

Swine Dysentery

Swine Dysentery is caused by infection with the bacterium *Brachyspira hyodysenteriae*. It can be a costly disease as it causes high mortality and weight loss. A pig becomes infected when it ingests or eats infected pig muck and, unfortunately, the pig only needs to eat a very small number of the bacteria for clinical disease to occur.

Swine Dysentery is spread through infected faecal material, with only around half of Swine Dysentery outbreaks being due to spread by infected pigs. The remainder of outbreaks involve spread by items that come into contact with infected pig faeces such as transport lorries. Humans cannot be infected with the Swine Dysentery bacterium, but can carry the bacteria on their boots, overalls and hands. It can also be spread by carriage in the gut and the skin surface of rodents, flies and birds, so contact between them and your pigs should be minimised.

Clinical Signs

Clinical signs can start anywhere on the farm, although pigs 6 – 12 weeks old are usually the most commonly affected.

The function of the large bowel of the pig is to absorb water from the intestinal contents. The bacterium attacks the cells lining the large bowel of the pig, causing damage which results in scour. This scour can initially be yellow and watery. If the bowel is damaged more severely then blood will be passed with the faeces and sudden deaths can occur. As the gut begins to heal, loose muck containing jelly-like mucous is seen.

Less severely affected animals, and those who are in the later stages of infection, develop dehydration, a decreased appetite and severe weight loss since the bowel is no longer functioning normally.

In an acute outbreak, mortality can occur in up to 20% of affected animals, especially if they are not treated promptly.

Pigs that have been treated, or that recover and no longer show clinical signs, can still carry the infection and shed infectious bacteria that can infect other healthy animals.

Diagnosis and Treatment

Early diagnosis of Swine Dysentery is reliant on examining faeces as soon as Swine Dysentery is suspected. Early diagnosis will allow prompt treatment, so helping to reduce mortality and the shedding of the bacteria into the rest of the farm environment.

Faeces can be tested using a PCR test (similar to forensic science), which is relatively quick and accurately identifies if the bacterium is in the sample.



Loose faeces visible on a pen mate



Blood visible in muck

Faecal samples can also be cultured for the organism and then tested to see which antibiotics would provide most effective treatment.

Whilst antibiotics can be effective at stopping the disease and the clinical signs of Swine Dysentery, they may not prevent pigs shedding the bacteria and passing it on.

Biosecurity

Brachyspira bacteria survive in wet and cold conditions – freezing will not destroy them, but drying and heat will. In cold and wet areas contaminated by faeces, such as slurry in winter, they can live for up to 4 months. Many disinfectants will destroy them, but only on spotlessly clean surfaces and not if the bacteria are protected by faeces or mucous.

Biosecurity for your farm is important throughout the year, but as we go through the winter months infection risk is at its highest.

- **Lorries** – should be able to access your farm over a clean route without becoming contaminated with your farm faeces or run off. If stopping them at your perimeter is not possible, at the very least wash off their wheel arches and tyres and then disinfect them, both before and after the visit.

Make sure these washings have no contact with your pigs.

Lorries that have had abattoir contact are a high risk and require additional safeguards. On farm loading docks should be washed off and disinfected after every use, as well as areas where lorries have stood for loading. Staff doing this should also wash and disinfect themselves before re-entering the farm. Drivers should stay on the loading dock and only handle pigs that are being loaded.

Please remember that cull sow transport probably represents more risk than slaughter pigs due to the smaller nature of loads and the busy nature of markets with multiple sources.

If you use your own transport for the abattoir, please perform a competent wash and disinfection at the abattoir, but also consider a further wash and disinfection at home away from your pigs. If washing your lorry is not possible due to frozen water, please find somewhere else, away from your farm, that has running water to complete the task.

- **Laboratories** – After entering this high risk public access site, a full wash and disinfect of both the vehicle and the driver's boots is advised.

- **Disinfectants** – Many work poorly in low temperatures. We recommend disinfectants are used at double strength in critical areas during winter.

Disinfectant footbaths are only useful if not contaminated with straw or faeces. Enough faecal material remains in the tread of a boot to both survive a dip in a footbath and to infect a pig with Swine Dysentery. Hand brushes to clean boots will help. Leather work boots or trainers can never be disinfected effectively.

- **Fellmongers** – Be careful of where they drive, how and where they collect your deadstock, and always thoroughly clean and disinfect areas where they have been.

- **Birds & Rats** – Birds, especially Starlings, will transmit disease by paddling in infected faeces and then walking over pig feed. Cover all feed troughs, and net or mesh any entrance points where possible. Rats will come into your buildings for winter, so make sure you bait both your buildings and any obvious rat runs outside the periphery of your farm effectively.

Please speak to your Vet to discuss any questions you may have about Swine Dysentery.