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**Health Quiz**

## NADIS Pig Health – October 2007

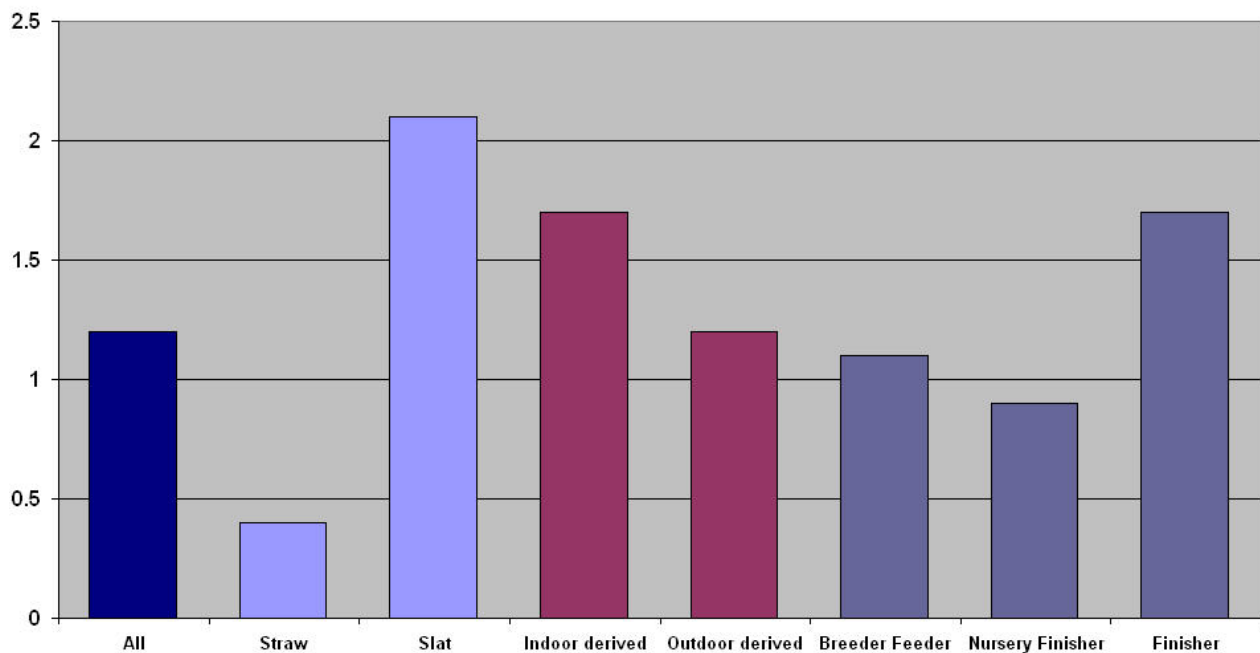
### Tail Biting

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Aberrant aggressive behaviour in pigs is widely referred to as vice. In the growing pig this can take the form of tail, ear, flank, stifle or even vulval or penis biting. However, tail biting is viewed as the most widespread and serious of these problems. NADIS, which monitors disease on pig farms on a day to day basis via a network of 14 specialist pig veterinary surgeons- has data to suggest that across the monitored population of close to 400,000 growing pigs,

in the last 3 months the prevalence of tail biting is 1.2% and that the prevalence in different systems highlights the widespread nature of the problem. No one system of pig keeping is immune from tail biting. Slatted systems have seen a prevalence of 2% of pigs affected whilst on straw the figure is only 0.4%. Indoor derived growing pigs are 50% more likely to be tail bitten than those born outdoors.

### Tail Biting - % of Weaners & Growers Affected



Damage to pigs tails by pen mates contributes a major loss to the pig industry. Tail biting tends to be seen in a number of different scenarios ranging from a constant low grade problem in a continual production unit to explosive outbreaks in batches. As such, the incidence is highly variable. In the former scenario, 3-5% of pigs may be affected week in week out and it would be common place for 1% to require euthanasia and a similar proportion to be

condemned at slaughter (usually referred to as "pyaemia" on a condemnation sheet). At this level, the cost to a 300 sow breeder feeder farm can be £10000 per year (140 pigs per year lost) plus the costs of treatment, care, isolation and lost growth.

In a batch systems, losses as high as 30% of pigs have been experienced – out of a batch of 700 pigs, 208 either died, were destroyed or were condemned at slaughter!

## Causes

Pigs have a natural tendency to chew. They are also attracted to blood and once biting has started it tends to be infectious. In addition, pigs undergo teeth changes between 3-4 weeks of age and 7-8 months. Anyone who has reared children will recognise the desire to chew during teething and this may be a component of piglet behaviour. Normal inquisitive investigation with the mouth can lead to “accidental” bleeding, which can lead to more serious damage.

In any given situation where tail biting occurs, there is a need to undertake a full investigation and assessment to identify the possible trigger factors. In many cases, a single rogue animal can be identified that has started the problem in a group – usually the smallest pig – although if not spotted early this animal may get lost in the group that join in.

A huge range of environmental, dietary and husbandry factors have been identified as acting as triggers for tail biting, ranging from stocking rates, temperature variation, competition for food and water, to Vitamin E deficiency and high fat diets. Professional veterinary advice is essential to unravel the significant factors and identify the cause of “unhappy pigs”.

Unfortunately, the “perfect” system has not been identified and, even if it could be, there are always likely to be cost constraints that will compromise its adoption! It, therefore, unfortunately must be accepted that tail biting is a consequence of farming pigs and producers should attend to the basic biological needs of the pig to minimise the risk of damage.

Such areas for consideration include:-

**1) Thermal comfort:-** draughts, temperature variation, chilling and over-heating are highly significant factors.

**2) Freely available feed and water** – the pig that is unable to get to a free supply of feed and water is always more likely to seek revenge on its penmates.

**3) Feed diets that are appropriate** to the pig and contain a full balance of nutrients.

**4) Stocking density.** Space provision should be determined by the nature of the accommodation and the requirements of the specific pigs. The Welfare of Farmed Animals Regulations (2003) (the successor to The Welfare of Livestock Regulations 2000 & 1994) have done a great disservice to the pig. These regulations state the minimum space requirements for pigs of different weight. Putting aside the nonsense of a stepped graph (pigs of 19 and 20kg require the same space but those of 21kg require 50% more!) these minimum requirements have been interpreted as the optimum requirements. (A similar view is taken throughout Europe). Producers must be aware that these figures were not based on any sustainable science and, as such, are totally meaningless to the true needs of the pig. Concomittant disease is a major trigger of outbreaks of tail biting. The complex pathological and physiological factors brought into play by major systemic disease such as pneumonia, scour and wasting cause malcontent and aggression to develop, and tail biting is a common consequence.



Fig 1: Severely tail bitten pig requiring euthanasia



Fig 2: Alcathe piping can be a useful toy for pigs on slats



Fig 3: Abscessation spreading from a bitten tail settling in the lumbar spine

## Treatment

Bitten pigs must be isolated to prevent further damage. The bitten tail can be dressed/sprayed with antiseptic or proprietary “antibiting” sprays can be applied. Stockholm Tar painted over a damaged tail will minimise further damage in hospital areas. The veterinary surgeon may prescribe treatment with broad spectrum antibiotics to prevent spread of infection within the body from the open wound but care is needed to observe meat withholding periods.

## Prevention

Quite apart from attempting to fulfil behavioural needs of the pigs, a number of features can be applied to reduce the incidence and impact of tail biting.

Providing toys in the form of chewable material. This is a statutory requirement under the Welfare of Farmed Animals Regulations 2000 and applies particularly fully slatted pens. Such equipment as chains, alcatene piping (care of blocked slurry pumps), rubber boots etc are valuable but must in place at all times, it is too late introducing them once a problem has started, in particular in relation to their health. The Regulations require provision of organic material (eg straw, sawdust, peat etc) but in fully slatted systems these are unmanageable. Old car tyres should not be used as the steel wire core becomes exposed and can penetrate and damage pigs mouths.

**Tail docking.** Despite the fact that UK legislation bans the routine tail docking of pigs, this remains the only reliable method of preventing tail biting in situations where it can reasonably be anticipated. Any attempts to totally ban the procedure would lead to major welfare problems. The technique must be done within the first 7 days of life (first 3 days under ABM quality assurance rules) and be done cleanly and efficiently by a competent individual preferably using thermocautery. Training can be provided by the veterinary surgeon. The length of tail removed will depend on individual circumstances, identified by the veterinary surgeon and, in high risk cases, very short docking is both acceptable and essential.

**Dietary supplements.** Increasing salt levels in diets has long been used as a way of preventing tail biting and can be effective. However, care must be taken to avoid excessive intake and salt poisoning. Talk to both your nutritional advisor and your veterinary surgeon before increasing salt levels in diets.

Review stocking rates, health control protocols and overall health management of the herd to minimise the trigger factors for tail biting.

#### **Slaughter**

Tail bitten pigs present a major challenge to the slaughterer with secondary infection spreading via the blood stream/lymphatic system to any part of the body. The result of this infection is total condemnation.

The guidance issued by Pig Veterinary Society on the appropriateness of slaughter of tail bitten pigs is that:

If no tail is left, an open wound exists or there is evidence of swelling/abscessation around the base of the tail the pig should not be presented for slaughter for human consumption. It should be destroyed humanely on the farm. See [Carcase Condemnation](#) bulletin

If a previously bitten tail has healed leaving no open wound or swelling it can be sent for slaughter accompanied by a food chain information declaration (formerly schedule 18 owner declaration /"casualty certificate".

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NADIS Health Bulletins are designed to improve farm income, animal health and welfare by promoting disease control and prevention.

Discuss how health planning can improve the profitability of your farm with your veterinary surgeon.

NADIS is supported by BPEX, EBLEX, HCC, QMS, Elanco Animal Health and MLC.

