



Scientists and Experts on Gestation Crates and Sow Welfare

Abstract

At present, the confinement of gestating sows in individual crates is common in the U.S. pork production, though significant recent movement by industry, retailers, and legislatures has begun phasing out the use of gestation crates due in part to the many welfare problems suffered by crated sows, including stereotypies, elevated risk of urinary tract infections, weakened bones, overgrown hooves, lameness, and behavioral restriction. An extensive body of scientific evidence confirms that gestation crates result in very poor welfare. Compiled below are statements by leading animal welfare scientists, veterinarians and other experts.

Introduction

In a letter to the editor published in the *Journal of the American Veterinary Medical Association*, Brenda K. Forsythe summed up the question of the use of gestation crates and its impact on the welfare, including health, of sows. She wrote:

The premise is that housing intelligent, sentient beings for months in a space too small to turn around in constitutes cruelty, and I would have to agree. Most veterinarians decry the warehousing of small animals in puppy mill operations, so tell me how is the extreme confinement of other sentient animals any more acceptable to the veterinary community?

There is an abundance of scientific literature demonstrating the adverse effects of gestation crate confinement on porcine well-being. Crated pigs develop a significant chronic stress response manifested by increased cortisol concentrations, compared with gilts housed in turnaround stalls. The well-being of stall-housed sows is compromised, compared with group-housed sows, on several indicators of welfare including behavioral stereotypies, aggression, and body weight.¹

Bernard E. Rollin, University Distinguished Professor, Professor of Philosophy, Professor of Animal Sciences, and Professor of Biomedical Sciences, Colorado State University, Fort Collins, Colorado, USA

- “Having visited, and extensively studied, examples of all contemporary systems utilized in confinement agriculture—be it poultry, veal, cattle, or swine—I can unhesitatingly affirm that sow stalls, or gestation crates, are the most egregious example of the application of industrial methods to animal production. While all of these systems are violative of animals’ physical and psychological nature—what I call telos, following Aristotle—when one vectors into one’s reckoning porcine intelligence, behavioral complexity under natural conditions, and severity of truncation of natural behaviors in these stalls, including even simple postural adjustment, gestation crates come to the forefront as the worst of a bad lot. I have personally witnessed ordinary people’s response to their first experience of these crates, and have seen eminent academics emerge from a sow barn unabashedly in tears. I have also seen an open pen system for sows literally side by side with a stall system, and watched the extraordinary differences in the behavior of the sows. While those animals in the stalls exhibited fear, skittishness, a reluctance to approach humans, and what can only be called a mad facial expression, those in the open pens were friendly, inquisitive, and exploratory (even to the extent of one sow starting to eat my necktie while I was still wearing it).”²

Scientific Veterinary Committee of the European Commission

- “When sows are put into a very small pen, they indicate by their behavioural responses that they find the confinement aversive. If given the opportunity, they leave the confined space and they usually resist attempts to make them return to that place.”³
- “Stereotypies [usually a repeated sequence of movements having no obvious purpose] such as bar-biting, sham-chewing, drinker-pressing, head-weaving, repeated patterns of nosing in a trough and tongue-rolling have been reported by many authors as occurring in many sows confined in stalls or tethers.”⁴
- “[S]tereotypies are a characteristic behaviour of sows confined in a small space, typically in stalls or tethers, with little complexity in their environment and little possibility for the sow to regulate her interactions with all aspects of her environment.”⁵
- “Farmers often comment that their stall-housed or tethered sows are lying for much of the day. Since the extent of the inactivity and unresponsiveness indicates abnormal behaviour, the sows may well be depressed in the clinical sense and poor welfare is indicated. Some sows show this abnormal behaviour as an alternative to stereotypies and there are brain correlates of both of these types of abnormal behaviour.”⁶
- “Another consequence of lack of exercise in stall-housed and tethered sows is that they use their cardiovascular system less. This is significant in the situation where many pigs which die during transport are diagnosed as having cardiovascular problems.”⁷
- “Recommendation: Since overall welfare appears to be better when sows are not confined throughout gestation, sows should preferably be kept in groups.”⁸
- Sows in groups “have more exercise, more control over their environment, more opportunity for normal social interactions and better potential for the provision of opportunities to root or manipulate materials....As a consequence, group-housed sows show less abnormality of bone and muscle development, much less abnormal behaviour, less likelihood of extreme physiological responses, less of the urinary tract infections associated with inactivity, and better cardiovascular fitness.”⁹

Temple Grandin, Associate Professor, Department of Animal Science, Colorado State University, Fort Collins, Colorado, USA

- “Gestation crates for pigs are a real problem....Basically, you’re asking a sow to live in an airline seat...I think it’s something that needs to be phased out.”¹⁰
- “Sows can’t turn around in a gestation crate and that’s no way to spend their whole life.”¹¹
- According to *The Washington Post*: “In a statement yesterday, McDonald’s hailed the Smithfield decision [to phase out use of gestation crates, announced on January 25, 2007], saying it was in line with advice it got from panel member Temple Grandin in particular, a leading animal welfare expert and author.
Female pigs selected for breeding in most large pig nurseries are artificially impregnated early in their lives and soon after placed in the crates for their four-month pregnancies. According to Grandin, productive sows will spend several years in the cages while giving birth to five to eight litters. But as the sows get larger over the years, some cannot fit in the cages and are either slaughtered or forced to live in conditions where they can sleep only on their chests, rather than their sides as they do normally.”¹²

- “I’ve been around the industry for 35 years, and you know, we’ve got a lot of young people in the industry now that don’t know anything different than sow stalls, but in the ‘70s all the sows were living in pens and they were just fine....And Smithfield switched over and things have been working fine.”¹³

Michael C. Appleby, Member, Farm Animal Welfare Council, an independent advisory body established by the U.K. government

- “Crates and tethers do offer challenges to sow welfare, as they considerably restrict movement, particularly foraging, which is an important component of behavior in these food-restricted animals. Frustration of foraging instincts often results in stereotypic behaviors, which are generally interpreted as indicators of reduced welfare. There are also welfare problems in group housing, such as aggression between sows, but these problems are mostly amenable to management, whereas the problems of crates and tethers are more integral to those systems.”¹⁴

John Webster, Senior Research Fellow and Emeritus Professor of Animal Husbandry, Department of Clinical Veterinary Science, University of Bristol, UK

- “Confinement of sows during pregnancy, especially in individual stalls or on tethers, can be cold, uncomfortable and injurious, and imposes severe restrictions on natural behaviour.”¹⁵
- “The case that sow stalls are good for welfare is that they protect sows from injuries incurred through fighting....[r]est[ing] on the premise that it is acceptable to prevent an undesirable pattern of behaviour by restricting all forms of behaviour. It would be as valid to claim that prisons would be so much more manageable if all the inmates were kept permanently in solitary confinement.”¹⁶
- “Outdoor units with well-designed, well-maintained arks fully meet the essential physiological and behavioural needs of sows most of the time....Moreover, unlike the sow in the confinement stall, they [outdoor pigs] are able to meet the most vital of all behavioural needs, namely the need to take positive action designed to make them feel good (or better, at least).”¹⁷
- “Sows on concrete in confinement stalls suffer abuse according to all the Five Freedoms:
 - lack of oral satisfaction;
 - lack of thermal and physical comfort;
 - pain and lameness from injuries, muscle weakness and osteoporosis;
 - stress-related oral stereotypies;
 - almost complete denial of normal maintenance behaviour (e.g. grooming, limb stretching).
 Those nations that still permit the confinement stall have either not yet reviewed the evidence or chosen to discard those elements of welfare abuse that I list above. This is, of course, not a scientific decision but a political one. When there is sufficient pressure of public opinion to persuade them that it is unjust then they will change their minds, because that is what politicians do.”¹⁸

Donald M. Broom, Professor of Animal Welfare, Department of Veterinary Medicine, University of Cambridge, Cambridge, UK

- “...the close confinement of sows in stalls or tethers is one of the most extreme examples of cruelty to an animal. It continues throughout much of life and is much worse than severely beating an animal or most laboratory experiments.”¹⁹
- “Sows in stalls or tethers have almost no opportunity to exercise. One consequence of this is that certain of their muscles are weaker and they have substantially weaker bones than sows that can exercise.”²⁰

- “Confined sows are not able to groom normally (van Putten, 1977), they may have difficulty thermoregulating, most are fed small volumes of food infrequently, they cannot interact normally with other sows and they cannot move away from people or other potentially hazardous stimuli. One response shown by a variety of animals to such situations where the individual has little control of its environment is to show a stereotypy such as bar-biting, manipulating the tether-chain or drinker- or sham-chewing...”²¹

Pew Commission on Industrial Farm Animal Production

- After reviewing the literature, visiting production facilities, and listening to producers themselves, the Commission believes that the most intensive confinement systems, such as...hog gestation pens...prevent the animal from a normal range of movement and constitute inhumane treatment.²²
- Practices that restrict natural motion, such as sow gestation crates, induce high levels of stress in the animals and threaten their health, which in turn may threaten human health.²³
- The Commission recommends the phase-out, within ten years, of all intensive confinement systems that restrict natural movement and normal behaviors, including swine gestation crates.²⁴

Ian Duncan, Emeritus Chair in Animal Welfare, University of Guelph, Ontario

- “In my opinion, the practice of keeping sows in gestation crates for most of their pregnancy is one of the cruelest forms of confinement devised by humankind. Sows are intelligent, inquisitive animals who naturally spend their time rooting, foraging and exploring their environment. When kept in extensive conditions, sows engage in a wide variety of behaviour and lead a rich social life. All of this is completely denied them by gestation crates and leads to enormous frustration.”²⁵

References

- ¹ Forsythe BK. 2003. Requests review of AVMA resolution on gestation crates. *Journal of the American Veterinary Medical Association* 223(1):42.
- ² Personal correspondence with B. E. Rollin, University Distinguished Professor, Professor of Philosophy, Professor of Animal Sciences, and Professor of Biomedical Sciences, Colorado State University, Fort Collins, CO, January 30, 2007.
- ³ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 87. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁴ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 88. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁵ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 88. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁶ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 90. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁷ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 95. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁸ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 97. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ⁹ Scientific Veterinary Committee, Animal Welfare Section. 1997. The welfare of intensively kept pigs. For the European Commission, p. 97. http://ec.europa.eu/food/fs/sc/oldcomm4/out17_en.html. Accessed May 19, 2008.
- ¹⁰ Grandin T. 2006. Comments by Temple Grandin on January 9, at Manhattan Columbus Circle, 10 Columbus Circle, New York, NY. <http://nycanimalrights.com/TempleGrandinAnimalsinTranslation.htm>. Accessed September 20, 2012.
- ¹¹ Karczewski J. 2012. The crate debate. *Meat & Poultry*, September.
- ¹² Kaufman M. 2007. Largest pork processor to phase out crates: Va.-based Smithfield to end practice of keeping pregnant pigs in small cages. *The Washington Post*, January 26, p. A06. www.washingtonpost.com/wp-dyn/content/article/2007/01/25/AR2007012501785.html. Accessed October 9, 2012.
- ¹³ Shinn P. 2007. Animal welfare expert urges more consumer outreach. *Brownfield Network*, January 2. <http://archive.brownfieldagnews.com/3C5E1575-D0FD-2904-8F85344E0A291BA3>. Accessed October 9, 2012.

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- ¹⁴ Appleby MC. 2005. Welfare challenges in sow housing. *Journal of the American Veterinary Medical Association* 226(8):1334-6.
- ¹⁵ Webster J. 2005. *Animal Welfare: Limping Towards Eden* (Oxford, U.K.: Blackwell Publishing, p. 112).
- ¹⁶ Webster J. 2005. *Animal Welfare: Limping Towards Eden* (Oxford, U.K.: Blackwell Publishing, p. 112).
- ¹⁷ Webster J. 2005. *Animal Welfare: Limping Towards Eden* (Oxford, U.K.: Blackwell Publishing, p. 116).
- ¹⁸ Webster J. 2005. *Animal Welfare: Limping Towards Eden* (Oxford, U.K.: Blackwell Publishing, pp. 116-7).
- ¹⁹ Personal correspondence with D. Broom, Professor of Animal Welfare, Department of Veterinary Medicine, University of Cambridge, Cambridge, UK, October 7, 2012.
- ²⁰ Broom DM and Fraser AF. 2007. *Domestic Animal Behaviour and Welfare*, 4th Edition (Wallingford, U.K.: CABI, p. 274).
- ²¹ Broom DM and Fraser AF. 2007. *Domestic Animal Behaviour and Welfare*, 4th Edition (Wallingford, U.K.: CABI, p. 275).
- ²² Pew Commission on Industrial Farm Animal Production. 2008. Putting meat on the table: industrial farm animal production in America. [www.ncifap.org/ images/PCIFAPFin.pdf](http://www.ncifap.org/images/PCIFAPFin.pdf). Accessed October 9, 2012.
- ²³ Pew Commission on Industrial Farm Animal Production. 2008. Putting meat on the table: industrial farm animal production in America. Executive summary. [www.ncifap.org/ images/PCIFAPSmry.pdf](http://www.ncifap.org/images/PCIFAPSmry.pdf). Accessed October 9, 2012.
- ²⁴ Pew Commission on Industrial Farm Animal Production. 2008. Putting meat on the table: industrial farm animal production in America. Executive summary. [www.ncifap.org/ images/PCIFAPSmry.pdf](http://www.ncifap.org/images/PCIFAPSmry.pdf). Accessed October 9, 2012.
- ²⁵ Personal correspondence with I. Duncan, Emeritus Chair in Animal Welfare, University of Guelph, Ontario, October 7, 2012.

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