International Pig Topics

Pighealth BYTES

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Number: 140

External parasites II

Sarcoptic mange: aetiology and mite life cycle

Sarcoptic mange is caused by the burrowing mite (Sarcoptes scabei). This mite has a globular body and is just half a millimetre (0.5mm) long, making it almost invisible to the naked eye.

Sarcoptes scabei is a permanent parasite of the skin, which is where all stages in its life cycle (eggs, larvae, nymphs and adults) develop.

After mating on the surface, the adult females then tunnel by extra oral digestion into the upper 60% of the epidermis, laying a string of 40-50 eggs behind them as they move forwards. Some 30 days later, the adult female mite dies in its burrow. Some 3-5 days after they were laid, the eggs hatch to produce larvae which subsequently develop into adults. All this cycle of development occurs in the burrows. The time from egg to fertilised female is just 10-25 days and the whole process is completed on the pig.

Epidemiology

The main reservoir of mites in the herd is the sow, which transmits mites to other animals in the herd by contact. The role of boars in spread has been greatly reduced by the use of AI.

In young animals infestation from the mother may occur when they are suckling. The infestation can move to other piglets by close contact, for example when huddling or sleeping. In housed pigs the transmission equates to one new pig becoming infested every couple of days.

The mite stage is usually associated with transmission in the newly fertilised female. The group housing of sows facilitates mite spread if the condition is present in the herd.

Mites die quite quickly in direct sunlight and after several hours at temperatures above 28°C. Mites can survive for more than 12 days at 17-18°C and a relative humidity of 65-75%.

Clinical signs

The usual picture seen with infestation with this mite is hyperkeratotic lesions on the inner surface of the ears, but a few adult animals may have mites and lesions over the body.