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Welfare of pigs on farm

Disclaimer

- This plain language summary (PLS) is a simplified communication of EFSA's *Opinion on the welfare of pigs on farm*.
- The purpose of this PLS is to enhance transparency and inform interested parties on EFSA's work on the topic using simplified language.
- Anyone interested in the more in-depth assessment and analysis should consult the full EFSA statement, which can be found [here](#).

Pigs on farm – an overview

- The safety of the food chain is directly connected to the [welfare of animals](#), particularly those farmed for food production, due to the close links between animal welfare, animal health, and food-borne diseases.
- Stress factors and poor welfare can lead to increased susceptibility to transmissible diseases among animals.
- Good animal welfare practices not only reduce unnecessary suffering but also help to make animals healthier.
- As part of its Farm to Fork Strategy (F2F), the European Commission (EC) is undertaking a comprehensive evaluation of the animal welfare legislation, including the [Council Directive 120/2008/CE](#) on the protection of pigs.
- This directive on the protection of pigs is based on a scientific opinion delivered by the Scientific Veterinary Committee (SVC) in 1997.
- EFSA and the EFSA Animal Health & Welfare (AHAW) Panel have previously published several opinions in the topic of the welfare of pigs in 2004, 2005, 2007, 2012, and 2014.

What has EFSA asked the AHAW Panel to do?

- The EC requested EFSA to provide scientific evidence base for the welfare of farmed pigs.
- The mandate initially requires EFSA to assess 5 General terms of references (General ToRs): the current husbandry systems and practices of keeping pigs, the relevant welfare consequences, and the related animal-based measures (ABMs), the hazards leading to welfare consequences, and to provide recommendations to prevent and correct the hazards or to mitigate the welfare consequences.
- Subsequently, the mandate requires EFSA to assess 5 Specific ToRs as well. For these scenarios, the Commission has identified practical difficulties or insufficient information in ensuring the welfare of animals.
- For the Specific ToRs, EFSA is requested to propose detailed ABMs and preventive and corrective measures with, where possible, either qualitative (yes/no question) or quantitative (minimum/maximum) criteria (i.e., requirements to prevent and/or mitigate the welfare consequences).
- The assessment should cover all pig categories: gilts and dry sows, farrowing and lactating sows, suckling piglets, weaners, rearing pigs, and boars.

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How did EFSA carry out this work?

- The panel followed EFSA's [methodological guidance for the development of animal welfare mandates in the context of the Farm to Fork Strategy](#).
- Relevant peer reviewed and [grey](#) (non-peer-reviewed) literature, information from EFSA's previous scientific outputs as well as information received from the EFSA AHAW Network and through public consultation with relevant stakeholders were analysed.
- The retrieved information was used for a narrative description and subjected to a qualitative or (when possible) quantitative assessment to address the General and Specific ToRs.
- Data on the relation between ABM(s) and the exposure variables of the Specific ToRs were extracted and analysed.

What are the main outcomes?

- The identified welfare consequences per pig categories and husbandry systems are summarised in Table 1.

Other outcomes include (for the full outcomes presentation please refer to the [full report](#)):

- The welfare consequences associated with grouping gilts and sows can be mitigated at any stage by adhering to the principles of good mixing, including the use of mixing pens, good home pen design/layout, and good feeding and general management
- Lactating sows can be offered more behavioural freedom by housing them in farrowing pens, as opposed to farrowing crates, without increasing pre-weaning piglet mortality.
- The use of a temporary farrowing crate system cannot be advised as a step in a farm's transition from using farrowing crates to farrowing pens unless the size of the temporary farrowing crate system is the same as that of the future free farrowing pen.
- Breeding goals resulting in litter sizes that consistently exceed the number of functional teats of the sow will not result in adequate welfare for sows or piglets.
- Materials such as long-stemmed or long-cut straw, hay, haylage are the most suitable for nest building in pre-farrowing sow. These materials need to be provided in sufficient amount to allow all behavioural elements of nest-building to be performed at a functional level.
- Provision of enrichment material to piglets during the lactation period reduces the risk for tail biting in weaners and growing pigs.
- Tail biting risk is increased with reduced space allowance, increasing proportion of slatted flooring, high air speed and poor air quality, (e.g., high level of ammonia) and by lack of enrichment poor health status and deficiencies in feed composition.
- Whilst tail docking is effective in reducing the risk of tail lesions, it is not necessary if husbandry practices, and management are appropriate.
- Surgical castration without anaesthesia is painful at any age and has short and medium-term negative welfare consequences. Alternatives to traditional surgical castration include avoiding castration by leaving the males entire with adequate implementation of management strategies, application of immunocastration, or surgical castration with anaesthetic and analgesic to mitigate pain resulting from the procedure.
- Tooth reduction is a stressful procedure that if performed incorrectly causes short- and long-term pain. Clipping is inherently injurious.
- Tail lesions, carcass condemnations and lung lesions are the most useful and promising ABMs for collection at slaughterhouses to monitor the level of welfare on farm for rearing pigs.
- Body condition, carcass condemnations, shoulder ulcers, and vulva lesions are the most useful and promising ABMs for collection at slaughterhouses to monitor the level of welfare on farm for cull sows.

Table 1. Summary of identified welfare consequences and husbandry systems per pig species and housing system.

		Pig husbandry systems																
		Gilts + dry sows			Farrowing and lactating sows			Piglets				Weaners			Rearing pigs			Boars
		Individual stalls	Indoor group	Outdoor paddock	Individual crates	Individual pens	Outdoor paddock	Individual crates	Individual pens	Artificial rearing systems	Outdoor paddock	Indoor group	Indoor with access to outdoor area	Outdoor paddock	Indoor group	Indoor with access to outdoor area	Outdoor paddock	Indoor individual pens
Welfare consequences	Restriction of movement																	
	Resting problems																	
	Group stress																	
	Isolation stress																	
	Separation stress																	
	Inability to perform exploratory or foraging behaviour																	
	Inability to express maternal behaviour																	
	Inability to perform sucking behaviour																	
	Prolonged hunger																	
	Prolonged thirst																	
	Heat stress																	
	Cold stress																	
	Locomotor disorders (including lameness)																	
	Soft tissue lesions and integument damage																	
	Respiratory disorders																	
Gastro-enteric disorders																		

What were the limitations of the currently available data?

- The number of relevant welfare consequences, ABMs and/or hazards may have been underestimated by missing parts of grey and peer-reviewed literature, overlooking potential synonyms of key terms, and limiting the search to English publications only.
- Literature search was not limited to studies performed in the EU, which may lead to retrieval of animals and analysis of conditions not currently used in the EU.
- Not researching through all relevant databases.
- A limited number (7-9) of experts were selected based on their knowledge on animal welfare in the different pig categories and related husbandry systems.
- The time available for the literature search and analysis was restricted, and lack of sufficient data to draw quantitative conclusions.
- The approach used to assess the exposure variables of Specific ToRs (EKE, semi-quantitative, qualitative (y/n) or narrative) might have led to different representation of the results, enhancing, or limiting the understanding of findings.

Key implications and recommendations

- A total of 71 recommendations for the welfare of pigs on farm have been identified by the AHAW panel.
- All requirements listed in these recommendations (see section 12 of the scientific opinion) can have an impact on Public Health authorities when performing official controls in pig farms and slaughterhouses, e.g., on space, practice of mutilations, husbandry systems.
- Indicative recommendations include (for an exhaustive list please refer to the [full report](#)):
 - Staff should receive adequate training to identify, mitigate, and address potential welfare consequences.
 - Measures to prevent or correct the hazards leading to the highly relevant welfare consequences identified, and measures to mitigate the highly relevant welfare consequences should be put in place.
 - To avoid the welfare consequences of stall housing and the possible consequences of stress during early pregnancy for reproductive performance, it is recommended to group sows at the time of weaning.
 - For animal welfare reasons, periparturient and lactating sows should not be housed in farrowing crates but in farrowing pens.
 - Temporary crating systems should not be used as interim step for farms that want to convert from crates to complete free farrowing if the total floor surface area they occupy is insufficient to allow for a well-functioning pen system.
 - Sows and piglets should be provided with enrichment material that allows them to perform exploratory behaviour in the period from farrowing to weaning.
 - For breeding to be sustainable in terms of sow longevity, selection for litter size should be limited to an average number of 12-14 piglets born alive.
 - Surgical castration without anaesthesia and analgesia should not be performed due to the severe consequences to the welfare of piglets. Immunocastration should be adopted as the preferred alternative to surgical castration. Keeping animals entire should be considered as the next best alternative.
 - Tail docking should not be performed, and tail biting should be prevented.
 - For animal welfare reasons the current legal minimum weaning age of 28 days should remain and the exception allowing earlier weaning in specific circumstances should be reconsidered. Further research should be carried out to validate strategies for maintaining hygiene in partly slatted pens.
 - Monitoring tail lesions, carcass condemnation, and lung lesions in rearing pigs at slaughter should be implemented to identify herds with diverse welfare consequences, thereby enabling guidance for the implementation of preventive and mitigation measures.
 - Body condition, carcass condemnation, shoulder ulcers, and vulva lesions should be monitored in cull sows at slaughter.
 - To permit transnational benchmarking, traceability databases and risk assessment exercises, harmonised assessment methods and scoring systems should be developed for the identified ABMs.
 - Systems for automatic and continuous assessment of ABMs and data recording should be concordant with a standardised manual method.