GUIDANCE ON COMPLIANCE WITH PROVISIONS OF COUNCIL DIRECTIVE 2008/120/EC LAYING DOWN MINIMUM STANDARDS FOR THE PROTECTION OF PIGS

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Council Directive 2008/120/EC (the Pigs Directive) codifies Council Directive 91/630/EEC as amended in 2001.

Requirement to provide enrichment materials

Paragraph 4 of Chapter I of the Annex to the Pigs Directive provides that pigs must be given enrichment materials, specifically that they "must have permanent access to a sufficient quantity of material to enable proper investigation and manipulation activities, such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such…".

Farmers may use a material other than one of those specified in paragraph 4 but the term "such as" means that the material provided must be as effective as those listed in fulfilling the objective of the legislation which is that pigs must be able to engage in "proper investigation and manipulation activities".

Scientific research gives clear guidance as to which materials are effective, and which are not effective, in enabling pigs to engage in "proper investigation and manipulation activities".

A report by the European Food Safety Authority (EFSA) has examined the research and concluded that enrichment materials should be complex, changeable and destructible.[1] An EFSA Opinion based on the report stresses that indestructible objects such as chains or tyres are not sufficient to provide for the manipulatory needs of pigs and so they may only be used as a ***supplement*** to destructible and rooting materials ***but not as a substitute for them***.[2] Another EFSA Opinion concludes that toys such as chains, chewing sticks and balls are not effective enrichment materials.[3]

To sum up, the provision of chains, tyres, chewing sticks, toys and balls does not fulfil the requirements of paragraph 4 of the Annex as scientific research shows that these objects do not enable pigs to engage in "***proper*** investigation and manipulation activities".

Prohibition of routine tail docking

Paragraph 8 of Chapter I of the Annex provides that: "Before carrying out [tail docking], other measures shall be taken to prevent tail biting … taking into account environment and stocking densities. For this reason inadequate environmental conditions or management systems must be changed."

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[1] Scientific Report of the Panel on Animal Health and Welfare on animal health and welfare in fattening pigs in relation to housing and husbandry. *The EFSA Journal* (2007) 564, 1-100

[2] Scientific Opinion of the Panel on Animal Health and Welfare on a request from the Commission on animal health and welfare in fattening pigs in relation to housing and husbandry. *The EFSA Journal* (2007) 564, 1-14

[3] Scientific Opinion of the Panel on Animal Health and Welfare on a request from Commission on the risks associated with tail biting in pigs and possible means to reduce the need for tail docking considering the different housing and husbandry systems. *The EFSA Journal* (2007) 611, 1-13.

Scientific research has identified the factors that are most likely to cause tail biting. In 2007 EFSA produced a report that reviewed the scientific evidence in this area and, in an Opinion based on the report, concluded that "the largest risk for being tail bitten is the lack of appropriate enrichment".[4] The Opinion goes on to state that the principal causal factors of tail biting are:

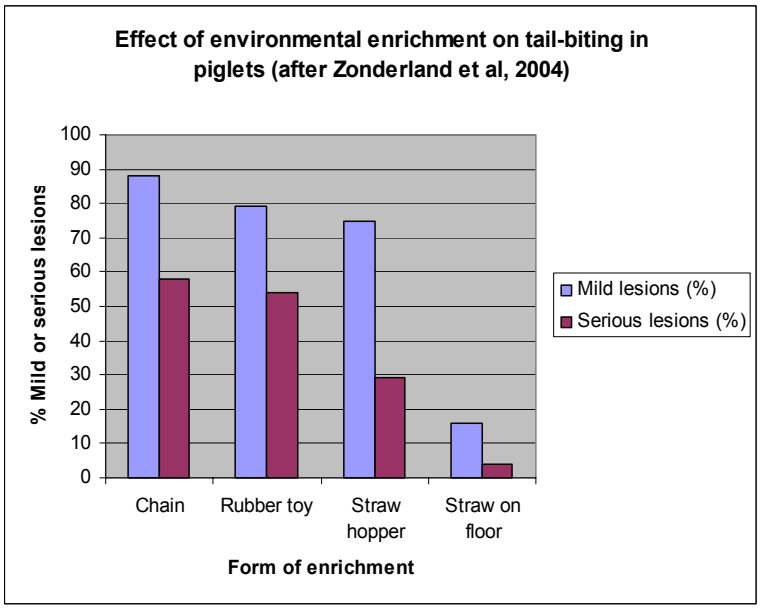
> "the absence of straw, the presence of slatted floors and a barren environment. Absence of straw or a particulate, rootable substrate is an important hazard for tail biting. However, both the amount of straw (full bedding better than limited provision from a rack) and its form (long straw better than chopped) are also of importance. … there is little evidence that provision of toys such as chains, chewing sticks and balls can reduce the risk of tail biting."

EFSA's recommendations stress that: "To minimise the risk of tail-biting, it is recommended to address the following major risk factors: (i) provision of straw, preferably as bedding, and (ii) proportion of slatted floors in housing systems for fattening pigs".

EFSA has also stated that home-made plastic objects (such as 'helicopter' toys) or commercial equivalents (such as the Bite Rite plastic 'chew-toy') "appear to be relatively ineffective at preventing tail biting".[5]

Data published by the British Pig Executive shows that pigs kept on slats have very much higher levels of tail biting than those kept on straw.

Zonderland and others investigated the effects of different kinds of enrichment on the number of mild and serious injuries caused by tail-biting.[6] Their results are shown in the following chart:



This shows that straw on the floor is much more effective in preventing tail biting than chains, rubber toys or straw in a hopper.

However, straw in a hopper, though not as effective as straw on the floor, is more effective in preventing serious tail biting than chains or rubber toys.

[4] As 3

[5] Scientific Report of the Panel on Animal Health and Welfare on a request from Commission on the risks associated with tail biting in pigs and possible means to reduce the need for tail docking considering the different housing and husbandry systems. *The EFSA Journal* (2007) 611, 1-98

[6] Zonderland, J.J., Fillerup, M., Hopster, H. & Spoolder, H.A.M., 2004. Environmental Enrichment to Prevent Tail-biting. In: Proceedings of the Annual meeting of the International Society for Applied Ethology, Helsinki, Finland, p124

A farmer who does not provide any enrichment materials or only provides materials established by scientific research as being ineffective has failed to change "inadequate environmental conditions". Accordingly, the farmer has not fulfilled the conditions – set out in paragraph 8 - that would allow him to lawfully tail dock.

Other measures that have been shown by scientific research to lower the risk of tail biting include: ensuring that each pig has adequate feed intake and avoiding competition for feed; ensuring diet is adequate in salt and essential amino acids, and avoiding sudden change in diet composition, especially to a lower nutrient density; providing access to clean drinking water; avoiding heat or cold stress and high airspeed; ensuring pigs are in good health; avoiding mixing pigs; and removing tail biters and victims from the group. These measures are identified by EFSA in its Opinion on tail biting.

Please note that:

- Paragraph 8 does not provide that a veterinarian may certify that a farmer may tail dock. Accordingly, the presence of such a veterinary certificate does not of itself establish that a farmer has taken "other measures" to prevent tail biting and in particular has changed "inadequate environmental conditions or management systems".
- The fact that a farmer has at some previous time - possibly in the distant past – tried to prevent biting but without success, does not necessarily absolve him of the need to continue to try to prevent biting by measures other than docking. Paragraph 8 requires farmers to make serious and sustained attempts to find other ways of preventing tail biting.

Requirement to house sows in groups from 2013

The risk of aggression in group housed sows can be prevented by good management. The main causes of aggression are competition for food and mixing sows that are unfamiliar with each other.

Avoid mixing

The EFSA Opinion on sows recommended that unfamiliar sows should not be mixed.[7] They concluded that "Keeping sows in intact groups from weaning to the end of pregnancy reduces aggression to a minimum compared to keeping them in dynamic groups, where new animals are repeatedly introduced". EFSA added that, where there is a large dynamic group, pre-mixing small groups of sows before introduction to the group reduces aggression at mixing. EFSA also said that grouping sows of the same age or size minimizes the risk of welfare problems in low ranked animals.

[7] Scientific Opinion of the Panel on Animal Health and Welfare on a request from the Commission on Animal health and welfare aspects of different housing and husbandry systems for adult breeding boars, pregnant, farrowing sows and unweaned piglets. *The EFSA Journal* (2007) 572, 1-13

Aggression at feeding

A number of approaches have been developed to reduce competition and aggression at feeding in group-housed sows. These include:

- ***Electronic sow feeders***: these allow sows to feed undisturbed and be given an individual ration tailored to their needs.
- ***Individual feeding stalls***: the sows are locked in the stalls just at feeding time. These allow sows to feed simultaneously whilst protecting them from each other. This system practically eliminates aggression whilst enabling extra feeding for sows that are out of condition.
- ***Trickle feeder system***: food is delivered slowly over long periods into individual feeders. Providing the food in a slow trickle discourages a greedy sow from eating her meal quickly then trying to steal food from another. Just as she thinks her food is finished, a little more trickles down and regains her interest.
- ***Dump feeders & scatter feeders***: Food is scattered into the straw by scatter feeders or dump feeders: the latter are automated dispensers fitted near the ceiling. Aggression is minimized as the sows are occupied for relatively long periods in rooting for food.

Requirement to provide bulky or fibrous food & manipulable material

Chronic hunger and lack of opportunities to express foraging and exploratory behaviour can also contribute to stress and aggression in sows

The Pigs Directive provides that:

- in order to satisfy their hunger and given the need to chew, pregnant sows must be given a sufficient quantity of bulky or high-fibre food as well as high-energy food
- sows must have permanent access to manipulable material.

The provision of fibrous food gives the sow a means of adding bulk to her diet, thereby helping to satisfy feelings of hunger that can otherwise be a factor leading to aggression.

The best way to satisfy the need for access to fibrous food is to provide a deep bed of straw, wood chips or similar material. This will also fulfil the Directive's requirement for sows to have permanent access to manipulable material. Other ways of providing fibrous food include the provision of grass silage and the addition of vegetable pulp to the feed, making it more bulky and therefore more satisfying.

Other measures to prevent aggression

Aggression can also be reduced by providing plenty of space. Barriers that sows can escape behind can also help weaker sows to escape during conflicts over dominance. Any particularly aggressive sows should be removed from the group. Even temporary removal will often solve the problem.

Tooth clipping and grinding

The Directive prohibits routine tooth clipping and grinding. It provides that before carrying out these procedures "other measures" must first be taken to prevent piglets injuring each other and the sow's teats.

Scientific research gives guidance as to the other measures that can be taken to prevent such injuries. EFSA has stated that "competition for access to the teats is increased in large litters"; in some cases there may be more piglets than functional

teats.[8] Increased competition for teats and milk can lead to an increase in teat and face injuries.

Risk of damage to teats and to each other's faces is reduced if all the piglets get a plentiful supply of milk. Ensuring sustainable milk supplies to piglets can be achieved by a combination of:
• Breeding sows with smaller litters
• Breeding and selecting sows with sufficient numbers of teats for their piglets
• Breeding and managing sows so that they reliably produce sufficient milk for their piglets.

Research indicates that the provision of enrichment and adequate space has a beneficial effect on sow health and welfare leading to higher feed intake and increased milk production. Better milk production means less competition for teats and higher weaning weights.

The provision of enrichment and adequate space also has a beneficial impact on piglet behaviour. In systems with little or no enrichment, there may be increased damage to sows' teats as piglets spend less time interacting with their environment and more time engaging with the sow.[9] Moreover, piglets housed in small pens show increased aggressive behaviour, including biting of other pigs compared to piglets housed in larger pens.[10]

Finally, EFSA noted that the incidence of injuries to sows' teats is similar whether piglets' teeth are shortened or left intact.[11] Gallois and others concluded that overall, tooth clipping or grinding has very little effect on sow mammary injuries and litter performance.[12]

Research indicates that tooth grinding leads to less damage to the teeth of piglets than teeth clipping. Accordingly, if farmers wish to shorten teeth, grinding rather than clipping should be used.

[8] Scientific Report on animal health and welfare aspects of different housing and husbandry systems for adult breeding boars, pregnant, farrowing sows and unweaned piglets. *The EFSA Journal* (2007) 572, 1-107.

[9] Lewis, E; Boyle, LA; O'Doherty, JV; Lynch, PB; Brophy, P (2006) The effect of providing shredded paper or ropes to piglets in farrowing crates on their behaviour and health and the behaviour and health of their dams. *Applied Animal Behaviour Science*, 96: 1-17.

[10] Hvozdik, A; Kottferová, J; da Silva Alberto, J (2002). Ethological study of social behaviour of pigs from the point of view of housing restriction. *Archiv für Tierzucht Dummersdorf*, 6: 557-563.

[11] As 8

[12] Gallois, M; Le Cozler, Y; Prunier, A (2005). Influence of tooth resection in piglets on welfare and performance. *Preventive Veterinary Medicine*, 69: 13-23.

CASE STUDIES

1. Schleithal, France

In this enriched indoor system the pens for the sows and fattening pigs contain deep-bedded straw. The provision of straw enables the farm to fulfill the Directive's requirements to provide permanent access to enrichment materials and to give bulky or high-fibre food to pregnant sows. The buildings are either open sided or have access to outdoor runs so that the pigs get plenty of daylight and fresh air.

The farm's high welfare status means that the farmer receives a premium for his pigs that is higher than the conventional price. The farmer believes that high welfare and high quality are a good combination for marketing his products.

The sows are housed in spacious deep-bedded pens

The farm uses electronic feeders to prevent aggression at feeding. The sows are kept in groups of 30. This group size is small enough for them to form a stable hierarchy so that aggression is reduced. Although there is some fighting when the sows are first mixed they soon settle down. Most of the sows can be seen relaxing, nosing through the straw and chewing.

The piglets are not teeth-clipped. If there is evidence of damage to the sow's udder or to piglet faces, the farmer uses a teeth grinder. This is used to blunt the tips of the eye-teeth. Teeth grinders cause much less pain and involve less risk of infection.

Nor are the piglets tail-docked. Because they remain in enriched environments throughout their lives tail biting is not a problem on this farm. After weaning, the young pigs are moved to weaner pens containing straw bedding and roofed kennels

to keep them warm. Space is restricted at the start to encourage the pigs to defaecate in an outer corridor that is open sided and has a roof. A small entrance with a rubber flap joins the kennel area and outer corridor.

As the pigs grow, they are moved to larger pens and group size is reduced from 80 in the weaner pens to 15-20 in the grower pens. In these smaller groups, the social structure is more stable and fighting is reduced.

The weaner pen contains straw bedding and a kennel to keep the pigs warm

The grower/finisher pen is straw bedded & open sided

2. Farma Sasov, Jihlava, Czech Republic

The pigs live in an enriched indoor environment with access to an outdoor run. All the pens for the family groups and the growing pigs have a deep layer of straw which enables the pigs to engage in investigation and manipulation activities. The farmer also has a supply of stale unsold bread and rolls. These are fed to the pigs as a further source of dietary and environmental enrichment. The straw and bread meet the Directive's requirement that pregnant sows must have bulky food. Mixing takes place as little as possible thereby minimizing stress and aggression.

Tail docking is not practised on the farm since, in an enriched environment which gives the pigs plenty to do, tail-biting is not a significant problem. Tooth clipping is practised on an individual basis, for example with a large litter where the sow might suffer more from biting piglets.

Straw bedded pens for the growing pigs

Young pigs on straw

© Vaclav Vasku

3. Bishop Burton College, Yorkshire, United Kingdom

This system is certified by the RSPCA Freedom Food scheme.

The dry sows are kept in groups of nine in a deep bedded system, two thirds of them in indoor pens. New straw is provided twice per week. It takes the sows several days to break up the new straw, so there is always fresh material to keep them occupied. Access to fresh straw ensures that there is always bulky fibrous food available to satisfy their hunger.

There is a dump feeder above each pen. Spreading the food reduces competition so there is very little aggression. Since the food becomes mixed in with the straw, it takes the sows about four hours to find it all, simulating natural feeding and helping to keep hungry sows foraging.

The batch farrowing system, with a new group farrowing every two weeks, has been designed to ensure that the sows are kept in stable groups as far as is possible. The only exceptions to the stability are the introduction of gilts to replace culled sows and the occasional “return” where a sow fails to conceive. Since conception rates are well above 93%, this only happens rarely.

Group housed sows on deep straw. Note the automatic dump feeders above the pens.

The combination of stable groups and scattered feed helps to ensure that the sows can be kept in groups without major problems of aggression. Reducing stocking densities, as required by RSPCA Freedom Food, also helps. The provision of plenty of straw for foraging also helps to keep the sows calm. The 81 sows are provided with 6 large “mini-Heston” bales of straw per week, weighing approximately 1.5 tonnes.

Each batch of pigs is weaned into two single sex groups of 65-75 on very deep beds of straw. As they grow, they are moved to a larger pen which has a layer of 60cm of straw in the middle, sloping down to the sides from where the manure is removed mechanically using a tractor and scraper.

The fattening pigs are split up at 11 weeks into two smaller groups of 30-35 in identical pens. The system is designed so that piglets from different litters are only mixed at weaning. Keeping them in stable groups after this helps to minimise aggression.

© Bishop Burton College

The straw for the growing and fattening pigs is replaced daily which ensures that there is always fresh material to encourage foraging behaviour and investigative, manipulative and ingestive activity; this reduces the risk of tail biting.

Tail docking has not been practised for over two years. There have been no serious outbreaks of tail-biting. Where occasional problems have arisen, they have been in individual pens and usually with an identifiable cause, e.g. a feeder breakdown.

According to the farm manager, the key to keeping tails on pigs without tail biting is to have a low stocking density, as required by the Freedom Food scheme, providing fresh straw daily, ensuring a regular food supply and that there are no “upsets.”

The pigs are weaned at four and a half to five weeks since this fits in with the batch farrowing system. Later weaning produces healthier pigs and may also reduce the risk of tail biting.

Although the system is part of a college, the farm is run as a separate business. The College pays for educational costs incurred, but otherwise the farm has to be self financing. Produced to high welfare Freedom Food standards, the meat is sold as a premium product in supermarkets and earns a premium rate of approximately 4% for the farm.

November 2009

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