butchery process from start to finish. What did I learn?

- The "gold standard" for a stress free slaughter – giving me a bench mark to evaluate the way our pigs are slaughtered.
- What makes marbling in meat - for a mangalitza Isabell thinks marbling is not very important.
- How to make a simple pig house.
- Isabell thought our feed regime was good but was bewildered by the cheese ration – she could see the value for piglets but thought it a luxury for older pigs.
- Christoph sang the praises of older pigs' meat: a ten or fifteen year old sow was not something to dispose of cheaply, but should instead be highly regarded.

Day 3 – Feeding, breeding and charcuterie

I joined Christoph on his feed round and he explained how to change the diet to create more or less fat on the pig. He explained his highly flexible outdoor farrowing facilities.

In the afternoon I watched Isabell make puff pastry from mangalitza lard and then was shown the different charcuterie cuts Christoph uses. I watched Christoph prepared charcuterie by salting and brining. This is important too because our customer asked us to find out how he could use mangalitza for charcuterie. What did I learn?

Feeding

- High protein feed results in a higher meat-to-fat ration whilst higher carbohydrate feed gives much more lard.
- Christoph thinks whey (which we use) is one of the best feeds you can give a pig.
- For finishing a pig as he does, we would need to feed only grains (ideally rye) and whey.
- Marbling is the result of the deliberate building up of intramuscular fat. This comes from reducing protein levels and greater ageing.
- Acorns make excellent meat for charcuterie but are detrimental to the fat. For Serrano type hams, use the meat but cut off the fat.
- Pigs can pick up grains from muddy and wet ground but will not be able to easily find any split or ground grains less than 2mm in size. Whole grains should be soaked and may in fact pass through the first pig only to be eaten again from the manure by other pigs.
- A fast day forces pigs to 'clean' their ground by hoovering up the feed they have left.

Breeding

- Breeding sows and boars remain fertile well into their teens and in some cases longer still.
- Boars and sows can have fallow years, so it's worth working with them to bring them back into fertility. Sometimes boar or sow will only breed with one particular partner. Older sows left empty need to be slimmed down. Thick woolly coats are evidence that the sow is putting her energy elsewhere other than fertility. Lack of woolly coats suggest a healthier breeding sow.
- Christoph said that sows that breed on reaching sexual but not physical maturity will not achieve their full growth potential: we appear to have accidentally proven this with our own herd as a consequence of the earlier than expected maturity of a boar from a younger litter than the gilts with which he was sharing an enclosure.

Charcuterie

- I learnt how to mince the 'leaf lard' from inside the pig's body to create a soft fat which can be whipped and flavoured as a spread or dip, or used to make puff pastry.
- I learnt how to make 'speck' – the generic term (which may be a regional descriptor) which is any charcuterie made from skin, fat and meat. Types are loin (Lomo), leg (ham), neck (coppa) and belly (for American bacon).

3 Next Steps

[What are you going to do next? You will have gained valuable knowledge on your exchange which should enable you to put some of your new ideas in to practice or make changes to how you run your business. Set yourself some action points and next steps to build on the knowledge gained on this visit and ensure it is put to good use]

I was impressed by many of Christoph and Isabell's ways of working and came back keen to explain them and the improvement options they represent for us:

- **Simplify** our feeding and housing in line with Christoph's shelter design and his nutritional guidelines.
- **Experiment with smaller, portable shelters** which are cheaper to produce than arks and can be dismantled and moved to fresh, clean ground. *First small ark built on 26 November 2017*
- **Bed down the shelters and arks** with straw/miscanthus 2-3 times a week. Experiment with floor free arks (in reality, field shelters).
- **During winter, substitute fruit/veg with fodder beet** as availability of fruit and veg reduces and cost increases. The carbohydrates help keep condition on the pigs during the colder months. We will continue to take low cost or free fruit and veg from our supplier through the winter as available in order to maintain the strength of our relationship.
- **Establish volume food storage** so that bulky feed can be brought straight to the paddock side on arrival, reducing workload.
- **Introduce a fast day** for paddock cleaning.
- **Investigate practicality and cost of castrating** our boar piglets - *Our vet came to the farm on 1 December 2017 and castrated 39 piglets.*
- **Sub divide one of our larger enclosures** into small enclosures for farrowing with individual sow accommodation.
- **Experiment with making charcuterie**
- **Consider how we could use our hard tracks** for our feed round to avoid chewing up all our grass tracks.
- **Market older sows** based on Christoph's assurance of the quality of the meat.
- **Market our pigs as "whey-fed"** more proactively.

4 Key Messages to the industry

[A requirement of taking part in the Farming Connect Exchange was to bring back and share key findings with the rest of the industry on your return. Please list the key findings or messages you would like to share with the industry]

In Austria I saw the ultimate in high welfare, natural, outdoor pig farming of heritage breed Mangalitzas pigs. The animals led contented, comfortable lives in surroundings as close to their natural way of life as possible.

I regard Christoph and Isabell's approach as the gold standard and want to adopt their methods on my farm, share this way of farming with others and open up dialogue with legislators on the issue of on-farm slaughter and castration.

The following additional messages can also be shared.

1. Mangalitzas can breed well into their teens – don't give up on a sow or boar but rather slim it down and try it with a variety of partners.
2. Mangalitzas are hardy and can be inexpensively and simply housed – in fact they appear to prefer field shelters to arks.
3. A back-up boar can reduce wasted seasons and empty sows. The back up boar needs to be a different breed (colour) from the primary boar so that the sire is recognisable when the piglets are born.
4. On farm castration by the farmer is a simple, quick and largely stress-free process that can be done without veterinary call-out fees and per piglet charges. It greatly facilitates management of non-breeding stock as all pigs can share territory and shelters. This is important for pigs that are kept for more than a year after reaching sexual maturity and, in potentially requiring half the paddocks, it offers land resting and recovery opportunities.

5. I believe that on-farm slaughter is much more humane and there is evidence that the meat and fat are considerably higher quality because of lower water and stress related hormone (e.g. epinephrine/adrenaline content in the muscles, when the animal has no stress at slaughter.
6. Whey is an excellent pig feed and a bulk waste from cheese-making. Get it if you can!







*Please note that this report documents traditional practices seen during a visit to Austria and is not a representation of best practice and compliance with regards to UK Animal Welfare and FSA standards.