

Pigs – Dry Sows & Finishing Pigs

Explanation of measures

Enrichment Use (*Sows and finishing pigs*)

Why enrichment use is an important measure

Rooting is a deeply ingrained behaviour in pigs that has not been altered by domestication and is something that given the opportunity they will spend a large amount of time doing. Manipulation and exploration of suitable enrichment material with the mouth and snout provides a positive indicator that a pig's behavioural needs are being met. Conversely, the manipulation of other objects, including other pigs, pen fittings and muck suggests a motivation to root, but a lack of available desirable substrates. The failure to provide sufficient quantities of a suitable manipulable material can increase the risk of tail biting, ear biting and aggression.

The reasons for stone chewing are not fully understood. It can suggest hunger or restricted access to suitable manipulable material, although sows may chew on stones even when straw and other substrates are provided.

Measuring enrichment use using the AssureWel protocol

Observation: Observe and record the oral behaviour of **standing and sitting** pigs in the pen (ignore lying pigs). Assess quickly to avoid double counting pigs already assessed.

Record, the number of standing and sitting pigs:

1. **Using enrichment** = **Investigating a suitable manipulable substrate or object provided for enrichment**
 Include if snout/mouth is manipulating clean straw, hay, wood(chip), sawdust, mushroom compost, peat (or other material that enables proper investigation and manipulation)
 OR in contact with an object/toy such as a hanging object or ball.
 Only include if these objects/substrates have been provided by the producer as enrichment.
 In outdoor systems, include manipulation of turf or clean areas of ground (i.e. not contaminated with manure).
2. **Manipulating other** = **No. pigs manipulating other pigs, pen equipment / floor / muck**
 Include if the snout/mouth is in contact with any part of another pig.
 Include if the snout/mouth is in contact with muck or the floor, fixtures or fittings of the pen. Pay attention at feeders or drinkers to discriminate between manipulation of pen furniture and eating/drinking.
 In outdoor systems, include rooting in dunging area or manipulation of areas of ground contaminated with manure.
3. **Stone chewing** = **Manipulating a stone or stones with the snout or mouth – often audible.**

Tail Docking *(Sows and finishing pigs)*

Why tail docking is an important measure

Tail biting is an abnormal behaviour which indicates a reduced opportunity to perform foraging and exploratory behaviour and can also occur when pigs are frustrated. Tail biting is a serious welfare concern as it is painful for the receiver and can lead to internal abscesses and infection. Tail biting may also be stressful for the group, indicating frustration and reduced welfare in the biting pig. Condemnations resulting from tail biting can result in significant financial losses.

In order to reduce the risk of tail biting, around 80% per cent of pigs in the UK are tail docked. However, tail docking itself poses a welfare concern, resulting in short-term pain from the procedure and possible longer term pain from neuroma formation. Routine tail docking is prohibited by EU legislation and should be performed only where there is evidence of tail biting damage and measures have been taken to prevent tail biting through other means such as providing suitable and sufficient environmental enrichment and space. Tail docking is prohibited by Soil Association standards and may only be carried out in exceptional circumstances & with written permission within the RSPCA's standards. If permission is granted 6cm of tail must be left at the time of docking. The RSPCA welfare standards prohibit tail docking in free range pigs.

Measuring tail docking using the AssureWel protocol

Observation: Look at the animals from the side or behind.

Record: Record if the animals are:

Undocked = None of the tail is docked;
Short docked = >50% of the tail is docked;
Long docked = <50% of the tail is docked;

Note if there are mixed tail lengths within the pen, i.e. (long docked / short docked and docked /undocked)

Nose ringing *(Sows)*

Why nose ringing is an important measure

Rooting is a deeply ingrained behaviour which pigs are highly motivated to perform. To prevent outdoor sows and boars from causing damage to the ground by rooting and digging with their snouts, they are sometimes nose ringed. Insertion of the nose ring and the associated handling can cause pain and stress. The nose ring itself is designed to cause discomfort when the animal roots and this, together with the reduction in the ability to perform a normal behaviour, is a welfare concern.

Providing pigs with a 'sacrificial' area of paddock with root crops added can minimise damage by directing the behaviour to a specific area. Nose ringing is prohibited by the Soil Association and permitted only in exceptional circumstances & with written permission by the RSPCA welfare standards where there is evidence of welfare issues resulting if ringing is not performed. The RSPCA standards contain additional provisions to minimise the negative impact of ringing such as only allowing one ring to be inserted and only animals of 100kg weight to be ringed.

Measuring nose ringing using the AssureWel protocol

Observation: Observe and record if the animals are nose ringed or not.

Ear and Flank Biting *(Sows and finishing pigs)*

Why ear and flank biting is an important measure

Ear and flank biting behaviour has a similar aetiology to that of tail biting, indicating that the environment is insufficient to meet the behavioural and / or physiological needs of the pig, for example a lack of sufficient manipulable substrate or insufficient space. The presence of lesions is likely to be associated with pain and may additionally provide a route to infection.

Measuring ear and flank biting using the AssureWel protocol

Observation: assess all animals in pen

Record:

If **ear biting (EB)** lesions are present, and
If **flank biting (FB)** lesions are present

Typical flight or clambering / mounting lesions show parallel lines, while lesions from flank biting are typically round.

Pigs Needing Further Care *(Sows and finishing pigs)*

Why pigs needing further is an important measure

The treatment of a sick or injured pig is in the hands of the producer and the pig's welfare should always be the first consideration. Under the Animal Welfare Act 2006, failing to provide care that is likely to prevent suffering is just as much an offence as directly causing suffering. At an individual level, a sick or injured pig has compromised welfare and must be attended to without delay. A high prevalence of pigs requiring further care at a herd level may indicate poor management or a disease issue.

Measuring pigs needing further care using the AssureWel protocol

Observation: Observe all the pigs in herd, including those in hospital pens, to assess and record the number of any sick or injured pigs that would benefit from further intervention.

Further interventions include further treatment, hospitalisation or culling.

This could include pigs who are sick, injured or lame and are unable to compete for resources, being bullied/tail bitten or would benefit from access to more comfortable bedding and space (to rest) than that available in the pen.

This assesses legislative compliance that 'where necessary, any sick or injured pigs shall be temporarily isolated in suitable accommodation with dry, comfortable bedding'.

The nature of the condition and the pen environment will affect this measure.

Do not include sick or injured pigs already receiving suitable care.

Record: Number of pigs seen that would benefit from further treatment, hospitalisation or culling.

When identifying pigs requiring further care, please record reasons

Hospital Pens (*Sows and finishing pigs*)

Why hospital pens is an important measure

A sick or injured pig has compromised welfare and best practice is to alleviate suffering when necessary through euthanasia or treatment in a dry, comfortably bedded hospital pen following consultation with a veterinary surgeon. Pigs which may benefit from being in a hospital pen include those who are sick, injured or lame and are unable to compete for resources, those being bullied/ tail bitten or that would benefit from access to bedding that is more comfortable than that available in the pen. Legislation states that 'where necessary, any sick or injured pigs shall be temporarily isolated in suitable accommodation with dry comfortable bedding'. A high prevalence of pigs housed in hospital pens may indicate a disease problem.

Measuring hospital pens using the AssureWel protocol

Observation: Look at all sows in the hospital pens

Record: Record the number of **sows** in the hospital pens according to reason for hospitalisation: Lameness; Thin sows; Body Wounds; Skin Conditions; Shoulder lesions; Vulva lesions; Leg swellings; Other (please specify details, e.g. severe traumatic injuries, and number of pigs affected).

Or

Record the number of **finishers** in the hospital pens according to reason for hospitalisation: Tail-biting; Lameness; Body Wounds; Skin Conditions; Other (please specify details, e.g. severe traumatic injuries, and number of pigs affected).

Body Marks (Sows and finishing pigs)

Why body marks is an important measure

Body marks are primarily caused by aggressive interactions between pigs, but may also be caused by a poorly designed environment. Aggressive interactions, fear and the wounds associated with fighting are considered detrimental to the welfare of the pig. The location and type of body marks present and any obvious patterns on pigs within a pen can help identify risk factors and appropriate action to reduce these risks in the future. For example: wounds of the head and shoulder are associated with fights for social rank particularly in a restrictive environment that limits effective dispersal and the display of appropriate submissive behaviour; those of the rear with competition for food and lesions on the back may be caused by persistent mounting behaviour. There is a general trend for an increased risk of limb and body lesions in sows housed on slatted floors.

The aggressive interactions associated with body marks result in energy expenditure and therefore poorer feed conversion. Lesions of the ear and shoulder are associated with the greatest reduction in growth and may result in a greater impact on productivity.

Measuring body marks using the AssureWel protocol

Observation: Stand near the animal and visually assess one side only.

Scoring:

0 None - Minimal = No lesions or less than mild lesions as described below.

1 Mild = A linear lesion longer than 10cm;
Or 3 or more 3cm lesions;
Or a circular area larger than 1cm diameter but less than 5cm diameter.

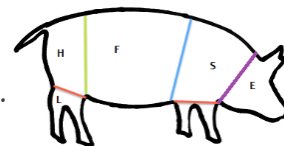
Definition of lesion includes grazed/broken skin, fresh (i.e. bleeding) wounds and healing lesions (scabs)
Scar tissue is not included.

2 Severe = Circular Lesion or area of lesions \geq 5cm diameter;
Or lesion extends into deeper layers of skin;
Or the lesions cover a large percentage (>25%) of the skin.

Body regions: If >25% with marks, identify any noticeable pattern in the pen: Shoulder (S); Hindquarters (H); Legs (L); Flank (F); Ears and Head (E); General, if there is no obvious pattern (G).

Deep tissue injury may also need to be recorded under 'Pigs needing further care'.

Do not include vulva or shoulder lesions (typically, shoulder lesions are round rather than scrape marks).



Tail Lesions (*Finishing pigs*)

Why tail lesions is an important measure

Tail lesions are the result of tail biting behaviour. Tail biting is an abnormal behaviour which can be caused by insufficient opportunity to forage/root or manipulate appropriate materials. The tail biting may be borne out of frustration and competition for resources and thus is a welfare concern for the biter as well as the receiver. Tail lesions are the clinical result of tail biting. They are painful and can become secondarily infected leading to internal abscesses, septicaemia and even death. The presence of any tail lesions increases the risk of a tail biting outbreak within a herd and therefore must always be considered a serious welfare concern.

Measuring tail lesions using the AssureWel protocol

Observation: Look at the animal from behind. Investigate carefully if the tail is swollen or shorter than normal and for scabs and lesions.

Scoring:

- 0 None-Minimal** = The tail is unmarked or has circular lesions <0.5cm diameter or linear lesions <1cm in length;
- 1 Mild** = The tail has a circular lesion ≥ 0.5 cm diameter or a 1cm linear scratch (including small scratches and scrapes, swelling, fresh blood or scabs visible on any part of the tail);
- 2 Severe** = The tail is more severely bitten – at least a proportion of the tail missing, tail swollen or held oddly, scab covering whole tip.

Record if too dirty to assess

Shoulder Lesions (*Sows*)

Why shoulder lesions is an important measure

Shoulder lesions are likely to be painful, are usually present for a prolonged period and often recur. They indicate that aspects of housing, feeding or management of the sow are suboptimal, that levels of comfort are poor and suggest the presence of a long term welfare issue. Poor body condition, affected by food and water availability and feeding strategy, and factors which increase lying times such as illness and lameness may increase the risk of shoulder lesions. Prolonged lying on hard floors can affect shoulder lesions and there is an increased risk in sows housed on slatted floors compared with those housed on solid concrete floors with bedding.

Measuring shoulder lesions using the AssureWel protocol

Observation: Stand near the animal and visually assess one side only for shoulder lesions. Typical shoulder lesions are round rather than scrape marks which are more indicative of fighting or treading.

Scoring:

- 0 None** = No skin damage on the shoulder;
- 1 Mild** = Grazed or broken skin or swelling on the shoulder;
- 2 Severe** = Grazed or broken skin or swelling on the shoulder >5x5cm;
Or deep tissue injury – these may also need to be recorded under ‘Pigs needing further care’.

Record if too dirty to assess

Vulva Lesions (Sows)

Why vulva lesions is an important measure

Vulva lesions are caused by other pigs biting out of frustration. They are painful, can become secondarily infected and can result in scarring and subsequent farrowing difficulties. Lesions from vulva biting are associated with competition for feed, restricted water access, low feed levels and inadequate roughage/ gut fill in the diet. Increased vulva lesions are also associated with an increased percentage of culled sows.

Measuring vulva lesions using the AssureWel protocol

Observation: Visually assess the vulva region.

Scoring:

- 0 None** = No damage to the vulva;
- 1 Mild** = Recent damage to the vulva including fresh or scabbed bite wounds but not including old Scarring
- 2 Severe** = Vulva lesion >3cm length or 1cm diameter;
Or deep tissue injury – these may also need to be recorded under ‘Pigs needing further care’.

Manure on the Body (Sows and finishing pigs)

Why manure on the body is an important measure

Pigs are motivated to keep clean and the presence of manure on the body indicates their environment is inadequate, impinging on their ability to carry out normal maintenance behaviour. Given the choice pigs will lie in clean dry areas and will defecate/urinate away from their bedding. They will only lie in excreta if their environmental temperature has reached critical limits or there is insufficient space. Both these reasons indicate a significant welfare compromise. An outdoor pig soiled with mud is normal, particularly during the summer months when pigs wallow to protect their skin and keep cool. Therefore this measure focuses only on identifying soiling with manure.

In addition to highlighting inadequate environmental conditions, manure on the body can lead to an increase risk of skin irritation, ectoparasites (such as lice and mange) and disease such as mastitis. Manure on the body can also provide an attraction for flies which can transmit disease within / between buildings and across pig herds.

Measuring manure on the body using the AssureWel protocol

Observation: Stand near the animal and visually assess one side only. This can be done from outside the pen if visibility is adequate.

Scoring:

- 0 Clean** = <20% of the body is soiled;
- 1 Dirty** = ≥20% and <50% of the body is soiled with fresh/old slurry/urine/faeces;
- 2 Very dirty** = ≥50% of the body is soiled with fresh/old slurry/urine/faeces

Leg Swellings (*Sows and finishing pigs*)

Why leg swellings is an important measure

Leg swellings are caused by an inadequate environment and are associated with poor flooring conditions. Bursitis, a specific form of leg swelling, is associated with trauma which may arise from wet, slippery or damaged floors and is much less prevalent in systems with sufficient bedding. Leg swellings may be associated with abnormal posture, locomotion and foot lesions of the hind limb and therefore have a detrimental effect on pig welfare.

Measuring leg swellings using the AssureWel protocol

Observation: Stand near the animal and visually assess the front and hind limbs, on one side only, for leg swellings

Scoring:

- 0 None** = No evidence of swelling;
- 1 Small** = Swelling present up to 5cm in diameter (walnut-sized);
- 2 Large** = Swelling present larger than 5cm diameter (walnut-sized) or any swelling that is eroded.

Skin Conditions (*Sows and finishing pigs*)

Why skin conditions is an important measure

Skin diseases in the pig can be broadly divided into two categories, specific infections or conditions that only infect the skin and those that are signs of more generalised disease. The most common forms of skin conditions are greasy pig disease, mange, necrosis, vesicular diseases and sunburn. The first four diseases have a significant impact on the pig's health and welfare and cause poor growth. Sunburn can be painful and cause irritation of the skin in outdoor pigs that do not have access to adequate shade and wallowing during summer months. Cracked and abraded skin may provide a route for infection.

Measuring skin conditions using the AssureWel protocol

Observation: Stand near the animal and visually assess one side only. This can be done from outside the pen if visibility is adequate. Assess the total amount of the body affected in relation to the rest of the body.

Scoring:

- 0 None** = No evidence of skin inflammation or discoloration;
- 1 Mild** = More than zero but less than 10% of the skin is inflamed, discoloured or spotted;
- 2 Severe** = More than 10% of the skin has an abnormal colour or texture

Record if too dirty to assess

Lameness (*Sows and finishing pigs*)

Why lameness is an important measure

Lameness is a sign that an animal is in pain and is therefore considered a serious welfare issue. Lameness in pigs can be due to injury or infection in the foot or joint, or to longer term skeletal and joint problems such as osteochondrosis. Osteochondrosis is caused by cartilage damage in the joint and can be due to fast growth. Under foot conditions are a key risk factor for the development of foot lesions. There is an increased risk of abnormal gait in sows housed on slatted floors compared with sows housed on solid concrete floors with straw bedding or sows housed outdoors on soil. There is also an increased risk of callus or bursitis on the hocks as lame pigs spend more time lying increasing the risk of limb lesions developing. Routine monitoring of pigs to identify lame pigs is key to identifying early cases for isolation and treatment, enabling rapid recovery.

Measuring lameness using the AssureWel protocol

Observation (sows): Make the individual pigs rise if necessary to observe them up and walking (unless there is an obvious reason why a pig should not be made to rise).
Ensure the sample is not just formed of pigs already standing.

Observation (finishers): Whilst in the pen assessing the individual measures, make all pigs rise if necessary to observe them up and walking (unless there is an obvious reason why a pig should not be made to rise).
Assess all animals in the pen.

Record: **Number of lame pigs**

When identifying lame pigs, include those which are:

Standing but not bearing full weight on the affected limb and/or appears to be standing on its toes
AND / OR
Walking with a shortened stride with minimum weight-bearing on the affected limb and a swagger of the hindquarters (may still be able to trot or gallop)
AND/OR
Severely lame with no weight-bearing on the affected limb. These may also need to be Recorded under 'Pigs needing further care'.

Do not include any animals showing only stiffness or uneven gait.

Body Condition (Sows)

Why body condition is an important measure

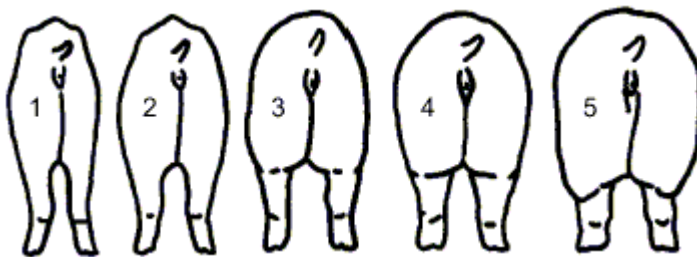
Regular body condition scoring of pigs can identify suboptimal feed, health and environmental management of sows during previous lactation or during pregnancy. Good stockmanship should take into consideration the nutritional needs of every pig as serious weight loss may be difficult to regain, especially in group feeding systems. Sows with poor body condition produce litters with low birth and weaning weights and are likely to have smaller subsequent litters; they are at increased risk of shoulder lesions and may display increased stereotypic behaviour. Fat sows may suffer from leg weakness, increasing the risk of injury and are at increased risk of certain diseases including Mastitis Metritis Agalactia.

Measuring body condition using the AssureWel protocol

Observation: Visually assess from the side and behind. Manual assessment can help distinguish borderline scores.

Record:

- | | |
|-----------------|---|
| Thin | = Score 1 or 2: Ribs, backbone, 'H' bones and 'pin' bones obvious (or easily detected with pressure); |
| Moderate | = Score 3: Ribs, backbone, 'H' bones and 'pin' bones barely visible (or barely felt with firm pressure); |
| Fat | = Score 4 or 5: Ribs, backbone, 'H' bones and 'pin' bones cannot be seen (or felt even when pressure is applied) or fats deposits are clearly visible. |



THIN

MODERATE

FAT

R. Coffey, thepigsite.com

Mortality (*Sows and finishing pigs*)

Why mortality is an important measure

Mortality includes pigs that have died and those that have been culled prematurely on welfare grounds due to chronic injury or disease. High levels of mortality and culling rates within a herd may suggest suboptimal management, inadequate environmental conditions or disease challenge, amongst others. In sows, the major contributors to culling include lameness and poor reproductive performance. Other risk factors include those associated with particular production systems (i.e. indoor or outdoor systems), floor type and litter size. Good stockmanship, husbandry, housing, nutrition, health and welfare planning and regular monitoring and early detection of pigs in need of further care can minimise the number of pig deaths.

Measuring mortality using the AssureWel protocol

Record: **Percentage mortality (died but not actively culled) on farm in the last 12 months.**
 Percentage culls in the last 12 months (dry sows only)

Record the predominant cause of mortality.