

Chapter 1

Introduction

Inquiry terms of reference

1.1 On 22 March 2011, the Senate referred the following matter to the Senate Rural Affairs and Transport References Committee for inquiry and report by 8 April 2011:

- (a) the science underpinning the technical assumption that *Apis cerana*, the Asian honey bee, cannot be eradicated in Australia;
- (b) the science underpinning the assumption that the Asian honey bee will not spread throughout Australia;
- (c) the science relating to the impacts of the spread of the Asian honey bee on biodiversity, pollination and the European honey bee; and
- (d) the cost benefit of eradication of the Asian honey bee.¹

Conduct of the inquiry

1.2 Notice of the inquiry was posted on the committee's website. The committee also advertised the inquiry in *The Australian* on Wednesday, 30 March 2011 and wrote to key stakeholder groups, organisations and individuals to invite submissions.

1.3 The committee received fifty-three submissions, including three supplementary submissions, which are listed at Appendix 1.

1.4 The committee held two public hearings in Canberra, on 24 and 31 March 2011. A list of witnesses who appeared at the hearing is at Appendix 2. Copies of the *Hansard* transcript are available on the internet at <http://aph.gov.au/hansard>.

Background to the inquiry

Process for attempting to eradicate the Asian honey bee

1.5 The attempt to eradicate the Asian honey bee following its incursion into Australia has been through existing processes for dealing with emergency plant pests.

1.6 The eradication of emergency plant pest incursions which pose a potential threat to Australia's agricultural industries is conducted in accordance with a coordinated national response plan, the National Emergency Preparedness and Response Plan (the response plan). The response plan specifies the procedures for

1 The inquiry's terms of reference and other information are available on the committee's website at http://www.aph.gov.au/Senate/committee/rat_ctte/bees_2011/tor.htm.

handling emergency plant pest incursions at the national, state, territory and district levels.

1.7 Upon the detection of an emergency plant pest and declaration of an outbreak, the Consultative Committee on Emergency Plant Pests (CCEPP) meets to determine the feasibility of eradication. The CCEPP is Australia's key technical body for co-ordinating national responses to emergency pest incursions and assessing the technical feasibility for their eradication. The CCEPP makes recommendations to the National Management Group (NMG), which is the decision making body that determines whether to proceed with an eradication campaign and, if so, approves the national cost sharing arrangements to fund the campaign.²

1.8 Funding for eradication campaigns is allocated under the Emergency Plant Pest Response Deed (EPPRD), a formal cost sharing agreement covering industry and government funding arrangements for the eradication of emergency plant pests. Under the EPPRD, government and plant industry signatories share the costs of eradicating emergency plant pests based on an assessment of the relative private and public benefits of eradication of the pest (see Table 1 below).

Table 1 – EPPRD cost sharing categories

Category of disease	Cost share
Category 1: Very high public benefits	100% public funding
Category 2: High public benefits	80% public funding 20 % private funding
Category 3: Moderate public benefits	50% public funding 50% private funding
Category 4: Mostly if not wholly private benefits	20% public funding 80% private funding

Asian honey bee incursion at Cairns, May 2007

1.9 In May 2007, a nest of Asian honey bees was detected within Australia's quarantine barrier in the mast of a fishing boat in dry dock in Cairns. Since that first detection, more than 350 colonies of the bee have been detected and destroyed in the Cairns region.

2 The NMG is chaired by the Commonwealth and comprises chief executive officers from the state and territory departments of agriculture and primary industries, as well as representatives of the Australian Honey Bee Industry Council and Plant Health Australia.

1.10 The Asian honey bee is an invasive species which adversely affects populations of European honey bees by competing for floral resources, robbing managed hives and transmitting disease. The strain of Asian honey bee found in the Cairns region is the Java strain, which is common in Asia, particularly in Indonesia and Papua New Guinea where it was introduced in the 1970s and 1980s. Since 1995, 10 swarms of Asian honey bees, mostly originating from the island of Papua New Guinea, have been intercepted and destroyed on vessels at Australian seaports. An incursion in June 1998 at Darwin was successfully eradicated.

1.11 The Asian honey bee is also a natural host for the *Varroa* mite, a parasite that attacks developing bee larvae or adult bees and which has been connected to colony collapse disorder. Because it is a vector for the *Varroa* mite, the Asian honey bee represents a significant threat to Australian beekeeping industries and industries that depend on managed honey bees for pollination.

1.12 The Department of agriculture, Fisheries and Forestry (the department) website describes the following effects of the *Varroa* mite:

Attack by varroa mite weakens bees, shortens their lives, or causes death from virus infections that would otherwise cause little harm. In severely attacked colonies bees may have stunted wings, missing legs or other deformities. Unless urgent action is taken, the vitality of bees in the colony declines until all are dead.³

1.13 The department website also outlines a number of very significant risks to Australia should the *Varroa* mite establish itself through the Asian honey bee vector:

The most obvious threat is to Australia's bee and honey industries. The *Varroa* mite would decimate Australia's feral bee population and cause a rapid increase in demand for pollination services. It is estimated that *Varroa* mite could cost Australian plant industries between \$21.3 million and \$50.3 million per year over thirty years...Apart from reduced honey production, apiarists would need to repeatedly treat their hives to ensure their survival.

However, the major part of the cost of *Varroa* would probably be felt not by the honeybee industry but by other industries with crops that rely on honeybees for pollination, including almonds, avocados, cotton, stone fruits, pome fruit, melons and pumpkins.

Varroa mites were discovered in New Zealand in 2000 and have already had a major economic impact, with significant control costs and losses of bees, hives, honey production, crop yields and export revenue.⁴

3 Department of Agriculture, Fisheries and Forestry, 'Varroa mite', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/animal/varroa-mite>, accessed 7 April 2011.

4 Department of Agriculture, Fisheries and Forestry, 'Varroa mite', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/animal/varroa-mite>, accessed 7 April 2011.

Initial response

1.14 The initial response following the detection of Asian honey bees in Cairns in May 2007 was managed under the provisions of the Emergency Animal Disease Response Agreement (EADRA), which is the equivalent set of arrangements to the EPPRD for emergency animal diseases. The incursion was managed under this agreement on the basis that the bee could act as a carrier of *Varroa* and other mites.⁵ This approach was necessary because the Asian honey bee was not listed as a pest species and therefore was not, of itself, covered by any existing cost sharing arrangements under the EADRA or the EPPRD.⁶

1.15 In November 2009, the Primary Industries Ministerial Council (PIMC) agreed that the Asian honey bee eradication program should be managed in accordance with the EPPRD. This decision was based on the potential impact of the bee as a plant pest rather than an animal disease; and took into consideration parties that may be impacted by an incursion of a pest bee species, such as pollination-reliant industries.⁷ Accordingly, in July 2009 the Asian honey bee was included as a 'pest bee' in, and its management transitioned to, the EPPRD.

1.16 The Asian honey bee is currently classed as a Category 2 pest, which means that the cost of eradication has been split 80/20 to public and private funding respectively (see Table 1 above). Activities to eradicate the Asian honey bee in the Cairns region to date have accordingly been funded by the Australian Government, state and territory governments and the Australian Honey Bee Industry Council (AHBIC).

1.17 The focus of this report is on the processes undertaken and decisions made under the EPPRD.

Acknowledgement

1.18 The committee thanks those organisations and individuals who made submissions and gave evidence at the public hearing.

5 Ms Nicola Hinder, Department of Agriculture, Fisheries and Forestry, *Committee Hansard*, 31 March 2011, p. 4; and Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

6 Ms Nicola Hinder, Department of Agriculture, Fisheries and Forestry, *Committee Hansard*, 31 March 2011, p. 4; and Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

7 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 2.

Note on references

1.19 References in this report to individual submissions are to those submissions as received by the committee, not to a bound volume. References to the committee *Hansard* are to the proof *Hansard*; page numbers may vary between the proof and the official (final) *Hansard* transcript.

