



# Senate Inquiry Submission: Impact of feral deer, pigs and goats in Australia

Submission from  
Australian Veterinary Conservation Biology  
Australian Veterinary Association Ltd

To:

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The Australian Veterinary Association thanks the Environment and Communications References Committee for the opportunity to make comments on this important matter.

## About us

The Australian Veterinary Association (AVA) is the national organisation representing veterinarians in Australia. Our 9500 members come from all fields within the veterinary profession. Clinical practitioners work with companion animals, horses, livestock and wildlife, conservation and zoo animals. Government and institution employed veterinarians work with animal health, public health and biosecurity. We also have members who work in research and teaching in a range of scientific disciplines. Veterinary students are also members of the Association. The AVA has a range of special interest groups (SIGs), allowing members with shared interests or expertise to develop their practice and skills in a specific area. These include Conservation and Biology and Animal Welfare and Ethics, Public Health, Equine and Cattle and Sheep.

## AVA Response

### Senate inquiry brief

The impact of feral deer, pigs and goats in Australia, and national priorities to prevent the problems worsening for the natural environment, community and farmers, including:

- (a) the current and potential occurrence of feral deer, pigs and goats across Australia;
- (b) the likely and potential biosecurity risks and impacts of feral deer, pigs and goats on the environment, agriculture, community safety and other values;
- (c) the effectiveness of current state and national laws, policies and practices in limiting spread and mitigating impacts of feral deer, pigs and goats;
- (d) the efficacy and welfare implications of currently available control and containment tools and methods, and the potential for new control and containment tools and methods;
- (e) priority research questions;
- (f) the benefits of developing and fully implementing national threat abatement plans for feral deer, pigs and goats; and
- (g) any other related matters.

### Approach of this submission

Feral and pest animal control has been an area of extensive work for decades and so we have not given general information or motherhood statements as these already appear in most reports, reviews and strategies. This submission makes targeted comments where they seem crucial to the overall success of feral animal control.

The Australian Pest Animal Strategy 2017-2027 provides a good high-end policy review of the issues. Generally, this is supported by structured and appropriate Threat Abatement Plans which sit within policy frameworks.

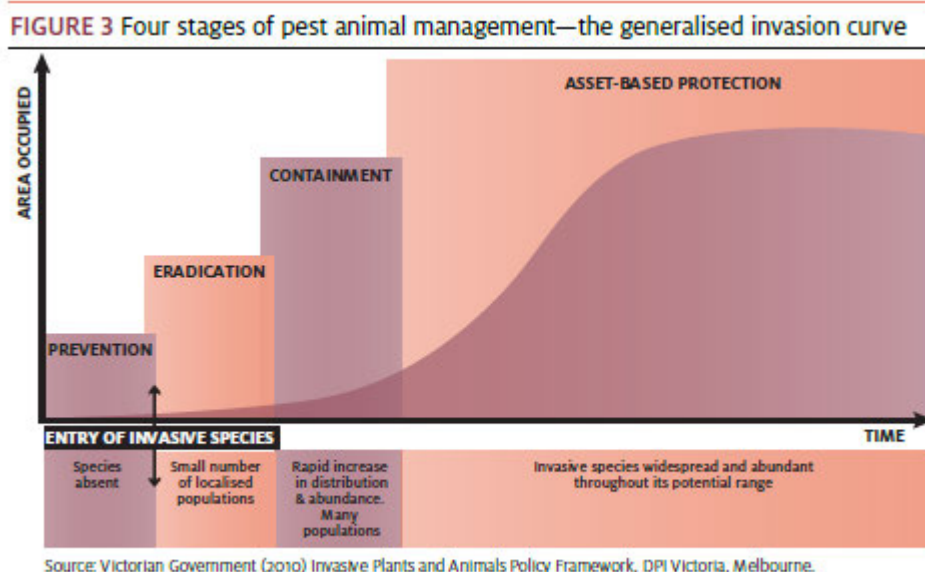
### Comments

#### **(a) the current and potential occurrence of feral deer, pigs and goats across Australia**

The data and modelling available [1] [2] for feral deer, pigs and goats suggest that these species are currently not in a state of equilibrium with the landscape and that feral deer and feral pigs, in particular, have significant potential to spread geographically. The range of pigs and feral deer are expanding, creating a more difficult problem over time. If substantial changes are not made to increase the effectiveness of feral animal control the complexity and expense of control will worsen. The overall strategy and policy documents prepared [3] identify the issues and options clearly but coordinated management and implementation is lacking principally due to inadequate funding.

Key weaknesses identified are (1) grossly inadequate funding at all levels of government (2) shared responsibility and conflicting priorities between stakeholders (3) a need for stronger Commonwealth Government leadership.

The example of feral deer highlights the inconsistencies within the Australian Pest Animal Strategy 2017 – 2027 [3]. As clearly outlined in this strategy (p12) considerable potential economies are available if control measures are applied early and incursions are contained. The current ongoing expansion of feral deer suggest that we are rapidly approaching the Asset-Based Protection phase. At which stage the ongoing cost burden will remain substantial.



**(b) the likely and potential biosecurity risks and impacts of feral deer, pigs and goats on the environment, agriculture, community safety and other values**

The biosecurity risks for the identified species have been technically evaluated as part to the Australian veterinary emergency plan (AUSVETPLAN). We agree with the identified potential importance of these species should diseases like foot-and-mouth disease, bluetongue, rabies and bovine tuberculosis occur or reoccur in this country. The magnitude of community safety issues like brucellosis, toxoplasmosis would seem to be a secondary to the farming and environmental impacts of these feral species. Adequate control will lessen the community safety risks and direct control would not be possible under current settings.

**(c) the effectiveness of current state and national laws, policies and practices in limiting spread and mitigating impacts of feral deer, pigs and goats**

It is clear, as discussed in (a) above, that control measures for feral deer, pigs and goats are inadequate. Of the issues identified in this section: laws, policies and practices - the regular reviews already available have identified the most limiting elements. Complexity in legislation and overlapping jurisdictions is one barrier to effective control, and deer provide a clear example. The second is funding and coordination. For example, in the current Feral pig threat abatement plan [4] Objective 1: Prioritise key species, ecological communities, ecosystems and locations across Australia for strategic feral pig management - this is not costed and there is no guarantee that funding will be available within foreshadowed budgets. The 'high priority', 1-2 year time frame is not therefore realistic.

A further example in the Feral pig threat abatement plan is Objective 3: Encourage further scientific research into feral pig impacts on nationally threatened species and ecological communities, and feral pig ecology and control. The funding for such research is not costed and a 1-5 year timeframe is unrealistic. In most cases new research projects might take this considerably more time including collaborative and iterative work.

**(d) the efficacy and welfare implications of currently available control and containment tools and methods, and the potential for new control and containment tools and methods**

The Australian Veterinary Association has a core interest in the welfare implications of feral animal control as it applies to the targeted animals, the fauna (i.e. livestock, and native animals) being protected and the risk to non-target species. Documents like Australian Pest Animal Strategy [3] meet the principles outlined in the relevant AVA Policy.

AVA Policy - Control of native and introduced animals causing damage to agriculture or habitat [5] as follows:

‘The control of over abundant animals, both native and introduced, may be justified to prevent and address adverse impacts on agriculture or the environment. Methods can involve harvesting, culling, poisoned baits or biological control, or combinations of these, provided they are highly effective, and applied at times when populations are naturally at their lowest to minimise the number of individual animals impacted over time. Further research is required to identify new control options for pest animal species.’

The active support of research directed at reproductive controls and gene technology, including gene-drive technology, provides potential advantages for humane control of feral animals and should be given a high priority.

#### Inhumaneness of CSSP phosphorous used in feral pig control.

These sound welfare principles outlined above are not shared at all levels of government. It is noted that while baiting of feral pigs with yellow phosphorous is not acceptable under current best practice guidelines [6] some states, notably Queensland, have not banned this practice. Carbon disulphide and yellow phosphorous cause slow and painful death over hours to days and this is unacceptable for feral pig control.

#### Management of feral goats

Feral goats are now both a pest and a valuable, sustainable resource. There are guidelines for the management of feral goats when they are viewed as pests (i.e. the national code of practice and associated SOPs available on the PestSmart website) but no such guidance is available for the humane management of goats as a resource. Landholders who are harvesting goats for domestic and international markets need clear guidelines on the humane treatment of goats (including pregnant females and dependent young) during trapping, mustering, holding and transportation. Landholders now don't view them as pests, but they are also not owned and managed livestock, therefore it is unclear who is responsible for ensuring the welfare of harvested goats. This is an urgent issue as there have been anecdotal reports of heavily pregnant females being mustered, kids being born in holding yards and dependent young (including newborns) being left to fend for themselves.

#### Management of feral deer

Currently there is no national code of practice for the humane management of deer and there is only one standard operating procedure (for ground shooting) available on the PestSmart website. NSW is currently preparing documents for the management of deer within its jurisdiction, however a nationally applicable code that outlines best practice and humane management along with associated SOPs for specific management methods is required.

#### AVA Policy – Hunting [7]

‘Terrestrial animals including birds should not be hunted purely for sport or recreation.

Where animals are killed for food, or as part of a government mandated feral animal control program, this must be regulated and conducted humanely. In these circumstances the Codes of Practice for the Humane Control of Vertebrate Pests and associated Standard Operating Procedures must be strictly adhered to and enforced.’ The AVA believes the killing of feral pigs using dogs and knives or arrows is inhumane.

#### Adoption of best practice humane methods

Although the Codes of Practice for the Humane Control of Vertebrate Pests and associated Standard Operating Procedures were published in 2005, there has been no research to determine levels of understanding and adoption, nor is there any system for auditing or checking that the prescribed methods are being adhered to.

### **(e) priority research questions**

A question central to all feral animal control is what level of control is necessary to achieve the desired outcome. In some situation this may be linear where the number of feral pigs damaging sugar cane crops or preying on lambs may be generally proportional to the number of feral pigs in the area. But in other cases, animals or plants may be particularly vulnerable to disturbance and the presence of a small number of feral animals can have a devastating outcome for threatened species.

Example [1] ‘A study on Pennefather Beach in western Cape York found that overall turtle nest mortality (flatback, olive ridley and hawksbill turtles) was 42%, and that feral pig predation was responsible for 89.6% of this mortality (Whytlaw et al., 2013).’



Figure 4. Photo showing an autopsy of a feral pig that had been preying on marine turtle hatchlings in north Queensland. The photo shows at least 32 hatchlings from one feral pig. (Photo: Australian Quarantine and Inspection Service (AQIS), Cairns.)

Despite these widely understood shortcomings the current Feral Pig Threat Abatement Plan has included “A reduction in feral pig populations as a proxy for reduced environment damage” as a marker of success. Best practice dictated that the only effective measure of success is the recovery of measured threatened species. While this is a more expensive option it is, at the end of the day, the outcome that matters.

**(f) the benefits of developing and fully implementing national threat abatement plans for feral deer, pigs and goats**

Threat abatement plans (TAPs) are key documents and are required under Commonwealth legislation for threatened species and ecosystems (EPBC Act 1999). The AVA strongly supports the development and full implementation of TAPs. However, for such plans to be effective and implementable they must contain a full costed framework outlining the ongoing budget cost and allocation of that cost across stakeholder groups. These budget programs need to rolled forward in 5-10 years increments and measured against outcomes.

Threat abatement plans for Feral Pigs and Goats have been in place for some years.

Feral Goats  
1999 First TAP  
2004-05 Review  
2008 Reviewed and rewritten  
2013 Reviewed

Feral Pigs  
2001 Pigs listed as a key threatening process under EPBC 1999  
2005 First TAP published  
2011 Review of TAP  
2017 Second TAP published

Over this period recurring issues have been left unaddressed and will remain so until adequate resources are applied. For example, the Bureau of Rural Resources noted in its review of feral goats in 2004-05 that, “The BRS review found that it was difficult to accurately determine the extent to which the goat TAP had reduced the impacts of goats on biodiversity. This reflects the current paucity of nationally consistent data on the ranges and densities of goats and their impacts, and the difficulties of linking outcomes in goat population changes to the outputs of the TAP”. Little progress has been made on the underlying issue in the past 13 years.

Funding

Under Section 3. “Duration, cost and evaluation of the plan” p19 of the current Feral Pig TAP [4] the realities of these plans and their utility is addressed in the following way:

“Budgetary and other constraints may affect the achievement of the objectives of this threat abatement plan and, as knowledge changes, proposed actions may be modified over the life of this threat abatement plan. Australian Government funds may be available to implement key national environmental priorities, such as relevant actions listed in this threat abatement plan, and actions identified in regional natural resource management plans that are consistent with this threat abatement plan. Achievement of the overarching goal of this threat abatement plan will require ongoing management beyond the life of the threat abatement plan.”



Rather than providing leadership and the overall program the document then defaults to some rudimentary comments of unit costs, “Action Cost anticipated or known at time of TAP development for action times Comments Exclusion Fencing (total cost) \$7,000–14,000 per kilometre. Components: Fencing materials \$2,600 per kilometre Fencing labour \$45 per hour”, for example.

All the work of the advisory groups contributing their knowledge to the development of threat abatement plans is essentially wasted if the follow-through costing and budgetary provisions are not made.

#### **(g) any other related matters**

When evaluating poisons (e.g. PAPP), devices (e.g. lethal trap devices) and agents such as viruses (e.g. RHDV, carp herpesviruses) to be used for the management of invasive and overabundant animals, the Australian Pesticides and Veterinary Medicines Authority (APVMA) is currently NOT required to consider animal welfare and humaneness. The assessment of the efficacy of a medicine or poison must include aspects of welfare. The lack of such a requirement was noted when the APVMA reviewed the registration of Carbon Disulfide Yellow Phosphorous in 2005. [8] There is now a nationally (and internationally) accepted framework for assessing the humaneness of wildlife management methods, the Sharp and Saunders model [9], therefore there is no reason why welfare and humane assessments cannot be added to the criteria for assessing poisons.

#### **AVA Contacts**

- Dr Michael Banyard – President, Australian Veterinary Conservation Biology
- Dr Laurie Dowling - Executive Officer, AVCB

#### **Bibliography**

- [1] Commonwealth of Australia, “Background Document Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs (*Sus scrofa*),” 2017. [Online]. Available: <http://www.environment.gov.au/biodiversity/threatened/publications/tap/feral-pig-2017>.
- [2] Department of Agriculture and Fisheries, Queensland Government, “Feral deer management strategy 2013-18,” 2013. [Online]. Available: [https://www.daf.qld.gov.au/\\_\\_data/assets/pdf\\_file/0003/127641/2712\\_FeralDeerStrategy\\_web.pdf](https://www.daf.qld.gov.au/__data/assets/pdf_file/0003/127641/2712_FeralDeerStrategy_web.pdf).
- [3] Invasive Plants and Animals Committee, “Australian Pest Animal Strategy 2017 to 2027,,” 2016. [Online]. Available: <http://www.agriculture.gov.au/pests-diseases-weeds/pest-animals-and-weeds/review-aus-pest-animal-weed-strategy/aus-pest-animal-strategy>.
- [4] Commonwealth of Australia,, “Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs (*Sus scrofa*),” 2017. [Online]. Available: <http://www.environment.gov.au/biodiversity/threatened/publications/tap/feral-pig-2017>.
- [5] Australian Veterinary Association, “Control of native and introduced animals causing damage to agriculture or habitat,” 2015. [Online]. Available: <https://www.ava.com.au/policy/131-control-native-and-introduced-animals-causing-damage-agriculture-or-habitat>.
- [6] Humaneness Assessment Panel, “Control method: Baiting of feral pigs with CSSP (yellow phosphorous),” 2010. [Online]. Available: [https://www.pestsmart.org.au/wp-content/uploads/2012/04/pig\\_baiting\\_CSSP.pdf](https://www.pestsmart.org.au/wp-content/uploads/2012/04/pig_baiting_CSSP.pdf).
- [7] Australian Veterinary Association, “Policy Hunting,” 2016. [Online]. Available: <https://www.ava.com.au/policy/131-control-native-and-introduced-animals-causing-damage-agriculture-or-habitat>.
- [8] Australian Pesticides & Veterinary Medicines Authority, “The Reconsideration of Registrations of Products Containing Carbon Disulfide and thier Associated Labels,” 2005. [Online]. Available: <https://apvma.gov.au/sites/default/files/publication/14561-carbon-disulfide-pfr.pdf>.
- [9] T. & S. G. Sharp, “A model for assessing the relative humaneness of pest animal control methods.Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, ACT.,” 2011. [Online]. Available: <http://www.agriculture.gov.au/animal/welfare/aaws/humaneness-of-pest-animal-control-methods>.