Scottish Government
Riaghaltas na h-Alba

Guidance for the Welfare of Pigs

November 2023

Contents

Preface

This guidance applies in relation to Scotland only. It is issued by the Scottish Ministers under section 38 of the Animal Health and Welfare (Scotland) Act 2006 with a view to securing the welfare of farmed pigs under all types of husbandry systems in Scotland. This guidance is intended to help all those who care for farmed pigs to ensure that their needs are met to the extent required by good practice.

In some areas, this guidance contains advice that goes beyond good practice by recommending even higher welfare standards or indicating possible future requirements. Going beyond good practice may result in better health and welfare for your pigs.

Annex 3 to this guidance includes information on the relevant law applying to 'pet' pigs kept in a domesticated environment. That section is for information only and should not be considered part of this guidance.

This guidance can be considered within the context of the Animal Welfare Committee's concept of quality of life for farm animals (see Annex 3). An animal's quality of life can be classified as a life not worth living, a life worth living, and a good life. This guidance is intended to help those responsible for pigs to provide them with, as a minimum, a life worth living.

The Animal Welfare Committee's 'Five Freedoms' form the guiding principles for the assessment of welfare within any system, together with the actions necessary to safeguard welfare within the constraints of an efficient livestock industry.

The Five Freedoms are:

1. Freedom from hunger and thirst by ready access to fresh water and a diet to maintain full health and vigour;

2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area;

3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment;

4. Freedom to express normal behaviour by providing sufficient space, proper facilities and company of the animals' own kind;

5. Freedom from fear and distress by ensuring conditions and treatment to avoid mental suffering**.**

The Five Freedoms should be considered in conjunction with the Animal Welfare Committee's three essential attributes of a stock-keeper:

1. Knowledge of Animal Husbandry

Sound knowledge of the biology and husbandry of farm animals, including how their needs may be best provided for in all circumstances.

2. Skills in Animal Husbandry
Demonstrable skills in observation, handling, care and treatment of animals, and problem detection and resolution.

3. Personal Qualities
Affinity and empathy with animals, dedication and patience.

Without these essentials, animal welfare can never be adequately protected.

Those who have care of pigs should demonstrate:

- Caring and responsible planning and management;
- Skilled, knowledgeable and conscientious attitude;
- Knowledge of design of the pigs' housed environment;
- Considerate handling and transport; and
- Knowledge of humane slaughter.

Legislative background

A person can be responsible for a pig for the purposes of the Animal Health and Welfare (Scotland) Act 2006 ("the 2006 Act") and the Welfare of Farmed Animals (Scotland) Regulations 2010 on a permanent or temporary basis.

A person who is in charge of a pig will be a person who is responsible for it.

A person who owns a pig is always to be regarded as being a person who is responsible for it.

A person does not relinquish responsibility for a pig by reason only of abandoning it.

If a person who is responsible for a pig is under 16 years of age, a person who has care and control of that young person is also responsible for the pig.

The Welfare of Farmed Animals (Scotland) Regulations 2010 place certain requirements on persons responsible for protected animals (as defined in the 2006 Act). Requirements include those found in regulation 7A. In the particular context of pigs, this means that a person responsible for a pig must not attend to it unless that person is acquainted with, and has access to whilst so attending, any relevant guidance documents which are specified in the Regulations. Failure to do so is an offence under the Welfare of Farmed Animals (Scotland) Regulations 2010.

A person responsible for a pig must also take all reasonable steps to ensure that any person employed or engaged by that person does not attend to the pig unless the employee or engaged person–

- is acquainted with any relevant guidance documents which are specified in the Regulations, including those specified in regulation 7A;
- has access to a copy of those documents; and
- has received instruction and guidance on those documents.

Failure to do so is an offence under the Welfare of Farmed Animals (Scotland) Regulations 2010.

Activities carried out in accordance with this guidance may be regarded as good practice. This guidance may also be considered relevant by the courts in any prosecution of offences under sections 19 (unnecessary suffering) and 24 (ensuring welfare of animals) of the 2006 Act. The relevance of the guidance to any prosecution will depend on the facts and circumstances and, in some cases, the guidance may not have any bearing on the prosecution.

Section 19 of the Animal Health and Welfare (Scotland) Act 2006 states that:

(1) A person commits an offence if—

(a) the person causes a protected animal unnecessary suffering by an act, and

(b) the person knew, or ought reasonably to have known, that the act would have caused the suffering or be likely to do so.

(2) A person who is responsible for an animal commits an offence if—

(a) the person causes the animal unnecessary suffering by an act or omission, and

(b) the person knew, or ought reasonably to have known, that the act or omission would have caused the suffering or be likely to do so.

(3) A person ("person A") who is responsible for an animal commits an offence if—

(a) another person causes the animal unnecessary suffering by an act or omission, and

(b) person A—

(i) permits that to happen, or

(ii) fails to take such steps (whether by way of supervising the other person or otherwise) as are reasonable in the circumstances to prevent that happening.

(4) The considerations to which regard is to be had in determining, for the purposes of subsections (1) to (3), whether suffering is unnecessary include—

(a) whether the suffering could reasonably have been avoided or reduced,

(b) whether the conduct concerned was in compliance with any relevant enactment or any relevant provisions of a licence or code of practice issued under an enactment,

(c) whether the conduct concerned was for a legitimate purpose, for example—

(i) the purpose of benefiting the animal, or

(ii) the purpose of protecting a person, property or another animal,

(d) whether the suffering was proportionate to the purpose of the conduct concerned,

(e) whether the conduct concerned was in the circumstances that of a reasonably competent and humane person.

[…]

(5) This section does not apply to the destruction of an animal in an appropriate and humane manner.

Section 24 of the Animal Health and Welfare (Scotland) Act 2006 states that:

(1) A person commits an offence if the person does not take such steps as are reasonable in the circumstances to ensure that the needs of an animal for which the person is responsible are met to the extent required by good practice.

(2) The circumstances to which, for the purposes of subsection (1), regard is to be had include—

(a) any lawful purpose for which the animal is kept,

(b) any lawful activity undertaken in relation to the animal.

(3) For the purposes of subsection (1), an animal's needs include—

(a) its need for a suitable environment,

(b) its need for a suitable diet,

(c) its need to be able to exhibit normal behaviour patterns,

(d) any need it has to be housed with, or apart from, other animals,

(e) its need to be protected from suffering, injury and disease.

(4) This section does not apply to the destruction of an animal in an appropriate and humane manner.

The legal text in boxes throughout this document is not part of the guidance but highlights relevant legislation. The text in these boxes is the law as it stands on the date that this guidance is published. (Please see the final page for the date of publication.) You should be aware that any of the legal requirements quoted here could change. You should check that these are an accurate statement of the law as it currently stands. See Annex 1 for a list of other relevant legislation.

A person may commit an offence if they fail to comply with the requirements referred to in the boxes throughout this document. There may be other legislation and requirements that are not outlined in this guidance with which you must also comply.

During on-farm welfare inspections, inspectors appointed under the 2006 Act may have regard to this guidance when assessing compliance against legislation. Those responsible for enforcement may also refer to the guidance when issuing advice, warning letters or care notices under the 2006 Act.

This guidance does not apply to anything which occurs by virtue of, or in accordance with, a provision of the Animals (Scientific Procedures) Act 1986. The Animals (Scientific Procedures) Act 1986 makes provision for the protection of animals used for experimental or other scientific purposes.

Suggested sources of additional information are included at the end of this guidance.

Introduction

1. This guidance (which applies in Scotland only) covers all farmed pigs, including piglets, whether they are being kept for breeding, growing and / or finishing, or other agricultural purposes, whether they are "wild" type or Eurasian boar kept in a confined farm (or exhibition / farm park) environment, and whether kept singly or in multiples. This guidance will help owners / keepers of pigs to comply with animal welfare legislation, but is not intended as a replacement for advice from a veterinary surgeon or an expert technical advisor.

2. While many of the provisions of this guidance are specific to an on-farm or other agricultural environment, others may be relevant to anyone who keeps pigs, including those keeping companion / "pet" pigs.

3. The Welfare of Farmed Animals (Scotland) Regulations 2010 lay down the conditions under which all farmed animals, including pigs, must be kept (schedule 1). They also specify additional conditions that only apply to the keeping of pigs (schedule 6). Some of the specific legal requirements are contained in boxes throughout the guidance. The Council of Europe has also made recommendations concerning farmed pigs. Where these are not already set out in legislation, they are reflected in this guidance.

4. There are also licensing requirements for Old World pigs (family Suidae), such as wild boars and wart hogs, under the Dangerous Wild Animals Act 1976 which may apply. Other legislation (for example in relation to welfare at time of killing, welfare during transport, or animal identification) may be relevant to pig welfare. Expert advice, such as from a veterinary surgeon or expert technical advisor, should also be sought.

5. The relevant animal welfare legislation applies to owners as well as to anyone who is responsible for a pig, whether on the farm, during transport (including loading and unloading), and at the point of slaughter. This includes anyone given temporary responsibility for pig care, including a veterinary surgeon. A written contract for both permanent staff and third parties contracted to carry out specific roles, such as on-farm killing, or stock-checking, can be useful in making sure that everyone involved is clear about their animal welfare responsibilities. However, the obligations imposed by law will still apply, whether or not a contract exists. Certain aspects of livestock husbandry can present hazards to the health and safety of the stock-keeper. Advice on such matters is available from the Health and Safety Executive.

6. Pigs are inquisitive, social animals and should ideally be managed in small groups with the sight, smell and touch of other pigs that are known to them. They can be kept in a range of rearing environments, from wholly outdoors to wholly indoor units. However, not all types of pigs are suited for every type of environment, so it is important to have the right combination of animal type and system used. Meeting the pigs' welfare needs in these different environments presents different challenges for owners / keepers. It is possible for pigs to adapt to different environments, but careful supervision is important when changes are introduced at different stages of rearing.

7. Pigs should receive positive human handling and interaction from an early age that is appropriate to the system in which they are reared. These early interactions should be performed in such a way that acclimatises the pigs to humans so that they learn to react inquisitively rather than fearfully to human presence (after any initial startle reflex reaction). However, they should not be used for public spectacles or demonstrations if such use is likely to be detrimental to their health and welfare.

8. It is important that the herd size and husbandry system used are appropriate for the pig breed type selected (e.g. certain breeds / types will be suitable for indoor systems, and others will be suitable for outdoor systems), the age and size of the pigs, and any environmental or geographical restrictions on the land, including farm size. Staff time available and their skill / competence to manage the particular system will also influence the choice of herd size and husbandry system. It is important that animal welfare is considered and respected when planning any new building or development, or designing or installing new equipment. Any such management or environmental changes should aim to improve or maintain welfare. The impact of any changes on the health and welfare of the pigs should be monitored, and any issues rectified.

Credit**:** M. Farish, SRUC

Definitions

9. For the purposes of this guidance, definitions of terms used in this guidance are summarised below. Some of these (marked with an asterisk*) are taken directly from the relevant legislation. Others are included to provide an explanation for the purposes of the guidance. Farming practices may vary as regards to age and system, but the guidance remains applicable accordingly.

'pig' (*) means an animal of the porcine species of any age, kept for breeding or fattening.

'boar' (*) means a male pig after puberty, intended for breeding.

'gilt' (*) means a female pig intended for breeding, after puberty and before farrowing.

'sow' (*) means a female pig after the first farrowing.

'farrowing' means the process of giving birth to piglets.

'dry sow' means a sow between weaning her piglets and farrowing.

'piglet' (*) means a pig from birth to weaning.

'weaner'(*) means a pig from weaning to the age of 10 weeks.

'rearing pig' means a pig from the age of 10 weeks to slaughter or service. (This includes growers, stores and finishers.)

'keeper' means any person responsible for or in charge of pigs whether on a permanent or temporary basis.

'owner' means any natural or legal person or persons owning the pigs.

'mutilation' is a procedure which involves interference with the sensitive tissues or bone structure of an animal, otherwise than for the purpose of its medical treatment.

Section 1 - Recommendations applying to all pigs

This section should be read in conjunction with Section 2, as appropriate.

Stock-keeping and staffing

Paragraph 1 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

1. Animals must be cared for by a sufficient number of staff who possess the appropriate ability, knowledge and professional competence.

10. The knowledge, skills, attributes and attitude of the stock-keeper are some of the most important influences on the welfare of pigs. A good keeper will have a compassionate and humane attitude, will be able to anticipate and avoid many potential welfare problems, and will have the ability to identify those that do occur and respond to them promptly. This includes the ability to quickly recognise ill health and respond accordingly. Those responsible for managing a farm unit should make sure that the pigs are cared for by well-motivated and competent staff. Before any unit is set up or expanded, it is important to be certain that there will be enough staff, and that they have the qualities required, to safeguard the health and welfare of each individual pig.

11. All owners / keepers should be trained and be able to demonstrate competence. They should be competent in the use of any relevant equipment when performing specific tasks. Wherever possible, owners / keepers should attend relevant on- and off-farm courses run by a suitable trainer or training organisation. Ideally, the training should lead to formal accredited recognition of competence in pig husbandry, health and welfare. Online discussion forums - for example between producers, vets and technical experts - can be a useful source of information. However, any advice given on such sites should always be verified with a veterinary surgeon or technical advisor before being implemented.

12. Specific knowledge and skills should be developed further on the farm unit by working with a skilled stock-keeper who is experienced in the relevant system. Whilst under the supervision of others and before being given sole responsibility for animals, owners / keepers should have demonstrated competence and understanding, including on-farm practical ability, to ensure that they are capable of safeguarding the animals under all foreseeable conditions. Specific tasks requiring a competence assessment should be recorded in a health and welfare plan. All owners / keepers should understand to whom they should refer if they encounter issues beyond their existing knowledge base.

Health and welfare plan

13. It is recommended that the owner / keeper draw up and implement a written pig health and welfare plan with a veterinary surgeon and, where necessary, other

technical advisors. Owners / keepers should review and update this health and welfare plan at appropriate intervals as agreed with a veterinary surgeon. This plan should set out health and husbandry activities that cover the cycle of production and include plans to prevent, treat or limit disease problems. It should also include strategies such as recording and evaluating on-farm and slaughterhouse findings. The plan should specify the collection of suitable records to allow owners / keepers to assess the basic output of the herd and monitor the health and welfare of the pigs, including animal-based measures as appropriate. It should also set out any plans to rectify identified problems, including timelines. See paragraphs 51 to 54.

14. Pig producers may also receive regular inspections from independent assurance schemes as part of their supply contract and from Government inspectors. The health and welfare plan should be updated throughout the year to consider findings from such inspections, from slaughterhouse reports and from trusted advice sources.

Disease control and biosecurity

15. Keepers must register their name and address, the address of their holding and the number of herds on the holding with the Animal and Plant Health Agency ("APHA"). This must be done regardless of the number of pigs kept or their purpose. In the event of a disease outbreak, knowing the precise location of all livestock is essential for effective measures to control and eradicate highly contagious disease. All livestock in the area are at risk if holdings are not registered. See Annex 3 for further information.

16. Incoming stock presents the greatest risk to the health of the herd as regards infectious disease. It is not possible to prevent all airborne infections from entering a unit, but when planning new sites or using existing buildings for new purposes, consideration should be given to providing the maximum possible distance between the proposed site and existing sites, as this will reduce the risk of spread of airborne infectious diseases. There are laws relating to pig identification, pre-movement notifications and controls on movements - see Annex 1.

17. There is a legal duty to immediately report suspicions that any animal is suffering from a notifiable disease. APHA must be notified and failure to do so is an offence under the Animal Health Act 1981. See Annex 3. All keepers / owners of pigs should be familiar with the signs and symptoms associated with notifiable diseases which affect pigs. Where there is any doubt, a veterinary surgeon should be consulted.

18. The term "biosecurity" means a set of management actions and physical measures designed to reduce the risk of introduction, establishment and spread of disease to, from and within the pig herd. There is no "one size fits all" solution – biosecurity should be adapted to your premises / buildings and current risks. You should always get professional advice from your veterinary surgeon as part of health planning procedures. You should also involve other specialists when appropriate.

19. Good biosecurity measures should result in:

a) farm units / premises being more secure from the introduction of infectious diseases;

b) the spread of any diseases within the unit / premises itself being kept to a minimum; and

c) a reduced risk of spread of disease from unit to unit or elsewhere.

20. Biosecurity measures that can be implemented and practised include:

a) maintaining a closed herd if possible, or sourcing pigs from limited sources with high health status or at the minimum, a known disease status.

b) appropriate quarantine procedures for new pigs entering the herd. Owners / keepers should have isolation facilities to observe / test incoming stock for a suitable period (as set out in the health and welfare plan) when they arrive, before they join the rest of the herd. Where possible there should be separate staff and equipment for the quarantine facility to minimise any indirect contact with the main herd. If this is not possible, clothing, including footwear, should be changed and appropriate hygiene measures taken before returning to the main herd, or the quarantined pigs should be checked last, after the rest of the animals on the unit.

c) minimising movement of vehicles / equipment / people / animals (including pets and wildlife) onto and off the unit, and instigating appropriate cleansing and disinfection procedures, including:

i. appropriate pig free periods for visitors and a defined visitor protocol, including visitor book, protective clothing and footwear;
ii. loading facilities, feed bins and dead stock collection points should be sited at the unit perimeter;
iii. cleaning and disinfecting vehicles entering the unit, e.g. when drivers deliver stock, equipment or feed, or collect fallen stock;
iv. only sharing equipment / trailers etc between units if absolutely necessary, and thoroughly cleaning and disinfecting before and after use;
v. using a General Orders Government approved disinfectant at the recommended dilution rate. (See Annex 3)

d) good management / husbandry procedures on-farm, including:

i. separating different age pigs on the unit;
ii. where possible All In / All Out management of pigs – by unit or by accommodation block;
iii. disinfection points on entry / exit from each accommodation / rearing section;
iv. separating staff responsibilities to specific sections and / or following strict disinfection protocols between age groups;

v. designing daily management routines which reduce risk of spread of disease to vulnerable groups of animals.

e) good hygiene throughout the unit, including:

i. following defined protocols for cleansing and disinfection procedures (including boot dips, hand washing / disinfection) for staff and visitors when moving between pig accommodation;
ii. appropriate hygiene / disinfection procedures during interventions such as at farrowing / piglet treatments.

f) preventive disease control programmes including vaccination and parasite control programmes (including worming programmes for on-farm domestic animals that may present a risk to the pigs).

g) feed brought onto the premises should be of high quality and from reputable sources, and feed storage should be sealed and inaccessible to rodents, birds and other animals.

h) a pest control programme, recorded as appropriate, which limits access of rodents, wild birds, wildlife, feral cats, domestic animals (e.g. dogs and cats) and other risks, to animals and feed stores.

i) contacting your veterinary surgeon when appropriate if any ill health is suspected as this is crucial in preventing disease spreading further within the stock or to other holdings. (Remember - if a notifiable disease is suspected, this must be reported to APHA immediately.)

21. SRUC and QMS have produced some useful information on practical biosecurity for pig farmers, smallholders and pet pig keepers - see Annex 3.

Contingency planning for disease and other emergencies

22. Owners / keepers should have contingency plans to deal with emergencies on the unit / premises, such as the following: fire; flooding; temperature extremes; temporary restriction on movement of pigs from the unit (for example during suspect or actual notifiable disease outbreaks); disruption of supplies (for example feed, water and electricity) and when automated equipment fails and cannot be immediately rectified. Owners / keepers should have appropriate training and be competent in the use of any equipment included in the emergency contingency plan, and be able to respond in cases of emergency to safeguard, as far as possible, the welfare of the animals.

23. There should be plans for potential notifiable or other disease restrictions on the unit and in relation to disease risks identified elsewhere. They should be drawn up for situations where movement of pigs off the premises would not be permitted (for example, notifiable diseases) and for situations where it may be necessary to compartmentalise access to parts of the unit (for example, endemic disease or food safety incident). Where notifiable disease is confirmed in pigs or other livestock near

the unit / premises, restrictions on movements could persist for a considerable length of time.

24. Contingency plans should consider ways to manage any short term restrictions, for example for up to one to two weeks during a disease / incident investigation on the unit or farm nearby, and the impact of long-term restrictions (over a month) linked to more serious incidents. Plans should include sites for suitable temporary accommodation and siting for additional feed and bedding storage or slurry management procedures, or provisions for killing and the holding or disposal of carcases. Restrictions on one premises could also affect any linked locations.

25. The installation of alarm systems should be considered (for example, for fire, power cuts or failure of automated systems) that can be both heard on the unit / premises and communicated via mobile telecommunications to duty staff members or any alternative contacts who are off-site or unable to hear the external alarm systems. Arrangements should be in place to ensure that alarms can be responded to at any time of day or night.

26. Responsibility for animal welfare remains with the owners / keepers during any enforced restrictions on movement or any other emergency on the unit / premises. Any concerns about animal welfare during such periods should be discussed with a veterinary surgeon and, where appropriate, reported to APHA if animal welfare conditions deteriorate.

Credit: M. Farish, SRUC

Inspection

Paragraph 3 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

3. Where animals are kept in a building, adequate lighting (whether fixed or portable) must be available to enable them to be adequately inspected at any time.

Paragraph 2 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

2. All pigs must be inspected by the person responsible for the pigs at least once a day to check that they are in a state of well-being.

27. The health and welfare of animals depends on them being regularly inspected by the owner / keeper. For all pigs, inspections must be at least once per day. However more frequent inspections are sometimes necessary. Examples include:

- during disease outbreaks;
- around farrowing;
- when pigs are in hospital accommodation;
- during periods of unusually warm or cold weather; and
- when changes in behaviour such as early signs of a possible tail biting outbreak have been noted.

Adequate lighting must be available to enable thorough inspection of the stock. (See also paragraph 114 on lighting.)

28. All owners / keepers should be familiar with the normal behaviour of pigs. It is essential that early signs of distress or disease in individual pigs and behavioural problems in pigs in the group (for example, aggression or other injurious behaviours) are recognised. To do this, it is important that owners / keepers have enough time to:

a) inspect the stock;

b) check equipment; and

c) take action to deal with any problem, including arranging prompt involvement of a veterinary surgeon if required, and recording findings and actions taken. See paragraphs 51 to 68.

29. The owner / keeper should always be looking out for signs of ill health and poor welfare in pigs, which include, but are not restricted to:

a) separation from the group;

b) listlessness / unresponsiveness / withdrawn;

c) swollen navel, udder or joints;

d) rapid or irregular breathing;

e) persistent coughing or panting;

f) shivering and hair standing on end;

g) discoloration or blistering of the skin;

h) loss of body condition;

i) sneezing;

j) lameness (inspection of the feet and legs is particularly important) and limb lesions / swellings;

k) lack of co-ordination;

l) constipation;

m) diarrhoea;

n) poor appetite;

o) vomiting;

p) body injuries including wounds, tail bites and vulva bites;

q) persistently aggressive pigs and victims of aggression;

r) abnormal behaviours including ear, flank and tail biting; and

s) increase in expected mortality for age category.

30. Owners / keepers should be able to anticipate problems or recognise them in their earliest stages and seek, and act on, advice as appropriate. Such incidents should be recorded in sufficient detail at the time; this is key to monitoring, evaluating and reviewing changes in pig health and welfare over time. Also see paragraphs 13 and 14.

Handling

31. All owners / keepers should have access to easy-to-use and efficient handling systems and should be competent in operating them. This is to allow pigs to be routinely moved, managed and treated and ensures that they are quietly and gently handled. Pigs should be moved at their own pace with the stock-keeper staying behind the pigs. They move most freely in small groups where they can have visual and / or body contact with one another. Sharp corners and particularly dark or bright

areas should be avoided, so pigs can easily see the route to be taken. Once one pig starts moving the others will usually follow.

32. Accommodation and walkway designs should therefore support this natural flow of pig movement. Any new building designs should consider pigs' needs during handling and movement. Owners / keepers must ensure that all floors and walkways are well maintained and provide a non-slip but non-abrasive grip surface to avoid damage to feet and legs, in accordance with the rules referred to in the section on floors below (see paragraphs 84 to 87 and the legislation box at the start of that section). The floor should not slope too steeply, as this can increase the risk of slipping and injury. See also box under paragraph 43.

33. When designing a system to help with pig flow the following should be considered:

a) consistent width passageways – allowing two pigs to move side by side is ideal, and should also be sufficient space to turn them if they end up facing the wrong way;

b) long passages with few turns – allowing pigs to see each other and follow one another quietly and calmly;

c) consistent colour / consistency of walls and floors – ideally at a height that prevents pigs from seeing beyond the passageway they are following; and

d) even lighting along the route / or using lighting to encourage movement as pigs prefer not to move into dark areas.

34. The following can upset pig movement and should be avoided where possible:

a) flapping objects;

b) shiny objects;

c) protrusions or projections, especially at pig height;

d) varied light and shade patterns including dappled shadowing;

e) flickering fluorescent lights (which may not be detectable by humans);

f) sudden noise;

g) sudden movements by owner / keeper;

h) narrowing passageways; and

i) constant or sharp turns that reduce ability of pigs to see and touch one another as they move.

35. Pigs have a very wide angle of vision and are easily disturbed by novel objects, sudden movements, variations in lighting or sudden noise. If physical handling cannot be avoided, any pressure on the body of the pig should avoid the face, snout and belly. Only the minimum force required should be used. Pigs should not be struck or kicked, and they should not be lifted forcefully by the tail or ear. (See also the transport regulations under paragraph 43 which prohibit lifting or dragging by the head, ears, legs or tail during loading and unloading).

36. Pig boards should be used only for encouraging pigs in the right direction, for blocking visible exits / gaps along the route and must not have a sharp or pointed end or edge.

Paragraph 30 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

30. No person may apply an electrical current to any animal for the purposes of immobilisation.

37. Electro-immobilisation, the use of electricity to stop an animal from moving, is illegal.

38. Electric goads should not be used or kept on the farm. If accommodation and passageways are designed appropriately and the handler has the necessary skills, this should be sufficient to allow the pigs to be handled without goads. There are additional legal requirements at loading / unloading. See paragraphs 40 to 43 and the legislation box at the end of that section.

Tethering

Paragraphs 3 and 4 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

3. No person may tether or cause to be tethered any pig except while it is undergoing any examination, test, treatment or operation carried out for any veterinary purpose.

4.—(1) Only tethers designed not to cause injury to the pigs may be used and they must be inspected regularly and adjusted as necessary to ensure a comfortable fit.

(2) Only tethers of sufficient length to allow the pigs to move as stipulated in paragraph 5(2) and designed, to avoid, as far as possible, any risk of strangulation, pain or injury, may be used.

39. Tethering may only be used where it is necessary to restrict the movement of a pig for veterinary purposes.

Loading, unloading and transport

40. There are detailed rules relating to the transport and movement of pigs to and from the farm which are covered by different pieces of legislation and which owners / keepers should be familiar with. See Annex 1. They cover the following:

a. fitness of the pigs for the intended journey;

b. loading and unloading facilities, including on the farm;

c. electronic notification of movements ahead of the journey;

d. requirement for approval of the vehicle used for long journeys;

e. requirements for driver training and transporter authorisation;

f. requirement for journey logs for long journeys to another country; and

g. transport documentation needed for all journeys.

41. There are additional requirements associated with moving pigs to slaughter. A food chain information form must be completed, including details on the health of the pigs and on meeting medicine withdrawal periods for any treated pigs. See Annex 3.

42. In instances where the owner / keeper is using their own transport, they will need to ensure that they are complying with the legislation concerning the welfare of animals during transport. In instances where the owner / keeper contracts a third party transporter, the owners / keepers are responsible for ensuring trusted, reliable and demonstrably competent transporters are used, so will wish to seek evidence of appropriate certification. The transporter will have the responsibility for ensuring they meet all the legal requirements for transporting pigs. When loading or unloading at a place of departure, transfer or destination, the owner / keeper and transporter of the pigs will be responsible for ensuring loading and unloading facilities are appropriate, that pigs are correctly identified and that the animals are fit for the intended journey.

43. It is also recommended that all owners, keepers and third party transporters familiarise themselves with the Humane Slaughter Association's guidance on the transport of livestock, and the EU Animal Transport Guides which include more detailed advice on the transport of pigs. See Annex 3.

Council regulation (EC) No 1/2005, ANNEX I TECHNICAL RULES, CHAPTER III TRANSPORT PRACTICES states:

[…]

Facilities and procedures

1.3. Facilities for loading and unloading, including the flooring, shall be designed, constructed, maintained and operated so as to:

(a) prevent injury and suffering and minimise excitement and distress during animal movements as well as to ensure the safety of the animals. In particular, surfaces shall not be slippery and lateral protections shall be provided so as to prevent animals from escaping;

(b) be cleaned and disinfected.

1.4(a) Ramps shall not be steeper than an angle of 20 degrees, that is 36,4 % to the horizontal for pigs, […….]. Where the slope is steeper than 10 degrees, that is 17,6 % to the horizontal, ramps shall be fitted with a system, such as provided by foot battens, which ensure that the animals climb or go down without risks or difficulties;

(b) lifting platforms and upper floors shall have safety barriers so as to prevent animals falling or escaping during loading and unloading operations.

1.5. Goods which are being transported in the same means of transport as animals shall be positioned so that they do not cause injury, suffering or distress to the animals.

1.6. Appropriate lighting shall be provided during loading and unloading.

[…]

Handling

1.8. It shall be prohibited to:

(a) strike or kick the animals;

(b) apply pressure to any particularly sensitive part of the body in such a way as to cause them unnecessary pain or suffering;

(c) suspend the animals themselves by mechanical means;

(d) lift or drag the animals by head, ears, horns, legs, tail or fleece, or handle them in such a way as to cause them unnecessary pain or suffering;

(e) use prods or other implements with pointed ends;

(f) knowingly obstruct any animal which is being driven or led through any part where animals are handled.

1.9. The use of instruments which administer electric shocks shall be avoided as far as possible. In any case, these instruments shall only be used for [.....] adult pigs which refuse to move and only when they have room ahead of them in which to move. The shocks shall last no longer than one second, be adequately spaced and shall only be applied to the muscles of the hindquarters. Shocks shall not be used repeatedly if the animal fails to respond.

[…]

1.11. Animals shall not be tied by […] the nose rings nor by legs tied together. […]

When animals need to be tied, the ropes, tethers or other means used shall be

(a) strong enough not to break during normal transport conditions;

(b) such as to allow the animals, if necessary, to lie down and to eat and drink;

(c) designed in such a way as to eliminate any danger of strangulation or injury, and so as to allow animals to be quickly released.

[…]

Credit: M. Farish, SRUC

Marking

44. The Pigs (Records, Identification and Movement) (Scotland) Order 2011 sets out the requirements in relation to identification and traceability. See Annex 3 for further guidance.

45. Pigs which are 12 months of age or older must, in order to be moved from a holding, have an ear tag, a tattoo or slapmark. A permanent mark is also required for pigs less than 12 months of age to be moved from a holding directly, or via a resting centre, to a slaughterhouse, to a market or to a show, or when being moved for the purposes of export (whether to the EU or otherwise). A temporary mark is sufficient for all other movements of pigs less than 12 months old off the holding, including between farms.

46. Ear tags used for official identification should meet all the legal requirements. They must be tamper-proof; incapable of being re-used; easy to read; made of metal and / or plastic; heat resistant (for processing at the slaughter house); and must be designed to remain attached to the pig without harming it. Where, for herd management purposes, ear marking is by notching, appropriate equipment should be used.

47. Marking of pigs with an ear tag or tattoo should only be carried out by a trained and competent operator, using properly maintained instruments under hygienic conditions and in compliance with the law. Any form of marking which pierces or cuts the skin may only be done in accordance with the legislation at Annex 2 which specifies the procedures allowed. Additional marking procedures for management purposes should be minimised as far as possible.

48. Tattooing must be carried out using tattoo forceps on the ear**,** by tattooing a shoulder (using equipment which uses compressed air to drive the tattooing pins into the skin of the pig), or by using slap marking equipment on a shoulder. (Note that if pigs are to be moved to other parts of GB, English and Welsh legislation requires the pigs to be marked on both shoulders.) Tattooing of the live pig is only permitted for identification purposes and should be restricted to minimum interference with the skin in order to establish the animal's identity. It is prohibited to tattoo the skin of a live pig for any purpose other than identification.

49. When ear tagging or applying tattoos with tattoo forceps, animals should be properly restrained. Care should be taken to position and insert tags correctly by following the manufacturer's instructions, avoiding main blood vessels and ridges of cartilage. Tags should be positioned appropriately to allow for growth of the ears and to avoid encouraging ear biting.

50. Ensure only aerosols or paints suitable for use on animals are used for temporary marking and ensure the face and other sensitive areas of the body are avoided.

Monitoring animal health and welfare

Animal-based measures

51. Many recognised welfare standards are based on “inputs”, such as daily management duties and husbandry procedures or resources provided by owners / keepers to the animals such as housing, feed and water. Many of these inputs are defined as minimum standards in law and are covered throughout this guidance. However, certain animal-based measures can help provide a better understanding of how these inputs directly affect individual pigs and the herd as a whole. This in turn should focus owners / keepers, the veterinary surgeon and other expert advisors connected with the farm unit, in addressing the key issues in a particular pig herd. Validated on-farm welfare assessment protocols are already being widely applied in the pig industry and can provide information and guidance on the measures and assessment approach.

52. Any animal-based measures which are monitored and recorded should be practical and easily measurable, indicate the wellbeing of the pigs and provide potentially useful information for farm managers and veterinary surgeons. Some measures should be familiar, such as body condition, lameness and on-farm mortality.

53. Other factors may also be recorded and reported depending on the circumstances. These might include:

- cleanliness of pigs;
- tear staining;
- expression of play behaviour;
- interaction with enrichment materials (Lack of use of enrichment materials by the pigs may indicate the materials provided, and / or the way in which they are being provided, are not meeting the intended purpose);
- evidence that aspects of the environment are causing injury and / or discomfort (such as pressure sores, occurrence of similar injuries on several animals);
- evidence of fighting such as body marks and injuries on specific body parts (for example ears or tails); or
- tail posture (tucked tails may be a concern).

Where there is a gradation of severity, for example minimal to mild or severe tail-biting, then simple scoring systems that all staff can consistently record in the same way should be considered.

54. Routine animal-based measures should be identified for all farm units / premises and should be agreed with a veterinary surgeon. There may be additional requirements specified through independent assurance schemes and supply contracts with which a veterinary surgeon and / or scheme advisor can provide assistance. Agreed measures should be accurately recorded at suitable intervals, following the advice of the farm’s veterinary surgeon. All owners / keepers should be clear about their responsibilities in accurate recording. Additional information from market sales and slaughterhouses may give further information on the health and welfare of the pigs. A number of the more common examples of animal-based measures are

included in the following paragraphs. (Measures in relation to tail biting are discussed in more detail in the tail biting section – paragraphs 137 to 156) It may be useful to consider the installation and use of technology (such as motion sensors, CCTV) for on-going monitoring and assessment of pig welfare.

Fighting and aggressive behaviours

Paragraph 8 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

8.—(1) If pigs are kept together, measures must be taken to prevent fighting which goes beyond normal behaviour.

(2) Pigs which show persistent aggression towards others or are victims of such aggression must be isolated or kept separate from the group.

55. Although fighting is a natural behaviour, minimising aggression between pigs should have production benefits, in addition to improving their welfare. While some wounds may be caused by poor pen or equipment design (see paragraphs 80 to 87), others will be caused by aggressive interactions. Body marks / scratches on different areas of pigs can help indicate different causes of aggressive interaction between pigs.

56. Aggressive interactions, fear and the wounds associated with fighting result in poor welfare for the pigs affected. Aggression between groups of pigs, including sows and boars, can be precipitated by a number of factors. For example, as soon as new pigs are introduced to, or removed from, a group this will affect the hierarchy and social structure of the group, leading to some fighting to establish a new ranking order. Management strategies which minimise regrouping will help to avoid this. Where regrouping is necessary, the new group should be closely monitored, and prompt action taken to separate pigs if severe aggression and wounding occurs. The use of products sprayed into the air to mask the odours that distinguish pigs from different groups may be considered. Persistent aggressors must be kept separate from the group (although ideally not totally isolated) and pigs with serious injuries must be removed to a hospital pen for treatment and recovery or be humanely killed as soon as possible. See also paragraphs 193 to 195.

57. Aggression can also occur due to competition over access to feed or water. There should, therefore, be sufficient access to both feed and water for the number of pigs in each pen. See paragraphs 118 to 128.

58. Energy expended during aggressive activities, and the healing from wounds as a result, can lead to a reduction in productivity for all pigs (including the aggressor) and thus poorer feed conversion rates. Any injury also carries the risk of infection with further negative impact on welfare and productivity.

Body condition assessment

59. Body condition scoring (BCS) is a key measure of the health and welfare state of a pig. Condition scoring is a simple technique for all pig owners / keepers to carry out that allows the body reserves (i.e. muscle and fat cover) of individual pigs to be assessed and enables better monitoring and adjustment of feed and management practices. Pigs can be assessed to ensure they are not too fat or too thin and sows and gilts can be properly managed throughout their breeding cycle. Keepers should be familiar with this technique, and should know the expected BCS at different stages of growth and physiological states. Keepers should be competent in these assessments and should understand when to carry them out. Advice on BCS should be sought from a veterinary surgeon, if required. Alternatives to BCS are available, and may be recommended by veterinary surgeons, depending on the particular circumstances of the unit.

60. Evidence of poor body condition, despite adjusting feed levels, may suggest disease challenge, nutritional or water issues, or behavioural problems that need further investigation. In any case where there is unexplained poor body condition, veterinary advice should be sought. There should be a clear protocol for managing chronic, poorly conditioned pigs in the herd, including euthanasia. It is poor practice to move these pigs into groups of younger animals as they could spread disease.

Credit: M. Farish, SRUC

Lameness and limb lesions

61. Lameness is the inability to use one or more limbs in a normal manner, and can vary in severity from reduced ability or inability to bear weight, to complete inability to stand. Lameness or limb injury / lesion in any animal is usually a sign that they are in pain. It can also negatively affect productivity of growing and breeding pigs, particularly if appetite or access to the feeder is reduced. Replacement gilts should be carefully monitored for lameness as the quality and quantity of nutrition at certain stages of growth can significantly affect the incidence of lameness in replacement breeding stock. Lesions such as shoulder sores, foot lesions, or pressure sores on other parts of the limb may also indicate the need for nutritional or environmental improvements.

62. It is important that lameness and limb lesions are accurately recorded in accordance with veterinary advice, noting both the age of the pig(s), type of lesion or severity of lameness, and pen location of affected animals. Checks should be made of claw length and for any joint swellings. If a significant percentage of pigs in a herd are affected, the cause should be investigated and veterinary advice should be sought promptly and the problems addressed.

63. If a lame animal does not respond to treatment following veterinary advice, they must not be left to suffer, and should instead be humanely killed on farm as soon as possible. See paragraphs 69 to 72.

Managing sick and injured animals

Paragraphs 5 and 6 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

5**.** Any animals which appear to be ill or injured—

(a) must be cared for appropriately without delay; and

(b) where they do not respond to such care, veterinary advice must be obtained as soon as reasonably practicable.

6**.** Where necessary, sick or injured animals must be isolated in suitable accommodation with, where appropriate, dry comfortable bedding.

64. Immediate action must be taken if any pigs appear to be ill or injured. A veterinary surgeon should be consulted if there are any doubts about the cause of the ill health or the most effective treatment, including appropriate pain relief. It is important to regularly review an individual pig's response to treatment and if the pig is not improving, a veterinary surgeon's advice must be sought as soon as possible. Where appropriate, the owner / keeper must ensure the pig is humanely killed.

65. Any health and welfare plan should specify a procedure for separating and caring for sick or injured animals. Hospital pens should be available for each category

of pig on the unit and should be easily reached. The animals in them should be regularly checked throughout the day and a note of their condition kept as appropriate. Ideally, sick or injured animals should not be completely isolated as individuals but should still be able to see, hear or smell other pigs. When moving sick or injured pigs to the hospital pens, owners / keepers must ensure that unnecessary suffering does not occur. Unless specifically advised otherwise by a veterinary surgeon, drinking water must be continuously available along with feeding facilities which can easily be accessed by all pigs in the hospital pen.

66. Lame or recumbent animals should be well bedded with a sufficient depth of straw or similar bedding to avoid pressure sores developing. The use of rubber matting as an alternative can also be considered. Particular care is needed where recumbent animals are isolated to ensure that they can be checked and are seen to be consuming any feed and water provided.

67. Animals should be temporarily identified at the time of treatment, so that any medical treatments can be recorded against the individual animal and the time in the hospital pen can be monitored. Protocols for decision-making on euthanasia, particularly for recumbent pigs, should be established. If an animal does not respond to treatment and is unfit to transport, they should be humanely killed on-farm. Any animals suffering from painful and incurable conditions must be killed as soon as possible. See paragraphs 69 to 72.

Retained Council regulation (EC) No 1/2005, ANNEX I TECHNICAL RULES, CHAPTER I, FITNESS FOR TRANSPORT states:

1. No animal shall be transported unless it is fit for the intended journey, and all animals shall be transported in conditions guaranteed not to cause them injury or unnecessary suffering.

2. Animals that are injured or that present physiological weaknesses or pathological processes shall not be considered fit for transport and in particular if:

(a) they are unable to move independently without pain or to walk unassisted;

(b) they present a severe open wound, or prolapse;

(c) they are pregnant females for whom 90 % or more of the expected gestation period has already passed, or females who have given birth in the previous week;

(d) they are new-born mammals in which the navel has not completely healed;

(e) they are pigs of less than three weeks, [.....], unless they are transported less than 100 km;

[…]

3. However, sick or injured animals may be considered fit for transport if they are:

(a) slightly injured or ill and transport would not cause additional suffering; in cases of doubt, veterinary advice shall be sought;

(b) transported for the purposes of the Animals (Scientific Procedures) Act 1986 if the illness or injury is part of a research programme;

(c) transported under veterinary supervision for or following veterinary treatment or diagnosis. However, such transport shall be permitted only where no unnecessary suffering or ill treatment is caused to the animals concerned;

(d) animals that have been submitted to veterinary procedures in relation to farming practices such as dehorning or castration, provided that wounds have completely healed.

[…]

68. There are strict legal requirements associated with the transport of slightly injured or ill animals. For example, pigs that are unable to walk independently without pain and those that have a severe open wound or prolapse are unfit to transport. An animal must not be transported unless it is fit for the intended journey, and should be healthy enough to tolerate the entire journey it is about to make (including loading, unloading and any other journey breaks). Sick or injured animals may be considered fit for transport if they are slightly injured or ill and transport would not cause additional suffering: in cases of doubt, veterinary advice should be sought. It is important that the welfare needs of animals continue to be met up to and during transportation. See also paragraphs 41, 63 and Annex 3.

On-farm killing

69. Any health and welfare plan should detail the approved methods to be used for killing animals and who is competent to do this. It should also set out details of contingency procedures in the event such persons are unavailable, such as obtaining a licensed slaughterer or a veterinary surgeon to carry out this procedure as soon as possible. Useful guidance on on-farm killing can be found on the Humane Slaughter Association's website - see Annex 3.

It is an offence under regulation 22(1)(c) of the Welfare of Animals at the Time of Killing (Scotland) Regulations 2012 to contravene certain provisions of the EC Regulation 1099/2009, which are specified in schedule 2. Article 3(1) of this Regulation states that:

Article 3

1. Animals shall be spared any avoidable pain, distress or suffering during their killing and related operations.

This general offence applies in all cases, but the more detailed provisions in respect of the method of slaughter or killing in EC Regulation 1099/2009 do not apply to killing of animals which are injured or have a disease associated with severe pain or suffering and where there is no other practical possibility to alleviate this pain or suffering.

70. Animals must be killed humanely using a method which immediately renders them unconscious until death. A percussive blow to the head may be used to kill piglets up to 5kg in Scotland where no other method is available. This may be a manual percussive blow by a trained and competent operator, however where possible a mechanical non-penetrative captive bolt device should be used in accordance with guidance issued by HSA in March 2022. In heavier pigs, a penetrative captive bolt device with a suitable strength cartridge may be used as a simple stun and must be immediately followed by bleeding or pithing to kill the pig. Other legal methods include an accurately placed shot to the head from a firearm of appropriate calibre with a free projectile of sufficient power to kill the pig. Operators should be trained and competent in the method used and equipment should be properly maintained. Methods to be used should be agreed with the farm's veterinary surgeon.

71. Where a pig has to be killed in an emergency, that is where the pig is injured or has a disease associated with severe pain or suffering that cannot be practically alleviated, then any method of killing is allowed as long as:

- the animal is killed humanely;
- the animal is spared any avoidable pain, distress and suffering;
- the animal is killed as soon as possible;
- the procedure is carried out by someone who is suitably trained and competent in the killing method to be used and in the use of the equipment; and
- checks are made by the above person to ensure that there is no sign of life.

Under these emergency circumstances, a certificate of competence is not required, although it is desirable.

72. After a pig's death or killing, the carcase must be transported for disposal by a suitable method without delay (see Annex 3 for further guidance) and the death recorded in the holding register. While awaiting disposal, the carcase must be stored in a covered, leak-proof container which should be locked and inaccessible to domestic animals and wildlife. The products of farrowing, stillborn pigs, foetuses and after-birth (placentas) are all animal by-products covered by legislation. See Annex 3.

Responsible medicines usage and record keeping

73. Any pig health and welfare plan, agreed with a veterinary surgeon, should focus on disease prevention through appropriate biosecurity, hygiene and vaccination protocols.

74. Antimicrobials should not be used routinely but only for the treatment, control or prevention of disease as prescribed by a veterinary surgeon when specific disease or

infection has been diagnosed. The Pig Veterinary Society has published information about responsible use of antimicrobials – see Annex 3.

75. Worming and ectoparasiticide treatments should be carried out in accordance with veterinary advice as described in a health and welfare plan.

76. Only UK authorised veterinary medicinal products, or products with a Special Import Certificate and prescribed under the Cascade system, may be used and they should be administered according to the manufacturer's instructions. Any variation must be under direct veterinary supervision.

77. Full records must be kept of all medicines used. Under welfare legislation, these records must be kept for at least three years. There are additional legal requirements for medicines records under the legislation for food-producing animals, which state that records on medicine usage, administration and disposal must be kept for at least 5 years. See Annex 1.

Paragraphs 7 and 8 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

7. A record must be maintained of—

(a) any medicinal treatment given to animals; and

(b) the number of mortalities found on each inspection of animals.

8. The record referred to in paragraph 7 must be retained for a period of at least 3 years from the date on which the medicinal treatment was given, or the date of the inspection, as the case may be, and must be made available to an inspector on request.

(N.B. other legislation requires medicine records to be kept for 5 years – see Annex 1)

78. The medicines records must be available for an inspector to review at any time. Where records are kept on a computer or online, owners / keepers must be able to produce a copy of them on request for the inspector. See Annex 1.

79. In terms of individual animal management and overseeing herd health issues, it is useful to record reasons for treatment, such as mastitis, tail biting, lameness, and injuries. Where ongoing issues have been identified, owners / keepers should agree management and treatment protocols with a veterinary surgeon and add them to a health and welfare plan. Also see paragraphs 51 to 68, and paragraph 132 onwards in relation to tail biting.

Accommodation

Paragraphs 5 and 6 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

5.—(1) A pig must be free to turn round without difficulty at all times.

(2) The accommodation used for pigs must be constructed in such a way as to allow each pig to—

(a) stand up, lie down and rest without difficulty;

(b) have a clean, comfortable and adequately drained place in which it can rest;

(c) see other pigs, unless the pig is isolated for veterinary reasons;

(d) maintain a comfortable temperature; and

(e) have enough space to allow all the animals to lie down at the same time.

6.—(1) The dimension of any stall or pen used for holding individual pigs in accordance with these Regulations must be such that the internal area is not less than the square of the length of the pig, and no internal side is less than 75% of the length of the pig, the length of the pig in each case being measured from the tip of its snout to the base of its tail while it is standing with its back straight.

(2) Sub-paragraph (1) does not apply to a female pig for the period between 7 days before the predicted day of its farrowing and the day on which the weaning of its piglets (including any piglets fostered by it) is complete.

(3) Sub-paragraph (1) does not apply to a pig held in a stall or pen—

(a) while it is undergoing any examination, test, treatment or operation carried out for veterinary purposes;

(b) for the purposes of service, artificial insemination or collection of semen;

(c) while it is fed on any particular occasion;

(d) for the purposes of marking, washing or weighing it;

(e) while its accommodation is being cleaned; or

(f) while it is awaiting loading for transportation,

provided that the period during which it is so kept is not longer than necessary for that purpose.

(4) Sub-paragraph (1) does not apply to a pig held in a stall or pen which the pig can enter or leave at will, provided that the stall or pen is entered from a stall or pen in which the pig is kept without contravention of that sub-paragraph.

General

80. Owners / keepers should seek appropriate welfare advice from a veterinary surgeon and technical advisor when new facilities are to be constructed or existing facilities are modified. Suitable sites should be selected, taking into consideration the risk of outside environmental factors such as noise, vibration, atmospheric pollution, heat, and flooding, as well as the need for disease control and biosecurity. The need to mitigate against potential changes in environmental conditions due to climate change should also be considered when selecting materials and developing building designs. New facilities should allow compliance with current welfare legislation. For example, designs must enable the provision of sufficient and suitable environmental enrichment for all pigs. Some specialised buildings use complex mechanical and electrical equipment; additional technical and management skills may be required for these to ensure that husbandry and welfare requirements are met, and so additional training may be necessary. It may be useful to consider the future installation of new technology (such as motion sensors or CCTV) for monitoring pig welfare when planning the design of new buildings. Additional guidance in relation to outdoor accommodation can be found at paragraphs 207 to 228.

Paragraphs 11 and 12 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

11. Materials used for the construction of accommodation and, in particular, for the construction of pens, cages, stalls and equipment with which the animals may come into contact, must not be harmful to them and must be capable of being thoroughly cleaned and disinfected.

12. Accommodation and fittings for securing animals shall be constructed and maintained so that there are no sharp edges or protrusions likely to cause injury to them.

81. The internal surfaces of housing and pens should be made of materials that can be easily cleaned and disinfected regularly, that are safe to use for pigs and can be easily replaced when necessary.

Paragraph 10 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

10.—(1) Housing, pens, equipment and utensils used for pigs must be properly cleaned and disinfected as necessary to prevent cross-infection and the build-up of disease-carrying organisms.

(2) Faeces, urine and uneaten or spilt food must be removed as often as necessary to minimise smell and avoid attracting flies or rodents.

82. All areas of the building, accommodation and equipment, with which the pigs come into contact, must be cleaned and disinfected as necessary to prevent cross-infection and the build-up of disease-carrying organisms. Ideally this would be between batches of pigs and the accommodation should be dry when new pigs move in. Suitable cleaning products should be used for cleaning and disinfection. (See Annex 3 under Disease Control and Biosecurity.) Ideally, rooms and pens should have a 3-7 day empty period and exposure to sunlight. Where possible, rooms should be filled and emptied on a batch-wise basis to facilitate this and to minimise disease transmission between groups of pigs.

83. All buildings, fields and paddocks need to be kept clear of debris that could injure the pigs.

Floors

Paragraphs 12 and 13 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

12. Where pigs are kept in a building, floors must—

(a)be smooth but not slippery;

(b)be so designed, constructed and maintained as not to cause injury or suffering to pigs standing or lying on them;

(c)be suitable for the size and weight of the pigs; and

(d)where no litter is provided, form a rigid, even and stable surface.

13. On and after 1st January 2013, when concrete slatted floors are used for pigs kept in groups—

(a)the maximum width of the openings between the slats must be—

(i)11 mm for piglets;

(ii)14 mm for weaners;

(iii)18 mm for rearing pigs;

(iv)20 mm for gilts after service and sows; and

(b)the minimum width of the slats must be—

(i)50 mm for piglets and weaners; and

(ii)80 mm for rearing pigs, gilts after service and sows.

84. Good floor design and adequate maintenance is essential whatever the system. Damaged floors should be repaired or replaced promptly or the pen taken out of commission. Poor floor construction, incorrect slat width for the weight or size of pig, and surfaces that are worn or damaged, can cause injury to pigs' feet and legs. There are tolerances specifically for flooring made out of pre-cast concrete – see Annex 3.

85. Well designed and maintained fully slatted floors have advantages for hygiene and control of enteric disease, but disadvantages in terms of comfort for lying and ability to provide suitable enrichment material. These factors should be carefully considered in designing new housing and ideally fully slatted systems should be avoided unless suitable adaptations can be made to satisfy these needs.

86. Where buildings (temporary or permanent) or outdoor pens are constructed over existing hard standing floor bases (for example, on disused roads, tracks and airfields not originally designed for livestock use), owners / keepers must ensure that the flooring is made suitable for keeping pigs and is not hazardous to pig health and welfare. Where necessary, such flooring may require additional treatments to make it suitable for livestock use. Specialist advice should be sought before use is made of such hard standings.

Paragraph 11 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

11. Where bedding is provided, this must be clean, dry and not harmful to the pigs.

87. The lying area should always be kept dry and pen floors, including the dunging area, should be drained effectively. Where bedding is provided, this must be clean, dry and not detrimental to the health of the pigs and should be regularly topped up or changed.

Management

Enrichment

Paragraph 16 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

16. To enable proper investigation and manipulation activities, all pigs must have permanent access to a sufficient quantity of material such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such, which does not adversely affect the health of the animals.

88. All pigs must have permanent access to enrichment materials which provide pigs with the opportunity to engage in proper investigation, manipulation and foraging activities. Research shows that provision of sufficient, suitable enrichment has a positive impact on both physical and mental health and welfare and reduces the likelihood of potentially damaging abnormal behaviours. In order to be effective, enrichment materials should enable pigs to fulfil their essential behavioural needs without compromising their health. They must be safe, hygienic and should have one or more of the characteristics set out below. More than one type of enrichment material may be required to ensure that all of the pigs' needs are met, and to provide the pigs with an element of control and choice.

89. It is important to note, however, that enrichment materials are an addition to the pigs' environment. They are not a substitute for a poor environment and as such cannot address such deficiencies. It is important that the pigs' environmental needs are met, regardless of the enrichment opportunities provided.

90. Enrichment materials should be:

a) **edible**— so that pigs can eat or smell them (possibly with some nutritional benefits);

b) **chewable**— so that pigs can bite them;

c) **investigable**— so that pigs can investigate them; and

d) **manipulable**— so that pigs can change their location, appearance or structure.

91. Straw and dried grasses such as hay are examples of optimal materials for environmental enrichment, as they can satisfy all of the characteristics described above when they are provided in sufficient quantities and replenished as necessary. They are fibrous materials which the pig can eat; the pig is able to root in and play with them; and, when used as bedding, these materials can provide the pig with physical and thermal comfort. Various straw types can be suitable for enrichment but some are less suitable for bedding compared to cereal straws such as barley, wheat and oats. The key consideration is the quality of the material used, for example not dusty, wet or mouldy. It is acknowledged, however, that some existing buildings cannot cope with

this type of enrichment in optimal quantities. Examples of other enrichment materials are given below.

92. The following materials are not recommended due to potential health or environmental risks or other concerns: mushroom compost, peat, or novel sources of bedding such as “green” bedding. Although mushroom compost and peat are referred to in the legislation as examples of suitable materials, there are now recognised health risks associated with these.

93. Objects such as footballs and chains can satisfy some of the pigs’ behavioural needs, but only in the short term as they can quickly lose their novelty factor. They are therefore not considered suitable as the only form of enrichment material. If they are provided, other materials should also be available to meet all the pigs’ enrichment needs. Branched chains are preferable to single chains, as they provide more complexity and are therefore more manipulable. However, they are still only of marginal interest and so should only be used with other materials which meet all the pigs’ enrichment needs. Rotation of different enrichment materials and objects can also help to maintain the animals’ interest in them.

94. Enrichment materials have been categorised as follows, according to how well they meet the characteristics:

a) optimal materials—materials possessing all the characteristics listed in paragraph 90 and therefore can be used alone, as long as they are provided in sufficient quantities and are replenished as necessary;

b) suboptimal materials—materials possessing most of the required characteristics and therefore should be used in combination with other materials (optimal or suboptimal) possessing the other required characteristics to improve the enrichment experience of the pig; and

c) materials of marginal interest—materials of limited interest to pigs, which are not considered capable of fulfilling their essential needs for enrichment purposes, and therefore should only be used in conjunction with optimal or suboptimal materials covering all of the required characteristics.

95. The following table, which is not an exhaustive list, provides guidance on the suitability of commonly used enrichment materials. Further guidance is also available from AHDB (see Annex 3).

Suitability of materials for providing environmental enrichment

Materials	Provided as	Suitability of environmental enrichment material	Additional information	Risks (always check for toxicity)
Cereal straws and dried grasses	Bedding	Optimal – but should be provided in sufficient quantities and replenished as necessary.	Meets all the requirements of appropriate enrichment material. Most of these also provide appropriate thermal and physical comfort needs as bedding.	Competition if insufficient for all pigs. Can get dirty or wet, may need frequent replenishment. Some straws less suitable as bedding materials
Silage, root vegetables (N.B. parsnips are toxic to pigs)	Novel food source	Optimal – if permanently available / constantly replenished.		Provide in appropriate amounts to avoid competition and over-feeding. Ensure vegetable type is safe to eat for the quantities provided
Cereal straws and dried grasses	Rack or in dispenser	Optimal – if permanently available / frequently replenished. Suboptimal if not constantly available. Also does not allow for rooting unless/until enough is pulled from the racks.	More hygienic than when provided as bedding.	Competition if insufficient dispensers and/or insufficient daily supply for all pigs.
Wood shavings, sawdust	Bedding	Suboptimal	May be complemented by edible / manipulable materials.	Ensure safe to use – an untreated wood source, so no metal content.
Sand	Bedding	Suboptimal	May be complemented	Ensure safe to use.

Materials	Provided as	Suitability of environmental enrichment material	Additional information	Risks (always check for toxicity)
			by edible / manipulable materials.	
Shredded paper	Bedding / nesting material	Suboptimal	May be complemented by edible / manipulable materials.	Ensure safe to use and metal-free. Printed or recycled is not recommended due to toxins in the ink. Easily becomes soggy and coagulates into large unmanipulable masses (papier mache)
Soft, untreated wood, cardboard, natural rope, hessian sack	Object	Suboptimal	May be complemented by edible / investigable materials. If using rope, try tying knots in it so that pigs cannot bite off long pieces that could end up in the slurry system.	Competition if insufficient for all pigs.
Compressed straw in cylinder	Object	Suboptimal	May be complemented by investigable / manipulable materials.	Competition if insufficient for all pigs.
Sawdust briquette (suspended or fixed)	Object	Suboptimal	May be complemented by edible / investigable / manipulable materials.	Competition if insufficient for all pigs.
Chain, rubber, soft plastic pipes,	Object	Materials of marginal interest	Should be complemented by optimal or	Interest quickly lost.

Materials	Provided as	Suitability of environmental enrichment material	Additional information	Risks (always check for toxicity)
ball, hard plastic, hard wood			suboptimal materials to meet all the edible / chewable / investigable / manipulable requirements.	Suspending objects prevents soiling. Change regularly.

Credit: M. Jack, SRUC

96. Enrichment needs to sustain interest and should always be available and in sufficient quantity to allow all pigs the opportunity to interact. Materials which do not have all of the defined characteristics are less likely to achieve this and may need replacing or changing more often. If enrichment materials are not being used by the pigs, this probably indicates that they are not meeting the intended purpose.

97. If the enrichment is provided as bedding, it should be a material which is hygienic, clean, dry and safe to use for bedding purposes, and should be provided in sufficient quantity to maintain interest. Improved enrichment in straw or other materially-bedded environments may include regularly adding large bales that the pigs can pull apart themselves.

98. Where the provision of larger volumes of enrichment material is limited due to the floor and slurry removal systems, owners / keepers should ensure that what is provided is replenished sufficiently often to maintain interest.

99. The enrichment material's frequency of renewal, its accessibility, and quantity are all key factors in maintaining a pig's interest, and, where appropriate, physical checks as well as visual checks may be needed. Re-directed chewing behaviours towards other pigs or non-enrichment materials, such as faeces or equipment, should be discussed with a veterinary surgeon as this may suggest the enrichment material is inadequate or ineffective and should therefore be reviewed, or other contributing factors may need to be addressed. See paragraphs 137 to 156.

Credit: M. Jack, SRUC

Ventilation and temperature

Paragraph 13 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

13. Air circulation, dust levels, temperature, relative air humidity and gas concentrations must be kept within limits which are not harmful to the animals.

Paragraph 17 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

17. Pigs must not be kept in an environment which involves maintaining high temperatures and high humidity (known as the "sweat-box system").

100. Effective ventilation is essential to the wellbeing of the stock as it provides fresh air, removes noxious gases and aids in controlling temperature. High ammonia levels have negative impacts on pig health as well as on the health of those who care for the pigs. It is also important to avoid draughts: in addition to having an impact on pig health, welfare and comfort, draughts can trigger aggressive behaviour in pigs. See also paragraphs 145 to 147.

101. The tables below set out the ideals of temperature in housing for each category of pig, and ideals of other environmental measures. These should be taken as a guide to ideal target ranges only rather than definite limits. It is just as important to observe the behaviour of the pigs in order to determine whether the environment is suitable for them and, if not, to take appropriate action. For example, different breeds of pig, or pigs with different growth rates, might prefer slightly different temperatures**.**

Category of Pig	**Temperature**	
	(°C)	**(°F)**
Sows	15 - 20	59 – 68
Suckling pigs in creeps	25 - 30	77 – 84
Weaned pigs (3 – 4 weeks)	27 - 32	81 – 90
Later weaned pigs (5 weeks +)	22 - 27	71 – 80
Finishing pigs up to 70 kg	15 - 21	59 – 70
Finishing pigs over 70 kg	13 - 18	55 – 64

Ammonia	Less than 10 ppm
CO_2	Less than 3000 ppm
Relative Humidity	45-75%

102. In some cases, it might be difficult to maintain these environmental measures. For example, the upper limits of temperature for finishing pigs might be hard to maintain in the summer months. Advice is therefore given below on how to adapt the

environment to make it more acceptable for the pigs, despite the ideal measures not being met. Likewise, it might be difficult to maintain ideal relative humidity. However, it is important to consider temperature and relative humidity together, as high humidity is likely to be more problematic at the extremes of temperature.

103. Environmental factors should be assessed and recorded as appropriate to the system subject to veterinary or technical advice, in particular when it is clear that environmental factors or the pigs' behaviour has changed. Measurements should be made at locations that are relevant to the conditions experienced by the pigs.

104. Temperature and air quality can be controlled by a combination of an efficient ventilation system, adequate insulation to the roof, walls and floors of the building, and heating where appropriate. The ventilation rate should always be sufficient to maintain suitable air quality.

105. Ventilation equipment should be kept clean, dust free and well maintained, and operated according to the manufacturer's recommendations.

106. The farm's health and welfare plan should detail any additional protocols or management changes needed at different times of the year to help the pigs cope with fluctuating external temperatures, taking into account liveweight; age; group size; herd health; floor type (presence or absence of bedding); air speed and humidity.

107. Pigs are highly susceptible to heat stress. There should be some dry lying area available as a matter of choice, so that the pigs can move away to cooler conditions. There should be contingency plans for lengthy spells of hot weather or where building temperatures are likely to become elevated. Where necessary, and during the summer months, these could include reducing the stocking density; using water sprays; providing shade and wallowing areas; or misting incoming air. Air flow can be increased, for example by opening drop out windows and vents or altering side curtains, where such action would not compromise controlled ventilation systems, including in relation to humidity control.

108. Cold stress can also be harmful to pigs, especially the very young in all systems and all pigs kept in systems lacking active control of the environment. Provision of supplemental heating, increased insulation and bedding, minimising draughts over pigs and any other actions may be essential to minimise harm in cold weather. These should also be included in contingency plans as appropriate.

109. The contingency plan should also include mitigations for wide fluctuations in daily external temperatures to avoid stress which may lead to disease or behavioural problems. (See paragraphs 22 to 26 for further guidance relating to contingency planning.)

110. Deep straw bedding can help create a microclimate to moderate temperature changes. However, both too much and too little straw, particularly in outdoor farrowing accommodation, can lead to increases in piglet mortality.

111. When pigs are moved to new accommodation, the pen should be dry and at a similar temperature to that from which the pig has been moved. This is particularly important for newly weaned pigs.

112. When removing slurry from under slats, special care should be taken to avoid a concentration of dangerous gases, which are a danger to both humans and pigs. Ideally, the building should be empty or very well ventilated during the procedure.

113. Paragraphs 207 onwards provide more specific guidance in relation to outdoor pigs.

Lighting and noise levels

Paragraph 16 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

16. Animals kept in buildings must not be kept without an appropriate period of rest from artificial lighting.

Paragraphs 7 and 18 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

7. Where pigs are kept in an artificially lit building then lighting with an intensity of at least 40 lux must be provided for a minimum period of 8 hours per day, subject to paragraph 16 of Schedule 1.

18.—(1) Pigs must not be exposed to constant or sudden noise.

(2) Noise levels above 85 dBA must be avoided in that part of any building where pigs are kept.

114. Owners / keepers should routinely check light intensities are appropriate and keep a record of intensities in pens at all stages of rearing, including farrowing accommodation. It is permissible for some parts of the building to have a light intensity of less than 40 lux, as long as the main, brighter, area is large enough for all the pigs to be in at once if they choose. Providing areas of the pen with different light intensities to enable pigs to choose their preferred lighting can help to enhance welfare. Lighting should be regularly checked, maintained and cleaned.

115. Pigs must not be exposed to constant or sudden noise. However, the use of radios (or similar) can help pigs to become acclimatised to some noise levels and make them less likely to be startled by unexpected noises. The siting of machinery such as feed milling units should be appropriate to minimise the noise impact on pigs.

Automated and mechanical equipment

Paragraphs 18 – 21 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

18. All automated or mechanical equipment essential for the health and well-being of the animals must be inspected at least once a day to check that there is no defect in it.

19. Where any defect in automated or mechanical equipment of the type specified in paragraph 18 is discovered, it must be rectified immediately, or if that is impossible, appropriate steps must be taken to safeguard the health and well-being of the animals pending the rectification of such defects including the use of alternative methods of feeding and watering and methods of providing and maintaining a satisfactory environment.

20. Where the health and well-being of animals is dependent on an artificial ventilation system—

(a) provision must be made for an appropriate back-up system to guarantee sufficient air renewal to preserve the health and well-being of the animals in the event of failure of the system; and

(b) an alarm system (which will operate even if the principal electricity supply to it has failed) must be provided to give warning of any failure of the system.

21. The back-up system referred to in paragraph 20(a) must be thoroughly inspected, and the alarm system referred to in paragraph 20(b) tested, in each case not less than once every 7 days in order to check that there is no defect in it, and, if any defect is found in such system or alarm (whether or not on it being inspected or tested in accordance with this paragraph), it must be rectified forthwith.

116. All equipment, including feed hoppers, drinkers, ventilation equipment, heating and lighting units, fire extinguishers, and alarm systems, should be cleaned and inspected regularly and kept in good working order. All mains electrical equipment should meet relevant standards and be properly earthed, safeguarded from rodents and out of the pigs' reach.

117. Any health and welfare plan should include contingency plans for anticipated risks to key animal welfare needs caused by failure of any automated system. If, for example, water supply relies on a pressurised supply that fails and it is unable to be fixed, there should be a plan in place for providing an alternative water supply to all pigs to meet their daily needs, including over the weekend.

Feed, water and other substances

Paragraphs 22 to 27 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

22. Animals must be fed a wholesome diet which is appropriate to their age and species and which is fed to them in sufficient quantity to maintain them in good health, to satisfy their nutritional needs and to promote a positive state of well-being.

23. Animals must not be provided with food or liquid in a manner, nor must such food or liquid contain any substance, which may cause them unnecessary suffering or injury.

24. All animals must have access to feed at intervals appropriate to their physiological needs (and, in any case, at least once a day), except where a veterinary surgeon acting in the exercise of that profession otherwise directs.

25. All animals must either have access to a suitable water supply and be provided with an adequate supply of fresh drinking water each day or be able to satisfy their fluid intake needs by other means.

26. Feeding and watering equipment must be designed, constructed, placed and maintained so that contamination of food and water and the harmful effects of competition between animals are minimised.

27.(1) No other substance, with the exception of those given for therapeutic or prophylactic purposes or for the purpose of zootechnical treatment, may be administered to animals unless it has been demonstrated by scientific studies of animal welfare or established experience that the effect of that substance is not detrimental to the health or welfare of the animals.

(2) In this paragraph "*zootechnical treatment*" means the administering to any animal, after examination by (or supervised by) a veterinarian, of any substance authorised by the Scottish Ministers for synchronising oestrus and preparing donors and recipients for the implantation of embryos.

Paragraph 14 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

14.—(1) All pigs must be fed at least once a day.

(2) Where pigs are housed in a group and do not have continuous access to feed, or are not fed by an automatic feeding system for feeding the animals individually, each pig must have access to the food at the same time as the others in the feeding group.

118. It is illegal to feed any catering waste, kitchen scraps, meat or meat products to farmed animals, including pigs. The ban includes using kitchen waste from all households and any catering waste from any establishment regardless of whether they are vegan or vegetarian kitchens.

119. All pigs need a balanced daily diet to maintain full health and vigour, and any changes in diet should be planned and introduced gradually. The nature of the diet and the way in which it is delivered to the pigs has an impact on their overall welfare. For example, increasing the roughage content and increasing the time taken to eat (e.g. by scattering a proportion of the feed rather than providing in troughs) can help to reduce hunger in restrict-fed animals and stimulate natural foraging behaviour respectively.

120. When introducing pigs to unaccustomed housing or, for outdoor systems, a new paddock, owners / keepers should make sure that the animals are able to find the feed and water points. When newly weaned piglets are moved to pens where water is provided through nipple drinkers unfamiliar to the piglets, it is good practice to provide alternative water sources for the first few days.

121. Where pigs are not fed ad-lib, and where they are fed as a group, and food delivery is intermittent or rationed, owners / keepers must ensure that adequate trough or feeder space is provided to ensure that all pigs can feed at the same time without interference from other pigs. The following guidelines for trough space per pig apply:

WEIGHT OF PIG (KG)	TROUGH SPACE (CMS)
5	10
10	13
15	15
35	20
60	23
90	28
120	30

122. Good hygiene is necessary for storage and feeding systems, as moulds can develop in stale feed which is harmful to pigs.

Paragraph 15 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

15. All pigs over 2 weeks of age must have permanent access to a sufficient quantity of fresh drinking water.

123. There are various factors which should be taken into consideration when looking at the provision of water to pigs:

a) the total volume available;

b) the flow rate (pigs will not spend a long time taking water);

c) the method of provision, for example, the type of drinker;

d) its accessibility to all pigs over two weeks of age, including sick and injured pigs in the hospital pens;

e) the requirement for increased water supply for consumption during hot weather and for sick pigs, for example with diarrhoea;

f) water supplies to meet other needs, for example for cooling down in pens and for wallows on outdoor units;

g) its suitability as a safe drinking water source (and appropriate regular testing requirements) if the water is not a mains water supply;

h) the need for water delivery systems to be kept hygienic; and

i) the daily routine of owners / keepers to check on water supplies to all pigs to comply with legal requirements.

124. The following is a guide to minimum daily water requirements for various weights of pig:

Weight of pig (kg)	**Daily requirement (litres)**	**Minimum flow rate through nipple drinkers (litres/min)**
Newly weaned	1.0 – 1.5	0.3
Up to 20 kg	1.5 – 2.0	0.5 – 1.0
20 kg – 40 kg	2.0 – 5.0	1.0 – 1.5
Finishing pigs up to 100 kg	5.0 – 6.0	1.0 – 1.5
Sows and gilts – pre-service and in-pig	5.0 – 8.0	2.0
Sows and gilts - in lactation	15 – 30	2.0
Boars	5.0 – 8.0	2.0

125. Waste water and excessive or insufficient flow rates can be detrimental, particularly for sows in farrowing accommodation and very young pigs. The water supply connected to a wet-dry feeder should not be counted as a sufficient water supply alone for drinking, since feeding pigs will block access to these points.

126. The height at which water nipples and bowls are placed should be carefully considered. All pigs should be able to access the drinking point so this might require it to be height-adjustable, or there may have to be several different drinkers at various heights when groups of pigs, of a range of weights, are housed together or when pigs are housed in a pen for a long period.

127. Where nipple drinkers are used, a drinking point should be available for every ten weaner pigs and any other pigs on rationed feeding. On unrestricted feeding, one nipple drinker should provide adequate supply for 15 pigs given sufficient flow rates.

Bowl drinkers which have a reservoir of water contained within them, should be suitable to supply 30 pigs per bowl. Where trough systems are used, the following guidelines should be applied:

WEIGHT OF PIG (KG)	TROUGH SPACE PER HEAD (CM)
Up to 15	0.8
15 - 35	1.0
>35	1.2

128. Pigs are highly susceptible to dehydration and the condition commonly known as “salt poisoning”. In an emergency, where access to sufficient water is likely to be limited for 24 hours or more, an alternative system of manually supplying water must be provided. Water must not be withdrawn from sows which are being dried off at weaning. Water must also continue to be provided for any pigs prior to slaughter.

Credit: M. Farish, SRUC

Mutilations

Section 20 of the Animal Health and Welfare (Scotland) Act 2006 states that:

20 Mutilation
(1) A person commits an offence if the person—

(a) carries out a prohibited procedure on a protected animal, or

(b) causes a prohibited procedure to be carried out on a protected animal.

(2) A person ("person A") who is responsible for an animal commits an offence if—

(a) another person carries out a prohibited procedure on the animal, and

(b) person A—

(i) permits that to happen, or

(ii) fails to take such steps (whether by way of supervising the other person or otherwise) as are reasonable in the circumstances to prevent that happening.

(3) A person commits an offence if the person takes a protected animal, or causes a protected animal to be taken, from a place in Scotland for the purpose of having a prohibited procedure carried out on the animal at a place outwith Scotland.

(4) In this section, references to the carrying out of a prohibited procedure on an animal are to the carrying out of a procedure which involves interference with the sensitive tissues or bone structure of the animal.

(5) This section does not apply—

(a) in relation to a procedure which is carried out for the purpose of medical treatment of an animal,

(b) in relation to a procedure which is carried out—

(i) for a purpose which,

(ii) in such manner as, and

(iii) in accordance with such conditions as,

the Scottish Ministers may by regulations specify, or

(c) in such circumstances as the Scottish Ministers may by regulations specify.

(6) Before making regulations under subsection (5), the Scottish Ministers must consult—

(a) such persons appearing to them to represent relevant interests, and

(b) such other persons,

as they consider appropriate.

Regulation 3 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states that:

Exempted Procedures

3. The Scottish Ministers hereby specify the procedures described in column 1 of each of Schedules 1 to 12 where the procedure is carried out in relation to the particular type of protected animal described in any of those Schedules and is carried out—

(a) for a purpose which is specified, in relation to any such procedure, in column 2 of the corresponding entry in the relevant Schedule;

(b) in hygienic conditions;

(c) in such a way as to minimise the pain and suffering it causes to the animal;

(d) in accordance with good practice; and

(e) where applicable, in accordance with such conditions as are specified, in relation to any such procedure, in column 1 of the entry in the relevant Schedule,

as procedures in relation to which section 20 (mutilation) of the Animal Health and Welfare (Scotland) Act 2006 does not apply.

129. Mutilations of pigs are generally prohibited under the Animal Health and Welfare (Scotland) Act 2006. Certain procedures (see Annex 2) are however allowed under the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010, provided that they are carried out by a person permitted to carry out the procedure and:

- for the purpose specified in, and in accordance with, the schedules to these Regulations;
- in hygienic conditions;
- in such a way as to minimise the pain and suffering it causes to the animal; and
- in accordance with good practice.

130. Mutilations can cause pain and distress to pigs and they should only be carried out having sought appropriate advice on possible alternative interventions in each case. See Annex 2.

131. Schedule 3 of the Veterinary Surgeons Act 1966 specifies treatments and operations that may be carried out by unqualified persons and who is permitted to carry them out in different circumstances.

Tail docking

Schedule 2 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states:

[…]

Procedure: Docking of farmed pigs kept on agricultural land

Purpose: Handler safety or herd welfare

Conditions—

1) The procedure may only be performed—

(a) where there is evidence that injuries to the tails of other pigs have occurred and where other measures to improve environmental conditions or management systems have been taken in order to prevent tail-biting; and

(b) by the quick and complete severance of the part of the tail to be removed.

2) Where pigs are older than 7 days of age the procedure must be performed under anaesthetic and additional prolonged analgesia and only by a veterinary surgeon.

132. Routine tail docking is not permitted. Tail docking should only be used as a last resort, after improvements to the pigs' environment and management have proved ineffectual in preventing tail biting. Owners / keepers should document evidence of tail biting and keep records of the measures instigated and their effectiveness in improving the pigs' welfare. Where records are not available and pigs are found to be tail docked, this may be considered in any decisions regarding the legality of the tail docking procedure being carried out by owners / keepers. Where breeding units are tail-docking in response to requests from finishing units, it is the owner's responsibility to request this evidence from their supply units to justify any level of tail-docking on the breeding unit.

133. Written approval from a veterinary surgeon should be obtained before any tail docking is commenced. Confirmation from a veterinary surgeon should agree that, based on their veterinary risk assessment of the measures and management practices undertaken and records of tail biting and other associated records (for example slaughterhouse findings), tail docking is necessary and unavoidable for the particular

batch of pigs in question or for a fixed period of time. This should be reviewed at least every 3 months. The veterinary surgeon should include what evidence has been reviewed in this written confirmation.

134. Owners / keepers should undertake a regular review of on-farm reports of tail damage and any such slaughterhouse reports and associated post mortem findings. The origins and the causes and control of tail biting will be specific to the individual farm and circumstances of outbreaks.

135. If tail docking has been used on a farm to prevent tail biting over several years, owners / keepers should consider changing monitoring and management procedures including space allowance, genetics and/or changes to the system in which the pigs are reared. Any new accommodation and slurry management systems should be designed to ensure that adequate appropriate enrichment material can be provided and other trigger factors for tail biting have been addressed to ensure tail docking is only seen as a last resort, non-routine measure. When designing and installing new accommodation, the appropriateness of the flooring should be an essential consideration, although it is recognised that tail biting can occur on any type of flooring where there are relevant contributory factors.

136. Where it is necessary, tail docking of pigs 7 days old or younger should be carried out by a trained and competent operator, using appropriate, well maintained, clean equipment. Where pigs are over 7 days old, tail docking must be carried out under anaesthetic, and with additional prolonged analgesia, by a veterinary surgeon. It is important that all equipment used should be cleaned and disinfected between litters of pigs.

Managing and reducing the risk of tail biting

137. Tail biting is a multi-factorial problem. Rather than being a fundamentally aggressive behaviour, it is likely that in most situations tail biting has its source in a pig's basic need to root and forage, and is caused by that need, or another basic need, not being met. AHDB's Tail Biting Web based Husbandry Advisory Tool (WebHAT) provides useful information about the key risks in pigs, and practical suggestions to help reduce them on farm. The EU Reference Centre for Animal Welfare's review of the management of unweaned piglets also has useful information on early life risk factors for tail biting. (See Annex 3)

138. Ongoing monitoring of pig welfare and behaviour (see paragraphs 51 to 68) is important for identifying any risks before tail biting occurs, and addressing the underlying causes should improve health and welfare and promote positive well-being in the pigs. This in turn should ultimately reduce antibiotic use, mortality and carcase rejections, which should lead to improved productivity of the herd. Routine management procedures and expected monitoring / recording requirements for tail-biting risks should be specified, for example in the health and welfare plan. (See paragraphs 13 to 14.)

139. Decision making around management / husbandry measures all require skill and commitment from staff in performing these tasks competently, for example: management of ventilation; thermal comfort; manner of feed and water supply;

contingency planning for rectifying failures in food, water, and ventilation; management of enrichment materials; choice of pig genetics; tail-length variation; mixing pigs; picking up on early signs of tail biting and fighting / aggression; identifying tail biters or tail bitten pigs; removing the biter when identified; and hospital pen management in the early stages of an incident.

140. To help owners / keepers find the solutions and management strategies that work best on a particular farm, a number of elements should be evaluated and where necessary changes made, with the advice of a veterinary surgeon and / or scientific / technical specialist in tail biting. This evaluation should include consideration of farm management, including the knowledge, skills, attributes and attitudes of the stock-keepers, as well as the pigs themselves. Factors to consider include:

1. **resources** or 'inputs' – such as pen structure, space allowance, fittings, diet and environmental enrichment material and quantity;

2. **environmental outcome measures** – such as thermal comfort (temperature and relative humidity, temperature changes, draughts), air quality (for example ammonia, dust, carbon dioxide levels) and light levels; and

3. **animal based outcome measures** – such as health / disease, including injuries; cleanliness; positive and negative behaviours (for example play, aggression, chewing / biting other body parts); and competition for feed / water access.

Some of these factors are expanded upon in more detail in the paragraphs below.

Resource factors:

Pen structure, cleanliness and space

141. A dirty environment reduces the comfort of a living area and increases levels of noxious gases, stressing the pigs and increasing the risk of disease. It can also be more difficult to assess early signs of ear, flank and tail biting when pigs are dirty. It is important to have well-defined areas for resting, feeding and dunging. Potential indicators of an unsuitable pen structure or lack of cleanliness, which could increase the risk of tail biting are:

- presence of manure on the pigs' bodies. Dirty pigs could be a potential indicator of a suboptimal environment, poor nutrition or disease (except in warm weather when pigs may wallow); and

- increased disease (lameness, diarrhoea, respiratory infections, secondary infection of skin wounds).

Lack of sufficient space can also increase the risk of tail biting so consideration should be given to reducing stocking density if signs of biting are seen.

Enrichment material

142. Environmental enrichment is the process of improving and enhancing the environment that pigs are reared in by stimulating natural behaviours to explore and forage that pigs are highly motivated to perform. This often involves adding complexity and additional materials to the environment. This should then reduce stress and injurious behaviours such as tail-biting in pigs or fighting between pigs. Potential indicators of ineffective or insufficient enrichment material, which could increase the risk of tail biting, are:

- bitten tails and ears;
- skin lesions;
- loss of interest in enrichment materials over time;
- biting pen fittings or other pigs instead of enrichment materials;
- rooting in and manipulating dung;
- competition or fighting for use of enrichment materials; and
- belly-nosing.

Some of the above indicators may also be associated with other risk factors. Any risk assessment should consider all identified risks on the farm and at any source breeding units where appropriate. See paragraphs 88 to 99.

Diet

143. Pigs need feed of adequate consistency, as well as the right levels of minerals, fibre and essential amino acids. They also need a sufficient quantity of fresh, good quality water. Good intestinal health means fewer cases of diarrhoea, healthier pigs, higher daily gain, better feed conversion and less use of antibiotics. Potential indicators of an unsuitable diet, which could increase the risk of tail biting, are:

- low body condition or body fat measure;
- variation in weight;
- poor carcase classification; and
- poor gut health including stomach and intestinal ulcers.

144. A correctly balanced feed will help keep pigs healthy and ensure good gut condition. Pigs that have to adapt suddenly to new feed may become stressed, and may turn to tail biting. Avoiding lengthy periods between feeds, delivering the feed in ways that increase the time taken to eat a meal and (where appropriate) increasing the

roughage content can also be beneficial in reducing the risk of hunger, frustration and, as a result, unwanted behaviours.

Environmental outcome measures:

Thermal comfort, air quality and light

145. Pigs need a stable environment that is close to their optimum temperature and humidity, draught-free and with suitable lighting conditions. Maintaining the right temperature and good air quality is extremely important in keeping stress levels low. If pigs are not comfortable, they may become aggressive and may begin tail, leg, flank or ear biting. See paragraphs 100 to 113.

146. In cold weather, insulation, sufficient bedding or a heating system can ensure thermal comfort. During warm weather, options include air conditioning, floor cooling, misting and drip systems, showers and wallows.

147. Limiting the flow of cold air over sleeping areas is important as well as keeping dust and ammonia levels to a minimum. It is also important for pigs to be able to avoid direct sunlight. Continuous lighting causes stress and is not permitted. Very bright lights should be avoided. For direct sunlight, the solution could be as simple as fitting blinds or white washing the windows. Keeping pigs in semi-darkness to avoid fighting is ineffective and is not permitted. See paragraph 114, and the legislation box in relation to lighting.

Animal based outcome measures:

Health and fitness

148. Ensuring good overall health is another way to help avoid tail biting. A pig in poor health is a stressed pig.

149. Indicators of poor health that could increase the risk of tail biting are:

- bitten or limp tail;
- skin lesions or scratches;
- increased restlessness;
- lameness;
- lack of appetite;
- panting, shivering, hair standing on end, coughing, sneezing, diarrhoea;
- abnormal body size or shape, or reduced weight gain;

- social isolation;
- absence of / reduction in play behaviour;
- secondary skin infection and necrosis of wounds;
- increased mortality.

150. A comprehensive health and welfare plan, regular monitoring by the stock-keeper and regular visits by a veterinary surgeon are important for maintaining the overall health of pigs and avoiding clinical outbreaks of diseases on the farm / premises.

Competition

151. There should be sufficient space in each pen, relevant to the system in use, to avoid competition between pigs for access to and use of resources, such as food, water, enrichment items and bedding area. For example, for food and drink sufficient trough space and numbers of drinkers should be provided. Likewise, there should be sufficient enrichment items to avoid competition between pigs. Potential indicators of insufficient resources, which could result in competition and thereby increase the risk of tail biting, are:

- poor body condition;
- variability in body size within a pen;
- skin lesions on hind quarters (food competition);
- skin lesions on forequarters (space competition);
- increased aggression, for example fighting around feeders;
- pigs crowding around feeders and / or drinkers;
- poor distribution of pigs in each area of the pen; and
- tail tucking around resources.

Identifying, monitoring and managing tail biting incidents

152. If a tail biting or other aberrant behaviour occurs, it is important to identify the potential causes early:

- If possible, correct the deficiencies;

- remove the biter(s) (if they can be identified), remove the bitten pigs and treat injuries or take other management actions on veterinary advice; and

- provide distraction by adding fresh enrichment material such as rope, fresh wood or straw. Consider keeping an extra supply of enrichment material for emergencies.

153. All known risk factors should be considered and recorded, and suitable management changes should be made in those areas identified as being at risk. It can spread quickly through the pen and the severity of injury caused can increase very quickly.

154. There are multiple causes of tail biting and in order to understand why the problem is occurring, a systematic way of monitoring and recording incidents and possible causes should be developed and be part of a health and welfare plan. Monitoring should be increased as appropriate.

155. If improvements are not successful in stopping tail biting, then a reassessment of the measures introduced, and the system overall, should be made to identify areas where further suitable changes need to be made. Veterinary advice should be sought, as necessary, as to whether tail docking should be employed as a last resort, depending on the severity of the outbreak.

156. This process of reassessing and identifying successful measures should continue until tail-biting behaviour is consistently no longer seen. A plan for rearing pigs with undocked tails should then be developed with the veterinary surgeon, alongside suitable contingency planning to manage any future outbreaks of tail biting.

Teeth clipping / grinding

Schedule 2 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states:

[…]

Procedure: Uniform reduction of the corner teeth of farmed piglets kept on agricultural land aged 7 days or less by grinding or clipping to leave an intact smooth surface

Purpose: Herd Welfare

Condition—

The procedure may only be performed where there is evidence of injuries to sows' teats or to other pigs' ears or tails and when other measures have been taken to prevent tail-biting and other vices have been exhausted.

157. Piglets compete aggressively with their litter mates for a particular teat on the sow. As piglets are born with sharp teeth, this may result in injuries to the piglets'

faces and to the sows' udders. Injuries are reduced if sows are lactating well and have sufficient functional teats for all piglets in the litter.

158. Ensuring sows are lactating well involves paying attention to their nutritional and environmental needs to ensure good body condition and minimise stress. In cases where large litters are produced, nursed litter size can be reduced with fostering interventions: fostering piglets from large litters to a sow with a smaller litter may help reduce injuries. See section 2, below, on farrowing sows and piglets for more detailed guidance on these issues.

159. Routine clipping or grinding of teeth is not permitted. Owners / keepers should work with their veterinary surgeon and other professional advisors on management and health strategies to ensure that tooth reduction is not necessary. Where tooth reduction has to be performed as set out in the above legislation, it should always be considered a last resort, after other actions have been considered and taken to address the issue. If owners / keepers are carrying out tooth reduction on the farm unit, the health and welfare plan should identify the specific circumstances where tooth reduction may be necessary, and incidences should be recorded, along with the measures that were taken in the first instance to address the issue.

160. Teeth should not be clipped or ground to the gum line. Tooth reduction can cause short term pain and may cause long term pain if teeth are fractured due to poor technique, or if the pulp cavity of the tooth is exposed. Local infection, joint infection, and other potentially serious issues can result.

161. Suitable sharp, clean clippers or an appropriate clean grinder should be used. All equipment should be cleaned and disinfected between litters. Risk of injury and infections occur with both methods and appear more related to the proficiency of the operator than the procedure used (clipping or grinding). Staff should be trained and competent to carry out the task and only the tip of the teeth should be clipped or ground, taking care not to expose the pulp cavity in either procedure.

Castration

Schedule 2 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states:

Procedure: Castration

Purpose: Controlling reproduction or general animal management

Conditions—

1) Castration may only be performed by means other than the tearing of tissues.

2) Where pigs are older than 7 days of age the procedure must be performed under anaesthetic and additional prolonged analgesia and only by a veterinary surgeon.

162. Owners / keepers should consider carefully whether surgical castration is necessary. Castration is a mutilation and should be avoided wherever possible. If castration is necessary, the legislation requires that it must be performed under anaesthetic and additional prolonged analgesia if the pigs are older than 7 days of age. However, it is advisable that analgesia, and ideally local anaesthesia, are also used where pigs aged 7 days or less are castrated. Possible alternatives to surgical castration include use of an immunocastration vaccine.

Section 2 – Additional specific recommendations

The following is intended to be read in addition to Section 1.

Natural service, artificial insemination and vasectomy

Paragraphs 28 and 29 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

28.—(1) Natural or artificial breeding or breeding procedures which cause, or are likely to cause, suffering or injury to any of the animals concerned must not be practised.

(2) Sub-paragraph (1) does not preclude the use of natural or artificial breeding procedures which are likely to cause minimal or momentary suffering or injury or that might necessitate interventions which would not cause lasting injury.

29. No person may keep an animal for farming purposes unless it can reasonably be expected, on the basis of its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare.

163. Breeding programmes should pay at least as much attention to improving health and welfare as to production criteria. Ideally, the conservation or development of breeds of pigs which would limit or reduce animal welfare problems should be encouraged where possible. Where modern commercial genetic lines which produce larger live litter sizes are used, staff should have sufficient expertise and resources to cope with these, and particular attention should be paid to keeping sows in good condition.

164. All boars should have good and safe conditions in which to mate. Slatted floors and slippery conditions underfoot are not suitable for mating animals. As part of a health and welfare plan, avoidance of injury to boars and sows through excessive mating activity should be discussed with the owner's / keeper's veterinary surgeon.

Paragraphs 5 (1), 6 (1)and 6 (3)(b) of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

5.—(1) A pig must be free to turn round without difficulty at all times.

6.—(1) The dimension of any stall or pen used for holding individual pigs in accordance with these Regulations must be such that the internal area is not less than the square of the length of the pig, and no internal side is less than 75% of the length of the pig, the length of the pig in each case being measured from the tip of its snout to the base of its tail while it is standing with its back straight.

6.— (3) Sub-paragraph (1) does not apply to a pig held in a stall or pen—

(b)for the purposes of service, artificial insemination or collection of semen;

provided that the period during which it is so kept is not longer than necessary for that purpose.

165. Sows should be kept in their groups until insemination, at which time they can be moved to an appropriate stall or pen and inseminated. Sows should be allowed time to settle down in the stall or pen, and then exposed to a boar in order to encourage the standing reflex before artificial insemination takes place. It is not acceptable for sows to be left for long periods of time in insemination pens in which they cannot turn around easily, either before or after insemination. The total period in the insemination pen should not exceed 4 hours.

166. Sows should be left undisturbed, to allow uterine contractions to stop after artificial insemination (and natural service). They should then re-join their group in order to minimise bullying within the group hierarchy. If a sow is to be inseminated more than once, she should return to the group after each occasion.

167. Semen collection and artificial insemination should only be carried out by a trained, competent and experienced operator. Vasectomy must only be carried out by a veterinary surgeon.

Farrowing sows and piglets

Credit: M. Farish, SRUC

Paragraphs 22 to 27 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2007 state that:

22. Pregnant gilts and sows must, where necessary, be treated against external and internal parasites.

23. If they are placed in farrowing crates, pregnant sows and gilts must be thoroughly clean.

24. In the week before the expected farrowing time, sows and gilts must be given suitable nesting material in sufficient quantity unless it is not technically feasible for the slurry system used.

25. During farrowing, an unobstructed area behind the sow or gilt must be available for the ease of natural or assisted farrowing.

26. Farrowing pens where sows are kept loose must have some means of protecting the piglets, such as farrowing rails.

27. In the week before the expected farrowing time and during farrowing, sows and gilts may be kept out of sight of other pigs.

Paragraphs 35 to 39 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

35. If necessary, piglets must be provided with a source of heat and a solid, dry and comfortable lying area away from the sow where all of them can rest at the same time.

36. The part of the total floor where the piglets are kept, and which is large enough to allow the animals to rest together at the same time, must be solid or covered with a mat or be littered with straw or any other suitable material.

37. Where a farrowing crate is used, the piglets must have sufficient space to be able to be suckled without difficulty.

38. Piglets must not be weaned from the sow at an age of less than 28 days unless the welfare or health of the sow or piglets would otherwise be adversely affected.

39. Piglets may be weaned up to 7 days earlier if they are moved into specialised housings which are emptied and thoroughly cleaned and disinfected before the introduction of a new group and which are separate from housing where sows (other than weaners) are kept.

168. Owners / keepers should manage the feeding of sows and gilts so that they are in a suitable body condition at the time of farrowing. See paragraphs 59 and 60.

169. Sows and gilts should be moved into farrowing accommodation at least 48 hours, and ideally up to 5 days, before expected delivery. This is especially important

for allowing gilts time to settle, and for giving both sows and gilts the opportunity to nest build in the pre-farrowing period, and thereby minimising stress. Sufficient suitable nesting material must be provided, particularly in the 48 hours prior to farrowing. (The only exception to this is in cases where it is not technically feasible for the slurry system used.) Nesting material is in addition to any environmental enrichment material already provided. See paragraphs 88 to 99.

170. Ideally, indoor farrowing accommodation would be well designed zero-confinement systems which can provide similar piglet survival to conventional permanent farrowing crates if carefully managed. Temporary confinement systems allow the sow to be unconfined pre-farrowing but then confined around the critical period for piglet survival before the crate is opened up during lactation to allow the sow to turn around. If temporary crates are installed as part of a planned progression to fully free farrowing, the pens should be large enough to accommodate a future free farrowing system - current recommendations are a minimum total pen size of 7.8m^2 (see Annex 3).

171. In indoor free farrowing systems where the sow is not confined, the sow should have sufficient space to allow her to nest build, to turn around, rise up and lie down again, as well as access feeding and dunging areas without difficulty. Farrowing rails, sloped walls or other means to protect piglets from crushing must be incorporated into the pen design. When any procedures need to be carried out on the piglets, the pen design, where possible, should allow for the sow to be separated in an area of the pen away from her piglets or for the piglets to be shut away from the sow. A separate and easily accessible creep area may facilitate this. (See Annex 3 for further information on free farrowing.)

172. Where the sow is confined in a farrowing crate, it should be large enough to accommodate her and to allow her to rise and lie down without difficulty, and should be easily accessed in an emergency. The crate length should be sufficient to allow her to lie laterally with her head in contact with the floor and allow space for farrowing. The sow should be confined in a crate for the minimum time necessary following farrowing, and not after she has finished suckling piglets. Where the farrowing crate incorporates a design that can be opened up to allow the sow to turn freely, this should be carried out as soon as practicable for the individual sow and litter, ideally by four days and no more than seven days after farrowing, unless on veterinary advice there is an overriding health or welfare reason to alter this.

173. In all farrowing accommodation, the piglets should have sufficient space to allow them to be suckled without difficulty.

174. All farrowing accommodation should be clean and dry upon entry. Pregnant sows and gilts must be thoroughly clean before being moved into farrowing crates. In order to minimise infection risks, the farrowing environment should be designed so that the sow and her piglets stay clean and dry throughout lactation.

175. The thermal comfort zones of the sow and her litter are considerably different and the specific conditions at the time should be taken into account. See also paragraphs 100 to 113.

176. Where overhead lamps / heaters are used they should be securely fixed, checked regularly to reduce the fire risk, and protected from coming into contact with, or interference by, the sow or piglets.

177. Owners / keepers should be experienced and competent in the techniques of farrowing and the farrowing system being used (free or crate). If converting to a new system, it will take some time to become familiar with it, and suitable training or advice should be sought as appropriate. Cleaning, disinfection and hygiene at farrowing are essential and procedures for assisted farrowing should be documented in a health and welfare plan.

178. There are proposals to phase out farrowing crates, and any new system should protect the welfare of the sow, as well as her piglets. Owners / keepers should consider alternative systems when designing new facilities, and seek expert advice to support decisions. A large volume of information from research and practical implementation of free farrowing systems can be found on the free farrowing hub. (See Annex 3)

Credit: M. Farish, SRUC

Matching litter size and milk production

179. Supporting sows to produce sufficient milk will help ensure that all piglets can be fed, thus reducing the need for fostering. It will also reduce the risk of piglets fighting, and so reduce the need for teeth clipping / grinding (see paragraphs 157 to 161). Sows that have experienced problems with insufficient milk production should not be bred from.

180. Sows that experience exhaustion and stress at farrowing are likely to produce less milk and may have problems with milk let down. Ensuring good sow body condition, thermal comfort, suitable feeding during the transition to lactation accommodation, avoiding mastitis and ensuring sufficient water intake are all important. Ideally, breeding companies should ensure that milking ability and mothering capability are selected for alongside sow prolificacy and also consider the impact of increased prolificacy on sow and piglet health and welfare.

181. Avoiding the use of genetic lines of pigs that routinely produce average live litter sizes greater than the number of functional teats available would reduce the need for cross fostering, and would be likely to reduce piglet mortality, increase piglet weaning weights, reduce variability in piglet weights and reduce the need for farrowing crates, all of which improve pig welfare. Where more prolific modern commercial genetic lines are used to increase overall productivity, greater care and expertise are required and keepers should work with their veterinary surgeon and other professional advisors to ensure that appropriate birthweights and pre-weaning mortality targets are met.

Fostering

182. There are various different circumstances when fostering may be necessary and potential welfare issues for both the nursing sow and the piglets need to be carefully considered. Traditional cross-fostering techniques involve transfer of small numbers of piglets between litters to even up litter sizes. More recently developed practices involve transfer of whole litters to and from a nurse sow, and sometimes the use of an intermediate nurse sow as well.

183. A nurse sow is a lactating sow whose piglets have weaned (often early) or are fostered onto another sow, and who is then used to suckle surplus piglets from another sow. An intermediate sow is a sow selected approximately 7 days into her lactation to have her piglets fostered off her and onto another sow – the nurse sow – who is approximately 21 days into her lactation. This is done so the intermediate sow can then foster the surplus neonatal piglets (approximately 24 hours old) from large litters.

184. Procedures should be agreed with a veterinary surgeon or expert advisor. This should include suitable measures to reduce piglet mortality risks, prevent disease introduction and spread, and minimise any distress to piglets and / or sows. The welfare of other piglets in the litter needs to be considered, including the need to avoid fighting and competition.

185. Where nurse sows are used an appropriate sow should be selected. The nurse sow should have an udder that fits the nursing piglets: small teats for small

piglets, large teats for larger piglets. It is important to check whether the pen partitions obstruct the piglets' access to the udder. The nurse sow, and especially the intermediate nurse sow, should have a good body condition score and a healthy appetite to be able to handle the extra nursing period. The nurse sow and intermediate nurse sow should have taken good care of their own piglets, so that they have a proven good milk yield. A nurse sow should not be given more piglets than she had previously; the nurse sow and the intermediate nurse sow do not have more active mammary glands than the number of piglets removed from them.

186. If nurse sows are likely to continue nursing beyond the standard 4-5 week period, the use of an alternative, non-crating, system is highly recommended. If held continuously in a farrowing crate, this period should not be extended beyond 7 weeks including the pre-farrowing period.

187. Piglets should have received sufficient colostrum from their mother before being moved for fostering. Generally, nursing piglets should not be moved before 12 hours after birth and would ideally be moved within 36 hours. Sometimes 3-8 hours will pass before the nursing sow and intermediate sow give the piglets milk for the first time, and nursing piglets will need to be strong enough to wait that long. Alternative timings may however be appropriate in different circumstances as recommended by veterinary surgeons.

188. In a sectioned system, the nurse sow and intermediate sow should be moved to a pen in the section where the piglets were born. The nurse sow brings fewer pathogens than the piglets. The piglets are then weaned at the same time as the other piglets in the section.

189. Fostering onto artificial milk should not be regarded as a routine solution to problems with the piglets, and should only be used after other strategies have been tried. Strict hygiene measures should be followed when using automated milk machines for pigs and a high quality pig specific artificial milk should be used. Piglets must not be weaned from the sow at an age of less than 28 days unless the welfare or health of the sow or piglets would otherwise be adversely affected. However, as stronger, larger piglets may be better suited to artificial fostering systems with artificial milk, this could allow for some stronger piglets within a litter to be weaned earlier if necessary to protect the welfare of the sow or weaker littermates. Piglets can also be weaned up to 7 days earlier if they are moved into specialised housing which is emptied and thoroughly cleaned and disinfected before the introduction of a new group and which is separate from housing where sows are kept.

Weaners and rearing pigs

Paragraph 44 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that:

44. The unobstructed floor area available to each weaner or rearing pig reared in a group must be at least—

(a) 0.15m^2 for each animal where the average weight of the animals in the group is 10 kg or less;

(b) 0.20m^2 for each animal where the average weight of the animals in the group is more than 10 kg but less than or equal to 20 kg;

(c) 0.30m^2 for each animal where the average weight of the animals in the group is more than 20 kg but less than or equal to 30 kg;

(d) 0.40m^2 for each animal where the average weight of the animals in the group is more than 30 kg but less than or equal to 50 kg;

(e) 0.55m^2 for each animal where the average weight of the animals in the group is more than 50 kg but less than or equal to 85 kg;

(f) 0.65m^2 for each animal where the average weight of the animals in the group is more than 85 kg but less than or equal to 110 kg; and

(g) 1.00m^2 for each animal where the average weight of the animals in the group is more than 110 kg.

190. The unobstructed floor areas in the box above are absolute minimum requirements and are primarily intended for fully slatted floor housing. Other types of housing may require greater space allowances. Any ongoing changes in stocking density should be reviewed and recorded in the health and welfare plan. The lying area, excluding the dunging area, should be of sufficient size to allow all the pigs to lie down on their sides at the same time. There is evidence that increasing space allowance beyond the legal minimum can improve growth rate and benefit welfare by reducing restriction of movement, improving comfort, improving ability to express exploratory behaviour, reducing stress, and reducing the risk of abnormal behaviours (e.g. tail biting). See Annex 3.

191. Where part of the unobstructed area is on a different level, for example balcony systems for weaners, the design must comply with all other requirements of welfare legislation including:

- suitability of flooring for the age of pig;
- avoidance of injury risks from all new fixtures and fittings including ramps;
- minimum lighting requirements in the covered areas;

- system design which avoids dung and urine falling on pigs underneath balcony;
- system design which allows all pigs to access all areas;
- ability for owners / keepers to inspect all pigs at all times and remove sick or injured pigs without further injury.

192. Where any new pen design is planned which requires advice on compliance with the law, it is recommended that this is discussed with a veterinary surgeon or technical advisor. If there is any doubt it should be referred to APHA for an assessment. The impact of new pen design on the welfare of the pigs should be monitored, and any issues discussed with a veterinary surgeon or technical advisor and remedied.

Credit: M. Farish, SRUC

Mixing of pigs and prevention of fighting

Paragraphs 40 to 43 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

40. Weaners and rearing pigs must be—

(a) placed in groups as soon as possible after weaning; and

(b) kept in stable groups with as little mixing as possible.

41.— (1) If weaners and rearing pigs unfamiliar with one another have to be mixed, this should be done at as young an age as possible, and, where reasonably practicable, no later than one week after weaning.

(2) When weaners and rearing pigs are mixed they must be provided with adequate opportunities to escape and hide from other pigs.

42. The use of tranquillising medication in order to facilitate the mixing of weaners and rearing pigs must be limited to exceptional conditions and only after consultation with a veterinary surgeon.

43. When signs of severe fighting appear among weaners and rearing pigs, the causes must be immediately investigated and appropriate measures must be taken.

193. The health and welfare plan should include a strategy for managing mixing and establishing groups of pigs and for isolation of aggressors where necessary. The minimum amount of mixing should occur from weaning through to finishing. Aggressors should not be placed with sick or injured pigs.

194. For pigs being reared to onset of sexual maturity, owners / keepers should consider, with veterinary advice, how to manage aggression and unwanted sexual activity in finishing pigs as juvenile females start to come into oestrus. Split sex rearing may be appropriate.

195. Aggression can present a severe problem where boars, sows or gilts are kept in groups. The temperament of individual animals should always be considered when managing groups. Adequate space and providing opportunities for pigs to move away from aggressors are particularly important at the time of mixing breeding pigs. The health and welfare plan should include measures to be taken in the recording of, and solutions to address, any persistent bullying. Any animal suffering persistent bullying or carrying out persistent bullying must be removed from the group. See paragraphs 55 to 58.

Dry sows and gilts

Paragraphs 28 to 34 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

28. Sows and gilts must be kept in groups except during the period between 7 days before the predicted day of farrowing and the day on which the weaning of piglets (including any piglets fostered) is complete.

29. On and after 1st January 2013, the pen where the group is kept must have sides greater than 2.8m in length, except when there are less than 6 individuals in the group, when the sides of the pen must be no less than 2.4m in length.

30. On and after 1st January 2013—

(a) the total unobstructed floor area available to each gilt after service and to each sow when such gilts or sows are kept in groups must be at least 1.64m^2 and 2.25m^2 respectively;

(b) when gilts after service or sows are kept in groups of fewer than 6 individuals the unobstructed floor area must be increased by 10%;

(c) when gilts after service or sows are kept in groups of 40 or more individuals the unobstructed floor area may be decreased by 10%.

31. On or after 1st January 2013, for gilts after service and pregnant sows, a part of the area required under paragraph 29 equal to at least 0.95m^2 per gilt and at least 1.3m^2 per sow must be of continuous solid floor of which a maximum of 15% is reserved for drainage openings.

32. Sows and gilts kept on holdings of fewer than 10 sows may be kept individually provided that their accommodation complies with the requirements of paragraphs 5 and 6.

33. In addition to the requirements of paragraph 13, sows and gilts must be fed using a system which ensures that each individual can obtain sufficient food even when competitors for the food are present.

34. (1) All dry pregnant sows and gilts must be given a sufficient quantity of bulky or high fibre food as well as high energy food to satisfy their hunger and need to chew.

(2) In this paragraph a reference to a dry pregnant sow is to a sow between weaning her piglets and the perinatal period.

196. Many different feeding systems exist. The aim of any feeding system should be to reduce stress and aggression at feeding times, whilst supplying the correct amount of feed. Feeding time can be a catalyst for aggression if sows and / or gilts in the same building or group are not fed at the same time. The exception are systems which allow the sow to choose when to eat. When feeding groups of sows or gilts by

hand, it is important to try to reduce the time from the first to the last animal being fed and also to distribute the food to ensure all members of the group can obtain their allocation at the same time, with reduced interference from other pigs.

197. Where self-locking individual feeding stalls are used, they can only be included in usable floor area if they are permanently accessible and not manually locked closed. The stalls should be of sufficient size that the largest pig can fit in with no body part (e.g. tail) protruding. There should be a separate place where the pigs can lie together as a group. See the box on accommodation following paragraph 79.

198. Mechanical and computerised feeding systems need to be maintained regularly. Regular checking of the amount of feed delivered is recommended.

199. All dry pregnant sows and gilts must be given a sufficient quantity of bulky or high fibre food as well as high energy food to satisfy their hunger and need to chew. There should be 15-20% dietary fibre in the overall daily feed, and supplementary fermentable, soluble fibres or resistant starches should be offered, such as sugar-beet pulp or native potato starch. To satisfy the need to chew and forage, sows should have access to appropriate substrates such as straw. When sows transition from the dry sow house to the farrowing house, it is important to maintain high-fibre feeding to aid farrowing progression and reduce fatigue.

200. Sow and gilt body condition assessment should also be undertaken regularly regardless of the system. See paragraphs 59, 60 and 168.

201. Heavily pregnant females (beyond 90% gestation) should not be transported off the farm.

Credit: M. Farish, SRUC

Boars

Paragraphs 19 to 21 of schedule 6 of the Welfare of Farmed Animals (Scotland) Regulations 2010 state that:

19. Boar pens must be sited and constructed so as to allow the boar to turn round and to hear, see and smell other pigs, and shall contain clean resting areas.

20. The lying area must be dry and comfortable.

21.— (1) The minimum unobstructed floor area for an adult boar must be $6m^2$ save as set out in sub-paragraph (2).

(2) When boar pens are also used for natural service the floor area must be at least $10m^2$ and must be free of any obstacles.

Schedule 2 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states:

Procedure: Tusk trimming

Purpose: Handler safety or herd welfare

202. Walls between pens should be high enough to prevent boars climbing and / or jumping into adjacent pens. Pens should be sited so that boars can see other pigs. Owners / keepers should not enter boar pens without a pig board and they should be able to escape easily from the pen if the boar becomes aggressive.

203. If the boar is kept with other boars or sows, measures need to be taken to prevent conflict, especially during feeding. If signs of severe fighting appear, the causes need to be immediately investigated and appropriate preventive measures taken. See paragraphs 193 to 195.

204. Boars are usually individually housed and need plenty of bedding material. In cases where this is not possible, a closely controlled environmental temperature is required. Extremes of temperature can lead to temporary infertility and may affect a boar's willingness or ability to mate satisfactorily. As a guide, individual accommodation for an adult boar should have a floor area of not less than 7.5 m^2 if used for living purposes only. In a pen intended for mating purposes, the whole floor area should be kept dry, or sufficient bedding provided, to give adequate grip during service.

205. Requirements for enrichment material apply to boars as well as other pigs (see paragraphs 88 to 99).

206. Tusk trimming of boars is permitted if required for the purposes of handler safety or herd welfare.

Credit: M. Farish, SRUC

Pigs kept in outdoor husbandry systems

General

207. Regardless of the number of pigs kept, outdoor systems are particularly susceptible to unpredictable environmental factors and risks of importation of disease outside the direct control of the owner / keeper. This will require additional contingency planning.

Paragraph 17 of schedule 1 of the Welfare of Farmed Animals (Scotland) Regulations 2010 states that: 17. Animals not kept in buildings must, where necessary and possible, be given protection from adverse weather conditions, predators and risks to their health and, at all times, have access to a well-drained lying area.

208. When planning new sites or using existing buildings for new purposes, consideration should be given to providing the maximum possible distance between the proposed sites and existing sites as this will reduce airborne and local spread of infectious diseases.

209. Pigs selected for outdoor production should be suitable for outdoor conditions. Genotype, age, condition, previous housing, and management should be considered when switching stock to outdoors.

210. Sites for outdoor pig enterprises should be chosen carefully. Free-draining soils, in low rainfall areas, with lower frost incidence and low flood risk are most suitable for outdoor pig keeping. Expert advice is available to review sites prior to pig occupation, in terms of the environmental impact, suitability of site for pigs, and previous usage of land by livestock. A follow-on site / location should be identifiable.

211. Other potential factors to consider include:

- risk of plant toxicity (e.g. if pigs are used to manage bracken);
- risk of pathogens from the environment;
- potential contamination of water supply;
- issues with keeping pigs on land that has public access, such as public feeding inappropriate foodstuffs, vandalism, fly-tipping.

212. Field stocking densities should reflect the suitability of the site and the system of management. A health and welfare plan should include a strategy for dealing with outdoor weather challenges, such as water provision in freezing or drought conditions, and feed provision to the site and to the paddocks in snow or severe wet weather, as well as possible flooding.

213. It is recommended that pigs are rotated around outdoor pastures where possible, to allow recovery of the pasture and soil structure, and to reduce parasite / pathogen load.

Credit: M. Farish, SRUC

Accommodation

214. All outdoor accommodation used, including arks, huts and tents, should be provided with bedding appropriate to the time of year and have a warm, draught-free lying area. This is especially important for the sow and litter at farrowing, during the suckling period and for newly weaned pigs.

215. Owners / keepers should properly maintain outdoor accommodation and equipment, and ensure that there are no sharp edges that may injure the animals.

216. Adequate shelter should be provided to protect pigs from extreme weather conditions. Outdoor accommodation should be secured to the ground if its construction is susceptible to high winds, and should be sited so that the doorways can be adjusted to allow for changing wind direction. If pigs are being rotated around outdoor pastures, it may be useful to use accommodation which can be easily moved.

217. Owners / keepers should take all practical measures to remove all pigs from areas that are in imminent danger of flooding.

218. Wet conditions inside the accommodation should be minimised by appropriate siting and bedding management.

219. Adequate shelter should also be provided to protect against sunburn, for example through the provision of shade and / or wallows. Wallows are particularly useful for thermoregulation, and also contribute to meeting the pigs' behavioural needs. The accommodation should have shutters at the opposite end to the door to provide through ventilation.

220. In hot conditions, lactating sows may leave the farrowing accommodation to seek more comfortable conditions outside, effectively abandoning their litters for long periods of the day. Owners / keepers should consider how to allow the sow to comfortably feed piglets in a cooler environment, for example by painting the farrowing ark roof with sun/heat reflecting paint. It may also be necessary to provide additional drinking water for the piglets if the temperature is high. Farrowing accommodation should be able to manage higher or lower temperature variations through various options, which may include extra ventilation, insulation or bedding.

221. Farrowing accommodation should be sited on reasonably level ground with no gaps around the base, to avoid draughts. Clean and dry bedding should be provided. Additional bedding may be needed 2-3 days before farrowing. Suitable fenders should be used to reduce draughts and prevent very young piglets from straying during the post-farrowing period, but a flexible approach may be needed if these discourage gilts or sows using the ark.

222. Where pigs are held at a collection area prior to transport, the accommodation should be clean, rested, operate on an 'All In - All Out' basis, and have adequate water provision. It should also provide a suitable environment and protection from the weather as for other housing.

Feed and water

223. Animals must have access to adequate feed and water, and both should be made available in such a way as to allow individual animals' needs to be met. Owners / keepers should carefully monitor the body condition of pigs and adjust feed provision if necessary. Extra care is needed during extremes of weather.

224. Care should be taken to ensure that there is nothing in the pigs' environment which could cause them harm if eaten. This includes taking reasonable steps to prevent them being fed by members of the public.

Fences

225. Electric fencing should be designed, constructed, used and maintained properly, so that when the animals come into contact with it they do not feel more than momentary discomfort, and so that the public and other animals are not put at risk. Flags or other markers should be attached to fences to make sure that fences are visible to livestock. All power units for electric fences should be properly earthed to prevent short circuits or electricity being conducted anywhere it should not, for example gates and water troughs. Power units should be carefully maintained to avoid any damage that could cause leakage or environmental hazards or potential toxicity to livestock.

226. All stock that have not been trained to electric fencing should initially be kept in a training paddock with secure fencing to ensure that they cannot escape from the unit.

227. A predator control programme, which is regularly reviewed, and fox fencing should be considered. See paragraph 20.

228. Fences should be designed and maintained so they are fully effective in preventing escapes, taking into account the breed of pig being kept and the risks of disease spread if feral populations of "wild boar" or other pigs become established in the area. For biosecurity purposes, double fencing should be considered for the perimeter of the area used by livestock. Owners / keepers should also consider how best to mitigate risks posed by public access to the surrounding area, such as vandalism or gates being left open.

Nose ringing

Schedule 2 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 states:

Procedure: Nose ringing

Purpose: General animal management

Condition—

Nose rings must not be put in animals kept continuously in indoor husbandry systems.

229. Nose ringing is used in some circumstances to help maintain grass cover and avoid land excavation, which can have both welfare and environmental benefits. However, ringing is a mutilation and should be avoided wherever possible, as it interferes with a pig's natural rooting behaviours and may inhibit access to feeders. Nose rings should not be placed in boars. Where it is necessary to nose ring pigs, it should only be carried out by a suitably trained and competent person, and the reason for ringing should be recorded in the health and welfare plan. Equipment should be appropriate, properly maintained, cleaned and disinfected.

Annex 1: Legislation

The main requirements are summarised below. This does not represent an exhaustive list and note that some legislation is regularly updated and / or amended. All UK legislation can be found at: legislation.gov.uk

The Animal Health and Welfare (Scotland) Act 2006

The Welfare of Farmed Animals (Scotland) Regulations 2010

The Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010

Specific sections:

Introduction:

Dangerous Wild Animals Act 1976

Disease control and biosecurity:

Pigs (Records, Identification and Movement) (Scotland) Order 2011

Animal Health Act 1981

Trade in Animals and Related Products (Scotland) Regulations 2012

Diseases of Swine Regulations 2014 – covers disease controls for the three main diseases.

Aujeszky's Disease Order 1983

Foot-and-mouth disease (Scotland) Order 2006

Loading, unloading and transport:

Council Regulation (EC) No 1/2005 (the protection of animals during transport and related operations)

The Welfare of Animals (Transport) (Scotland) Regulations 2006

Marking:

The Pigs (Records, Identification and Movement) (Scotland) Order 2011

(Also see legislation in connection to mutilations / permitted procedures, below)

On farm killing:

The Welfare of Animals at the Time of Killing (Scotland) Regulations 2012 (as amended) – provides for the enforcement in Scotland of the requirements under Council Regulation (EC) No 199/2009 on the protection of animals at the time of killing, and also contains additional national rules.

Council Regulation (EC) No 1099/2009 (on the protection of animals at the time of killing). Also see Chapter II article 3 paragraphs 1 and 2 (General requirements for killing and related operations) and Chapter III article 19 (Emergency killing).

The Welfare of Animals (Slaughter or Killing) Regulations 1995

Animal By-Products:

Council Regulation (EC) No 1069/2009 – controls on disposal of animal by-products

Commission Regulation (EU) No 142/2011 – requirements for storage, transport and disposal of animal by-products, such as dead carcases, manure and litter.

The EU regulations are implemented by:

The Animal By-Products (Enforcement) (Scotland) Regulations 2013

Responsible medicines usage and record keeping:

The Veterinary Medicines Regulations 2013 and The Veterinary Medicines (Amendment) Regulations 2014 require keepers of food-producing animals to keep records on medicine acquisition, usage, administration and disposal. Records concerning the acquisition of a product must be kept for at least 5 years following the administration or disposal of that product. The Regulations also describe the 'cascade' system, the duties on suppliers of medicines and records that they are required to keep, including a private veterinary surgeon.

The Welfare of Farmed Animals (Scotland) Regulations 2010 sets out requirements on recording what medicine is administered and when (for welfare purposes) and applies to all farm animals.

Record keeping requirements are additionally set out in

- The Animals and Animal Products (Examination for Residues and Maximum Residue Limits) Regulations 1997, regulation 32.

- Commission Regulation (EU) No 37/2010 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin.

Mutilations:

The Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 allow a number of procedures to be carried out on specified animals, including pigs, under certain circumstances. (See Annex 2)

The Veterinary Surgeons Act 1966 prohibits the performance of a vasectomy or the carrying out of electro-ejaculation by anyone other than a veterinary surgeon.

Annex 2: Permitted procedures

The mutilation of pigs is prohibited under section 20 of the Animal Health and Welfare (Scotland) Act 2006 unless the procedure is an exempt procedure. Under regulation 3 of the Prohibited Procedures on Protected Animals (Exemptions) (Scotland) Regulations 2010 (as amended), certain procedures are exempted from this ban, provided that they are carried out:

- for a purpose which is specified, in relation to any such procedure, in column 2 of the corresponding entry in schedule 2;
- where applicable, in accordance with the relevant conditions in column 1 of schedule 2;
- in such a way as to minimise the pain and suffering it causes to the animal;
- in hygienic conditions; and
- in accordance with good practice.

The permitted procedures for farmed pigs[1] are listed on the following pages. The lists are correct at the point of publication.

[1] This list does not include implantation of a subcutaneous contraceptive into a non-farmed pig, which is permitted for controlling reproduction or general animal management as part of a conservation programme. Non-farmed is defined here as an animal which is not bred or kept for the production of food, wool or skin or for other farming purposes.

Procedure	**Purpose**
Tattooing	Identification
Ear tagging	1. Identification; or 2. Screening or routine or random testing for disease.
Ear notching	Identification
Micro chipping	Identification
Vasectomy	Controlling reproduction or general animal management
Embryo and ovum transfer	Controlling reproduction or general animal management
Tusk trimming	Handler safety or herd welfare
Docking of farmed pigs kept on agricultural land **Conditions**— 1) The procedure may only be performed— (a) where there is evidence that injuries to the tails of other pigs have occurred and where other measures to improve environmental conditions or management systems have been taken in order to prevent tail-biting; and (b) by the quick and complete severance of the part of the tail to be removed. 2) Where pigs are older than 7 days of age the procedure must be performed under anaesthetic and additional prolonged analgesia and only by a veterinary surgeon.	Handler safety or herd welfare

Procedure	**Purpose**
Uniform reduction of the corner teeth of farmed piglets kept on agricultural land aged 7 days or less by grinding or clipping to leave an intact smooth surface **Condition**— The procedure may only be performed where there is evidence of injuries to sows' teats or to other pigs' ears or tails and when other measures have been taken to prevent tail-biting and other vices have been exhausted.	Herd welfare
Nose ringing **Condition**— Nose rings must not be put in animals kept continuously in indoor husbandry systems.	General animal management
Castration **Conditions**— 1) Castration may only be performed by means other than the tearing of tissues. 2) Where pigs are older than 7 days of age the procedure must be performed under anaesthetic and additional prolonged analgesia and only by a veterinary surgeon.	Controlling reproduction or general animal management.

Annex 3: Sources of further information

These sources of further information are for information only and should not be considered to be part of the guidance. These sources of information are current on the date that this guidance is published. (Please see the final page for the date of publication.) Any of the sources of information listed here could change.

Council of Europe Recommendation Concerning Pigs

European Commission guidance on pig welfare

Council Directive 2008/120/EC on minimum standards for the protection of pigs

General welfare information

Farm Animal Welfare Council report: Farm Animal Welfare in Great Britain: Past, Present and Future – includes a discussion of the concept of quality of life for farm animals.

Farm Animal Welfare Council report on Stockmanship and Farm Animal Welfare

Pigs kept as companion animals

The Animal Health and Welfare (Scotland) Act 2006 will apply when pigs are kept in a domesticated state, including so called “micro pigs”, “teacup piglets” and “mini-pigs”. Owners / keepers should ensure they know what type of pig they are buying so they can be provided with a suitable living environment. Owners / keepers should understand and be able to meet all the welfare needs of their pig before purchase.

Anyone who keeps a pig needs a county parish holding (CPH) number supplied by the Scottish Government Rural Payments and Inspections Division. The place where the pigs are to be kept must be registered with the APHA within one month of the first pig’s arrival and preferably before that. Upon registration, APHA will provide a herd mark specific to the CPH. This herd mark must, subject to a small number of exceptions, be used to identify the pig if it is moved off the premises. A licence is required from APHA for anyone wanting to walk their pigs (which must be identified with a tag or tattoo) along specific approved routes outside of the premises. This licence needs to be renewed annually. An owner / keeper moving a pig to a veterinary practice for emergency treatment need not notify the movement. For detailed information on all these aspects, see:

Pig Identification and Registration

Scottish Government guidance on livestock identification and traceability

UK Government guidance on keeping a pet pig or micropig

AHDB's new pig keepers guide for small-scale production

“Pet” pigs are not exempt from any of the legislation applying to the use of medicines in animals. See Annex 1 for the legislation on the responsible use of medicines.

“Pet” pigs must not be fed waste food or scraps from the home kitchen or any other catering establishment, including from restaurants and commercial kitchens producing vegan food, and they must never be fed meat or products containing meat of any kind. This is for disease control reasons. Further guidance can be found at the links below.

UK Government guidance on using animal by-products as farm animal feed

APHA guidance on suitable food for pigs

If owners / keepers are unsure of the restrictions on the type of food products which they are permitted to feed to pigs, they should contact APHA for further advice.

General guidance on registering your pig / identification / traceability:

Scottish Government guidance on livestock identification and traceability

Disease control and biosecurity:

Scottish Government guidance on notifiable, reportable and non-notifiable diseases

SRUC leaflet - Practical Biosecurity for Pig Farmers, Smallholders and Pet Pig Keepers in Scotland

Disinfectants approved by Defra

UK Government guidance on animal by-products

UK Government guidance on using animal by-products as farm animal feed

AHDB's guide to rodent control on farms

National Pig Association's Muck Free Truck campaign

Loading, unloading and transport

UK Government guidance - animal welfare during transport

Humane Slaughter Association's guidance on the transport of livestock

EU Animal Transport Guide - Guide to good practices for the transport of pigs

Food chain information | Food Standards Scotland

Monitoring animal health and welfare

EU Reference Centre for Animal Welfare - Indicator Factsheets

Managing sick and injured animals:

The Casualty Pig Guide, produced by the Pig Veterinary Society, provides further guidance.

On farm killing:

UK Government guidance on welfare of animals at the time of killing

UK Government guidance on using animal by-products as farm animal feed

Scottish Government guidance on animal by-products

UK Government guidance for the animal by-product industry

Food Standards Scotland Home Slaughter of Livestock Guide

Humane Slaughter Association emergency slaughter guide

Humane Slaughter Association guidance on killing of neonates

Responsible medicines usage and record keeping:

Veterinary Medicines Directorate

The Cascade: Prescribing unauthorised medicines

RUMA: Responsible Use of Medicines in Agriculture Alliance

Pig Veterinary Society Prescribing Principles for Antimicrobials

electronic Medicine Book for Pigs

Accommodation – Floors:

Information on the relevant standard for the manufacture of concrete floors used in pig housing BS EN 12737:2004 + A1: 2007 can be found in the following table:

Type	Minimum beam width (slat)	Maximum opening width (gap / slot)	Tolerance: Maximum permitted deviation
Piglet	50mm	11mm	No tolerance
Weaner	50mm	14mm	+/- 2mm

Rearer	80mm	18mm	+/- 3mm
Gilt	80mm	20mm	+/- 3mm
Sow	80mm	20mm	+/- 3mm
Boar	80mm	20mm	+/- 3mm

Enrichment:

AHDB information on environmental enrichment for pigs

AHDB - Environmental enrichment: a practical guide

Automated and mechanical equipment

HSE information on health and safety in agriculture

Farmwise guide to health and safety in agriculture

Feed, water and other substances:

AHDB RAFT 2017 report on water

Managing and reducing the risk of tail biting:

AssureWel guide to measuring manure on the body

AHDB Pork Tail Biting Web-based Husbandry Advice Tool (WebHAT)

EU Reference Centre for Animal Welfare - Management of Unweaned Piglets

Farewell Dock project

Farrowing sows and piglets:

The European Food Safety Authority report on Welfare of pigs on farm (which makes recommendations informing EU legislation) recommends (section 5.9.2) that:

> 1. For animal welfare reasons, periparturient and lactating sows should not be housed in farrowing crates but in farrowing pens.
>
> 2. When housing a lactating sow and her piglets in a farrowing pen, the minimum available space for the sow should be around 6.6 m^2 in order to achieve comparable piglet mortality to a farrowing crate system. This equates to ~ 7.8 m^2 total pen size.

3. A larger pen size than referred to in the recommendation above is recommended to improve the locomotory possibilities for the sow.

Further guidance on free farrowing can be found at:
freefarrowing.org

Weaners and rearing pigs

The European Food Safety Authority report on Welfare of pigs on farm (which makes recommendations informing EU legislation) concludes (section 7.7.2.7) that:

1. If space is insufficient, it will prevent pigs from performing highly motivated behaviours, including exploratory / foraging, social, resting and thermoregulatory behaviours, and from maintaining separate dunging and lying areas. Reduced space allowance promotes damaging behaviours such as aggression and tail biting, and compromises growth.

2. The impact on pig welfare of insufficient space to perform thermoregulatory behaviour is greater at high ambient temperatures where no other cooling mechanisms are in place. The space required to maintain hygiene is lower in fully slatted compared to other floor types and is greater at higher ambient temperatures.

3. A minimum space allowance equal to k = 0.036 (representing 0.84 m^2 for a 110 kg pig) was previously recommended by EFSA (2005) for thermoneutral conditions. At this space allowance, growth rate is less compromised (estimated as 57%) and tail biting is reduced (estimated as 48%) relative to a k = 0.028 (which approximates the current legal minimum space allowance).

4. A minimum space allowance equivalent to a k-value of 0.047 (representing 1.10 m^2 for a 110 kg pig), was recommended by EFSA (2005) for temperatures above 25°C or for pigs above 110 kg. At this space allowance, growth rate is even less compromised (estimated as 26%) and tail biting is further reduced (estimated as 17%) relative to a k = 0.028 (which approximates the current legal minimum space allowance).

And recommends (section 7.7.2.8) that:

The minimum space allowance should be increased relative to the current legal requirement to reduce many welfare consequences (e.g. restriction of movement, resting problems, inability to express comfort behaviour, inability to express exploratory / foraging behaviour, group stress, soft tissue lesions and integument damage), thus reducing tail biting behaviour and increasing growth rate.

Pigs kept in outdoor husbandry systems:

Campaign for Responsible Rodenticide Use - Code of Practice

Scottish Government
Riaghaltas na h-Alba

This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-83521-239-4 (web only)

Published by The Scottish Government, November 2023

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1340482 (11/23)

w w w . g o v . s c o t