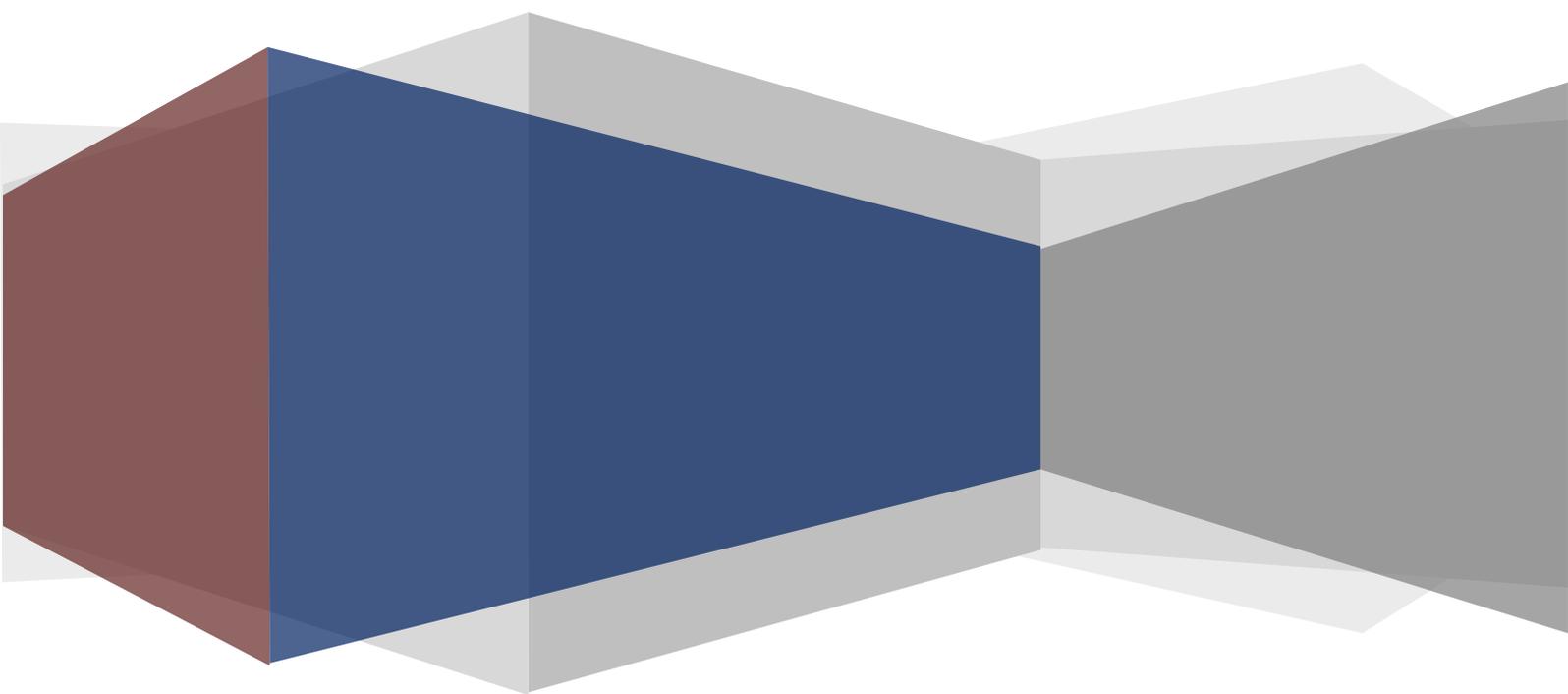


Plan for Transition to Management of the Asian Honey Bee

Version 1 – November 2011



Plan for Transition to Management of the Asian Honey Bee

1. Overview

The Asian honey bee (AHB) was first detected in Cairns, Queensland in May 2007. The Queensland Government immediately commenced an eradication program. The aim of the program was to delimit the incursion and contain it within a 50 km radius of Cairns by detecting and destroying all nests and swarms.

In April 2010, the National Management Group agreed to national cost shared funding for the Asian honey bee eradication, backdating the funding to 1 July 2009, under the provisions of Australia's formal emergency pest response arrangements. The program was nationally funded between 1 July 2009 and 31 March 2011.

In January 2011 the National Management Group agreed that eradication was not technically feasible. However, it did agree to consider whether any further action was warranted on a national scale to mitigate the potential impact of the Asian honey bee.

This plan identifies actions to transition from a state of AHB eradication to a program of management, acknowledging that the bee will continue to spread and become widespread within urban and rural areas of Australia where the environment favours its survival.

The Australian Government is investing \$2 million from July 2011 to June 2013 to progress a transition from eradication of AHB into management of the pest as it becomes more widely established in Australia. It will do this in partnership with Biosecurity Queensland and the Australian Honey Bee Industry Council (AHBIC), which will also contribute funding and undertake activities in complementary programs to adapt to life with AHB. A management committee will provide oversight of all AHB transition activities to ensure appropriate complementary integration of activities as transition progresses.

A transition to management program (T2M) is summarised in this plan. It is supported by project specific action plans. The planned activities will engage individuals, communities, local government, agriculture and environment agencies, production and service industries in developing knowledge, tools, strategies and actions to cope with the ongoing presence of AHB with a view to mitigating the social, environmental and economic impacts of the pest. Access to information, techniques and resources to facilitate this response will provide for effective ongoing management by individuals, communities, local government and industries, without government intervention.

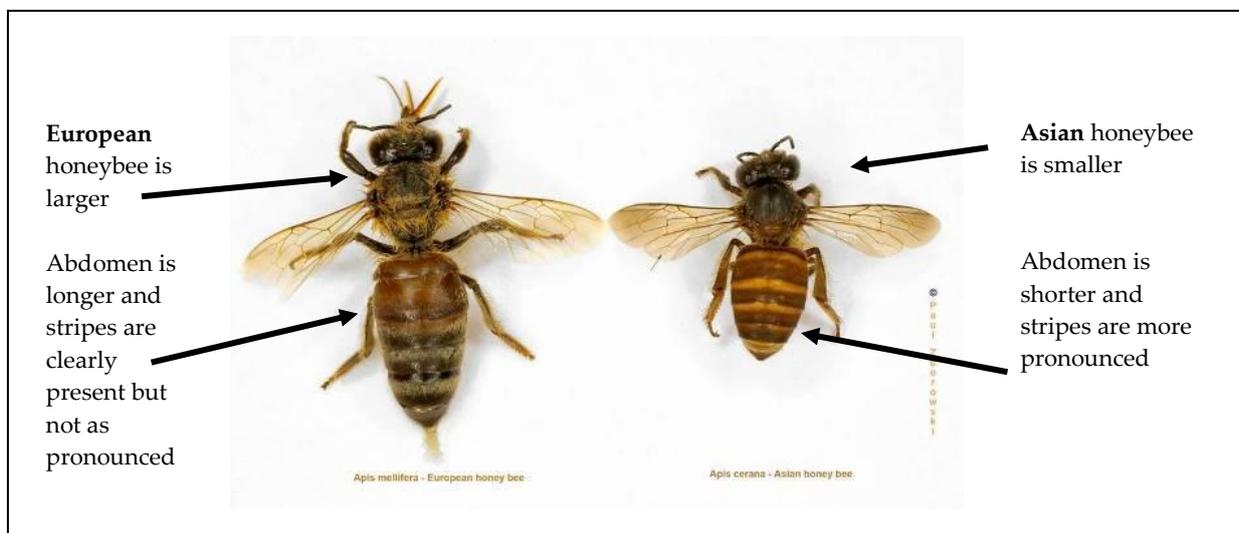
The key elements of transition to living with AHB are:

- The development of public awareness information to help community, including the apiary industry, pest eradication service industries, land owners, industries and house holders to identify AHB and its hives and inform them of actions to reduce impacts of the bee on human health and safety
- The development and adoption of tools and strategies to control AHB in a range of urban, business, rural and natural environment rural situations including development of control standards for commercial pest controllers

- The development of methods to suppress AHB within commercial European honey bee forage zones and around European honey bee hives to minimise its impact on honey production through competition for floral resources in areas where AHB is established
- The development of environmentally friendly AHB suppression methods for application in areas deemed ecologically significant and at threat from AHB infestation
- Optimising early detection of new incursions of AHB that could carry varroa mite or other pests in areas where AHB is established
- For an interim period, the measures aimed at reducing long distance spread of AHB from transport facilities and through other risk enterprises/location via transport pathways will remain in place while control measures and awareness information is developed and information is gathered on the efficacy of these measures at critical intervention points and processes. This is intended to inform the varroa action plan.

2. The Pest

The Asian honeybee (AHB) is an adaptable species of honey bee found throughout Asia, India, China, Japan, Philippines, Indonesia and Papua New Guinea. The AHB found in Cairns is from the Java Strain, a tropically adapted strain, and most likely came via ship from Papua New Guinea or Indonesian Papua. The AHB is quite similar in appearance to the European honeybee, *Apis mellifera* (EHB), although they are slightly smaller (approximately 10mm in length compared to 15mm) and have more pronounced stripes on their abdomen (Figure 1). In addition the AHB tends to fly faster and more erratically than the EHB and is less hairy.



Photograph by P. Zborowski, BQ entomologist

Figure 1: Asian honeybee versus European honeybee: a comparison

The AHB is considered a pest in Australia due to their potential impact on the honeybee industry, natural environment, public amenity and lifestyle. The AHB has the potential to

impact on honey production of EHB by competing for floral resources and robbing EHB hives. The Java strain produces very little honey and is difficult to domesticate due to the high propensity to abscond. Public nuisance and health risks are higher in AHB than EHB due to their aggressive nature, increased swarming frequency and increased propensity to establish nests in disturbed environments. [Extracted from *Expected Socio-Economic Impacts of the Establishment of Asian Honeybees in Australia*, Sarah Goswami and George Antony, Biosecurity Queensland, 2010]

3. The future state – living with AHB

Many communities within the potential habitat range of AHB will become affected by AHB as it spreads. The final distribution of the AHB in Australia is unknown, but it is likely that population densities will be higher in warmer coastal areas including the tropics and coastal semi-tropical areas.

AHB will be a public nuisance and this is likely to have the major impact upon the general community, given the higher propensity for AHB to swarm and infest buildings and public access areas. Nearly 40% of AHB nests that have been detected so far are in the built environment, with AHB nests found in a range of locations, including behind cracks in brick and plaster walls, in house roofs and eaves, in letter boxes, vehicles, restaurants, sheds and possum boxes.

AHB are very adaptable invasive specialists which readily swarm to new areas or re-establish in previously used nest sites. Their characteristics of frequent swarming and infestation of buildings are likely to lead to a greater impact on social amenity. They also have a higher nesting/hive density than feral European honey bees with an approximate 2.5 AHB nests per hectare compared to the 1 European honey bee nest per 2 hectares.

Spread from the Cairns region is either likely to be over short distances, as bees swarm to locate suitable habitat and food sources, or over long distances through the movement of nests on trucks, trains and containers. Once settled in a new area, the number of nests will increase in that area as the bees establish around suitable habitat and food sources.

Impacts on the European honey bee production sector are likely to be from competition with the European honey bee, and possible displacement of commercial European honey bees. While the potential environmental impact of AHB is unclear, its more regular swarming and migration will most likely result in a higher impact level than is observed from the EHB.

The ability to detect any new incursions of AHB, which may be carrying the varroa mite or other bee pests, will be more difficult against the background of an established population of AHB.

4. Objectives of T2M for AHB

Key investment objectives by the Australian Government for the AHB Transition to Management Program centre on developing the ability of the community, land owners, honey bee industry and commercial and hobby apiarists to identify AHB and apply

mitigating and control measures to limit its impact on human health and amenity and honey production. These measures include assisting stakeholders to understand the likely spread of AHB, the impacts on them from AHB, and empowering them to take actions to minimise these impacts, as well as facilitating the development and adoption of business practices in production and service industries to manage AHB.

Parties to the Emergency Plant Pest Response Deed (EPPRD) will need to identify and implement strategies to optimise the early detection of any new incursions of AHB, since new incursions may carry bee mites or viruses that are not known to be present in Australia. Strategies to increase early detection of the bee pests listed in the EPPRD, in order to optimise the feasibility of eradication should they be detected in Australia, are elements of emergency preparedness implicit in Deed provisions.

Further detail of transition projects are in [Attachment A](#).

A summary of the Australian Government's investment against the National Transitional Strategy is as follows:

4.1 Limiting impact on urban communities (Project 1)

A national approach to coordination of public awareness information will help land owners and householders to identify AHB and its nests and swarms, and inform them of actions to reduce impacts of the bee on human health and safety. A Community Engagement Coordinator will be recruited to oversee the adaptation of existing information sites and sources into a networked portal arrangement that use contemporary social media functionality, with more traditional means of information exchange, as a means of both sending and receiving information on AHB. This development will be supported by engagement with all impacted sectors to ensure information is valid, useful and meets stakeholder needs.

The Commonwealth will invest \$150,000 per year for two years, to ensure an informed community and industry is able to identify AHB and their nests and swarms, and take actions to reduce AHB impact on human health and amenity, and honey production.

4.2 Control measures for AHB (Project 2)

Further development and adoption of tools and strategies is needed to control AHB in a range of urban, business and rural situations including development of control standards for commercial pest controllers for national application through the national pest controller network. Pest control measures must be safe and effective in a range of situations, including in homes, commercial premises, within commercial European honey bee forage areas, and in the natural environment.

Existing management tools will be integrated into effective control strategies that include placing traps or baits at the right places and at the right times to allow AHB nests to be found and destroyed. New control techniques will be investigated and their integration into management strategies will be developed. This includes a research element to identify and test alternative attractants and poisons.

Scientific advice to Biosecurity Queensland will be provided by a Scientific Advisory Group, which will include appropriate expertise from the European honey bee industry.

The Commonwealth will invest \$350,000 per year, for two years, to develop safe and effective AHB control measures that are available and approved for use to reduce impacts of AHB on community, honey production and the natural environment.

4.3 Limiting impact on honey production (Project 3)

The development and implementation of AHB management tools and strategies to reduce the impact of AHB on honey production by European honey bees in areas where AHB is established is another key objective. This will include development and implementation of methods to suppress AHB within commercial European honey bee forage zones and around European honey bee hives to minimise AHB impact on honey production.

An understanding of the biology and behaviour of both AHB and the European honey bee may assist in targeting control measures to differentially control AHB while minimising adverse impacts on the European honey bee. Management strategies will take these differences into account as control measures developed in Project 2 of the T2M program are integrated into effective control programs.

The Commonwealth will invest \$205,000 in the first year, and \$175,000 in the second year to help bee keepers, in areas where AHB is established, to protect and maintain commercial honey yields and quality.

4.4 Limiting impact on natural environments (Project 4)

The development and application of environmentally friendly AHB suppression methods for use in areas deemed ecologically significant and at threat from AHB infestation is needed. This project will utilise the outcomes of Project 2, which will develop and refine control measures and knowledge from Project 3, which will deploy control measures to protect honey production, as the basis for adapting and efficacy testing traps, lures and strategies for use within the natural environment taking into account available food sources, bee biology, seasonality and climate. Indigenous communities and environment organisations will be engaged in this work to assist in identifying ecologically significant sites and to assist in refining deployment strategies.

The Commonwealth will invest \$50,000 in the first year, \$20,000 in the second year for this adaptive research to ensure that tools are available and strategies for implementation are in place to mitigate the impact of AHB in ecologically significant areas.

4.5 Optimising early detection of new AHB incursions (Project 5)

When the AHB becomes established across Northern Australia, the ability to detect new incursions, and any bee pests that they may be carrying, will be more difficult. Strategies to optimise early detection of new incursions of AHB that may be carrying emergency bee pests against a background of an established AHB population, albeit one that is free from exotic mites and viruses, are needed.

These strategies will investigate means of establishing bee free areas around high risk ports and/or establishing effective early detection trapping grids, as well as systematic checking of AHB populations for emergency pests. Analyses of the efficacy of existing detection methods and operational options for their use to best detect any new incursions will be undertaken. The Australian and Queensland Governments will seek to integrate operations focussed on new AHB incursions through existing programs of the Northern Australian Quarantine Strategy, and “Top Watch”.

The Commonwealth will invest \$200,000 in the first year and \$100,000 in the second year to develop and implement strategies to assist to identify new incursions of AHB, and to develop tests to determine the presence or absence of emergency bee pests, in accordance with provisions of the EPPRD.

4.6 Critical intervention to limit long distance spread (Project 6)

For an interim period, measures to reduce long distance spread of AHB from transport facilities and other risk pathways will remain in place while awareness information and control measures in Projects 1 and 2 are developed. Information on the efficacy of these measures at critical intervention points will be collected and analysed to inform the preparedness arrangements for bee EPPs.

Amongst the information to be collected will be data on the efficacy and outcomes, costs and compliance with existing regulation and guidelines for movement and control of vectors and risk material including those applied to transport facilities, for an interim period and collect information on their efficacy, cost, compliance etc.

This information will be used to conduct a pathway analysis to better understand likely pathways and the potential for spread through these pathways in the long distance spread of AHB, with a primary focus on effective strategies to minimise long distance spread through transport vectors. Interventions and intervention points will be reviewed and tested over one year, with results used to inform any revision of preparedness arrangements for bee EPPs in the second year.

The Commonwealth will invest \$200,000 in the first year and \$50,000 in the second year of this project to deliver this outcome.

5. Program Management and Governance

The program will be delivered by Biosecurity Queensland under the oversight of a management group consisting of senior representatives of each of the funding bodies – DAFF, Biosecurity Queensland and AHBIC. One nominated officer from each body will constitute the management group, which will oversee program establishment, monitor its delivery and consider any triggers arising that necessitate a review of the program. The management group will be chaired by DAFF.

Plant Health Australia will nominate an observer to the management group in recognition of its role as contract manager. PHA will not participate in the decision-making process of the management group.

Biosecurity Queensland will report to the management group on operational and financial progress in accordance with scheduled program reviews, as well as any reviews that are triggered in the course of the program as a result of unforeseen circumstances.

5.1 Review schedule

Scheduled reviews of the T2M Program by the management group will take place every two (2) months during the first year, then quarterly during the second year. These reviews will focus on ensuring that progress towards delivery of each project against its objectives is on target.

The frequency of review during the first year will assist in further refinement of the National Principles for T2M.

5.2 Program review triggers

Unforeseen circumstances may occur during the delivery of the program that indicates the need for an unscheduled review to assess whether the program remains on track to deliver its outcomes. The following program review triggers have been identified as indicators that program success is at risk:

- i Significant deviation from agreed milestones such as early achievement, unanticipated delay, or non-achievement
- ii Significant change in pest impacts including any changes in the efficacy of treatment indicating the need to change the planned approach or strategy
- iii Emergence of substantial new knowledge that impacts the project and/or program objectives
- iv Significant deviation from agreed budget including over-expenditure or savings against any program component or activity area
- v Others, including any science or technical advice that comes forward that indicates an impact on delivery of program outcomes.

In the event that one of the above or any other significant issues occurs, the management group will determine the need for a partial or full review of the program in order to deliver program objectives. The management group may consider an appropriate course of action as a result of any review including:

- i The agreed program continues without deviation
- ii The timelines or scope of one or more activities is modified
- iii The resource balance and priority of the program components are modified
- iv The program moves to an early (but orderly) closure prior to the original agreed end date.

5.3 Success indicators

The success of the program will be measured by:

- Access to information that enables ready identification of AHB to distinguish it from other common bees
- Effective management tools to limit the impact of AHB are available to industry, pest controllers and householders to minimise adverse impacts of AHB

- The availability of tools to effectively manage AHB in ecologically sensitive ecosystems
- Bee keepers in areas where AHB is established are able to maintain commercial honey yields and quality
- Strategies to detect new incursions of AHB in areas where it is established are implemented
- Interventions at locations critical to long distance spread of AHB are tested and the varroa action plan modified to accommodate any new information

6. Complementary activities

The national AHB T2M Program, to operate from July 2011 until June 2013 through the application of \$2 million of Commonwealth Government funds, will undertake activities which provided multi-jurisdictional benefits, both through immediate outcomes and those which formed the basis for longer-term benefits.

In recognition of the desire to achieve protection of social amenity and assets within Queensland, the Queensland Government plans to fund complementary activities which focus on AHB population suppression in critical areas. See [Attachment B](#).

As the principal agricultural production sector affected by the bees, AHBIC and the Federal Council of Australian Apiarists Association (FCAAA) plan to fund and facilitate the development of management strategies that will assist that industry to manage the impacts of AHB. See [Attachment C](#).

These programs will complement projects to be undertaken by the AHB T2M program, and the management group will be regularly updated on the progress and outcomes of these complementary activities. A clear separation of financial controls for all programs will be established and maintained by Biosecurity Queensland.

Attachment A

Australian Government funded projects for transition to management. A total \$2M from July 2011 to June 2013

AG Project 1	Limiting impact on urban communities
Description	<p>Further develop information to enable the community, apiary industry, land owner, house holders and pest eradication service industries to identify AHB and its hives and provide advice on AHB control measures</p> <p>Engage with these sectors to validate the information developed and scope additional information needs.</p> <p>Deliver a full suite of information resources through a wide range of social and media networking vehicles and facilitate the adoption of ongoing AHB management measures until Program completion.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Website and Facebook site established (adapted from existing sites) • Information reviewed and updated as program outcomes are delivered and information is tested • Customer journey's developed for website • Develop a comprehensive strategy to manage the cessation of government funding of transition by June 2013, underpinned by a significant engagement and communications plan
Responsibility	Community Engagement Coordinator to be appointed by Biosecurity Queensland
Outcomes	Informed community and apiary and pest controller industries are able to identify AHB and its hives and take actions to reduce the impact of the bee on human health and amenity, and honey production
Costs	\$150,000 per year for two years (GST inclusive)
Timelines	November 2011 to June 2013

AG Project 2	Developing and making available a suite of control measures for AHB
Description	<p>Further develop and refine targeted pest control measures to enable their safe, ongoing implementation within the community and by production and pest eradication service industries</p> <p>Develop information and procedures for pest controllers to apply in order to control AHB in urban situations as the basis for national application through the national pest controller network</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Desk-top review and analysis to better understand how others manage AHB • Develop integrated control strategies for different industries to minimise impacts of AHB, including identifying any off-target impacts (especially the balance between AHB and commercial European honey bee in the same environment to minimise impact on honey production) <ul style="list-style-type: none"> – Validate the efficacy of detection and destruction methods and strategies as essential elements of deploying different control methods – Determine the timing of implementing these methods and strategies to maximise the effectiveness of control methods – Determine effectiveness of bait stations, their design and attractant effectiveness – Understand AHB behaviour to better inform development of targeted control measures • Investigate alternative control techniques and attractants <ul style="list-style-type: none"> – Finalise development of remote poisoning <ul style="list-style-type: none"> ▪ Validate techniques ▪ Refine protocols to reduce risk of non-target poisoning and minimise adverse effects on environment and native fauna – Tomato dust – a potential control to be researched and validated – Nectar analysis – analysis of nectar that AHB is foraging on to identify potential attractants for use in traps – Research into pheromone use to attract and/or detect AHB in order to increase trap sensitivity
Responsibility	Research coordinated by Biosecurity Queensland with scientific advice provided by a Scientific Advisory Group (SAG)
Outcome	Safe and effective AHB control measures are available and approved for use to reduce impacts of AHB on community, honey production and the natural environment
Costs	\$350,000 per year (GST inclusive)
Timelines	July 2011 to June 2013. Sequential delivery as tools are developed and tested and deployment strategies are developed and implemented

AG Project 3.	Limiting impact on honey production
Description	<p>The development and implementation of AHB management tools and strategies to reduce the impact of AHB on honey production by European honey bees.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • AHB behaviour research is critical to identify elements of differential control of AHB and European honey bees in the context of honey production. Developing an understanding of AHB behaviour will guide development of targeted control measures through: <ul style="list-style-type: none"> – Literature review and engagement with apiarists in the Cairns area who have had experience with both honey bees – Analysis to understand what is known and not known about AHB in relation to mating, behaviour, foraging habits, weather impacts, etc. – Compare the behaviour between AHB and European honey bees to identify opportunities that support differential controls • Development of management strategies <ul style="list-style-type: none"> – Based on outcomes of Project 2, develop and test management strategies targeted at limiting impact of AHB on honey production in areas where AHB is established • Model the population dynamics and drivers of spread as they impact on the management of EHB hives • Develop technology to assist industry to mitigate AHB impacts <ul style="list-style-type: none"> – Develop PCR testing to more quickly detect the presence of AHB in trap syrup etc as indicators of the need for management of European honey bee hives • Develop approaches with the honey industry for adoption and implementation of management strategies
Responsibility	Development and testing of tools and strategies will be managed by Biosecurity Queensland with advice from the SAG, as required
Outcomes	Bee keepers in areas where AHB is established maintain honey yields and quality
Costs	\$205,000 in the first year, \$175,000 in the second year (GST inclusive)
Timelines	June 2011 to June 2013

AG Project 4.	Limiting impact on natural environments
Description	The development and application of environmentally friendly AHB suppression methods for use in areas deemed ecologically significant and at threat from AHB infestation. This may include development and efficacy testing of traps and lures

	<p>and strategies for their use within the natural environment taking into account available food sources, bee biology, seasonality and climate.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Engagement with indigenous communities and environment sectors (linked with Project 1) • Utilise tools and strategies developed for control measures (Project 2) and limiting impact on honey production (Project 3)
Responsibility	Biosecurity Queensland
Outcomes	Tools and strategies are available for implementation to mitigate the impact of AHB in ecologically significant areas
Cost	\$50,000 in first year, \$20,000 in second year (GST inclusive)
Timelines	February 2012 – June 2013

AG Project 5.	Optimising early detection of new incursions of AHB
Description	<p>When AHB becomes established across Northern Australia, the ability to detect new incursions, and any bee pests that they may be carrying, will be more difficult. Strategies will be developed to optimise early detection of new incursions against a background of an established AHB population.</p> <p>Approaches may include establishing bee free areas around high risk ports and/or establishing effective early detection trapping grids as well as systematic checking of AHB populations for emergency pests.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Conduct differential sensitivity testing to determine the comparative effectiveness of all available detection methods eg. sentinel hive strategy vs strategic sampling of surveillance traps • Determine efficacy of surveillance strategies and techniques to determine likely detection rate in bee free zones and around ports in the context of established AHB populations • Establish a strategy for laboratory analysis of AHB detections within bee free zones and around ports as an early detection strategy for any new incursions that could carry mites or viruses • Partner with the Northern Australian Quarantine Strategy (NAQS) program of DAFF to develop integrated operations focussed on early detection of new AHB incursions and any quarantine pests that they may carry
Responsibility	Biosecurity Queensland and DAFF
Outcome	Any new incursions of AHB are detected rapidly and tested to determine the presence or absence of emergency bee pests in accordance with provisions of the EPPRD
Costs	\$200,000 in first year, \$100,000 in second year (GST inclusive)
Timelines	July 2011 to June 2013

AG Project 6.	Critical intervention to limit long distance spread
Description	<p>Measures to reduce long distance spread of AHB from transport facilities and other risk pathways will remain in place while awareness information and control measures in Projects 1 and 2 are developed.</p> <p>Information on the efficacy of these measures at critical intervention points will be collected and analysed to inform the varroa action plan.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Maintain existing movement controls for an interim period and collect information on their efficacy, cost, compliance etc. • Conduct pathway analysis to better understand likely pathways and potential for spread through pathways implicated in the long distance spread of AHB with a primary focus on effective strategies to minimise long distance spread through transport vectors • Implement operations to minimise spread through those pathways, including developing bee free zones around transport hubs, ports, etc and review and revise their efficacy after one year • Work with transporter businesses in the development of monitoring systems, providing training in the recognition of AHB and what to do when AHB is suspected • Review the varroa mite management plan and revise, as appropriate
Responsibility	Biosecurity Queensland
Outcomes	<p>Critical interventions and intervention points are identified and analysed to inform the varroa action plan</p> <p>Awareness and control information is in place to support spread threat reduction strategies before significant long distance spread occurs</p> <p>AHB impact is limited as much as possible in strategic areas as elements of long distance spread intervention strategies</p>
Cost	\$200,000 in first year, \$50,000 in second year (GST inclusive)
Timelines	July 2011 to June 2013

Attachment B

Queensland Government funded projects to protect Queensland's social amenity and public assets. A total of \$600,000 over two years.

Qld Project 1.	Protecting Queensland's social amenity and public assets
Description	<p>The Queensland Government will fund AHB suppression activities to protect Far North Queensland's social amenity, tourism and assets from the adverse impacts of AHB. This will occur through a targeted program that:</p> <ul style="list-style-type: none"> • Contains infestations close to known areas • Suppress infestations in strategic areas • Destroys infestations at risk of spreading or threatening areas with high social amenity value. <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Contain AHB to the vicinity of known infested areas • Suppress AHB infestations in strategic areas • Destroy AHB infestations around edges of infested area and in areas with high social amenity value • Conduct surveillance to determine extent of known infested area <p>This project will also contribute to the Australian Government funded Projects 1, 2, 3, 4, 5 and 6.</p>
Responsibility	Biosecurity Queensland
Outcomes	Queensland's social amenity and assets are protected.
Costs	\$250,000 per year
Timelines	June 2011 to July 2013

Qld Project 2.	Improving operational efficiency and effectiveness
Description	<p>A process of continuous improvement will deliver improved operational efficiency and effectiveness. Understanding the efficacy of different surveillance techniques used in a range of landscapes will ensure Queensland's social amenity and assets are protected as efficiently as possible.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Quantify efficacy of current operational techniques • Review of efficacy of odour detection dog surveillance. With eradication no longer being the focus of the program, determine whether odour detection dog is a cost effective operational tool • Undertake spatial analysis of current AHB infestation to guide to future surveillance activities • Undertake spread analysis of current AHB infestation to guide future management strategies • Undertake technical analysis of all nests and honeycomb to guide the spread and spatial analysis <p>This project will also contribute to Australian Government funded Projects 2, 3, 4, 5 and 6.</p>
Responsibility	Biosecurity Queensland
Outcomes	Determine the efficacy of current operational techniques and operational delivery.
Costs	\$50,000 per year
Timelines	February to June 2012

Attachment C

Australian Honey Bee Industry Council (AHBIC) and Federal Council of Australian Apiarists Association (FCAAA) funded projects to protect the honey industry. A total of \$400K over 2 years.

Industry Project 1.	Provision of technical advice by the commercial honey industry
Description	<p>The honey industry and apiarists would be adversely affected by AHB establishment. Forming a scientific advisory group to guide research priorities and fund critical research helps protect the industry and enables apiarists to better manage adverse AHB impacts. The apiary industry will be a key member of the SAG recognizing their breadth of experience, operational knowledge and opinion of the usefulness of the research proposed.</p> <p><u>Actions:</u></p> <ul style="list-style-type: none"> • Funding will be provided to support delivery of actions in Australian Government Projects 2, 3, 4, 5 and 6, and Queensland Government Project 1 that have direct impact on AHB management to optimise honey production in areas where AHB is established. • A scientific advisory group will be formed to guide research priorities and funding of critical research to protect the industry and enable apiarists to better manage adverse AHB impacts.
Responsibility	Industry appointed representatives: Mr Trevor Weatherhead, President of the Queensland Beekeepers Association and Dr Dave Alden, Secretary HBRDC of RIRDC.
Outcomes	Contribute to a scientific advisory group to guide research priorities for targeted industry investment
Costs	\$200,000 over two years
Timelines	ASAP 2011 – June 2013

Industry Project 2	Apiary industry liaison to protect the honey industry
Description	<p>The honey industry and apiarists would be adversely affected by AHB establishment. Ensuring appropriate liaison between the program and the broader apiary industry will enable a shared understanding of the program’s purpose and work priorities. The liaison should influence the wider apiary industry to undertake actions in accordance with the program objectives thereby reducing the impact of AHB on their apiary activities and interests (commercial, hobbyists etc.)</p>
Responsibility	Industry appointed representatives: Mr Trevor Weatherhead, President of the Queensland Beekeepers Association and Dr Dave Alden, Secretary HBRDC of

	RIRDC.
Outcomes	It is expected that there will be increased uptake of control options and risk treatments identified through other projects
Costs	\$200,000 over 2 years
Timelines	Establishment – ASAP to June 2013