



Legislative Council Economy and Infrastructure Committee

Hearing Date: 26 March 2024

Question[s] taken on notice

Directed to: RSPCA Victoria

Received Date: 15 April 2024

1. Katherine COPSEY, page 15

Question Asked to Mhairi Roberts:

Katherine COPSEY: Thank you. I hear you in relation to your recommendations around farrowing stalls also being phased out over time. In the interim, during that phase-out period, do you have a view on the current dimensions that sow crates, boar stalls and farrowing crates are permitted to be and whether that is currently meeting animal welfare guidelines around pigs' ability to stand, sit, stretch?

Mhairi ROBERTS: I think our view on those close confinement systems is that they should be phased out because pigs cannot turn around. If you are using sow stalls or conventional farrowing crates specifically, pigs can essentially stand up and lie down but they cannot turn around. Our view is that pigs should be able to turn around. I think we did put some information around space requirements in our submission that we would like to see, but, yes, I suppose we can take that on notice and come back to you with a response on that one.

Response:

The typical size of current confinement housing for pigs is 0.5m x 2m (1m²) for farrowing crates; 0.6m x 2.2m (1.32m²) for sow stalls; and 0.7m x 2.4m (1.68m²) for boar stalls.

Evidence on the minimum space allowance for sows to perform normal behaviours, such as standing up, lying down, and turning around:

- Sows have been shown to need on average $1.2 \pm 0.47\text{m}^2$ to lie down and $1.3 \pm 0.46\text{m}^2$ to stand up (Mumm et al., 2019).
- Sows have been shown to be able to turn around in a pen width equalling 50% of body length and that lying time is not affected until the pen width is reduced to 60% of body length. However, a decrease in the number of turns is evident when pen width was equivalent to sow body length which suggests so pen width should be at minimum equivalent to body length to provide freedom to move (Bøe et al., 2011).
- Increasing space allowance from 1.4 to 3m²/sow in group housing pens has been shown to reduce aggression and cortisol, as well as improve reproductive performance in sows (Hemsworth et al., 2013).

- An allometric equation has been developed to determine the space allowance requirements for pigs to perform certain behaviours. A (space allowance in m²) = k (constant) × body weight^{0.66}. The k-value represents the static space requirement for pigs to perform various types of behaviours. A k-value less than 0.034 has been shown to negatively affect activity levels and biological functioning of pigs, including performance parameters (e.g., average daily gain and reduced feed intake) (Chidgey, 2023). A k-value of 0.047 has been reported as the minimum to provide pigs adequate space to lie down separately in a lateral position (Petherick and Phillips, 2009). To put these figures into perspective, for a 250kg sow, a k-value of 0.034 represents an area of 1.35m² and a k-value of 0.047 represents 1.87m².

Evidence on the minimum space allowance for boars to perform normal behaviours, such as standing up, lying down, and turning around:

- The minimum space requirement, based on a liveweight of up to 300kg and snout to tail length of up to 2m, would be a shortest pen side of 2.6m to allow the boar to comfortably turn around (Petchev and Hunt, 1990). However, the minimum space required to allow adequate opportunity for boars to exercise is yet to be scientifically determined.
- Using the allometric equation approach for a 300kg boar, a k-value of 0.034 represents an area of 1.53m² and a k-value of 0.047 represents 2.11m².
- The current Model Code of Practice for Pigs in Australia specifies a minimum space allowance of 6m²/boar. In outdoor housing systems, where boars are housed in small paddocks, boars are required to have a minimum outdoor shelter space allowance of 2m² (this does not include any paddock space they have available).

2. Katherine COPSEY, page 15

Question Asked to Mhairi Roberts:

Katherine COPSEY: Great. Thank you, that is very helpful. Turning to practices, the end-of-life slaughter practices, are you aware of internationally any examples that Victoria could look to in terms of countries that have supported research into alternative practices, or is this somewhere where we would be forging ahead?

Mhairi ROBERTS: I think that is one where we have identified that there is more research that is needed. We acknowledge that with all the different types of stunning systems, there are problems with them. We think we definitely could look internationally. I am not aware of any I suppose really high welfare preslaughter stunning in other jurisdictions, but very happy to come back and provide a response to the committee on that too.

Response:

One example that we are aware of is the European [PigStun](#) project which started in 2024 funded by a grant from the European Health and Digital Executive Agency. The project comprises various stakeholders including academic research partners, slaughterhouse equipment manufacturers, and five pig slaughter companies from the Netherlands, Denmark, Germany, and Spain. The PigStun project aims to evaluate four alternative stunning systems which include a multi-phase gas box system with carbon dioxide and alternative gases; Helium gas system in combination with Nitrogen; Inert gas retrofit system; and an improved electrical stunning system.

3. Bev McARTHUR, page 22**Question Asked to Mhairi Roberts:**

Bev McARTHUR: I am just wondering: we have talked about pain relief options; do you know of any registered pain relief options that could be used on piglets?

Mhairi ROBERTS: I will take that question on notice, if that is okay, and provide a response.

Response:

Pigs may undergo several husbandry procedures which are considered painful early in life, which include ear notching, teeth clipping, tail docking, and surgical castration. Ear notching has largely been phased out within the industry and many pig producers no longer teeth clip; however, both are still allowed under regulations without pain relief. Surgical castration has been largely replaced in Australia by immunocastration methods, however it is still allowed to be performed without pain relief under regulations (Rault et al., 2011).

Tail docking is still routinely performed to mitigate against the risk of tail biting and pain relief is not used. To date, evidence suggests mixed results as to whether topical anaesthetics with or without NSAIDs provide effective pain relief for piglets undergoing tail docking (Steagall et al., 2021). There is evidence to suggest that in some instances agents such as, Meloxicam (Metacam®); Flunixin (Caleflunixin injection); Ketoprofen (Ketofen®); or topical lidocaine with meloxicam (Lidocam™ Topical Gel) can reduce pain in piglets after tail docking (Morrison and Hemsworth, 2020; Nixon et al., 2021; Nagel et al., 2024). Therefore, while continued research efforts for effective pain relief options are important, efforts should also be made to identify suitable alternatives to phase out the need for routine tail docking in Australia. The Australian pig industry has recognised the negative welfare issues associated with tail docking. In 2021, [APRIL](#) with SunPork Pty Ltd received a Cooperative Research Centres Projects (CRC-P) grant from the Australian Government to conduct a three-year project in collaboration with other academic and industry partners that is aimed to eliminate tail docking.

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