

Nursery piglet management



There are multiple challenges that face the piglet at weaning – leaving the sow, mixing with other pigs, competition, adjusting to diet changes and the environment, handling, transport and vaccinations.

All of these stressors can have a negative impact on the susceptibility of the piglet to disease challenges. We, as the producer, can help to dramatically reduce post weaning losses by ensuring good standards of husbandry and moderating the stress of weaning.

Provide warmth:

This will allow the piglets to regulate their body temperature and encourage them to explore the pen

and find the food source quickly. Ensure there is adequate dry bedding; straw based systems can use covered huts to provide a warm lying area. Slatted systems should heat the house before the piglets are introduced. All stocking rates should be such to allow adequate lying space as well as allowing a satisfactory temperature to be maintained.



- ### **Exclude all draughts:**
- Draughts will reduce the tolerance of the piglets to low temperatures. A draft can be defined as air moving in excess of 0.15m/second – the equivalent of moving 1m in 7 seconds! (BPEX). Watch the behaviour of the pig as an indicator of draughts – are the pigs moving away from a certain area? Are they huddling? Are they dunging in the lying area?

- ### **House by size:**
- Mixing of piglets at weaning is inevitable. Piglets should be mixed according to size to minimise stress from establishing a 'pecking order' and reduce competition.
- ### **All-in-all-out:**
- Strict AIAO procedures must be adopted. Building should be thoroughly washed, disinfected and allowed to DRY before the piglets are introduced. Avoid holding back 'poor doers' as these may be a reservoir of infection for the next batch.
- ### **Sick pens in a separate air space:**
- Identify and remove sick pigs quickly.
- ### **Fresh feed readily available:**
- Gutter troughs allow piglets to feed at the same time. These should be replenished on a little and often basis i.e. at least three times daily. 'Calling' the piglets to eat is important to encourage interest in the feed as well as keeping the milk components of the creep fresh and palatable.



Fresh water must be available:

Check supply at least twice daily. Water deprivation can cause salt poisoning with similar clinical signs to meningitis. Water lines should be included in the cleaning and disinfection protocol.

Colistin - update

Some further background on why the industry is being asked to restrict its use of Colistin (in such products as Coliscour). The medics are increasingly finding resistance to the carbapenem group of antibiotics (these are not used in pig farms) and in these cases Colistin is drug of last resort. In addition Colistin is extensively used in ongoing management of patients, commonly children with cystic fibrosis for whom it is a critical drug

Understanding your BPHS report

Milk Spot



Further to last month's article on pleurisy this month we are going to be covering milk spot.

Milk spot is defined as white usually circular lesions visible on the surface of the liver at slaughter and can be a sign of the multiplication of *Ascaris suum* within the herd.

A. suum is the most common parasitic worm affecting UK pigs and although high levels of it can be a sign of poor hygiene many good units will have low to moderate levels circulating.

Adult worms live in the intestines and produce eggs. These are passed in the faeces and hatch in the environment into larvae. These are eaten by other animals. However these worms are immature so to complete their life cycle they migrate from the intestines and find their way to the liver. They then burrow through the liver into the blood stream causing the milk spot lesions. Before traveling through the bloodstream to the lungs where they then mature before being coughed up and swallowed back to the intestines. This takes 8 weeks however, if the infection is cleared the milk spot lesions heal after 40 days. Therefore if they are present at the point of slaughter then the parasite must be circulating within the finisher accommodation.

If you receive a high or rising score then action will need to be considered as it is likely that production losses are occurring. Worming of sows will help as these are a common reservoir of infection however once larvae are present within grower and finisher accommodation this will have little effect. The only way to control it is rigorous cleaning off accommodation ideally between batches. Disinfectants have little effects however the use of detergents can help eggs to be washed away. If you are concerned about your milk spot score then please discuss it with your vet at your next visit.

Topical Talk – what we are seeing....

Being able to identify common disease in piglet is key to treatment success – a guide to what to look out for:

Bowel Odema/Oedema Disease

- Caused by a strain of *E.coli* which produces a verotoxin which damages the walls of arteries.
- Facial oedema/swelling especially of eyelids.
- Nervous signs – incoordination – paddling (no rolling eyes); may be found dead.
- Diarrhoea is not a consistent feature with this *E.coli* strain.



Meningitis

- Usually caused by *Streptococcus* bacteria.
- Incoordination – paddling and rolling/flicking eyes; may be found dead.

E.coli enteritis

- Grey/brown, watery diarrhoea.
- Fading pigs.

If any of the above are seen, please consult your unit vet regarding treatment and management.

Pig and Poultry Fair 2016



Once again we will be exhibiting at Stoneleigh and can be found on stand 57 in the main pig hall. It's the same space we have occupied for the last four shows and shared with East Riding Farm Services. Please come along to meet with Garth staff who will be more than happy to provide you with refreshments at what we hope will be a busy event.

Rotavirus and weaners

Most pig producers are familiar with rotavirus problems, usually seen as a salad cream-like looseness, often from about 4 days old and causing poor absorption of milk, failure to thrive and with those affected individuals falling behind the rest of the piglets. It can be a litter or part litter problem and generally responds poorly to treatment. Most people, on advice from their veterinary surgeon, use antibiotics at this time but the downside of this approach is that antimicrobial treatment will also kill off the good bacteria, for example lactobacilli, that help to keep the gut acidic and reduce bacterial overgrowth. This is undesirable, but not quite so damaging whilst the piglet is drinking milk, because milk is naturally acidic and contains protective antibodies which play a much more important role in the weaned pig.

Rotavirus can also be a weaner problem where it is much more difficult to identify, because scour is not a feature initially. It contributes to poor growth, resulting in lethargic and hairy piglets post weaning. The scour comes a little later due to a secondary bacterial infection, often *E coli*, and as a result of antibiotic treatment that destroys the natural balance of gut flora. But importantly the actual rotavirus gut damage comes first. After weaning, antibiotics that are included in feed or water destroy most of the bacteria involved in keeping the gut acidic and so they often do more harm than good. The natural acid in milk is cut off at weaning. If you acidify the water post weaning it helps enormously to reduce the secondary damage by killing potential pathogens before they can colonise and damage the villi of the small intestine. Also the choice of acid is important as different acids work on different parts of the pigs digestive system, so getting the blend right is vital. Your supplier of acid will be able to advise the correct acids to use and also the dilution rates required to achieve the right target pH.

So, let's look at the properties of rotavirus that make it important but largely not recognised.

Rotavirus is a non-enveloped RNA virus and there are several different strains, not all of which show positive on the ELISA test on dung. It crosses species particularly to calves, poultry, cats, dogs and also babies, and it is an incredibly resistant organism. For example in faeces it resists 60°C heat for 30 minutes, survives 7-9 months at 18°C-20°C, 32 months at 10°C and is stable over pH 3-9. It is however inactivated by using a strong anti-coccidial disinfectant on clean surfaces following a thorough cleaning and disinfectant programme, therefore after a good foam, soak and general disinfection. Do not forget to disinfect the weaner holding pen and trolley or similar device in which you move the piglets as this is a much forgotten transit point which all weaned pigs come into contact with. The longer piglets are held at weaning before reaching the nursery, the worse the problem can become, because this holding area needs to be very clean as well. Outdoor sites are particularly vulnerable because piglets are held for some time then often travel for a number of hours to grow out sites, but it is not just an outdoor piglet problem.

Gut villus damage due to rotavirus is moderate to severe 24-96 hours post infection with these piglets excreting huge quantities of virus into the environment. Piglets do not die but fail to thrive at a time when they need a good regular nutritious food and fluid intake. Gut wall recovery takes up to 7 days by which time the piglet is thoroughly compromised and dehydrated. 30% of farrowing sows may excrete rotavirus but if sows and particularly gilts are exposed whilst pregnant or before, they produce good protective antibodies in colostrum which protects the piglet over the critical time and up to 5-6 weeks of age.

So what is the solution?

- ⑤ We are not going to eliminate rotavirus so we must learn to reduce the load by management measures
- ⑤ Controlled exposure of farrowing sow bedding material to gilts regularly not just occasionally. Move gilts into pens that have previously occupied by dry/post weaned sows
- ⑤ Ensure good colostrum intake to all piglets in the 1st 12 hours. Spend lots of time doing this and invest staff time at key farrowing periods to ensure the process is undertaken properly, it will pay huge dividends
- ⑤ Get any suckling piglet scour lab tested so that any bacteria can be identified and thus targeted accurately. A good laboratory will also be able to test for rotavirus as well, identification of rotavirus will enable a cost effective solution to be used in future batches
- ⑤ At weaning make sure everything, equipment, water supply, feeders, floors, walls etc are all thoroughly cleaned and disinfected
- ⑤ Give weaners acidified water, tested regularly to pH4. Add electrolytes to attract piglets to drink, just for a day or 2 post weaning unless you have a group of smalls in which case continue for up to a week
- ⑤ Use electrolytes whenever you see scouring piglets, weaned or sucking.
- ⑤ Take all antibiotics out of feed, retain Zinc. They just unbalance the gut and with current legislation tightening on antimicrobial use it makes good sense. Install Dosatrons or other water proportioners for acid as well as electrolytes and for water soluble antibiotics should they be needed
- ⑤ If you need to medicate, maybe for something unrelated e.g. Glasser's disease, do not carry on longer than recommended. 24 hours after completion put through pre and probiotics for 24 – 48 hours to reseed the gut with good bacteria
- ⑤ Supply acidified water using an acid resistant (white) Dosatron for at least 5 weeks post weaning, that is until the piglet's stomach is capable of making and maintaining sufficient acid of its own
- ⑤ Talk to your vet! A sow vaccine is available but it is better to look at management measures first and only use the vaccine as a last resort. The available vaccine is a specific pig vaccine rather than the cattle based products used historically