

## Chapter 3

### Initial response and funding contributions from affected industries

#### Response at Commonwealth and state level

##### *Evidence received*

3.1 In answer to a question on notice, the Department of Agriculture, Fisheries and Forestry advised:

Following the initial detection, the Queensland government took immediate action and mounted an eradication response to the incursion. As indicated, it is standard practice for state/territory governments to manage pest or disease outbreaks within their jurisdictions.

During this period, the Australian Government worked closely with the Queensland Government, other states/territories and the Australian Honey Bee Industry Council to prevent the establishment and spread of the pest. This included providing advice and some staffing resources. Queensland used its own resources or contractors for work on the ground.

Queensland undertook eradication actions and surveillance throughout 2007 and had considered they may have eradicated the bees as no nests were being detected. They had begun proof of freedom activities in Dec 2007 to July 2008 when they discovered further sites. At this time, they made a decision to seek national consideration/support to sustain the response.<sup>1</sup>

3.2 The committee was provided with a chronology of high-level meetings regarding the Asian honey bee from the time of its detection in 2007 up until 31 March 2011, the point at which the (Asian Honey Bee) NMG determined that the Asian honey bee was no longer eradicable. This chronology is reproduced at Appendix 4.

3.3 At the hearing held on 31 March 2011, the committee put a number of questions on notice to the department which sought specific details regarding the initial response to the incursion by the 'combat' state, Queensland. The questions on notice were:

- a request to provide 'a copy of the Queensland response plan that was endorsed by the Commonwealth';
- a request to provide 'a copy of what Queensland put forward as its response to this incursion'; and

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1 Department of Agriculture, Fisheries and Forestry, *Answer to question on notice*, 31 March 2011, p. 2.

- a request to provide details of the expenditure on the eradication program to date, broken down by month'.<sup>2</sup>

3.4 The committee was subsequently provided with a number of documents relating to the Queensland response to the Asian honey bee incursion, including:<sup>3</sup>

- 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland';<sup>4</sup>
- 'Surveillance plan for AHB from Oct 2008 to June 2009' (two versions); 'Revised estimates of costs for 2008-2009 as at March 2009';<sup>5</sup>
- 'Emergency animal disease response plan for an incursion of Asian honeybees into Queensland';<sup>6</sup> and
- 'Response plan for *Apis Cerana* in North Queensland 2010'.<sup>7</sup>

### ***Initial eradication effort by Queensland***

3.5 Detail of initial response actions up until about August 2009 was contained in the 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland' (the event response plan).<sup>8</sup> The event response plan lists the following selected chronology and activities in response to the Asian honey bee incursion:

#### ***Management***

- Initially, establishment of a Local Pest Control Centre, staffed with 'over 10 DPI&F staff and between one and four industry personnel assisting with

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2 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, p. 5.

3 These documents are reproduced together in Appendix 5.

4 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland'. The department advised that this plan was endorsed by Primary Industries Ministerial Council (PIMC) and the NMG [sic] on 18 August 2009 (see *Answer to question on notice*, 31 March 2011, p. 5).

5 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment H: 'Surveillance plan for AHB from Oct 2008 to June 2009' (two versions); 'Revised estimates of costs for 2008-2009 as at March 2009'.

6 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment I: 'Emergency animal disease response plan for an incursion of Asian honeybees into Queensland'.

7 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment J: 'Response plan for *Apis Cerana* in North Queensland 2010'.

8 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', pp 9-13.

surveillance and technical advice';<sup>9</sup> and establishment of a 'small State Pest Control Headquarters in Brisbane with between two and five staff'.<sup>10</sup>

- Subsequent passing of management of the incursion to Biosecurity Queensland Control Centre in February 2009, with 12 staff working full time as at the preparation of the event response plan).<sup>11</sup>
- Declaration of a Restricted Area (RA) under the provisions of the *Exotic Diseases in Animals Act 1981* in May 2007. This initially covered an area of approximately 25 kilometres from the first detection site, and was extended to the south in November 2008. The declaration imposed restrictions on movements of bees, bee equipment and bee products.<sup>12</sup>

### *Surveillance*

- A program of 'delimiting surveillance' was conducted. A total of 55 days was spent on surveillance and sweepnetting between May 2007 and December 2007.<sup>13</sup>
- After November 2007 active surveillance was reduced, with 31 days of sweepnetting conducted between January 2008 and July 2008.<sup>14</sup>
- Following more detections in July 2008, active sweepnetting was increased, with 99 days being undertaken between August and December 2008. Up until approximately March 2009, 44 days of sweepnetting had been conducted.<sup>15</sup>
- The number of field staff over this period varied from 'two teams of two to five teams of two'. Following further detections in March 2009, the number of

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9 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 9.

10 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 9.

11 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 9.

12 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 9.

13 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 10.

14 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 10.

15 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 10.

full time temporary staff was increased from two teams of two to four teams of two (as per option 2 of the 'Surveillance plan for AHB from Oct 2008 to June 2009').<sup>16</sup>

- A number of trapping methods were implemented, with varying degrees of success.<sup>17</sup>
- Up to 60 feeding stations were established, with a number of refinements being introduced to tailor their use to suit the behaviour of the Asian honey bee; beelining was successfully employed to track bees back to nests.<sup>18</sup>
- A system using Rainbow Bee-eater birds to monitor the presence of Asian honey-bees was developed.<sup>19</sup>
- Pollen analysis was conducted to identify what flora was most attractive to the Asian honey bee.<sup>20</sup>
- Genetic analysis was conducted to determine the relatedness of the nests detected, leading to a conclusion that there had been just a single incursion.<sup>21</sup>
- A field day was held for North Queensland Beekeepers to enlist their aid with detection of nests.<sup>22</sup>
- A publicity and public awareness campaign was conducted.<sup>23</sup>

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16 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 10.

17 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 10.

18 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 11.

19 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

20 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

21 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

22 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

23 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

- Special awareness sessions were held with AQIS and EPA staff, and workers that could come into contact with Asian honey bees, such as road workers.<sup>24</sup>

### *Industry involvement*

3.6 The event response plan states that 'an operational debrief and a technical debrief were conducted after the first seven nests were detected in 2007 and [local] industry was involved in both'.<sup>25</sup>

3.7 Further, the [local] honey bee industry had been 'informed of developments throughout the response with regular situation reports and teleconferences'.<sup>26</sup>

3.8 The local honey bee industry provided regular updates to the national industry.<sup>27</sup>

### ***Response plan for *Apis cerana* in North Queensland***

3.9 The 'Response plan for *Apis cerana* in North Queensland 2010' (the 2010 response plan) contained a description of surveillance and eradication efforts since the incursion was detected, and put forward 'refined and amended strategies with the experience of the previous two years'.<sup>28</sup>

### **Funding contributions from affected industries**

3.10 The committee notes that, at the meeting of the CCEAD on 27 November 2008, the minutes record that the Queensland Department of Primary Industries and Fisheries had spent a total of \$114 808 to 30 June 2008 'to cover Asian

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24 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 12.

25 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 13.

26 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 13.

27 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment G: 'National biosecurity event response plan for an incursion of Asian honey bees into Queensland', p. 13.

28 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment J: 'Response plan for *Apis Cerana* in North Queensland 2010', p. 24.

honey bee eradication and surveillance activities'. In the first quarter of 2008-09, a total of \$200 708 had been spent on eradication.<sup>29</sup> The minutes state that:

The cost implications for the [DAFF] are becoming significant and alternate funding sources are required if the response is to be sustained.<sup>30</sup>

3.11 The department advised:

In April 2010, PIMC agreed to the recommendation by the NMG to fund the eradication program at a cost of \$3,064,405, to 31 December 2010. Costs were to be apportioned in accordance with the EPPRD and backdated to 1 July 2009 to recognise Queensland's work to date.

In November 2010, PIMC agreed that the cost shared program should be extended until 31 March 2011 to allow the CCEPP and NMG to consider review findings on the continued feasibility of eradication.

3.12 In further information provided to the committee, the department advised:

The Queensland government incurred costs of \$1,313,808 from May 2007 to Feb 2010 in relation to this incursion.

The national eradication program endorsed by PIMC has been funded by government parties and the Australian Honey Bee Industry Council at a cost of approximately \$3 million until 31 March 2011. The Commonwealth has contributed 50 per cent (\$1.2 million) of the government costs.<sup>31</sup>

3.13 The committee notes that, to date, industry contribution to the eradication effort has been modest, totalling around \$100 000. However, the committee notes that industry has proposed a more substantial contribution to the current containment effort, comprising a substantial cash and in-kind contribution. The details of the new industry contribution are discussed in the previous chapter.

3.14 In terms of engagement with affected industries more broadly, the department advised:

The Australian Honey Bee Industry Council represented its industry at PISC/NMG, standalone NMG and Consultative Committee fora. Other pollination reliant industries, were approached at the peak representative level to join the attempted eradication response, but declined.<sup>32</sup>

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29 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment H: Consultative Committee on Emergency Animal Diseases, 'Asian honey bee eradication in Cairns Queensland', Meeting Minutes November 2008, p. 3.

30 Department of Agriculture, Fisheries and Forestry, *Answers to question on notice*, 31 March 2011, Attachment H: Consultative Committee on Emergency Animal Diseases, 'Asian honey bee eradication in Cairns Queensland', Meeting Minutes November 2008, p. 4.

31 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 5.

32 Department of Agriculture, Fisheries and Forestry, *Answers to questions taken on notice*, 24 March 2011, p. 4.

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## Committee view

### *Initial response*

3.15 The committee notes that care must be taken in attempting a retrospective 'desk top' analysis of the initial efforts by Queensland to eradicate the Asian honey bee following its entry to Australia in May 2007. However, given the failure of the CCEPP to change its conclusion that the Asian honey bee is eradicable, and the transition from an eradication effort to a containment effort, the committee notes that the initial response must be judged to have been insufficient to eradicate the Asian honey bee and, in so doing, protect Australia from what may be one of its worst and most costly invasive pest incursions.

3.16 While the committee does not wish to specifically criticise the efforts of Queensland, the outcome of the attempt to eradicate the Asian honey bee may indicate that there are a number of areas where Australia needs to examine and potentially consider changing its initial response strategies to emergency plant and animal pests. Without understating the difficulty of eradicating certain types of pest or disease incursions, such a conclusion would be supported by the outcomes of other incursions, notably the recent incursion and apparent establishment of Myrtle rust in Australia.

3.17 The committee notes that the potential consequences of the establishment of certain pests and diseases in Australia are greater than others. However, the committee is not convinced that the processes in place for the initial response to emergency plant and animal disease incursions are sufficiently capable of being appropriately adapted to deal with specific cases or incursions. In the case of the Asian honey bee, the committee is concerned that, notwithstanding the efforts of Queensland, there were insufficient resources applied to the eradication effort, given the potential consequences of the establishment of this pest in Australia.

3.18 In particular, the committee notes that the effectiveness of the effort to eradicate the Asian honey bee was potentially undermined by a lack of sufficient data to determine the effectiveness of the eradication effort. This is demonstrated by the fact that a lack of detections had led to the erroneous conclusion in late 2007 that the Asian honey bee had possibly been eradicated. As late as 2010, the data gleaned through the surveillance and destruction effort was ambiguous, indicating a decline in the number and age of swarms and nests, but with significant numbers still being detected.

3.19 Notwithstanding the committee's support for ongoing efforts in relation to the Asian honey bee, the committee considers there is an urgent need for Australia to examine its emergency plant and animal pest response strategies to ensure that any such efforts are appropriately tailored and funded to address the practical demands of eradication, taking into account the broader implications and potential consequences to Australia of the establishment of a given pest or disease.

3.20 The committee considers that the current emergency response system relies too heavily on a 'combat' state to conduct and assess the effectiveness of initial

eradication efforts, and that the attendant risks of this approach are that initial efforts are not sufficiently well planned, resourced and carried out with sufficient national and technical oversight. Given this, there is a real risk that Australia's initial responses to emergency pest or disease incursions are not maximally responsive and effective.

3.21 The committee is particularly concerned that Australia should be adequately prepared in the event of an incursion of *Varroa* mite. As the committee noted in Chapter 1, the Asian honey bee is a vector for *Varroa* mite which poses a significant threat to Australia's managed bee colonies, wild bee populations and to horticultural industries dependent on bees for pollination.

3.22 The committee also notes the rate at which *Varroa* mite has spread globally and throughout the Pacific.<sup>33</sup> The committee considers that this demonstrates the need for a high level of diligence at Australia's borders and highlights the importance of a swift and thorough response in the event of an incursion. The committee is aware of the significant economic impact and ongoing control costs incurred as a result of the New Zealand incursion of *Varroa* mite and understands that there is potential for such impacts to be greater in the Australian context.<sup>34</sup>

3.23 The committee is also concerned that the risk assessment in relation to the Asian honey bee incursion did not include an assessment of the impact on Australia's biodiversity. The committee considers that an understanding of the biodiversity consequences for any incursion should be understood and considered early in the development of a response strategy.

### **Recommendation 1**

**3.24 The committee recommends that the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) and relevant scientific organisations, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), be consulted as soon as an incursion is reported to provide advice on the biodiversity consequences of the establishment and spread of the pest.**

**3.25 The committee further recommends that a written response from SEWPaC and the relevant scientific organisations is made to the relevant agencies as soon as possible setting out the biodiversity consequences.**

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33 Refer to maps of spread of *Varroa* mite at Appendix 6. Source: Presentation to the Rural Affairs and Transport Committee by Dr Mark Goodwin, The Horticulture and Food Research Institute of New Zealand Ltd, June 2011.

34 The Pollination Program, *NZ expert warns agriculture to start preparing for Varroa*, Media release, 15 June 2011, [http://www.rirdc.gov.au/shadomx/apps/fms/fmsdownload.cfm?file\\_uuid=91BAB312-BE52-5823-274A-017E9D45E689&siteName=RIRDC](http://www.rirdc.gov.au/shadomx/apps/fms/fmsdownload.cfm?file_uuid=91BAB312-BE52-5823-274A-017E9D45E689&siteName=RIRDC), accessed 21 June 2011, Appendix 7.



***Funding contributions from industry***

3.26 The committee notes that the contribution from industry to the eradication effort was modest, totalling \$100 000. However, the committee notes that industry has belatedly offered a more appropriate level of financial and in-kind support, to be applied to the ongoing containment effort.

3.27 The committee notes that there remains a legitimate question as to whether the current approach to allocating the costs of a pest or disease outbreak is effective and appropriate to ensure that efforts to eradicate incursions are adequately funded and resourced. While the committee did not receive any evidence to suggest that cost factors impacted on the approach to the Asian honey bee incursion, it remains the case that the positions of NMG members, and the efforts of combat states, may ultimately be influenced by considerations of potential future costs.

**Senator the Hon. Bill Heffernan**

**Chair**

