

## Chapter 2

# The science underpinning the decision that the Asian honey bee is not eradicable

### Interim report findings and recommendations

2.1 The committee's interim report was focused on the science underpinning the decision by the (Asian Honey Bee) National Management Group (NMG) that the Asian honey bee is not eradicable.

2.2 The committee identified a number of concerns regarding the adequacy of the scientific evidence drawn on to support the conclusion that the Asian honey bee is not eradicable, and noted that the opinions of the members of the NMG were divided on this question. The committee concluded that, in view of this uncertainty and the potential spread and environmental, economic and social impacts of the Asian honey bee in Australia, 'there were no reasonable grounds on which to favour the conclusion that the pest was ineradicable, as a number of CCEPP members did at the October 2010 meeting'.<sup>1</sup>

2.3 The committee's conclusions formed the basis of the following three recommendations:

#### Recommendation 1

The committee recommends that the Consultative Committee on Emergency Plant Pests (CCEPP) reconsider the question of whether the Asian honey bee is eradicable from Australia; and, following that reconsideration, make a fresh recommendation to the National Management Group (NMG) on the Asian honey bee incursion management response; the CCEPP should specifically consider this question in light of evidence relating to the potential for the insect's spread and resulting environmental, economic and social costs; the CCEPP should specifically apply the precautionary principle to areas of scientific uncertainty in its reconsideration of these issues.

#### Recommendation 2

The committee recommends that, on receipt of a fresh recommendation from the Consultative Committee on Emergency Plant Pests (CCEPP), the National Management Group (NMG) reconsider the question of whether it is technically feasible to eradicate the Asian honey bee from Australia; the NMG should specifically apply the precautionary principle to areas of scientific uncertainty in its reconsideration of this issue.

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1 Senate Rural Affairs and Transport References Committee, *Science underpinning the inability to eradicate the Asian honey bee* (Interim report), April 2011, p. 15.

### Recommendation 3

The committee recommends that, in the event that the full Asian honey bee eradication program is reinstated, a scientific program of data collection concerning the detection, spread and eradicability of the Asian honey bee from Australia be initiated in order to properly inform future decision making regarding this emergency plant pest.<sup>2</sup>

## Developments since the committee's interim report

### *Reconsideration of whether the Asian honey bee is eradicable*

2.4 The Department of Agriculture, Fisheries and Forestry (the department) website provided the following information regarding the response to the committee's recommendation in its interim report that the CCEPP (and NMG) reconsider the question of whether it is technically feasible to eradicate the Asian honey bee from Australia:

On 31 March, the Senate requested that the Consultative Committee on Emergency Plant Pests (CCEPP) meet again to reconsider the feasibility of eradicating the Asian honey bee. At this meeting (held on 7 April 2011), the committee, again, did not reach consensus on whether the Asian honey bee could be eradicated from Queensland. The committee was also presented with two last minute papers, and as a result, the meeting be [sic] suspended for one week so CCEPP members could consider these papers.

After reconvening on 15 April 2011, and having considered the two papers, the committee again could not reach consensus about whether the Asian honey bee could be eradicated.

The 15 April meeting did record unanimous and very positive support, in the context of future containment and management efforts, for both papers, especially the industry proposal concerning Asian honey bees.

There was also universal support for a remote baiting trial but that was qualified by a need for more clarification about how the trial would work and what, if any, potential impacts there could be for other insects.

The two papers did not provide any new supporting scientific data but will be used to inform future activities of the Asian Honey Bee Coordination Group.

This expert coordination group consists of affected industries, the Commonwealth and each of the states and territories has been working to identify the best way forward to control the Asian honey bee. The CCEPP is comprised of plant health managers from each of the states and territories and the Commonwealth, as well as industry representatives.

This is the established process under the Emergency Plant Pest Response Deed for determining the best response to outbreaks of exotic plant pests

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2 Senate Rural Affairs and Transport References Committee, *Science underpinning the inability to eradicate the Asian honey bee* (Interim report), April 2011, p. 17.

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and diseases, and ensures that decisions are rigorous and based on scientific evidence.<sup>3</sup>

2.5 The committee had received no advice by early June 2011 that the NMG had explicitly considered the outcome of the CCEPP's reconsideration of the question of whether the Asian honey bee is eradicable. However, the committee did not expect, in light of the CCEPP's unchanged findings, that the (Asian Honey Bee) NMG would change its conclusion on this question, should it be reconsidered at a future meeting of this group.

2.6 The Asian honey bee eradication program finished on 30 March 2011. However, Queensland was continuing to engage in and bear the cost of activities to manage the Asian honey bee.<sup>4</sup>

#### *CCEPP support for documents presented at recent meetings*

2.7 Despite the positions of the CCEPP members regarding the eradicability of the Asian honey bee being unchanged following the meetings held on 7 and 15 April 2011, the committee notes that there was 'unanimous and very positive support, in the context of future containment and management efforts,' for the two papers provided by the Australian Honey Bee Industry Council (AHBIC) and Mr Wim De Jong. The AHBIC paper in particular was well supported.

2.8 The full titles of the papers are:

- 'Asian bee survey and surveillance project', Australian Honey Bee Industry Council (AHBIC), 8 April 2011; and
- 'Remote poisoning trials on *Apis cerana*: Cairns', Mr Wim De Jong, February 2011.<sup>5</sup>

2.9 The committee notes that, despite the fact the two papers are premised on the question of whether the Asian honey bee is eradicable, the CCEPP's support for these papers was given in the context of the containment program, not in the context of an eradication program *per se*.

2.10 There has been no information available to date as to whether the NMG will reconsider the eradication question in the event that either or both of the proposed trials are implemented.

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3 Department of Agriculture, Fisheries and Forestry website, 'The Asian honey bee in Australia', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/the-asian-honey-bee-in-australia>, accessed 31 May 2011.

4 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 46.

5 These papers are included at Appendix 3.

*AHBIC proposal*

2.11 AHBIC proposes:

...a project from April to December 2011 that will enable data to be obtained which can be used to decide whether or not eradication is possible. This project is not an attempt to eradicate the Asian bee in itself, but to determine whether eradication of the bee is possible.<sup>6</sup>

2.12 The methodology of the project would involve:

...a surveillance and destruction program...carried out at the same level of effort given during the eradication activity carried out between Aug-Nov 2010 in Cairns (that is, a team of 40 people of the ground to detect and destroy Asian honeybee colonies, as well as personnel to collect and file the data).<sup>7</sup>

2.13 AHBIC proposes that a number of new methodologies would also be employed, such as the use of remote poisoning and sniffer dogs. It is suggested that beekeepers will be available to participate in community engagement activities and to assist with the detection of colonies.<sup>8</sup>

2.14 A number of parameters will be established in consultation with a scientific advisory panel (SAP) and the Consultative Committee on the Asian Honey Bee (CCAHB) to collect data to inform a decision relating to the eradicability of the Asian honey bee. It is proposed that this data be used for the SAP to provide a recommendation to the CCAHB, which would in turn be provided to the CCEPP and NMG for a final determination.<sup>9</sup>

2.15 In relation to funding the paper states:

Funding will be required for 8 months only and the cost would be shared between member States and Territories, the Commonwealth and Industry members of CCEPP. Beekeepers will assist with community engagement free of charge. Given that the cost of the eradication under CCEPP from April to December 2010 cost somewhere in the vicinity of \$1 million, then this project would cost a similar amount.<sup>10</sup>

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6 Australian Honey Bee Industry Council (AHBIC), 'Asian bee survey and surveillance project', 8 April 2011, p. 1.

7 Australian Honey Bee Industry Council (AHBIC), 'Asian bee survey and surveillance project', 8 April 2011, p. 1.

8 Australian Honey Bee Industry Council (AHBIC), 'Asian bee survey and surveillance project', 8 April 2011, p. 1.

9 Australian Honey Bee Industry Council (AHBIC), 'Asian bee survey and surveillance project', 8 April 2011, pp 1-2.

10 Australian Honey Bee Industry Council (AHBIC), 'Asian bee survey and surveillance project', 8 April 2011, p. 2.

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*Poisoning trial*

2.16 Mr De Jong's paper outlines the results of poisoning trials conducted in the Cairns area during February 2011 using *Fipronil*.

2.17 The methodology of the two trials was to identify a nest of Asian honey bees and to then place a sugar feeding station containing the poison *Fipronil* in close proximity.

2.18 The paper concludes that, on the basis of the first trial, which was interrupted by rain, even a very light exposure to *Fipronil* may be sufficient to kill a nest of Asian honey bees. In relation to the second trial it concludes that the method trialled 'worked with no complications' and is useful in killing nests which are not easily accessible.<sup>11</sup>

2.19 Overall, Mr De Jong finds that 'remote poisoning shows promise as a weapon in the *Apis cerana* eradication arsenal'. He states:

Remote poisoning in conjunction with other proven tools [including public calls, target floral sweeping, bee traps, beelining and spot sweeping]...[will] make up the backbone tools of future bee eradication programs.<sup>12</sup>

*Containment activities*

2.20 The failure of the CCEPP to change its finding that the Asian honey bee is not eradicable means that future efforts will be focused on containment activities. The department website notes that, following the decision that the Asian honey bee is not eradicable:

Biosecurity officials from state and federal governments met with honey bee industry representatives and representatives from some pollination-reliant industries on 15 March 2011 to start the process of developing a National Transitional Containment Program for Asian honey bees.<sup>13</sup>

2.21 The department noted that a cross government-industry group, the Asian Honey Bee Coordination Group (the AHBCG) has been working since mid-March 2011 to develop plans for future management activities:<sup>14</sup>

A cross government/industry group has met on two occasions to consider what management actions can now be taken, and to what level, to minimise the impact of the bees. The group comprises senior federal and state/territory government officers, including CSIRO, the Australian Honey

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11 Mr Wim De Jong, 'Remote poisoning trials on *Apis cerana*: Cairns', February 2011, p. 4.

12 Mr Wim De Jong, 'Remote poisoning trials on *Apis cerana*: Cairns', February 2011, p. 4.

13 Department of Agriculture, Fisheries and Forestry website, 'The Asian honey bee in Australia', <http://www.daff.gov.au/animal-plant-health/pests-diseases-weeds/the-asian-honey-bee-in-australia>, accessed 31 May 2011.

14 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 43.

Bee Industry Council, representatives of fifteen pollination reliant industries and Plant Health Australia.

Queensland, as the state managing the current Asian honeybee incursion, is continuing activities to suppress the bee. Work is also nearing completion on a continuity strategy to support preparations governments and industry are making should Varroa mite enter and become established in Australia. This work is being undertaken in collaboration with the Rural Industries Research and Development Corporation, Horticulture Australia, Pollinations Australia and representatives of the honeybee industry.<sup>15</sup>

2.22 The committee is aware that, up until 23 May 2011, the AHBCG has met a number of times to discuss a containment plan for the Asian honey bee, with Queensland and the industry being asked to develop a draft plan for the other states to consider. An updated version of this draft plan was apparently put forward on 19 May 2011, and the committee understands that the plan incorporates the offer in industry assistance with public engagement and detection activities, as proposed in the AHBIC proposal considered by the CCEPP in April. The department advised that the draft plan has been developed in the context of a 'transition exercise'.<sup>16</sup>

#### *Future funding*

2.23 The committee notes that a further consequence of the decision that the Asian honey bee is not eradicable is that the formal funding arrangements that were in place in relation to the eradication effort are discontinued. The committee notes advice from the Minister for Agriculture, Fisheries and Forestry that there is no formal or standard arrangement or formula to determine cost-sharing arrangements once a pest incursion response moves to containment.<sup>17</sup>

2.24 The committee notes that the honey bee industry, through equal contributions from the Federal Council of Australian Apiarists Association (FCAAA) and AHBIC, has committed \$400 000 towards funding of the containment program activities. This is in addition to the in-kind contribution (said to be valued in excess of \$100 000) and the previous industry contribution of \$100 000.

2.25 The committee understands that the honey bee industry has been active in seeking to win support from all states and territories for the efforts proposed as part of the current containment program.

2.26 The committee notes that the Government announced funding of \$2 million in the 2011-12 Budget 'to support a pilot of the national transitional containment

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15 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, pp 3-4.

16 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 44.

17 *Committee Hansard* (Estimates) 24 May 2011, p. 42.

principles developed by the National Biosecurity Committee in 2010'.<sup>18</sup> The committee notes also that the department has advised it will offer an in-kind contribution through the 'northern quarantine service operating out of Cairns to assist with some of the surveillance work'.<sup>19</sup>

2.27 The department advised the Senate Rural Affairs and Transport Legislation Committee that the allocation of responsibilities and funding under the draft plan proposed by Queensland was currently being determined.<sup>20</sup> The coordination group was also yet to determine the review cycle that would apply to the processes and strategies that are ultimately endorsed under the plan.<sup>21</sup>

### **Committee view**

2.28 The committee regrets that there has been no reversal of the decision that the Asian honey bee is not eradicable from Australia, following the May 2007 Cairns incursion, and that the Government's focus has now shifted to containment, rather than eradication, of what could become one of Australia's most damaging and costly pest species.

2.29 However, the committee notes that there remains potential for the question of the eradicability of the Asian honey bee to be revisited and reviewed in light of the results of Queensland's draft containment program, which will be finalised in the near future. In particular, the committee notes that the two proposals put forward by AHBIC and Mr Wim De Jong, and considered by the CCEPP at its meetings in April 2011, while useful and relevant to a containment effort, may also have a bearing on any future determinations regarding eradicability.

2.30 The current effort to contain the Asian honey bee should, in the committee's view, attract the highest priority of governments, given the potential benefits of successful containment, and the potential of this effort to inform any future effort at eradication.

2.31 In this context, the committee notes that the Asian honey bee is a natural host for the *Varroa* mite and that establishment of *Varroa* mite in Australia poses very significant risks to Australia's bee and honey industries and those industries reliant on bees for pollination.

2.32 To this extent, the committee notes with approval the Government's commitment of \$2 million to support the ongoing containment program, and the industry's recent commitment of \$400 000 plus a significant in-kind contribution to

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18 Senator the Hon Joe Ludwig, Minister for Agriculture, Fisheries and Forestry, 'Pilot programs to manage honeybees and Myrtle rust' (press release), 20 May 2011.

19 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 43.

20 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 44.

21 Dr Colin Grant, *Committee Hansard* (Estimates) 24 May 2011, p. 44.

public engagement and detection activities. However, the committee will continue to monitor adequacy of funding to support on-ground activities, particularly once the details of the containment program are finalised.