Legislative Council Economy and Infrastructure Committee - Inquiry into pig welfare in Victoria.

Submission of the
Australian Veterinary Association Ltd

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The Australian Veterinary Association (AVA)

The Australian Veterinary Association (AVA) is the national organisation representing veterinarians in Australia. Our members come from all fields within the veterinary profession, including clinical practitioners, government veterinarians, and members who work in industry, research and teaching.

The AVA has a special interest group known as the Australian Pig Veterinarians Group (APV) who have contributed their expertise to this response. Pig veterinarians work in various types of practices as consultants and company veterinarians, government departments, universities, research institutions and a wide range of commercial companies that produce pigs, feed, pig production products and pharmaceuticals.

The AVA also has a special interest group known as Australian Veterinarians in Animal Welfare and Ethics (AVAWE) who have contributed to this response. This group has expertise in animal welfare science and ethics.

Background

Commercial pig farms in Australia (i.e. farms producing pigs sold for human consumption), utilise the services of experts such as veterinarians, nutritionists, and other highly skilled/experienced people. APV members provide research-based advice and professional services to producers, and support to other relevant key stakeholders. Animal welfare, coupled with the need to meet production requirements, is central to the decisions of veterinary practice, and is considered in conjunction with One Health principles which inform biosecurity, environmental management, human workplace health and safety as well as product quality and safety.

In writing this submission, the AVA has drawn on published literature and previous submissions made on issues of best practice pig production and welfare, including welfare at slaughter. We have addressed the Inquiry's Terms of Reference as follows:

Terms of Reference

1. The scope, application, compliance with and enforcement of relevant existing regulatory frameworks and their ability to promote pig welfare outcomes:

The Victorian (and national) pork industry is subject to Federal, State and Local Government regulations as well as a range of industry and market requirements. These laws cover all aspects of animal husbandry, transport, and abattoir operations within their respective jurisdictions.

Animal welfare requirements specific to pigs, are defined in codes of practice and legislation including but not limited to:

- *The Model Code of Practice for the Welfare of Animals: Pigs (the Model Code)*
- *The Victorian Standards and Guidelines for the Welfare of Pigs*
- *The Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock*
- *The Model Code of Practice for the Welfare of Animals: Livestock at Slaughtering Establishments*

‘Standards’ within the Model Code are given legal power when implemented into State and Territory welfare legislation. These national standards provide the basis for developing consistent legislation and enforcement across jurisdictions. A nationally-consistent approach to setting and implementing these standards is highly important and a practical requirement so that livestock industries that operate across borders do not have to navigate multiple sets of regulations in different jurisdictions.

Model Code development and review involves a process engaging representatives from livestock industries (eg: Australian Pork Limited, producers and veterinarians), animal welfare and research organisations, and relevant state, territory and national government agencies. The process includes a public consultation stage. The current Model Code was based on knowledge and research available at the time of publication (2008) and is designed to be updated as knowledge and research evolves. As such, the Model Code is due for review and will be replaced by the *Australian Animal Welfare Standards and Guidelines: Pigs (Pig S&Gs).*

APIQ® is a voluntary quality assurance program which covers 91% of Australian pork production. The APIQ® standards compliment and reinforce the existing legislative requirements. Through this program, producers are independently audited annually by a third-party auditing organisation. Annual internal audits are also required, which can be completed by the farm veterinarian, a Quality Assurance Officer, or a veterinarian independent to the farm. Any serious breach of the Model Code is considered a Critical Corrective Action Request (CCAR) under APIQ® which necessitates immediate corrective action and the potential loss of accreditation.

Veterinarians are aware of the regulatory frameworks in place in their jurisdiction of practice. Through regular on-farm consultations, stockperson training, and internal audits, veterinarians represent an additional avenue to promote compliance with these animal welfare standards.

Regulatory frameworks are, by definition, the minimum standard required. The APV and the AVA encourage science-based continuous improvement in animal production and welfare. Many members are also involved with conducting ethically approved research into pig production and welfare. Veterinarians play a key role in not only developing this welfare science, but also its practical application and implementation on farm.

2. The ability of the most common methods used to stun pigs before slaughter (including electrical stunning and exposure to high concentrations of carbon dioxide gas) in Victorian slaughterhouses to minimise pain, suffering and distress and prevent injury, and available alternatives:

In the processing of animals for human consumption, it is imperative animals are unconscious prior to killing to ensure a painless death. “Stunning” renders an animal unconscious prior to slaughter so that it does not experience pain, suffering or distress prior to and during exsanguination. It is an essential component of humane slaughter. Stunning of pigs prior to slaughter is mandatory in Australia.

The AVA policy on humane slaughter states that “prior to slaughter, animals must be humanely and immediately rendered unconscious via stunning, and remain unconscious until death occurs”. Also, that “arrangements must be in place so that animals are spared

unnecessary excitement, pain, stress or suffering during movement, restraint, stunning and slaughter". While it is recognised that stunning using gases may not result in immediate loss of consciousness, the stunning process itself should not be aversive.

Carbon dioxide stunning

Carbon dioxide (CO_2) stunning utilises high concentrations of CO_2 gas (>80%) to render small groups of pigs unconscious before slaughter. There are two main types of CO_2 stunning systems used in Australia, which are side-loading (single file) or back-loading (group) systems. In side-loading systems, pigs are moved in small groups and then loaded in single file into the gondola for stunning through the side. In back-loading systems, pigs are moved in small groups with usually an automatic wall that slowly pushes pigs into the gondola from the back. The back-loading CO_2 systems are considered preferable, and can provide welfare benefits to handling pigs preslaughter, because they allow pigs to maintain their natural behaviour of moving in groups throughout the stunning process. Side-loading CO_2 stunning systems require pigs to be individually handled and sometimes restrained, which is considered more stressful for pigs.

Research has shown that group handling before stunning can reduce the overall stress of the slaughter process to pigs. Many processors in Australia have therefore moved from using side-loading CO_2 systems to back-loading CO_2 stunning systems. While most of the export abattoirs have invested in back-loader systems, there are still some abattoirs that use side-loading CO_2 systems, so this is an area for improvement that will require significant investment.

Carbon dioxide gas at high concentrations is considered aversive to pigs because it causes respiratory distress, 'air hunger' (breathlessness), anxiety, mucosal irritation and pain during stunning and prior to unconsciousness being achieved (Verhoeven et al, 2016). The World Organisation for Animal Health (WOAH) and the American Veterinary Medical Association (AVMA) support gradual increases in CO_2 concentrations as being less aversive than immediate high concentration exposure, but this increases the time to unconsciousness and therefore the time that animals experience breathlessness. Conversely, high concentrations of CO_2 are initially more aversive but result in a faster time to unconsciousness (Sutherland et al, 2017; Meyer et al, 2014). Therefore, consideration needs to be given to which is least aversive from a welfare standpoint, as both methods have negatives and positives.

Gas Alternatives to CO2 stunning

A review of methods of stunning pigs using gas shows there is no current viable gas alternative to CO2 (Sindhøj et al, 2021), however there is research and development occurring overseas into alternate gases which shows a great deal of promise, as follows.

Research into alternatives to CO2

Internationally there is an ongoing commitment and research investment into improving stunning methods for pigs - including CO_2 gas mixtures, alternative gases (such as inert gases) and looking into alternative methods of stunning.

The EU 'PigStun' project is an encouraging initiative which seeks to provide non-aversive alternatives to CO2. These include use of alternative gas combinations (e.g. helium and nitrogen), and retrofitting existing stunning systems to allow for inert gasses. The benefit of inert gases is that they do not cause breathlessness and air hunger, so the loss of

consciousness is less aversive than with CO_2. The project is also looking at ways to improve electrical stunning to reduce pre-stunning handling.

Issues such as human safety, availability of gases, affordability of alternate gases and the retrofitting of facilities will need to be addressed for the ultimate research findings to be applied in Australia.

Other (non-gas) stunning methods

There are two other stunning methods that are used in Australia on a smaller scale which include electrical stunning (head-only and head-to-body) and penetrating captive bolt stunning. These methods have the advantage that they render pigs immediately unconscious, however they require pigs to be individually handled and restrained for stunning, which is inherently stressful for pigs.

There are animal welfare challenges associated with all types of commercial stunning methods used in Australia. To date research suggests there is no current viable alternative stunning method that addresses all current welfare concerns. The AVA supports continuing improvement of stunning systems to manage pig welfare.

Irrespective of stunning method, abattoirs in Australia should install Closed Circuit Television Cameras (CCTV) to assist in monitoring animal welfare requirements. CCTV would allow establishments to observe and verify handling, stunning and slaughter operations, and inform training requirements. (AVA policy: https://www.ava.com.au/policy-advocacy/policies/euthanasia/humane-slaughter/)

3. The outcomes of the 2017 industry-led phase out on the use of sow stalls:

(There are a range of stalls that are or were used in the pig industry - mating stalls, gestation stalls, farrowing crates and boar stalls. Within this section we will only discuss gestation stalls.)

Gestation stalls, also known as sow stalls, are used to house adult breeding female pigs during the early stages of pregnancy. In a standard sow stall, sows can stand up, lie down, extend their limbs when lying and take a step forward or backwards, but are unable to turn around. Gestation stalls were introduced to provide protection for pregnant sows from fighting and aggression from other sows. While these are natural behaviours, they can cause both injuries and abortions. Gestation stalls also protect sows during feeding and allow stock persons to feed individuals according to their unique needs. Group housing sows post-weaning is challenging, as there must be a balance of adequate sow nutrition, optimum welfare, stress minimisation, prevention of aggression between sows and productivity.

The Model Code and Victorian legislation dictates that as of 2017, sows could only be confined in gestation stalls for the first six weeks of pregnancy. Some Australian pork producers voluntarily committed to limiting sow stall use to five days or less after mating, also by 2017.

Where sows are housed in gestation stalls for five days or less after mating, producers can be independently accredited as 'Gestation Stall Free'. Currently 80% of the Australian commercial sow herd meets this accreditation. These voluntary actions were not funded through premiums and had a significant impact on production for approximately 12-18

months (depending on the farm). This transition came after many years and significant investment into research on alternative housing methods, animal behaviour, and how to safely manage sows in group housing. It also required a significant investment in infrastructure and research in shed design.

4. Current industry breeding and housing practices particularly the use of different forms of confinement:

Pig producers use a range of housing designs and practices based on regularly reviewed and updated science. Pig housing is designed to create an environment where the pigs are protected from environmental and biosecurity risks, where an appropriate environment is maintained, stress is minimised, and pigs have access to food and water. These are ethical imperatives when using pigs for the production of food.

There are pros and cons with all forms of housing for pigs. Intensive systems result in more behavioural restrictions but allow for higher biosecurity, increased disease prevention, and more efficient production. Many farms have pigs housed in open sheds or shelters with straw bedding (often referred to as ecoshelters). Pregnant sows and all stages of progeny pigs are sometimes housed in these bedded systems, allowing some natural behaviours such as socialising, rooting and foraging to occur. Free range systems allow for innate natural behaviours to be expressed, such as nesting and foraging, while reducing efficiency, increasing piglet mortalities and increasing the risk of disease such as Salmonella and Japanese Encephalitis Virus as they are open to wild birds/animals and inclement weather.

Environmental enrichment is also a part of pig industry housing practices on some farms. The aim of environment enrichment (which should always be outcome focused) is to make the environment more varied and dynamic which provides pigs with more stimulation, cognitive challenges and opportunities to make choices and control social interactions. Enrichment has been used reactively on farms when pigs are at risk of increased aggression (e.g. post mixing) to help minimise negative outcomes.

There is the need for more of a planned, proactive and science-based approach through the development of meaningful enrichment plans in consultation with industry veterinarians.

Enrichment plans should be formed with the following in mind:

(i) Pigs of different ages or of different stages (e.g. lactation/gestation, boars) may have different needs and preferences;
(ii) The environment in which the pigs are housed can also affect their enrichment needs. For example, pigs that are traditionally housed in pens may need more/different enrichment than pigs that are free range;
(iii) Enrichment is not a one-size-fits-all solution. Plans will need to be developed for an individual system and may need to be adapted over time.

There are some good resources available (including The RSPCA Australia Fact Sheet on *Environmental enrichment for pigs, 2020)* but there is a continuing need for research into enrichment tools for pigs to provide options for different classes/stages of production to enable development of meaningful enrichment plans for all classes of pigs.

Breeding:

Artificial insemination (AI) is the predominant method of breeding commercial pigs in Australia. AI has proven to be safe for staff and animals, it reduces the numbers of boars required on farm, and reduces the risk of disease transmission by drastically reducing the movement of live breeding pigs between farms.

Housing Types:

Gestation stalls: Please see (3) above.

Farrowing crates:

Farrowing is the term for a female pig giving birth. Different forms of farrowing housing systems exist. Farrowing crates are enclosures where a sow gives birth and nurses her litter, where she can stand up, lie down, extend her limbs when lying but not turn around. Farrowing crates are acknowledged as being effective at reducing piglet mortality as they minimise the risk of sows crushing piglets. Farrowing crates are recognised by industry and many industry veterinarians as an important option to support the health and wellbeing of both sows and piglets as well as staff safety.

Confinement in crates does prevent sows from moving freely and performing innate maternal behaviours. In most traditional indoor housing systems, typical nesting substrates are not able to be provided to sows, however, enrichment materials such lucerne chaff and hessian can be used instead. There are numerous ongoing research projects addressing enrichment.

Alternative farrowing options

Alternative indoor housing options for sows at farrowing include temporary farrowing crates where the sow area can be expanded after farrowing, and free-farrowing pens. These alternative farrowing systems have been designed to minimise or eliminate the amount of time that sows are confined, while including features to protect piglets from being laid on by the sow, however, still generally result in a higher piglet mortality rate than traditional farrowing crates.

In outdoor housing systems, farrowing huts are typically used, which are enclosed structures with bedding material, where sows can move more freely, turn around, and perform nesting behaviours. As the sow has more freedom of movement in farrowing huts, they result in an increased mortality rate of piglets (due to crushing or overlaying by the sow) as well as an increased risk of staff injury.

The AVA supports further work into development of farrowing systems that promote the health and welfare of both sows and piglets.

Boar housing:

Boars are either housed in stalls or in pens (6m^2 or larger) The type of boar housing on farms needs to ensure staff safety. A boar stall is slightly larger than a sow stall where boars can stand up, lie down, extend their limbs when lying but not turn around. Where housed in stalls, the 2008 MCOP standards require that boars must be released at least twice per week for use or exercise. Many farms house boars in individual or small group pens where they have more freedom to move and walk around. Often boars kept for sow/gilt stimulation and heat detection walk around sheds.

In outdoor production systems, boars are commonly housed in paddocks as individuals or in small groups/pairs. The number of boars required on farm has been minimised with the use of artificial insemination. Boars cannot be safely mixed as adults due to severe aggression. Boar housing should promote the health and welfare of boars on farm by acknowledging their social, behavioural and exercise requirements.

In line with our approach to sow stalls (see policy on Sow housing) the AVA encourages a move away from boar stalls in indoor systems where boars are confined and behaviourally restricted, towards individual pens with adequate space allowances for boars to move and walk around freely. This conversion of boar studs would require additional industry investment and an appropriate phase-in period.

5. International comparisons to determine industry adherence to best practice standards:

The Australian pig industry is well regarded and well placed globally in terms of animal welfare, and contributes high quality welfare research to the international scientific community. The Australian pig veterinarians undertake continuing professional development which includes attending international conferences, online webinars, domestic conferences with international guest speakers and the development of relationships with swine veterinarians around the world. Pig veterinarians practicing in Victoria are required to complete and document their continued professional development to remain registered as practicing veterinarians.

While looking to international research for opportunities, the Australian agricultural environment is varied and unique. The differences between overseas and Australian agricultural production systems need to be properly considered, a task often involving pig veterinarians. Australia has a range of climatic zones where pig production occurs from temperate to arid. Many international comparisons are difficult as their housing, welfare and environmental systems are structured for cold climates where we require systems for hot climates. The Australian pig veterinarians have and will continue to learn from our international colleagues and where appropriate, investigate and adopt international research, however international industry practices and regulations are not always assumed to represent best practice standards for Australia.

Australia is starkly different to many other pig producing countries in that we are free from several devastating pig pathogens (e.g. those pathogens that cause Foot and Mouth Disease, African Swine Fever, Classical Swine Fever, Aujeszky's Disease). It is our strong national biosecurity measures which allow us to operate under this "high health status". Being free of these pathogens nationally protects the welfare of our animals as they are not subject to these devastating health challenges. It also represents a significant difference between the Australian industry and international industries.

Currently pork products are imported from a variety of countries including USA, EU, and Canada which differ in their welfare standards for pig production. If 'higher welfare standards' are considered as being reduced confinement and reduced travel times, then Australia exceeds the welfare standards of the United States of America, the country from which most of our imported pork originates (Australian Pork Limited, 2023). For example in the US: as of 2022, gestation stalls are only restricted in 3% of the national herd (USDA, 2022), there are no minimum space allowances for growing pigs, and pigs can be transported for up to 28 hours without food or water or 36 hours if it is requested in writing (Australian maximum time

is 12 hours for weaners, lactating sows and piglets, 24 hours for others). Development and implementation of higher welfare standards needs to be applied to imported product as well as domestic product, otherwise this unfairly disadvantages our Australian pig industry.

Imported product also originates from EU countries; in the EU, sows are allowed to be confined to stalls for up to five weeks during each gestation period, the minimum space allowances for pigs are greater than those in the Australian standards, and there are requirements for provision of environmental enrichment.

The European Union has committed to phasing out the use of farrowing crates by 2027. The New Zealand Government has also committed to phasing out the use of conventional farrowing crates by 2025 which will require significant investment and assistance. In the UK, sows can be temporarily crated for a total of 7 days just before farrowing and immediately afterwards, as well as on the day of weaning.

The Australian pig industry is aware of the evolving international standards. Changes to welfare standards have a financial impact on industry, so where changes are required, there should be support for producers and an appropriate length of time to transition. It is critical that the same standards are also applied to imported products, so that the domestic industry can remain viable. Internationally, this has not always been the case and pig industries have been significantly affected (despite no reduction in consumer demand for pork and bacon).

The strong relationship between pig producers, their veterinarians, nutritionists, and other industry stakeholders allows best practice to be developed on a farm-by-farm basis. Veterinarians analyse farm specific conditions and implement ever evolving science-based research to improve health and welfare outcomes for the pigs in our care.

Meaningful change is best driven by collaboration between industry, government, research institutions and animal welfare groups. Collectively they all play a role in setting minimum animal welfare standards and guidelines. These should have a strong foundation in ethically approved, scientific research into improving the health and welfare of pigs. Outcome-based standards focusing on measures of positive welfare outputs are often better than prescriptive input-based standards, although a combination of the two can be very effective. It is essential that these are adopted by jurisdictions in a nationally-consistent manner, to ensure a level playing field. This level playing field must also apply to imported products.

6. Any other relevant matters:

- Animal Welfare Standards and Guidelines process: The AVA encourages the government to undertake the review of *The Model Code of Practice for the Welfare of Animals: Pigs (the Model Code)* and its conversion into National Animal Welfare Standards and Guidelines for Pigs, based on contemporary animal welfare science. It is noted that the literature review for the pig welfare standards was completed in 2018, with no further progress to date.

- Painful husbandry procedures: the AVA policy on "Use of analgesia for routine husbandry procedures (ava.com.au)" states that "appropriate and effective analgesia during potentially painful livestock husbandry procedures must be used and promoted" and "management changes that minimise the necessity to perform painful procedures are encouraged." In the case of pigs, Australia is one of the few countries

that does not routinely castrate pigs (Australian Pork, 2024) although it is still sometimes performed for specific markets. The majority of the industry uses immunocastration; the AVA strongly supports this important welfare initiative, and its universal uptake across the industry is strongly encouraged. Teeth clipping and ear notching have largely disappeared as husbandry practices, and finding alternatives to tail docking is the subject of a major national pig industry research program.

Currently the pig industry has limited pharmacological tools available for pain management that meet the stringent withholding period and export slaughter intervals. Many farms proactively treat all classes of pigs with anti-inflammatories to treat disease/injury as well as for farrowing (particularly gilts). Work is still needed to be done to identify the most effective pain relief options for different husbandry procedures performed on pigs.

- Pig slaughtering establishments: Research and significant investment into pig processing has led to improvements across the pig industry, with 85% of Australia's commercial pigs now processed in export-accredited abattoirs. These abattoirs have adopted world-leading infrastructure, applied leading animal handling techniques and work with on-site veterinarians employed by the (federal) Department of Agriculture, Fisheries and Forestry. In contrast, abattoirs for the domestic market are not required to have on-plant veterinarians; this should be an area for review with either veterinary and/or dedicated animal welfare officers in place to monitor animal welfare standards and outcomes and promote ongoing improvements at establishments which process pigs.

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