

NADIS disease bulletins are written specifically for farmers, to increase awareness of prevalent conditions and promote disease prevention and control, in order to benefit animal health and welfare. Farmers are advised to discuss their individual farm circumstances with their veterinary surgeon.

## The Many Manifestations of Greasy Pig Disease

Greasy pig disease is an infection of the skin of the pig of any age due to the bacteria *Staphylococcus hyicus*. As a group of diseases, it probably constitutes the most common skin ailment in pigs and is pathologically a dermatitis/epidermitis, the most significant feature of which is that it is non-irritant, making the skin condition easy to differentiate from the other common pig skin disease – Sarcoptic Mange.

Classic greasy pig disease – otherwise known as exudative epidermitis or marmite disease – is typically seen in weaned pigs and produces the classic blackened greasy skin and hairy appearance. The younger it occurs, the more serious the consequences. It can occur in the sucking piglet as young as 3-4 days and, at this age, can be lethal due to the disturbance that occurs to fluid balance.

However, *Staphylococcus hyicus* is capable of producing a wide range of lesions in the skin from baby pigs to adults and all of these lesions can be regarded as variants of greasy pig disease.

At the young end of the scale, an acute ulcerative dermatitis can occur, particularly on the soft skin of the abdomen and chest and can easily be mistaken for a contact ulceration (e.g. due to disinfectant or lime washing). This form of the disease can be seen as young as 24 hours old and is often fatal.

Occasionally *Staphylococcus hyicus* can be involved in facial necrosis – the blackening of the skin of the face that results from teeth damage from litter mates where teeth clipping is not practiced. (*Fusiformis necrophorus* is the more common cause of this disease).

Moreover, discreet dermatitis will commonly occur around the head, neck and shoulders of weaned pigs as a result of colonisation of skin wounds – themselves the result of fighting – by *Staphylococcus hyicus* that is present on the skin. This form of the disease will often appear to spread throughout a group of weaners.

As older weaners and growers, the aftermath of earlier widespread greasy pig disease in individuals can be seen as part of the healing process. The skin will appear shiny, often hairless and have a distinct orange tinge to it. This healing process can be extremely slow, to the extent that it can still be unhealed by the time the pig reaches slaughter weight, resulting in condemnation of the skin.

*Staphylococcus hyicus* is implicated in the development of dry gangrene of the extremities – affecting the tail of young piglets, often before tail docking has occurred and the ear tips of weaners of 6-7 weeks upwards. The latter result is ear tip necrosis, an unsightly but apparently inherently harmless condition.

Localised greasy pig lesions can also occur on the legs of weaning pigs, starting at the foot and gradually creeping upwards. Here, primary damage occurs close to the coronary band of the hoof, allowing penetration of skin colonising bacteria.

A further manifestation of greasy pig disease occurs in adults. Here, discreet superficial black lesions occur, usually over the back – are non-irritant and apparently harmless. They may reflect some form of immune incompetence in the individual animal – lesions often remain for life and prove intractable to treatment and litters of affected sows may well show greasy pig disease early in life.

Finally, a rare and fatal form of *Staph hyicus* infection is reported in individual sows, in which the whole of the skin is affected, becomes progressively thickened and wrinkled (like rhinoceros skin) and progressive severe loss of condition occurs. These animals are usually euthanased.

*Staph hyicus* can be found on the skin of most pig populations but there appears to be various strains of the bacteria and it is possible that new variants can be introduced (usually with incoming stock) and cause outbreaks of disease.

If any one feature can be highlighted that will precipitate development of lesions, it is skin damage, either as a result of fighting, abrasion by floors or injury on pen divisions etc. Any control programmes must take this into account. Fighting can be reduced by minimising mixing and moving, maintaining stable groups and ensuring free access to feed, water and lying space. Fighting at weaning can be reduced by temporarily leaving pigs in the dark or spraying with a deodorant (e.g. Maskomal: Antec), washing pigs in weak soap solution (e.g. Savlon) or disinfectant (e.g. Virkon S) prior to mixing. The latter techniques can reduce skin colonisation as well.

Where disease occurs, treatment with appropriate antibiotics is required – the choice will depend upon the veterinary surgeon's experience backed up by laboratory tests. For young affected piglets, fluids in the form of electrolyte solution should be available and, again, washing in Savlon or Virkon S can help, but care is needed to avoid chilling, particularly in the youngest piglets.

In intractable herd disease situations, it is possible to produce – under licence – an autogenous vaccine to break the cycle of infection in continual production systems.

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