



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

Health and food audits and analysis

DG(SANTE) 2016-8772 - MR

FINAL REPORT OF A STUDY VISIT
CARRIED OUT IN
SWEDEN
FROM 23 FEBRUARY 2016 TO 26 FEBRUARY 2016
IN ORDER TO
SHARE BEST PRACTICE ON REARING PIGS WITH INTACT TAILS

In response to information provided by the Competent Authority, any factual error noted in the draft report has been corrected; any clarification appears in the form of a footnote.

Executive Summary

This study visit took place in Sweden from 23 to 26 February 2016 and is one of three visits, along with Finland and Switzerland, to see how these countries manage to keep pigs with intact tails. The study group was made up of two commission officials and a national expert from Belgium, France, the Czech Republic, Hungary and United Kingdom. The objective was to facilitate the five national experts to assess the situation in a country which has successfully implemented a ban on routine tail docking of pigs, to identify good practices and consider how these might be incorporated into their approach to this issue.

The study visit approach is part of the Commission's initiatives to address long standing problem areas for animal welfare. Previous study visits on the welfare of animals during transport have led to increased co-operation and communication between the competent authorities of the Member States and improvements in controls. This study visit looked at the background and ongoing implementation of low stress pig production in order to achieve rearing of pigs with intact tails. The national experts met a wide range of stakeholders including, competent authorities, pig farmers and producer associations, representatives from the meat industry, farm advisory services and veterinary practitioners.

Following the visit, the five national experts considered the practical relevance of the activities and information from the study visit, and reviewed this together with their administrations. The CAs of the five national experts indicated that despite differences in the model of pig production, the study visit was beneficial to see solutions to the tail-biting/tail docking issue, and would seek to disseminate the good practices seen in Sweden.

Belgium is developing a communication strategy and Hungarian and Czech authorities are considering funding to support change. United Kingdom will hold discussions with interested parties, including the pig industry and the authorities which enforce farm animal welfare legislation. The French authorities are setting up a working group with representatives from farm technicians, pig producers, veterinarians, scientists and technical institutes as well as animal protection NGOs and the local CAs. As well the French government's action plan on animal welfare 2016-2020 has allowed work to be prioritised on improving living conditions of pigs, with applied research projects to develop pig production buildings compatible with the supply of litter and reduce risk factors for tail-biting. The French CA are also planning a network of pilot farms raising pigs with intact tails to help provide models for changing practices.

The Commission services will hold a meeting with stakeholders and experts from all MS to consider the overview from this series of study visits and will upload all the documents considered useful to a collaborative group site on the Commission's database (CIRCABC¹) for sharing information with, amongst others, public administrations.

¹ CIRCABC (Communication and Information Resource Centre for Administrations, Businesses and Citizens) is an open-source, web-based application which enables geographically spread collaborative groups to share information and resources in private workspaces: <https://circabc.europa.eu>

Table of Contents

1	Introduction	4
2	Objectives and scope.....	4
3	background.....	5
4	Factors to maintain pigs with intact tails	6
5	Closing Meeting.....	9
6	Overall conclusion	9
7	Issues considered by participating CAs for inclusion in their system of controls	10

ABBREVIATIONS AND DEFINITIONS USED IN THIS REPORT

Abbreviation	Explanation
CA	Competent Authority
EC	European Community
EU	European Union
MRSA	Methicillin-resistant Staphylococcus aureus
MS	Member State

1 INTRODUCTION

This study visit took place in Sweden from 23 to 26 February 2016 and is one of three visits, the others are to Finland and Switzerland, to see how these countries manage to keep pigs with intact tails. The study group comprised two members of the Commission Services and a national expert from each of the following Member States (MS): Belgium, France, the Czech Republic, Hungary, and the United Kingdom. The study group was accompanied throughout the visit by representatives of the Swedish Competent Authority, the Swedish Board of Agriculture (hereafter “the CA”).

This study visit is part of the Commission's initiative to achieve better implementation of the EU legislation on the protection of pigs² which requires that tail docking must not be carried out routinely but only where there is evidence that injuries have occurred. Before carrying out these procedures, other measures shall be taken to prevent tail-biting and other vices, taking into account environment and stocking densities. For this reason inadequate environmental conditions or management systems must be changed. A Commission Recommendation has been recently published which provides measures which should be applied in accordance with Directive 2008/120/EC³.

2 OBJECTIVES AND SCOPE

The objective was to facilitate the five national experts to assess the situation in a country which has banned routine tail docking of pigs, to identify good practices and consider how these might be incorporated into their countries' approach to this issue.

In terms of the scope, the CA was asked to present: the background to banning tail docking in Sweden, the economic impact of such a ban, involvement of different stakeholders, how tail biting is managed, and official controls of farms.

In pursuit of the objective the following meetings were held and sites visited:

Meetings/visits		No.	Comments
Competent Authority	Central	2	Initial and closing meetings
	County	1	Official controls of farms
Farms		1	Visit to one farm with 450 breeding sows producing 12,000 piglets to 30kg annually. Meeting with a second farmer keeping 2,000 sows producing 54,000 piglets a year.
Slaughterhouse		1	Role in detecting tail biting problems; clarification of economic aspects.
Other Stakeholders		4	Representatives of: pig producers association, Farm and Animal Health ⁴ private practitioners, University.

² Paragraphs 4 and 8 of Annex I of Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47 18.2.2009).

³ Commission Recommendation (EU) 2016/336 of 8 March 2016 on the application of Council Directive 2008/120/EC laying down minimum standards for the protection of pigs as regards measures to reduce the need for tail-docking

3 BACKGROUND

1. In Sweden managing pigs with intact tails is a part of a more general policy to prevent problems by promoting low stress farming systems rather than using mutilations to mask problems. The objective has been to raise health, production performance and animal welfare and help prevent tail biting as a secondary effect.
2. Swedish pig production has never had a tradition of routine tail docking. Tail docking is formally prohibited since 1988 except for veterinary reasons, and may only be carried out by a veterinarian. As a result farmers work on the basis that they cannot routinely dock tails and have learned to manage pigs with intact tails. This 1988 law also makes a strong correlation between animal health and welfare.
3. Sweden has seen a significant drop in its pig production over the last 20 years, although there has been a similar decline in numbers of pig farmers in other MS, unlike the rest of the EU Sweden has also seen a dramatic fall in numbers of pigs: four million slaughtered in 1995 to 2.5 million today (1% of EU total).
4. Following the difficult financial situation for Swedish pig producers, an action plan was initiated in 2014 by the government and the Swedish Board of Agriculture and agreed between the CA, pig producers, retailers and banks to promote Swedish production and consumption. Actions included promotion campaigns with retailers stocking almost exclusively Swedish pig meat, and banks and slaughterhouses sharing farm investment risk. There has been a recent expansion in pig numbers and farmers who succeed in Sweden are the ones that invested, persuaded banks or invested more time in management systems and in getting the right staff who can focus on maintaining a low stress environment for the pigs.
5. Pig prices are currently higher than the rest of the EU (€180/100kg deadweight). Food conversion efficiencies (670g/day) also put Sweden well above average but litter sizes are lower (average 23 piglets per sow per year) and there are high mortalities pre-weaning (18%). On this last point the CA indicated that comparison of pre-weaning mortality is difficult as the day counting starts differs between MS.
6. The main costs in Swedish pig production are purchasing/producing piglets (53.3%) and feed (41.6%) whereas straw/litter is 0.25%.
7. In addition to the ban on tail-docking, Sweden goes further than EU requirements on certain other aspects of pig management. A significant difference from all other MS is a ban on the use of the farrowing crate. Sows cannot be kept restrained in Sweden. This greater space per sow, as well the climate, means Sweden has among the highest costs in the world for pig buildings. To facilitate this farmers can obtain funds:

⁴ Farm and Animal Health provide advice to farmers and is owned by Slaughterhouse operators and data from slaughterhouses is used to trigger advice.

- a. "Sow money" 1000 SEK (€108) per sow per year, through rural development funding. Conditions of compensation includes specific measures taken in production in areas such as, production planning, analyses of feed water or bedding material, routines at feeding, body condition assessments and analyses of production results.
 - b. "Scrotum money" €0.7 per pig castrated, through national funding. Farmers must use analgesia and anaesthesia.
8. The cost and benefit of keeping pigs with intact tails cannot be easily separated as the overall costs and financial supports per pig (5, 6 & 7 above) are closely interlinked with other issues e.g. higher pre-weaning mortalities⁵. The non-use of farrowing crates may also have an effect on successfully keeping tails intact by favouring a low stress husbandry environment.
 9. There is a strong national market for pig-meat with consumption of 36 kg per person per year. According to the CA, events such as the horse meat scandal and MRSA deaths in Denmark led to much public discussion on retailers routinely buying meat products from countries where producers are carrying out routine docking or use more antibiotics in farm animal production. However, Swedish retailers are not significantly driving progress in animal welfare.

4 FACTORS TO MAINTAIN PIGS WITH INTACT TAILS

10. All stakeholders reported that tail biting was not an issue, and when it did occur was mostly individual animals which were quickly identified. Biters were universally seen as a sign of a stressed pig. Outbreaks could occur when a group was stressed, usually associated with problems at feeding time or with ventilation. Such stresses would act as a tipping point if other risk factors were already present.

The information below is provided under headings which are the risk parameters in Article 3 of Commission Recommendation (EU) 2016/336. All stakeholders emphasised that to keeping pigs with intact tails a full assessment should be made of environmental conditions and management systems, not one single factor on its own⁶.

⁵ *In their response to the draft report the Competent Authority noted that there is no clear scientific or practical evidence that the use of farrowing crates reduces piglet mortality or that the non-use of the crates would instead increase piglet mortality. The issue is extremely complex with many interacting factors. For example: the use of farrowing crates hinders the sows from successfully perform nest building behaviour (even if they have access to proper nesting material). This increase time of labour is a risk factor for piglet mortality. Autopsies of supposedly crushed piglets often shows that the piglets may have been just hours from perish by causes like fatigue, hypothermia and/or starvation. Causes that impair the piglets and as a secondary effect increases the risk of being crushed by the sow.*

⁶ Genetics are also a possible factor considered by researchers as leaner pigs are selected for economic reasons but their genetics might make them more prone to stress. Genetic selection has not been used in Sweden to avoid tail-docking, but has been used more recently to improve sow fitness, especially the prevalence of shoulder wounds. The female is commonly Yorkshire and Norwegian Landrace the male Hampshire/Duroc. *In their response to the draft report the Competent Authority noted that Sweden no longer has its own breeding development of male genetic material. This is due to economic reasons.*

Provision of enrichment materials

11. There are ample supplies of straw in Sweden and this is the main form of enrichment material. The concept for delivery of enrichment material is checked by the County CA as part of its approval procedure when animal housing is constructed or new technology installed.
12. The Swedish Animal Protection Ordinance regulates that all pigs should have permanent access to straw or similar litter material. For growing pigs straw is supplied daily. 10% of labour time is spent managing straw and bedding⁷, 20% for removal of material and slurry, scraping the pens and slurry channels. The benefits from providing this material is that it combats potential losses from tail biting in growing pigs, speeds up farrowing in sows, and the time distributing straw facilitates inspection and early intervention when a problem occurs.
13. The material itself represents 0.25% of costs in fattening farms equal to 6kg of straw per finished pig and 2.8-4% for breeding units with 650-1000kg of straw per sow per year provided.
14. Swedish research indicates 300g of straw per day per growing-finishing pig is the optimum to increase exploratory behaviour and suggest a minimum of 200g per pig. The farm visited was successfully keeping pigs with intact tails providing only 30g of straw per growing pig per day⁸.
15. Actions to deal with an outbreak of tail-biting might include putting rope in the pen as an additional enrichment material.

Cleanliness

16. Newer houses have heat exchangers to extract the temperature differential from slurry leaving the building and the outside ambient temperature, and use this to heat the building. Heated floors are drier and as a result pigs are cleaner.
17. Straw in excess can allow pens to become very dirty, so it is important to manage this.

Thermal comfort and air quality

18. Heated floors provide thermal comfort and reduce levels of ammonia. Partially solid floors provide comfort and allow straw to be distributed.
19. A consultant private pig veterinarian, with experience in both Denmark and Sweden, indicated that getting ventilation right on fully slatted floors is difficult and very good ventilation is needed to keep pigs with intact tails in such systems.

⁷ Costs and labour times were provided by Farm and Animal Health service.

⁸ *In their response to the draft report the Competent Authority noted that to provide amounts of about 30 grams of straw per pig per day is fairly common procedure among Swedish pig producers.*

Health status

20. Good overall health is seen as one of the best preventative measures to avoid tail biting. Private veterinarians are on most pig farms every month; private rather than official veterinarians are seen to be in a better position to work with farmers to solve problems. Farmers may use defined medicals, including antibiotics under a treatment scheme which requires a visit from their nominated private veterinarian at least every five weeks. Veterinarians also make a declaration regarding their animal welfare status at the time of this visit using an officially approved checklist.

The CA hold meetings with private veterinarians so that they carry this out in a consistent way and farmers also undergo training. The CA uses the animal welfare declarations for risk assessment; 10% of farms are the subject of official controls annually.

21. There is a higher minimum age for weaning piglets in Sweden, as exceptions to weaning before 28 days are not permitted. Stronger healthier piglets are seen to allay the costs of one or two fewer piglets per sow per year, as they are less likely to need treatment, additional labour costs, and specialised feed: to keep additional pigs alive is three to four times more expensive than normal.
22. Sweden has the lowest antibiotic use in pig farms in the EU, and the CA pointed out that antibiotic use may lower production costs in other MS by masking a compromised health status. A private veterinarian pointed out that 75-80% of antibiotics in pig farms in the rest of the EU were in feed or in water medication for 10-30 kg pigs, whereas this was not the case in Sweden. Pigs which do become ill are treated individually, and batch treatment of pigs is uncommon. Where antibiotics are used to treat a pen of pigs this is usually to treat diarrhoea caused by *Lawsonia intracellularis*. Diarrhoea was considered as a risk for tail biting, as were skin infections with *Staphylococcus hyicus*, both of which leave pigs vulnerable to being bitten.
23. In Sweden treating sick slaughter pigs accounts for 6-7% and treating piglets and vaccinating sows 4% of labour time.
24. The private veterinarian met stated that the impact of tail docking as a preventive measure for tail biting is overestimated: if tail docking is needed there is a stress which needs to be addressed. He stated that to counteract tail biting in tail docked pigs there was a tendency to dock pigs very short in many MS. This contributed to osteomyelitis, lameness and mortality in these herds. Tail damage in Sweden is 2-2.5% which is similar to MS where tail docking is practised.

Competition for food and space

25. Space allowances in Sweden differ at certain stages of production from EU norms; more generous in the initial stages but overlap with EU requirements at later stages. The researcher met emphasised that pigs have a subtle body language to avoid fights and if they have insufficient space to carry this out this will cause stress. Several stakeholders

indicated that it was equally important to keep pigs of comparable size together to minimise stress due to competition, and farmers had to be good at sorting by size at time of weaning.

26. When pigs are fed at the same time, not ad lib, the minimum length of the trough space per pig is calculated using the formula: $0,164 + (\text{weight (kg)} / 538)$, no space is prescribed in EU legislation.
27. The general advice linked to the Swedish requirement of providing a designated separated space for animals in need of extra care, is the possibility to house at least one animal in 25, whereas in EU legislation there is a general requirement to care for sick or injured animals but with no specified ratio for sick pens per number of pigs. Lack of hospital pens was cited as a contributing factor to tail-biting incidents as biters and victims would not be dealt with properly.

Diet

28. Feed is one of the main costs (41.6%) and wet feeding of pigs has increased in the last 10 years. Wet fed pigs grow more evenly and food conversion efficiency (670g/day) in Sweden is well above the world average.
29. Access to water is important for pigs to feel well. The private veterinarian met pointed out that this is often overlooked.
30. When tail biting occurs 3kg of salt per tonne of feed was recommended by the private veterinarian; the period should not be too long to avoid pigs drinking too much.

5 CLOSING MEETING

On 26th February 2016 a closing meeting was held with the CA where the five national experts presented their preliminary conclusions on the study visit.

6 OVERALL CONCLUSION

The CAs of the five national experts indicated that despite differences in the model of pig production, the study visit was beneficial to see solutions to the tail-biting/tail docking issue, and would seek to disseminate the good practices seen in Sweden.

Belgium is developing a communication strategy and the Hungarian and Czech authorities are considering funding to support change. The United Kingdom will hold discussions with interested parties, including the pig industry and the authorities which enforce farm animal welfare legislation. The French authorities are setting up a working group with representatives from farm technicians, pig producers, veterinarians, scientists and technical institutes as well as animal protection NGOs and the local CAs. As well the French government's action plan on animal welfare 2016-2020 has allowed work to be prioritised on improving living conditions of pigs, with applied research projects to develop pig production buildings compatible with the supply of litter and reduce risk

factors for tail-biting. The French CA are also planning a network of pilot farms raising pigs with intact tails to help provide models for changing practices.

The Commission services will hold a meeting of experts from all MS to consider the overview from this series of study visits and will upload all the documents considered useful to a collaborative group site on the Commission's database (CIRCABC) for sharing information with, amongst others, public administrations.

7 ISSUES CONSIDERED BY PARTICIPATING CAS FOR INCLUSION IN THEIR SYSTEM OF CONTROLS

CA	Proposal for changes
BE	Planning a communication strategy about the topic towards pig farmers, including some demonstrations on actual farms.
CZ	<p><u>Support of pig industry:</u> Subsidies for pig breeders who don't dock tails (similarly to Lower Saxony, DE). Convincing farmers that if it is not necessary to dock tails in other country (or better -at his neighbor's pig farm) he could succeed too. Giving more information to consumers. A survey among consumers to see if consumers prefer animal welfare to price. Training and seminars for consultants, veterinarians, farmers.</p> <p><u>Management of farms:</u> Adding a little amount of straw more times per a day. Weaning of piglets on the 28th day or later. All in all out system. Early detection of tail biting/identification of a biter.</p>
FR	<p>The French CAs expressed their wiliness to participate in the monitoring of these three study visits on the issue of rearing pigs with intact tails.</p> <p><u>Short term:</u> To set up a working group with representatives from all interested parties in order to identify ways to improve husbandry practices. Each relevant actor will take ownership of the problem in order to engage proactively in the implementation of relevant solutions. This group will explore the best ways of disseminating the already developed fact sheets on prevention of tail biting outbreaks. The working group will also have the task to implement the Recommendation (EU) 2016/336 on the implementation of measures to reduce the need for tail-docking and of the good practice guide which accompanies it.</p> <p><u>Medium and long term:</u> The work on Prevention of cannibalism and improvement of living conditions of pigs has been prioritised in the government action plan for animal welfare 2016-2020 and validated on 5 April 2016. Action 7 “Support of the target area of professionals in the modernisation of structures, equipment and material in</p>

	<p>livestock housing and the improvement of the living conditions".</p> <p>By encouraging apply research projects on the design of tomorrow's pig farm buildings where the risk factors for tail biting outbreaks are effectively managed.</p> <p>By developing the establishment of experimental stations and a network of pilot farms keeping pigs with intact tails.</p>
HU	<p>Expect to improve welfare standards with the help of animal welfare subsidies that are available if special welfare conditions are fulfilled.</p> <p>Another kind of financial support is the decrease of the VAT on live pigs (2014) and pork (2016) - in order to stimulate consumption.</p> <p>Sharing of information received with associations of producers to improve their knowledge and cooperation with the CA, asking them about any step to be taken on the basis of the given information.</p>
UK	<p>Will use the study visit and the Commission's recently published recommendations and staff working document on how to reduce the need for tail docking, to hold discussions with interested parties, including the pig industry and the Animal and Plant Health Agency which enforces farm animal welfare legislation in Great Britain.</p> <p>Will press for improved management practices that will further reduce the frequency of veterinary authorisation for the tail docking of pigs in the UK.</p>

ANNEX 1 – LEGAL REFERENCES

Legal Reference	Official Journal	Title
Dir. 2008/120/EC	OJ L 47, 18.2.2009, p. 5-13	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs