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THE TAIL-DOCKING OF PIGLETS

A REPORT BY COMPASSION IN WORLD FARMING TRUST

Tail-docking involves amputating the lower part of the piglet's tail. Part of the tail is sliced off using either pliers or a hot docking iron. Usually the piglets are given no anaesthetic.

The majority of UK piglets are tail-docked even though this practice has been condemned by the science and even though routine tail-docking has been prohibited since 1994. Compassion in World Farming Trust (CIWF Trust) believes that this painful and unnecessary mutilation should be brought to an end as a matter of urgency.

Farmers claim that they need to tail-dock their piglets in order to stop them from biting each other's tails. When part of the tail is docked, the remaining tail is very sensitive to touch or oral manipulation (SVC, 1997). As a result, a pig with a docked tail will move away much more quickly from an attempt at tail-biting than a pig with an intact tail, and will thereby prevent its tail being wounded.

CIWF Trust believes that the proper way to prevent tail-biting is to keep the pigs in good conditions, not to dock their tails.

Pain

Some farmers claim that tail-docking is not painful, at most causing mere transitory discomfort. This assertion is not supported by the science. In their 1997 Report on the Welfare of Intensively Kept Pigs, the European Commission's Scientific Veterinary Committee (SVC) concluded that:

> *"Tail-docking is likely to be painful when it is carried out and it has been demonstrated that in a proportion of animals it leads to neuroma formation and hence to prolonged pain"* (SVC, 1997).

In their report the SVC pointed out that when day-old piglets had their tails cut off, the cut end of peripheral nerves which would normally extend to the tip of the tail could be seen. It would seem from the neuroanatomy that a pig's tail is likely to be sensitive for its entire length and behavioural responses to immersing the tail in warm water indicate that this is so (Zanella, 1992).

The SVC added that in some docked pigs traumatic neuromas were found. (A neuroma is a swelling on a nerve). They stressed that:

> *"Tissues with traumatic neuromas may be very painful in men and hyperalgesia may appear during the course of regeneration in a peripheral nerve* (Sunderland 1978, Thomas and Holdorff 1984). *Hence the neuromas in the docked tail are likely to cause spontaneous pain to the pigs"* (SVC, 1997).

Professor Donald Broom has said that *"there is now evidence that the pig's tail is fully innervated and that tail-docking can result in neuroma formation. Neuromas in amputated limbs cause phantom limb pain and it is likely that a pig with a neuroma in its docked tail region will have frequent or continuous pain throughout its life"* (Broom, 1998). Professor Broom is Colleen Macleod Professor of Animal Welfare at the University of Cambridge and chaired the section of the SVC which produced the report on pigs.

Approaches to preventing tail-biting

As indicated earlier, farmers claim that they need to tail-dock their piglets to prevent tail-biting. This is not, however, the view taken by most of the recent science.

CIWF Trust recognises that tail-biting is a serious matter, which cannot be allowed to go unchecked. Arey (1991) has described how *"wounds can become infected, resulting in abscessation of the hindquarters and the posterior segment of the spinal column. Secondary infection may occur in the lungs, kidney, joints and other parts ..."*. Equally, it is the case that badly performed tail-docking can lead to infection, which can then run up the spinal cord, causing deep spinal abscesses.

Recent science shows that the proper way of preventing tail-biting is to keep pigs in good conditions, not to dock their tails. The SVC (1997) concluded that:

"The problems of injury following tail-biting should be solved by improved management rather than by tail-docking".

Indeed, there is evidence that tail-docking is ineffective in preventing tail-biting. In fact it may even be counter-productive. A booklet published by the Scottish Pig Industry Initiative states that:

"In a recent survey, farms which practised tail-docking were more likely to have tail-biting in the growing-finishing herd than farms which did not practise tail-docking. This indicates that tail-docking does not eliminate the problem. It also demonstrates that some farms have successfully avoided the problem of tail-biting through management of the production environment" (SPII).

The SPII Guide also pointed out that pigs show a clear preference for chewing across an object rather than end-on. They stressed that, as a result:

"The original curly tail [rather than a docked tail] *may be the best design to avoid easy access to inquisitive pen-mates"*.

The majority of the 15 million pigs reared each year in the UK for bacon, pork and ham are intensively farmed. They are kept indoors throughout their lives in barren, overcrowded pens, never experiencing fresh air or daylight. Often they are given no straw, being kept instead on bare concrete or slatted or perforated floors.

In one major study pigs kept in semi-natural conditions were found to spend over half their daylight time (52%) foraging for food. Another 23% of their time was spent in exploratory behaviour, i.e. walking, orienting to stimuli, nosing and manipulating objects (Stolba and Wood-Gush, 1989). These authors wrote that:

"The data indicate that pigs are generally exploratory animals with an appreciable proportion of their time devoted to ... examining the distant and immediate environment and in collecting, carrying and manipulating food items... They used their rooting pads to flatten and push items; the snout was used for grubbing out thick roots. Morsels on the bark and wood were licked, while old tussocks of grass were overturned so that their roots could be eaten. Young grass on the other hand

was carefully grazed. In boggy areas they dug more deeply to get at the roots of sedge grasses and these together with the roots of trees appeared to be prized".

It should be stressed that the adult pigs in this study had been reared in intensive conditions. What emerged was that even where pigs have been reared intensively, they will engage in a rich repertoire of behaviour when given the opportunity to do so.

None of this behaviour, none of the foraging, exploratory or rooting activities can be performed by intensively reared pigs. Bored and frustrated, they turn to the only other 'thing' in their barren pens: the tails of other pigs. They begin to chew and then bite those tails. The response of many farmers is to dock the piglets' tails.

CIWF Trust believes that the proper response is not to tail-dock but instead to address the factors which encourage tail-biting.

> "Tail-biting is a sign that something is wrong with the system"
>
> Arey, 1991

Tail-biting is generally recognised to be multi-factorial in its causation. Elements which can contribute to it include: lack of straw or some other manipulable material, overcrowding, diet, poor atmospheric environment, i.e. a build-up of gases such as ammonia and carbon dioxide.

As indicated earlier, the SVC concluded that tail-biting should be solved by improved management rather than by tail-docking. In their report the SVC (1997) said that:

"Other methods [other than tail-docking] *for the reduction of tail-biting exist. When pigs with intact tails are fed an adequate diet, provided with sufficient water, provided with straw or other manipulable materials, or earth for rooting, and kept at a stocking density which is not too high, tail-biting is seldom serious* (Van Putten 1980, Feddes & Fraser 1993, Fraser 1987, a, b, Fraser & Broom 1990, p. 327)".

The SVC went on to stress that:

> *"Tail-biting is an indication of an inadequate environment and indicates that welfare is poor in the animal carrying out the biting"* (SVC, 1997).

A similar approach has been taken by Broom (1998) who has written that as tail-docking can in some cases lead to frequent or continuous pain throughout the pig's life:

> *"tail-docking should be banned and housing systems modified so that tail-biting does not occur. Lower stocking density, greater environmental variety and adequate supply of good food and water <u>can prevent almost all tail-biting</u>* - (our emphasis). *Tail-biters should be removed from groups".*

The SVC also took the practical, common-sense approach of advising that *"pigs that develop destructive behaviours should be removed from the group".*

Indeed the notion that tail-biting should be addressed by improving the conditions in which the pigs are kept was forcibly expressed as early as 1991 by Arey (1991) in a review of the scientific literature. He concluded that:

> *"The prevention of tail-biting should be approached by improving the conditions in which the pigs are kept. The first measures which should be taken are the provision of bedding and more space to prevent overcrowding ... Tail-biting is a sign that something is wrong with the system whether it is due to boredom, overcrowding, poor ventilation or diet. Its prevention should be of paramount importance".*

<u>Provision of straw</u>

A key factor identified time and again by researchers as being central in the prevention of tail-biting is the provision of straw or some other material which pigs can manipulate to perform their natural foraging and exploratory behaviours (see Arey, 1991 & SVC, 1997). The provision of straw can alleviate the impoverished environments which are the norm in intensive husbandry systems.

In one study pigs were kept either with or without straw (Van Putten, 1969). Tail-biting took place in 11 out of 12 bare pens, but in only 2 out of 13 straw pens.

Another study found that pigs given straw were more active, with 25% of their active behaviour being directed towards the straw, such as chewing and carrying it (McKinnon et al, 1989). They also found a higher incidence of chewing of penmates and pen fittings amongst pigs housed on perforated floors (i.e. without straw). The authors observed that chewing of penmates was rarely seen in pigs who were given straw.

Pearce (1993) examined the welfare of growing/finishing pigs in four different treatments: a system called straw-flow; deep-straw; bare concrete; and fully slatted. She found that in the two systems without straw there was significantly more chewing of penmates than in the straw-based systems. She wrote:

> *"These differences were thought to be due to a lack of suitable malleable substrate on the no straw treatments which caused a redirection in the exploratory and foraging behaviour of the pigs compared to the pigs from the straw treatments".*

A number of other studies show that tail-biting is significantly reduced by the provision of straw. For example, Madsen (1980) found that on slatted floors 29% of pigs were tail-bitten compared with 2% on bedded floors.

The SVC (1997) emphasised the importance of straw in providing an outlet for chewing and rooting (as well as its role in providing physical and thermal comfort and dietary fibre). The SVC stated that *"a major function of straw is to provide a stimulus and outlet for rooting and chewing, resulting in a reduction of such activities directed at penmates* (Fraser et al, 1991). *Destructive behaviours like tail-biting or oral stereotypic activities (i.e. bar-biting) are reported to be reduced by straw* (Fraser 1975, 1985, Fraser et al, 1991; Spoolder et al, 1995)". The SVC concluded that *"Tail-biting, abnormal levels of aggression and other behavioural disturbances are more likely among fattening pigs when kept in barren environments".*

The barrenness of intensive pig units is often compounded by severe overcrowding. Tail-biting is more likely to occur in overcrowded conditions (Penny et al, 1981).

CIWF Trust believes that the answer to tail-biting lies in the provision of conditions which respond to pigs' behavioural needs. In their study Stolba & Wood-Gush (1989) stressed that *"given a rich range of environmental features, the stereotypies and 'vices' encountered in some types of intensive housing were missing"*.

Other factors which should be addressed to prevent tail-biting

The Scottish Pig Industry Initiative (SPII) Guide identifies the following factors which, if addressed, can contribute towards preventing tail-biting:

* lack of stimuli in the pen environment can cause unwanted behaviours; this, says the SPII Guide, is *"clearly demonstrated by the reduction in pig-to-pig behaviours when straw is added to a barren pen"*.

* the incidence of tail-biting is arguably at its highest in January to March. This period coincides with weather conditions which promote low ventilation rates.

* elevated ammonia and carbon dioxide concentrations, associated with waste management and/or ventilation problems, can cause pigs sufficient distress to increase irritable behaviours. Floors and bedding must be kept dry to prevent increased levels of ammonia being released. Slurry levels below slats must be kept less than two-thirds full, and draughts under slats must be avoided as they release more ammonia.

* dust irritates respiratory problems and, says the SPII Guide, may serve to unsettle groups of pigs. The Guide sets out a range of measures designed to reduce dust concentrations.

* temperature fluctuations over any 24-hour period should be kept to a minimum. The Guide states that the higher the frequency of temperature cycles, the higher the occurrence of animals with diarrhoea and tail-biting.

* low temperatures and increased air speed, namely a cold draught, will increase the chill factor of pigs. There is evidence, says the Guide, that increased stocking rates, compounded with increased chill factor, will increase the incidence of tail-biting.

* there is a strong but highly variable response to blood in experiments where chewing behaviour has been examined. This may explain why a relatively minor tail injury can stimulate a large but unpredictable increase in tail-biting. The Guide advises that even minor tail damage should be treated as quickly as possible. Moreover, badly bitten pigs should be removed to a sick pen.

The legal position

Routine tail-docking is prohibited in EU law by the Pigs Directive (91/630/EEC) which has been implemented in Britain by the Welfare of Livestock Regulations 1994. The law, both EU and British, provides an exception whereby farmers may tail-dock when there is evidence, on the farm, that tail-biting has occurred as a result of a failure to tail-dock.

This approach misunderstands the problem. As indicated above, tail-biting occurs not because of a failure to tail-dock, but because of, among other things, overcrowding and a failure to provide an environment which enables pigs to engage in natural behaviours, such as foraging and exploring.

As a result of the very broad exception provided by the law, the prohibition on routine tail-docking has been widely ignored, with 75-80% of piglets still being tail-docked.

CIWF Trust believes that the law should be strengthened to provide an effective prohibition on tail-docking. Certainly the science would justify such an approach. We recognise that there needs to be an exception, but it should be so worded as to apply only in exceptional circumstances; the exception should not, as at present, become the norm.

CONCLUSION

Scientific research has established that tail-docking is painful not only at the time when it is carried out, but that in some cases it leads to prolonged pain.

The science also shows that tail-docking is unnecessary. CIWF Trust fully agrees with the European Commission's Scientific Veterinary Committee that *"the problems of injury following tail-biting should be solved by improved management rather than by tail-docking"*.

The majority of tail-biting can be prevented by keeping pigs in good conditions: in particular, by giving them straw or some other material which they can manipulate, enough space to prevent overcrowding and an adequate supply of good food and water. Other steps which should be taken to prevent tail-biting include: reducing dust concentrations, providing good ventilation, keeping ammonia levels low and removing tail-biters from the group.

In the light of the above, CIWF Trust believes that an effective prohibition on routine tail-docking should be introduced as a matter of urgency.

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