

Welfare Issues in Sows

Physical wellbeing

Welfare Issue	Problem	Solution
Confinement - sow stalls, farrowing crates, tethering	Shoulder sores, weak muscles and bones, cardio-vascular problems, dystocia, urinary infections	Group house sows throughout service, pregnancy and farrowing
Lameness - typical rates of 10% lame	Poor flooring, especially fully slatted; wet and slippery floors	Straw bedding for lying areas and rubber matting for standing areas; good drainage
Poor body condition	Competition at feeder, inappropriate diet	Provide sufficient space at the feeder for all sows to feed simultaneously; distribute feed over a large area for on-floor feeding; provide an appropriate number of individual stations in automatic systems
Poor sow comfort	No bedding material; low space allowance	Provide deep straw bedding and sufficient space, calculated with the allometric curve
Poor thermal comfort	Heat or cold stress indoors Sunburn if kept outdoors	Provide adequate ventilation & temperature control Provide shelter, shade and wallows outdoors to cool and protect skin
Mastitis, metritis,agalactia	Bacterial infection of mammary glands and uterus; loss of milk supply leads to high piglet mortality and poor weaning weights	Keep farrowing pens clean and dry; ensure sow has exercise before farrowing and in early lactation; provide plenty of water at all times; avoid over fat sows
Damage to sows' teats	Competition between new born piglets for sufficient milk supply; inadequate numbers of functioning teats	Breed sows for sustainable litter sizes and good sow condition. Ensure good sow nutrition and provide supplementary feed for piglets. Manually introduce new-born piglets to teats during suckling. Provide sows space for movement to increase milk production
Health monitoring	All health and disease issues – if they're not measured they can't be improved	Develop a herd health plan to monitor disease and welfare performance; set targets and plan action to reduce incidence rates

Mental wellbeing

Welfare Issue	Problem	Solution
Confinement - sow stalls, farrowing crates, tethering	Boredom, frustration, depression	Group house sows throughout pregnancy and use free-farrowing systems during lactation
Barren environments	Boredom, aggression, stereotypy	Provide complex, edible, destructible substrates (e.g. straw, rice hulls), and a varied environment throughout life
Fear	Low-ranking individuals in the social hierarchy are afraid of joining the group and dominant individuals Flighty behaviour due to fear of humans	Provide barriers and areas of refuge, so sows can escape aggressors. Keep sow stable groups stable and avoid mixing Ensure positive human-animal interactions—use pig boards/flags for handling, do not use electric goads, act in a calm, predictable way
Hunger	Feed restriction in early to mid-pregnancy to avoid excess weight gain – leads to aggression	Provide a high fibre diet with <i>ad libitum</i> roughage for satiety (feeling full)
Nose rings in outdoor sows	Inability to express rooting behaviour, pain caused by ring	Avoid nose ringing. Provide frequent pasture rotation, large land availability

Natural behaviour

Welfare Issue	Problem	Solution
Abnormal behaviours	Stereotypic bar biting / chewing, during confinement	Group house sows; provide complex, edible, destructible substrates (e.g. straw, rice hulls), and a varied environment
Aggression	Skin lesions and lameness	During mixing, provide plenty of space, soft bedding, and barriers to hide from aggressive sows; feed <i>ad libitum</i> . Preferably keep sows in stable groups
Restriction of species-specific behavioural expression	Lack of space for development of functional areas indoors Inability to express nest building behaviour Inability to express maternal behaviour	Calculate space allowance using the allometric curve. Provide separate functional areas for eating, dunging, rest and activity. Provide nesting material before and during farrowing Use free-farrowing systems