



SOW'S BEHAVIOUR AND COMFORT

Studies show that when modern domestic pigs are allowed to live freely in the wild or in free-range environments, their social behaviour closely resembles that of the ancestral wild boar species.

INTRODUCTION

- **Pigs live sociably** in family groups of a few sows and their offspring.
- Spend **most of their active time rooting**, grazing and exploring, thus getting plenty of **exercise** and **stimulation**.
- Build communal nest sites for sleeping but make an individual nest before farrowing.
Use dunging areas that are typically several meters away from a nest site.
- **Wallow** in wet mud to cool themselves by evaporation as they have almost no sweat glands.
- Develop a **dominance hierarchy** which, once established and given enough space, is usually maintained by younger/smaller animals avoiding larger/older ones rather than by fighting.
- Pigs usually displace lower ranking animals when competing for food.

!!! NOTE: The social organisation of pigs means that sows rarely meet unfamiliar pigs

!!! NOTE: Using their well-developed learning and memory abilities, pigs can remember other pigs for at least 6 weeks

PIGS COMMUNICATE IN SEVERAL WAYS:

- 1 - Using their well-developed sense of smell** not only to find food but also to recognise others directly and via their urine or dung.
- 2 - Using pheromones and other odours** in oestrus and mating behaviour, and as alarm signals.
- 3 - Using a range of grunts, alarm calls and other auditory signals** to communicate and stay together as a group, particularly when foraging.
- 4 - Vision** may be less important, but can also be used for individual recognition.



Sows exploring their surroundings

FEEDING AND FORAGING BEHAVIOUR

✓ Under commercial farming conditions, sows are usually restricted fed and may get just one meal a day. Consequently, they feel hungry and are highly motivated to feed. Forage based feeds (e.g. hay, maize or grass silage) and high fibre diets should be offered to help them feel less hungry. According to Danish research straw may not satisfy their hunger, but it is useful for rooting behaviour. Sows are highly motivated to forage and **must be given the opportunity to root and chew**. Long straw offers many benefits as a rooting substrate: it is highly manipulable, provides thermal insulation and physical cushioning, and can be used as bedding

✓ Other suitable rooting materials for solid floor areas include **hay, woodchips, shavings, sawdust, bark and mushroom compost**.

✓ Sows are motivated to feed at the same time and they should be able to get **access to food simultaneously**. Where this is not possible (e.g. ESF systems), the **feeding sows need to be protected**. This is a general requirement as sows will compete vigorously for food. Individual stations and (partial) stalls, or scattering food widely if floor feeding is used, help to minimise direct competition and protect sows from each other.

!!! NOTE: Indicators that their feeding and foraging behaviours are not being met include the presence of stereotypies (i.e. aimless, repetitive behaviour such as bar biting), persistent investigatory behaviour, skin lesions, vulva-biting or vulva lesions

SOCIAL BEHAVIOUR AND USE OF SPACE

Housing sows in stable groups of 4-5 animals is preferable and replicates natural group sizes.

However, sows can be kept in larger groups, sometimes comprising over 100 animals. In large groups mixing is common as sows are removed from the group to give birth and then reintroduced following weaning. These changes in group composition promote aggression, although this may actually be less pronounced in very large groups where sows are less able to detect unfamiliar individuals entering the group.

!!! NOTE: The social hierarchy of sows may be maintained by fighting but also by more subtle dominance-submission behaviours such as warnings, flight and avoidance. This requires plenty of space and non-slip flooring to reduce injury. Indicators of social problems include skin lesions, vulva-biting or vulva lesions

✓The legal minimum space allowance for a group-housed sow is 2.25m² (1.64m² for gilts) but providing them with more than 3m² reduces fighting and injuries and results in more piglets being born alive.

✓Visual barriers (e.g. partitions, straw bales, suspended belting) may enable subordinate pigs to escape and hide thereby preventing escalation of aggression. Sub-dividing the lying area into large pens encourages the formation of stable sub-groups and makes it easier to introduce new small groups.

✓Group housed sows are most easily managed if distinct lying, feeding and drinking/dunging areas are provided.

✓Lying areas should be comfortable, bedded and provide enough space for all sows to lie out fully at the same time.

✓The structure and size of feeding areas depends on the system.

✓Dunging areas should be frequently cleaned and kept separate from the lying area.

✓Drinkers should be placed near the dunging areas to encourage sows to move away from the feeding area once they have finished a meal.

✓There should be enough drinkers to avoid competition.

AVOIDING INJURY AND KEEPING SOWS COMFORTABLE

DIFFERENT STRATEGIES AND DESIGNS MAY BE NEEDED FOR HOT AND COOL CLIMATES:

✓Adding **bedding** to solid floors may help keep sows warm in cold weather and reduce lameness, hoof abnormalities and skin lesions, which are signs of poor welfare.

✓Bedding should be kept clean especially in warm weather to reduce disease risk.

✓A fully bedded floor can lead to soft, overgrown claws and foot problems.

✓Where part of the floor is slatted, having the bedded area lower can reduce clogging of the slats.

✓Different floor heights increase the risk of claw damage and lameness.

✓Lying mats (> 3mm resistance foam) are more comfortable than bare insulated concrete and protect against some skin and joint injuries.

!!! NOTE: Floors should be kept dry and non-slip especially when introducing new pigs to a group



Resting area with straw bedding

✓In hot weather it helps to provide **showers** or a cooler floor

✓Sows should not have to wallow in dung and urine in order to keep cool.

