9

Research and development

Overview

9.1 Although many effective methods for pest animal control are currently used in Australia, the committee notes that there is always room for improvement. That may come in many forms, including changes to the composition of baits to make them more target-specific, increased knowledge about the weaknesses of particular pest species and ways to make trapping and shooting more humane. Research has already produced many successful outcomes in Australia; some of the recent developments are considered in this chapter.

9.2 The committee notes that some of the techniques used for pest animal control are based on relatively old technology.[1] There are also gaps in existing knowledge that can only be filled through research. One such gap is the need for a way to deal with cane toads and sleeper populations that are only beginning to emerge as a real problem. Many submissions to the committee referred to areas where further research would be of benefit; these are considered below.

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1 Mr Clive Marks, Nocturnal Wildlife Research, *Transcript of evidence*, 15 June 2005, p. 20.

9.3 The lack of coordination of research priorities at a national level is of concern, as it may result in unnecessary duplication of research and wastage of limited funds. To ensure the most efficient use of resources, the committee considers that there is a need for research coordination at the national level. There is also a need for properly-coordinated funding of research and for the role of research and development corporations to be maximised.

9.4 Once research has produced successful results, processes must be put in place to ensure that they are turned into products that people can use. Appropriate funding is required for this purpose. It is also important that the registration process for new agricultural chemical products be as simple and expeditious as possible.

Research coordination and funding

Coordination

9.5 In Australia, there is a national focus on pest animal research through a number of bodies, including the AIA CRC, formerly the PAC CRC, the CSIRO, the NFACP and the various research and development corporations (RDCs) that deal with pest animal issues as part of their work to improve conditions for industry.

9.6 The AIA CRC came into effect on 1 July 2005 and aims to counteract the impact of invasive animals through developing and applying new technologies, and by integrating approaches across agencies and jurisdictions.[2] It is a collaborative effort between research, industry, environmental, commercial and government agencies, funded and supported by the Australian Government's Cooperative Research Centres Program. Core participants include state government agencies, the BRS, CSIRO, DEH, universities and industry participants including Animal Control Technologies, the AVA and the CCA. RDC participants include Australian Wool Innovation Ltd, Grains RDC and Meat and Livestock Australia. There are also a number of international participants.

2 Dr Tony Peacock, PAC CRC, *Transcript of evidence*, 11 May 2005, p. 1, PAC CRC, *Australasian Invasive Animal CRC: a new offensive against pest animals*, PAC CRC, Canberra, viewed 27 September 2005, <http://www.pestanimal.crc.org.au/info/PACtoAIA.pdf>.

9.7 The participants of the AIA CRC have together committed almost $100 million over the next seven years for pest animal control research and development directed at 13 operational targets.[3] Almost $30 million of that funding has been contributed by the Australian Government.[4]

9.8 RDCs represent an alliance between industry and government to pursue research and development to advance the interests of industry and the wider public.[5] RDCs prepare strategic plans that outline their objectives and strategies for five-year periods. Funding is by way of industry research and development levies, matched dollar-for-dollar by government funding. Current statutory RDCs include the Forest and Wood Products RDC, Grains RDC, Grape and Wine RDC and Rural Industries RDC, while industry-owned companies include Australian Pork Limited, Australian Wool Innovation Pty Ltd, Dairy Australia, Horticulture Australia Limited and Meat and Livestock Australia.

9.9 There is currently no set of national priorities for pest control research and development, nor is there a process for coordinating existing resources.[6] As a result, states and territories are independently funding research projects that may have relevance across several jurisdictions, without any formal processes for actively sharing those research outcomes with other states and territories.[7]

9.10 A complicating factor that may also lead to duplication is that responsibility for research funding into pest animals is divided at a federal level between DAFF and DEH.[8] Although each department is concerned with different impacts of pest animals (the former on agriculture and the latter on the environment), to some extent these issues will overlap. It is important that research priorities be coordinated between these two departments.

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3 Dr Tony Peacock, PAC CRC, *Transcript of evidence*, 11 May 2005, p. 1.

4 Senator the Honourable Ian Macdonald, *States and Industry must support new Invasive Animals CRC,* Press Release, 16 August 2005, viewed 27 September 2005, <http://www.mffc.gov.au/releases/2005/05161m.html>.

5 DAFF, *The RDC Model,* DAFF, Canberra, 10 May 2004, viewed 27 September 2005, <http://www.affa.gov.au/content/output.cfm?ObjectID=D2C48F86-BA1A-11A1-A2200060B0A03879>.

6 *Exhibit 11*, *A National approach towards humane vertebrate pest control*, Discussion paper arising from the proceedings of an RSPCA Australia/AWC/VPC joint workshop, Melbourne, 4-5 August 2003, p. 21.

7 DAWA, *Submission 98,* p. 6, Mr Chris Tallentire, CCWA, *Transcript of evidence*, 11 April 2005, p. 5.

8 Dr Bidda Jones, RSPCA Australia, *Transcript of evidence*, 16 March 2005, p. 16.

9.11 A disadvantage associated with a lack of national coordination is that certain research imperatives may fall through the cracks if they do not significantly impact on a particular industry. The Western Australian Government noted in its submission that some pest species, for example European starlings, affect many agricultural activities, but do not necessarily impact on any *one* industry significantly. Because RDCs tend to focus on a single industry, they are often reluctant to allocate resources to a problem if it only affects their industry in a minor way.[9] Coordination between industry groups and RDCs would enable a common focus and pooling of resources so that research in relation to these pest animal issues would not be overlooked.

9.12 It was suggested to the committee that some sort of national framework for coordination of research funding and priorities should be developed.[10] The committee agrees that a national approach to coordination of research would allow sharing of research outcomes across jurisdictions and reduce the risk of project duplication.

9.13 It was submitted by a number of organisations that the new AIA CRC is the appropriate body to undertake responsibility for national coordination.[11]

9.14 Animal Control Technologies, a company that manufactures baits, gave the following evidence prior to the approval of the bid for the new CRC:

> We anticipate the new AIA CRC (if successful) will be able to provide a research coordination role that appropriately involves a wide range of significant stakeholders working in cooperation rather than competition. The development of the bid has been a commendable effort in this direction.
>
> This does not mean that all research will be managed or worse still controlled by the AIA CRC and that research outside the CRC should not also be supported. However, because of the sheer size and depth of the collaboration embodied within the AIA CRC proposal, it raises the first opportunity for coordinated and focused research capability on pest animals in Australia.[12]

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9 Western Australian Government, *Submission 70*, p. 13, Dr Ashley Mercy, DAWA, *Transcript of evidence*, 11 April 2005, p. 22.

10 *Submissions 59*, p. 12, *70*, pp. 4-5, *Exhibit 11*, *A National approach towards humane vertebrate pest control*, Discussion paper arising from the proceedings of an RSPCA Australia/AWC/VPC joint workshop, Melbourne, 4-5 August 2003, p. 21.

11 *Submission 49*, p. 9, *84*, p. 42, *97*, p. 3, Dr Kevin Doyle, AVA, *Transcript of evidence*, 15 June 2005, p. 11.

12 *Submission 84*, p. 42.

9.15 Dr Tony Peacock, Chief Executive Officer of the old PAC CRC, had the following to say about the role of the new AIA CRC:

> When we put our heads together we get a better result than we had in the past. The new CRC has a motto: together create and apply solutions. We believe that bringing people together for the planning and the execution of R&D and the execution of control programs is an absolute imperative. Pest animals always beat us when we work alone, either as a nation on R&D or in local control programs. So the key issue for us is bringing people together to work in groups, whether it is in the R&D area, where we have a very low critical mass of researchers, or in control programs, where one landholder's actions are negated if the neighbours are not doing the right thing.[13]

9.16 The committee agrees that the AIA CRC is the appropriate body to take responsibility for national coordination of pest animal research, given its existing focus on collaboration with community groups, government agencies, RDCs, industry, research providers and educational and training institutions.

9.17 The committee notes that the core participants of the AIA CRC include both agricultural and environmental government agencies of most states and territories. At the federal level, participants include the BRS, DEH and the CSIRO. Although the BRS falls under the umbrella of DAFF, that agency is not itself a participant in the AIA CRC. The committee believes that to properly facilitate research coordination and ensure that research is not duplicated at the federal level, DAFF should become a core participant of the AIA CRC.

9.18 It was also suggested that a national research database be constructed and maintained. This database would record details of all past and ongoing pest animal research to enable all interested parties to determine whether there is a need for a particular research project.[14]

Funding

9.19 The committee notes that around $20 million is currently spent on pest animal research each year for the control of vertebrate pests.[15] As noted above, the Australian Government has recently committed $30 million over seven years to the AIA CRC. According to the BRS, however, the

13 *Transcript of evidence*, 11 May 2005, p. 3.

14 *Submissions 27*, p. 5, *81*, p. 5.

15 BRS, *Submission 76*, p. 4.

amount of government expenditure on control and research in Australia is less than that spent in New Zealand, which has a much smaller land mass.[16] The Northern Territory Government and DAWA both called for increased federal government funding for pest animal research.[17]

9.20 The then PAC CRC noted in its submission that the budget for the NFACP, which is funded through the Natural Heritage Trust to provide support for research projects, has been progressively reduced from $1.1 million in 2001-2002, to $750,000 in 2002-2003 and $600,000 in 2003-2004.[18] The NFACP currently has available funds of approximately $500,000.[19]

9.21 The committee received some other evidence that research bodies struggle to access available funding. Dr Andrew Woolnough, from the Western Australian Government Vertebrate Pest Research Section, told the committee that government funding mainly goes towards salaries, while funding for research is derived primarily from the AIA CRC and the NFACP. He noted that a lot of time within the department was spent in search of research funds.[20]

9.22 One submission pointed to the need for continual, long-term funding for pest animal research rather than once-only initiatives provided on a reactionary basis.[21] Dr Tony Peacock gave evidence that long-term funding is preferable for research, because it enables researchers to develop long-term strategies and maintain staff motivation.[22]

9.23 The committee recognises the need to ensure that research into pest animal issues is properly funded. In many cases, that funding will be provided by industry, however it is also necessary for governments at both state and federal levels to make a commitment to funding research.

9.24 The Australian Government has already made a firm commitment to supporting pest animal research through its contribution to the AIA CRC. The committee notes that the need for funding should be closely monitored by the Australian Government, and, if necessary, additional funding may be required to ensure that long-term research planning can occur.

16 *Submission 76*, p. 17.

17 *Submissions 70*, p. 15, *72*, p. 1.

18 *Submission 33*.

19 DAFF, *National Feral Animal Control Program,* DAFF, Canberra, 22 June 2005, viewed 14 October 2005, <http://www.affa.gov.au/content/output.cfm?ObjectID=D2C48F86-BA1A-11A1-A2200060B0A06278>.

20 *Transcript of evidence*, 11 April 2005, pp. 22-23.

21 Mr Garry Breadon, *Submission 3*.

22 *Transcript of evidence*, 11 May 2005, p. 16.

9.25 The committee is concerned, however, that the funding provided to the NFACP, which facilitates joint community and government initiatives for improving pest animal control techniques, has been progressively reduced to the extent that it is currently less than half what it was in 2001-2002. The committee believes that, given that pest animal problems are increasing, it is illogical for government funding for the program to be reduced in this way.

9.26 The committee also notes that funding for the Natural Heritage Trust is due to be phased out in 2007-2008.[23] It is imperative that funding for the NFACP continue after this time, and the committee recommends that the Australian Government investigate a means of relocating the NFACP to ensure its continued funding.

Recommendation 43

9.27 **The committee recommends that the Australian Government:**

- **provide certainty of funding to the Australasian Invasive Animals Cooperative Research Centre to enable it to undertake long-term research and to provide national leadership in pest animal research; and**
- **through the Natural Heritage Trust, immediately increase research funding to the National Feral Animal Control Program to $1 million, and investigate possibilities for relocating the National Feral Animal Control Program to ensure its continued funding after 2007-2008.**

Involvement of RDCs and private research companies

9.28 A number of submissions called for the increased involvement of RDCs in pest animal research initiatives.[24]

9.29 The committee notes that RDCs have been positively involved in initiatives for control of pest animal populations. As an example, the committee was told that Meat and Livestock Australia and Australian

23 *2005-2006 Budget Paper No. 1: Budget Strategy and Outlook 2005-06*, Commonwealth of Australia, Canberra, 2005, viewed 14 October 2005, <http://www.budget.gov.au/2005-06/bp1/download/bp1.pdf>, p. 6-14.

24 *Submissions 48*, *70*, p. 13, *80*, p. 4.

Wool Innovation recently released a joint consultancy brief for a strategic review of rabbit research, development and extension requirements.[25] These two organisations have also made major commitments to the AIA CRC in respect of feral pig and dog control.[26]

9.30 The submission from the Tamworth RLPB indicated that industry groups are unlikely to sponsor research and development unless they will receive a monetary return, or the research will provide a benefit for the industry they are involved with.[27] It is therefore important to coordinate research funding so that government-funded research is focused on those areas that will not be willingly taken up by industry groups.

9.31 It was submitted that the involvement of RDCs might be increased by the provision of government sponsorship and incentives.[28] It was also suggested by Dr Tony Peacock that the federal Minister for Agriculture, Fisheries and Forestry should outline pest animal research and development as a priority for rural RDCs:

> We get really good support from Meat and Livestock Australia and particularly from Australian Wool Innovation. The fish R&D corporation gives us a little bit of support in PhDs in the carp area. My concern is that, when you look at the impact of rabbits on the forestry industry or pest wallabies and possums and things like that, it is often a second- or third-order issue for their corporations. I used to run the pig R&D corporation and we put a little bit into this CRC. But they would not really recognise it. It is not really their thing. There is a case for the minister not to direct them but to say, 'With regard to the priorities, make sure you're supporting any national effort in this area in both weeds and pests.' It affects everyone.[29]

9.32 The committee believes that RDCs have an important contribution to make to pest animal research and development. To the extent that that involvement can be improved or increased by the provision of incentives or by outlining pest animal research as a priority, that should occur.

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25 Foundation for a Rabbit-Free Australia, *Submission 97*, p. 2.

26 BRS, *Submission 76*, p. 17.

27 *Submission 79*, p. 2.

28 State Council for the RLPB, *Submission 81*, p. 9.

29 *Transcript of evidence*, 11 May 2005, p. 10.

Recommendation 44

9.33 **The committee recommends that the Australian Government Minister for Agriculture, Fisheries and Forestry:**

- **arrange for the Department of Agriculture, Fisheries and Forestry to become a core participant of the Australasian Invasive Animals Cooperative Research Centre; and**
- **investigate ways to enhance the involvement of rural research and development corporations in pest animal research and development, in particular, by including pest animal research in the statement of government priorities for rural research and development.**

9.34 The committee also believes that great results can be achieved by involving the private sector in pest animal control research and development. It notes, however, that this involvement is most appropriate where there is profit to be made from the sale of new products. Mr Clive Marks, of Nocturnal Wildlife Research, noted:

> … we are lacking private industry involvement and that nexus between research outcomes being picked up by private industry, especially in the area of private industry failure, where it will not be possible to make huge amounts of money out of these products. When we have state governments trying to commercialise something which should never be commercialised, because if it is private industry sitting around waiting for someone to come and pick this up commercially, run with it, make a loss and go bust, it is a little bit ridiculous. So we need to have a reality check on what we are doing with all of these technologies, why we are doing it, what we are doing in the interest of the public and what we are doing that can be picked up by private industry. We need to follow that with sensible adoption strategies and reality checks.[30]

9.35 The committee believes that part of a strategy for involving private research companies in pest animal research and development is to ensure that they are provided with the necessary support where they lack the resources to implement a full testing program for a new product. Dr Peacock, discussing the feral pig bait developed through the AIA CRC and Animal Control Technologies, said:

30 *Transcript of evidence*, 15 June 2005, p. 23.

> It is also a classic area of market failure. There are no private companies that are singing out to do this. We work with a private company to get it manufactured. He can make it worth his while to produce the baits and get them out to the public, but there is no way he could bear the cost of the massive field trials we need to do. The field trialling for that is over tens of thousands of square kilometres …[31]

9.36 The committee considers that coordination of research priorities through the AIA CRC, as recommended above, will reduce the amount of duplication in pest animal research and ultimately lead to more efficient application of existing research funds. It will also ensure that private research companies can become involved in projects in situations where they are not able to independently fund the full product development process.

9.37 The committee notes that, where the potential for commercialisation of products exists, involvement of private sector research groups should be encouraged. In this regard, the committee notes that Animal Control Technologies, a leading private sector developer and supplier of pest animal management technology, is the principal commercial partner of the AIA CRC.[32]

Recent developments in pest animal research

9.38 The committee was informed of a number of promising developments in pest animal research. Dr Tony Peacock informed the committee about three new products being developed in collaboration with the AIA CRC. These are FeralMone, a product made of synthetic fermented egg that attracts dogs to bait; a shelf-ready pig bait that has knocked down approximately 80 percent of pigs in trials; and PAPP, an alternative to 1080 poison which effectively puts dogs and foxes to sleep permanently and avoids some of the unpleasant side-effects that have been associated with 1080.[33]

31 *Transcript of evidence*, 11 May 2005, p. 7.

32 Dr Linton Staples, Animal Control Technologies, *Transcript of evidence*, 15 June 2005, p. 13.

33 *Transcript of evidence*, 11 May 2005, pp. 2-3.

9.39 Dr Peacock also indicated that the new AIA CRC will be funding research into the commercial use of pest vertebrates.[34] As discussed in Chapter 8, this is an area the committee feels is deserving of further attention and the committee notes with approval plans for further research in this area.

9.40 The committee was provided with evidence of research being conducted into alternatives to 1080 poison. Much of this research has been conducted in Tasmania, where the state government has committed to phasing out the use of 1080 on government lands by the end of 2005. Some of the alternatives that have been investigated include making shooting more effective, using repellents to protect forestry plantations, and manipulating genetic and environmental factors to make plants more resistant to browsing. The use of crop covers, such as bitter lupin and thistles, to make seedlings less palatable, is also being investigated.[35] Although the committee has recommended the continued availability of 1080 poison, it considers that research initiatives such as these will be important in minimising damage where 1080 is no longer available.

9.41 CSIRO's submission to the committee included references to a number of ongoing research projects including development of biological control methods for rabbits, foxes, cane toads, mice and carp; population modelling and epidemiology of vertebrate pests; genetic control of insect pests; and development of biologically based products to replace chemical pesticides in horticulture.[36]

9.42 The committee also notes that a number of research projects are being conducted under the NFACP, including:

- review of fox baiting strategies to increase cost-effectiveness and reduce non-target risks;
- assessment of the risks of wild deer in Australia, including impacts and review of control techniques;
- monitoring the impact of 1080 dog baiting on spotted-tail quolls;

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34 *Transcript of evidence*, 11 May 2005, p. 6.

35 Dr Tim Wardlaw, Forestry Tasmania, *Transcript of evidence*, 29 March 2005, pp. 23-24, Mr Trevor Bird, FFIC, *Transcript of evidence*, 29 March 2005, pp. 42-43, *Exhibit 12*, Dr Tim Wardlaw, *Developing alternatives to 1080 for managing browsing*, *Exhibit 13* documents, JM O'Reilly-Wapstra, C McArthur and BM Potts, 'Genetic variation in resistance of Eucalyptus globulus to marsupial browsers' *Oceologia*, vol. 130, 2002, pp. 289-296, C McArthur, NR Marsh, DC Close, A Walsh, S Paterson, H Fitzgerald and NW Davies, 'Nursery conditions affect seedling chemistry, morphology and herbivore preferences for Eucalyptus nitens', *Forest Ecology and Management*, Vol. 176, 2003, pp. 585-594.

36 *Submission 55*.

- assessing the impact of feral horses and donkeys in north-west Australia; and
- developing a coordinated and strategic program for managing the impacts of feral camels.[37]

9.43 The committee is also aware of research being conducted through CSIRO and DEH into a genetically-modified organism that would interfere with the development of the cane toad.[38] National ICT Australia also made a submission detailing its research into the development of detection and monitoring sensor networks for tracking the movement of cane toads in Kakadu National Park.[39]

9.44 The committee took note of a recent competition to find effective cane toad traps and attractants conducted by the Northern Territory Government and sponsored in part by the AIA CRC. The winning entry, invented by Mr Paul Baker, attracts insects with light; toads come to feed on the insects, jump onto a ramp and step on a weight trap, which deposits them into a cage. Funding is now being provided by the AIA CRC to assist in commercialisation of the design.[40] The committee believes that initiatives such as this one are important in yielding practical solutions to pest animal problems. Assisting researchers and inventors to develop their products beyond the initial planning and testing stages is a crucial step in the national fight against pest animals.

9.45 Although this is only a sample of recent developments, the committee notes that these are promising innovations in the field of pest animal control. These innovations are proof that continued research into new and improved pest animal control techniques is worthwhile and must be supported.

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37 DAFF, *National Feral Animal Control Program Projects,* DAFF, Canberra, 8 July 2005, viewed 17 October 2005, <http://www.affa.gov.au/content/output.cfm?ObjectID=DDAFD1FF-AD40-46DA-933393C42AA69A29>.

38 R Taylor and G Edwards (eds), *A Review of the Impact and Control of Cane Toads in Australia with Recommendations for Future Research and Management Approaches: a Report to the Vertebrate Pests Committee from the National Cane Toad Taskforce*, www.feral.org.au (online resource), June 2005, viewed 27 September 2005, <http://www.feral.org.au/ref_docs_images/CaneToadReport2.pdf>, p. viii.

39 *Submission 50*.

40 Rachel Carbonell, 'Mechanic wins Cane Toad Trap Competition', *ABC Online*, 29 April 2005, viewed 14 October 2005, <http://www.abc.net.au/pm/content/2005/s1356797.htm>, Northern Territory Minister for Parks and Wildlife, 'Government launches Cane Toad Trap Competition', Press release, Northern Territory Government, 9 December 2004, <http://www.nt.gov.au/ocm/media_releases/2004/20041209_cb_ToadTrap.shtml>.

Further areas for research and development

9.46 Various submissions were made to the committee about the need for research to fill gaps in particular areas of pest animal management. These suggested areas of research covered a wide range of topics; they are set out in summary below.

9.47 One of the suggested research areas focused on improving general knowledge about pest animals and their movements. For example, according to the South Australian Farmers Federation (SAFF), more scientific research on pests and their ecological impact is required. This would enable a more comprehensive understanding of effective mechanisms to control or eliminate pest animal populations.[41] The Western Australian Government called for similar research to improve knowledge about the overall economic costs of pest animals in Australia.[42]

9.48 Evidence was given that research is needed to improve knowledge about emerging pest animal threats. QFF's submission discussed threats of growth in agricultural parasites that may arise due to climate change. More research was called for in this area.[43]

9.49 Mrs Betty Murtagh, Secretary of the Barnawartha Branch of the VFF, suggested that further research is needed into *Neospora* disease carried by wild dogs, due to the potential effects on animal and human health, and the Australian export market.[44] Cooloola Shire Council noted the need for further research into the home range of wild dog packs in rural and semi-rural areas adjoining large tracts of state land.[45]

9.50 Representatives from DAWA pointed to the need for research into feral pig control, given the threat of disease spread that they pose.[46] This was supported by the CCA and AVA.[47]

41 *Submission 46*.

42 *Submission 70*, p. 7.

43 *Submission 59*, p. 11.

44 *Transcript of evidence*, 18 June 2004, p. 28. See also Mrs Ellen Green, NSWFACDC, *Transcript of evidence,* 9 September 2005, p. 32.

45 *Submission 95*.

46 *Transcript of evidence*, 22 July 2005, pp. 16-17.

47 *Submission 49*, p. 3.

9.51 Some submitters were of the opinion that research and development should focus on improvements to current methods of pest control, by making them more efficient, more cost-effective and more humane.[48] The RSPCA Australia, Animal Welfare Centre and Vertebrate Pest Committee joint workshop identified continuous improvement in humaneness of control techniques and programs as an ongoing research priority.[49] Although some research is already underway in this area, it is not generally attractive to private companies due to the small market demand for products, and therefore is dependent on public support.[50]

9.52 AgForce and the Foundation for a Rabbit-Free Australia called for continued research, development and implementation of rabbit control measures, pointing to the negative impact rabbits still have on agriculture, despite the implementation of various programs for their control.[51]

9.53 Mr Ed Biel, of Wanaka Orchard, gave evidence that research is needed into methods of deterring grey-headed flying foxes from attacking fruit crops. The only method currently available to farmers is exclusion netting, which is prohibitively expensive.[52]

9.54 DAWA gave evidence that long-term research into management of slug damage to seedling crops would benefit several states, including Victoria, South Australia and Tasmania. Funding for research in this area has, to date, been sporadic and short term.[53] They also called for research into the impacts of feral European honey bees on native flora and fauna.[54]

9.55 The committee notes that further consideration is required as to the priorities for these and other proposed research projects. The committee notes the importance of involving the community in developing priorities for research. It was suggested that industry groups, such as farming

48 *Submissions 15*, p. 3, *80*, p. 3, *84*, pp. 12, 21.

49 *Exhibit 11*, *A National approach towards humane vertebrate pest control*, Discussion paper arising from the proceedings of an RSPCA Australia/AWC/VPC joint workshop, Melbourne, 4-5 August 2003, p. 10.

50 *Exhibit 11*, *A National approach towards humane vertebrate pest control*, Discussion paper arising from the proceedings of an RSPCA Australia/AWC/VPC joint workshop, Melbourne, 4-5 August 2003, p. 19.

51 *Submissions 27*, p. 4, *97*.

52 *Submission 21*.

53 *Submission 98*, p. 6.

54 *Submission 98*, p. 4.

bodies, and landcare and environmental groups, should be closely involved in allocating priorities for research funding.[55] It was also suggested that stronger links need to be forged between agricultural and community groups and research organisations.[56]

9.56 The Cobar RLPB suggested that a research officer be funded to consult with community groups in relation to research priorities.[57] The committee considers that community consultation is important in determining research priorities. Funding should, accordingly, be allocated to the AIA CRC for the employment of a person to liaise with individuals, farmers and industry groups, private research groups, community groups and governments in determining research priorities and funding allocations.

Development

9.57 It was submitted that too much emphasis is currently placed on research, without a corresponding focus on extension and development. More of an effort needs to be made to apply techniques based on existing research, rather than placing all the emphasis on the promise of new control techniques and further research.[58]

9.58 Mr Clive Marks, from Nocturnal Wildlife Research, stated:

> I believe that there has often been a huge gap between research outcomes and product development and commercialisation in this area. This is where we have fallen down. Quite often it is not the failure of research to come up with answers but the failure that we mostly find in state governments, for many of the reasons … about coordination and appropriate use of funds, so that we have no adoption strategies, generally, to follow. We have governments that have attempted to privatise areas of research like this when really there are not very many people that are willing to pick up and pay for things which are going to be in the public interest or to develop techniques for animal welfare reasons.[59]

55 Animal Control Technologies, *Submission 84*, p. 11.

56 CCWA, *Submission 37*.

57 *Submission 78*, p. 5.

58 Animal Control Technologies, *Submission 84*, p. 56.

59 *Transcript of evidence*, 15 June 2005, pp. 22-23.

9.59 The committee notes that providing funding for implementing research outcomes is just as important as funding research in the first place. The committee was provided with evidence that some research projects have been successful, but have not been implemented due to lack of commercial interest or funding to take the project beyond the research stage.[60]

9.60 The committee believes, therefore, that bodies such as the AIA CRC and NFACP should give serious consideration to achieving an appropriate balance between funding for new research and funding to improve existing methods and develop research outcomes into tangible solutions.

Recommendation 45

9.61 **The committee recommends that the Australasian Invasive Animals Cooperative Research Centre:**

- **coordinate with all stakeholders to develop research priorities for national pest animal research;**
- **establish a national database recording all significant past and ongoing pest animal research;**
- **collaborate with research and development corporations and private sector research groups to ensure that the potential for involvement of these groups in pest animal research and development is maximised;**
- **be provided with funding from the Australian Government to employ a person to liaise with individuals, farmers and industry groups, private research groups, community groups and governments in relation to determining research priorities and funding allocations; and**
- **together with the National Feral Animal Control Program develop appropriate frameworks for balancing funding between research and development and implementation of existing research outcomes.**

60 Mr Clive Marks, Nocturnal Wildlife Research, *Transcript of evidence*, 15 June 2005, p. 22.

Registration of new products

9.62 When new agricultural chemical products are created, most will need to become registered before they can be distributed legally. The registration process is currently administered by the APVMA.

9.63 The committee received evidence that the registration process for new agricultural chemical products is lengthy and expensive, and is unnecessarily complex:[61]

> [I]t is the nightmare of the registration process, it is the lack of clarity of the registration process, it is the lack of marriage of need and outcome with assistance and the extended time lines and the cost of trying to service those. It is difficult enough to do the research and development and bring a product to the market, but when you cannot really predict what you need, where the review process is a bit murky and where the goalposts keep moving, it is a tough ask.[62]

9.64 Actual times for the registration of new products were given as varying between one and three years, depending on the nature of the project.[63]

9.65 Similar evidence was provided by DAWA in relation to the granting of a permit to use baits for the eradication of fire ants in wetland areas. Approval did not occur until two years into the three-year eradication program, which jeopardised the $145 million investment in the program.[64]

9.66 Part of the reason for these delays, as explained by Dr Peacock of the AIA CRC, may be that each time a new product is registered, it is compared with the position from scratch, rather than being compared with existing control methods. Dr Peacock stated:

> At the moment, a farmer will organise his neighbours, they will rent a helicopter and they will go and shoot a heap of horses, butcher them up into chunks of meat and, with an authorised officer, inject them with the same amount of 1080 as is in these baits. They will throw them out of the plane. The registration process does not really take account of what is happening now. You are being compared with the position from scratch each time

61 Dr Tony Peacock, PAC CRC, *Transcript of evidence*, 11 May 2005, pp. 7-8.

62 Mr Clive Marks, Nocturnal Wildlife Research, *Transcript of evidence*, 15 June 2005, p. 24.

63 Dr Linton Staples, Animal Control Technologies, *Transcript of evidence*, 15 June 2005, p. 17.

64 *Submission 98*, p. 17.

> rather than with whether it is better than what is currently happening.[65]

9.67 The APVMA, in evidence presented to the committee, stated that the time-frames as set out in the *Agricultural and Veterinary Chemicals Code Regulations* range from three months to a maximum of 15 months for a brand new product. Historically, more than 90 percent of applications have been completed within the legislative time frames.[66]

9.68 According to the APVMA, the reason for delays in the registration process is often that there are deficiencies in applications. It may take several months for applicants to supply additional information required to address these deficiencies, which contributes to delays. It was also suggested that, in relation to restricted chemical products that can only be administered by people authorised at a state level, the consultation process with states and territories is a factor responsible for delay.[67]

9.69 Other evidence provided to the committee indicated that application deficiencies may in turn be due to complexities in the application process and resulting uncertainty about what needs to be included in application materials.[68]

9.70 The committee wrote to the then Minister for Agriculture, Fisheries and Forestry, Warren Truss MP on 23 June 2005, requesting a response as to how the length of time and costs involved in registration could be reduced, and the registration process simplified.

9.71 The response, from Senator the Honourable Richard Colbeck, Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry, indicated that registration times and costs are low in Australia, compared to some other countries. As an example, an application to the United States Environmental Protection Agency to register a new product would cost US$475,000 with a timeframe of 24 to 32 months, compared to AUS$48,860 and 15 months for the APVMA.

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65 *Transcript of evidence*, 11 May 2005, p. 8.

66 Dr Joe Smith, APVMA, *Transcript of evidence*, 1 June 2005, pp. 16-17.

67 Dr Joe Smith, APVMA, *Transcript of evidence*, 1 June 2005, pp. 16-17.

68 Mr Clive Marks, Nocturnal Wildlife Research, *Transcript of evidence*, 15 June 2005, p. 24.

9.72 The response went on to note that the APVMA is pursuing operational reforms to make improvements, particularly in relation to efficiencies with regulation of low risk products, approval of product labels and non-technical amendments to product registration. The Auditor-General, Mr Ian McPhee, has also been asked to conduct an audit into the APVMA's performance.[69]

9.73 It is the committee's view, despite this response, that there is still room for improvement in the performance of the APVMA. The fact that its performance measures up favourably against the poor performance of the United States in this area is not a reason to avoid making necessary improvements in the efficiency and cost-effectiveness of the registration process.

9.74 The committee believes that it is important that the process for registration of new chemical pest animal control products be as simple and expeditious as possible. The committee acknowledges the APVMA's record in complying with its statutory time frame for registration and the relative brevity of that timeframe compared with the comparable system in the United States. The committee is concerned, however, that some new products have been subject to unacceptable delays in progressing from the research stage to the market.

9.75 The committee is in agreement, therefore, that the APVMA should be encouraged to review its process for registration of products and, where possible, to simplify that process with a view to reducing delays involved in applications and deficiencies in information. The committee notes that the APVMA is currently in the process of developing standards for listed registration of lower risk products, which would streamline the registration process for products that carry a lower risk to health and safety and the environment.[70] Recent improvements in the process were noted by Animal Control Technologies, in particular, the issuing of experimental and emergency use permits for the use of some products.[71] This is considered to be a positive development, however further improvements in the registration process are needed.

69 Correspondence from Senator the Honourable Richard Colbeck, Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry, 21 July 2005 and 11 August 2005.

70 Dr Joe Smith, APVMA, *Transcript of evidence*, 1 June 2005, p. 22.

71 *Transcript of evidence*, 15 June 2005, p. 14.

9.76 An additional factor leading to delays in new innovations making it onto the market is the fact that the legislative criteria under which the APVMA operates do not include animal welfare considerations. This means that animal welfare considerations are not taken into account at the registration stage, leading to delays if the humaneness of the product is challenged subsequent to registration. The inclusion of animal welfare criteria consideration as part of the APVMA's role was recommended by the Discussion Group arising out of the RSPCA Australia joint workshop, held in August 2003.[72]

9.77 The committee considers that the efficiency of the registration process would be increased if humaneness were included within the APVMA's legislative criteria.

Recommendation 46

9.78 **The committee recommends that the Australian Government:**

- **direct the Australian Pesticides and Veterinary Medicines Authority to review the process for registration of chemical pest animal control methods to ensure that procedures are as simple and as expeditious as possible; and**
- **amend the legislative criteria under which the Australian Pesticides and Veterinary Medicines Authority operates to expressly include consideration of animal welfare at the time registration is first considered to avoid separate consideration at a later date.**

72 *Exhibit 11*, *A National approach towards humane vertebrate pest control*, Discussion paper arising from the proceedings of an RSPCA Australia/AWC/VPC joint workshop, Melbourne, 4-5 August 2003, p. 24, see also Mr Clive Marks, Nocturnal Wildlife Research, *Transcript of evidence*, 15 June 2005, p. 24, Animals Australia, *Submission 32,* Attachment, F Seymour and G Oogjes, *The Risky Politics of Scape-Goating the Victim*.