

Parasites in Pigs

Parasites live in or on another animal, and benefits from this at the host's expense. Clinical signs of parasites are not always noticeable. The pig will have some parasites, but large numbers are associated with clinical disease. An immunosuppressive disease entering a herd, such as PRRS, can result in a clinical outbreak of a parasite such as mange, which has previously not been seen.

The two most important pig parasites are *Ascaris suum*, the parasite which causes milk spot and *Sarcoptes scabiei* (Mange).

Parasites develop from eggs into larvae, which mature to become adults.

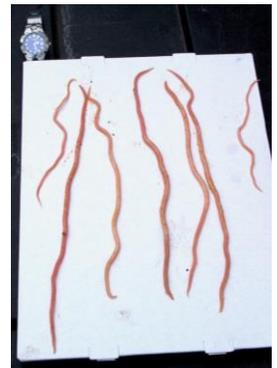
Parasites in Indoor Production Systems

Milk Spot – *Ascaris suum*

This worm is found in the small intestine. The females can grow up to **40cm (16 inches) long** and can produce **200,000 eggs a day**. The pictures to the right show the size of these adult worms. The eggs are eaten and hatch out into larvae. The larvae migrate through the liver, causing the 'milk spot' scar lesions seen at slaughter (see picture to left for white spot on the liver). They then travel in the blood to the lungs, where they are coughed up and swallowed back into the intestines to produce eggs once more as an adult.

The main clinical sign is decreased weight gain although pneumonia can be seen in pigs less than 4 months.

The eggs are very resistant to extreme temperatures and can remain viable for up to 7 years! This disease is estimated to cause a **decrease in daily gain by 10%** and an **increase in feed conversion by 13%**.



Mange – *Sarcoptes scabiei*

The inflammation caused by the mite burrowing into the skin looks like lots of little red spots, more easily seen at slaughter as shown in the picture below. The mite itself however is so small that it cannot be seen by the naked eye (the picture to the right shows a mite under a high powered microscope).

The female mite burrows into the skin and feeds off the liquid oozing from the damaged tissues. She lays her eggs (around 30-50 eggs) which hatch out on to the skin surface and then the larvae separately burrow in to the skin themselves to mature to adulthood. This takes a total of 10 to 15 days. The mite will only live for 1 week off the pig.





The picture to the left shows the crusting on a leg that can sometimes be seen due to the inflammation caused by the mites burrowing. **Severe disease can affect your production performance, increasing FCR and decreasing live weight gain.**

Parasites in Outdoor Production Systems

Along with the above two parasites, outdoor systems can also be affected by lungworm.

Lungworm – *Metastrongylus apri*

Lungworms are white, slim and up to 6cm (2.5 inches) in length. Lungworm eggs hatch into larvae on the ground and then mature further when ingested by an earthworm. When the pig eats the earthworm, the larvae migrate from the lymph nodes in the intestines to the lungs, causing lung damage. After 6 weeks this can result in a chronic bronchitis which can be slow to resolve, and can result in an associated secondary bacterial infection.

The eggs are very resistant to cold temperatures and survive for a year in the soil. Lungworm is mainly seen in pigs 4 to 6 months old.

Infection with this parasite is limited to pigs exposed to infected earthworms. Earthworms live for about 7 years, and the larvae can remain infectious throughout this time as well.

Parasite Control

This is carried out through management and medication. Some of the medication that you may be advised to include in your parasite control plan:

Flubendazole is licensed against both lungworm and *Ascaris suum* (milk spot) adults and larvae. It is also effective against eggs.

Ivermectin is licensed against both adult and older larvae *Ascaris suum* and adult lungworms.

Fenbendazole is available in two forms, pellets and as a pre-mix powder. Pellets are licensed against *Ascaris suum*, lungworm and both their eggs. The pre-mix is licensed against mature and immature stages of *Ascaris suum*, lungworm and both their eggs.

In Water:

Fenbendazole is licensed against adult and all larvae stages of *Ascaris suum*.

Flubendazole is licensed against adult and intestinal larval stages of *Ascaris suum*.

Injectable:

Ivermectin products are all injectable, and are active against adult and late *Ascaris suum* larvae, adult lungworms and also against Mange. **Watch out for long withdrawal periods!**

Speak to your vet to discuss how to implement a cost effective way to worm your pigs
