

Rural Industries Research and Development Corporation

31 January 2014

Senator Glenn Sterle Chair Rural and Regional Affairs and Transport References Committee PO Box 6100 Parliament House Canberra ACT 2600

Dear Senator Sterle,

Submission to the inquiry into the future of the beekeeping and pollination service industries in Australia

The attached document is a submission from the Rural Industries Research and Development Corporation to the Senate Standing Committees on Rural and Regional Affairs and Transport Legislation Committee inquiry into the future of the beekeeping and pollination service industries in Australia.

In addressing the inquiry's terms of reference, the submission highlights the Corporation's investment in research, development and extension activities that have been of priority to the beekeeping and pollination service industries and other stakeholders.

Should the Committee require further information regarding the submission, please contact me.

Yours sincerely

Craig Burns Managing Director



RURAL INDUSTRIES Research & Development Corporation

### RIRDC submission to the Senate inquiry Future of the beekeeping and pollination

### service industries in Australia

Terms of Reference	RIRDC Comment
a. the importance of these industries from a food security, environmental and financial point of view;	<ul> <li>The importance of the beekeeping and pollination service industries in Australia, from a food security and financial point of view, are highlighted in the following RIRDC publications.</li> <li>Honeybee RD&amp;E Plan 2012-2017 (see pages 3-4: <u>https://rirdc.infoservices.com.au/items/12-049</u>)</li> <li>Pollination Five-Year R&amp;D Plan 2009-2014 (see pages 10-11: <u>https://rirdc.infoservices.com.au/items/09-125</u>)</li> <li>Pollination Aware: the Real Value of Pollination in Australia (see <u>https://rirdc.infoservices.com.au/items/10-081</u>) published in 2010</li> </ul>
	The <i>Pollination Aware</i> report concluded that, should a pest such as Varroa mite become established in Australia, which would wipe-out wild European honeybees that currently pollinate crops, the optimal pollination of Australia's crops would require more than 480,000 hives of European honeybees. The report noted that only 100,000 commercial hives were currently available for the provision of pollination services, as the remaining 400,000 commercial hives are used for honey production.
b. current challenges facing the beekeeping industry domestically and internationally, and its future sustainability;	<ul> <li>RIRDC has extensive experience in working with the beekeeping industry, particularly the Australian Honey Bee Industry Council, to identify the current key challenges facing the industry. These challenges are highlighted in the following RIRDC publication.</li> <li>Honeybee RD&amp;E Plan 2012-2017 (see pages 5-6: https://rirdc.infoservices.com.au/items/12-049)</li> </ul>
	<ul> <li>Investment in research, development and extension activities through RIRDC's Honeybee and Pollination programs address the current challenges facing the beekeeping industry. The provision of services to secure the pollination of Australia's horticultural and agricultural crops into the future on a sustainable and profitable basis is also a key challenge facing the beekeeping industry, highlighted in the following RIRDC publication.</li> <li><i>Pollination Five-Year R&amp;D Plan 2009-2014</i> (see page 12: <a href="https://rirdc.infoservices.com.au/items/09-125">https://rirdc.infoservices.com.au/items/09-125</a>)</li> </ul>
	Income for the Honeybee Program is primarily from a statutory research and development levy

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	paid by beekeepers and funds from the Australian Government. The current program budget is \$807,000, of which approximately \$100,000 is used to fund research, development and extension activities through the Pollination Program. The remaining funds are used in the Honeybee Program. Horticulture Australia Limited (HAL) also funds the Pollination Program, with an investment by HAL of approximately \$250,000 in program projects in 2012/13.
	RIRDC's stakeholder and expert-based advisory committees make recommendations as to program investments that tackle the highest priority industry challenges. If additional funds were available to RIRDC, it would allow other priority challenges that the beekeeping and pollination service industries will face in the future to be addressed.
	An economic evaluation published in 2012 of three clusters of investments found positive returns with benefit-cost ratios ranging from 2.05 to 28.61 (see <i>Economic Evaluation of Investment in the Honeybee R&amp;D Program including the Pollination Sub-program:</i> <u>https://rirdc.infoservices.com.au/items/11-164</u> ).
c. the adequacy of the current biosecurity arrangements for imported and exported honey, apiary products, package bees and queen bees;	<ul> <li>The export of packaged and queen bees was valued at as much as \$6 million per annum prior to the closure of the US market in 2010. In 2012 RIRDC delivered to the Australian Honey Bee Industry Council and the Department of Agriculture a report, for official use only, titled <i>A Strategy to Address Concerns of Countries that Import Australian Honeybees</i>. The report provides options, focussed on the provision of scientific data, to improve market access. To deliver the highest priority data RIRDC invested in research:         <ul> <li>and published report: <i>Establishing the disease status of the Asian honeybee in the Cairns region</i> (https://rirdc.infoservices.com.au/items/13-082) ; and</li> <li>by CSIRO: <i>Upgrading knowledge on pathogens (particularly viruses) of Australian honeybees</i> (http://www.rirdc.gov.au/research-project-details/custr10_HBE/PRJ-008540) , due for completion in 2015.</li> </ul> </li> </ul>
d. Australia's food labelling requirements, and how these affect the beekeeping industry;	Recently completed RIRDC funded research investigated various properties of Australian honeys. The research noted that Division 3 of FSANZ Standard 1.2.7 allows health and nutritional claims to be made about the properties of Australian honeys through an endorsement statement by an

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	unrelated expert agency.
<ul> <li>e. the recommendations from the House Standing Committee on Primary Industries and Resources 2008 report More than Honey; the future of the Australian honey bee and pollination industries (Recommendations 1–25 are listed below) and the Rural Affairs and Transport References Committee 2011 report Science underpinning the inability to eradicate the Asian honey bee (The 2 recommendations from the final report are listed below); and</li> </ul>	RIRDC was a member of the Australian Government's expert steering group of <i>A honey bee</i> <i>industry and pollination continuity strategy should Varroa become established in Australia</i> , released in May 2011. The strategy is part of the Government's response to the <i>More Than</i> <i>Honey</i> report. RIRDC held a workshop in May 2011 at which participants agreed that Plant Health Australia was the most appropriate organisation to progress the implementation of the strategy. Plant Health Australia subsequently established the Varroa Continuity Strategy Management Committee, to which RIRDC reported progress through 2011-13 on investments in research, development and extension activities that were consistent with the actions of the Strategy.
Recommendation 1 The Committee recommends that the Australian Government provide the necessary leadership, funding and organisational resources to establish and run Pollination Australia.	RIRDC understands that Pollination Australia was established as an alliance of industry organisations representing the interests of the honeybee and honeybee pollination dependent industries. RIRDC also understands that the alliance appears to be dormant.
Recommendation 2 The Committee recommends that the Australian Government fund research and training in the provision of paid pollination services as part of its contribution to Pollination Australia.	The business plan developed for Pollination Australia also identified a mechanism and governance structure for the Pollination Program that is jointly funded by RIRDC and HAL. The Program has invested approximately \$1.6 million in research, development and extension activities consistent with the priorities of the <i>Pollination Five-Year R&amp;D Plan 2009-2014</i> ( <u>https://rirdc.infoservices.com.au/items/09-125</u> ).
Recommendation 3 The Committee recommends that the Australian Government fund research into alternative pollinators as part of its contribution to Pollination Australia.	<ul> <li>Through the Pasture Seeds Program RIRDC has funded and published the following research report about alternative pollinators.</li> <li>Native Australian Bees as Potential Pollinators of Lucerne (<u>https://rirdc.infoservices.com.au/items/12-048</u>)</li> </ul>
	RIRDC also invested through the Pasture Seeds Program in research to develop and assess leafcutter bee survival, management and reproduction in Southern Australia that would deliver an alternative pollinator for Lucerne seed production, particularly if Varroa mite became established in Australia. The research findings were presented to Lucerne Australia in 2009.

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Recommendation 4 The Committee recommends that the Australian Government alter labelling requirements for agricultural chemicals to reflect their impact on honey bees and other pollinating insects.	<ul> <li>Co-funding with the Victorian Government was provided through the Pollination Program for the following published report about the impact on honeybees of agricultural chemicals from information on labels.         <ul> <li>Honeybee Pesticide Poisoning - A risk management tool for Australian farmers and beekeepers (https://rirdc.infoservices.com.au/items/12-043)</li> </ul> </li> <li>RIRDC, through the Honeybee and Pollination Program, has co-funded with the Australian Pesticide and Veterinary Medicines Authority and Grains Research and Development Corporation in Plant Health Australia's 'Neonicotinoids research and stewardship symposium' in April 2014. The aim of the symposium is to provide a forum at which:         <ul> <li>The APVMA can provide current information with respect to the regulation and use of neonicotinoids in Australia.</li> <li>Issues surrounding the protection of insect pollinators in agricultural and horticultural landscapes, implementing pollination best practice management, research and stewardship relating to the neonicotinoids.</li> </ul> </li> </ul>
Recommendation 5 The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish guidelines for beekeeper access to public lands and leasehold lands, including national parks, with a view to securing the floral resources of the Australian honey bee industry and pollination dependent industries.	<ul> <li>stewardship relating to the neonicotinoids, the regulation of neonicotinoids, as well as overseas experiences, can be outlined and discussed.</li> <li>Related to this recommendation, RIRDC expects to invest in a research project in 2014, through the Pollination Program, to address the following research priority.</li> <li>Evaluate which types of public lands have management objectives compatible with access by managed European honeybees and those that do not have such objectives</li> </ul>
Recommendation 6 The Committee recommends that the Australian Government provide incentives for the planting and conservation of melliferous flora under Commonwealth funded revegetation projects and carbon credit schemes.	<ul> <li>Related to this recommendation, RIRDC funded and published through the Honeybee Program the following very popular book that identifies herbs, shrubs and trees that provide nectar and pollen attractive to honeybees, by climate zone and rural and urban landscapes.</li> <li>Bee Friendly: A planting guide for European honeybees and Australian native pollinators (https://rirdc.infoservices.com.au/items/12-014)</li> </ul>

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Recommendation 7	RIRDC has no comment against this term of reference.
<ul> <li>The Committee recommends that the Australian Government fund research into the impact of fire management on the Australian honey bee industry with a view to establishing honey bee industry friendly fire management practices.</li> <li>Recommendation 8</li> <li>The committee recommends that the Australian Government maintain and enhance the National Sentinel Hive Program with a view to ensuring that:</li> <li>all major ports are covered by sentinel and bait hives;</li> <li>all beekeepers are brought under the program, with priority given to those operating in the vicinity of port facilities;</li> <li>arrangements are made for an effective program of pre- border security; and</li> <li>government provides funding adequate to achieving the above objectives.</li> </ul>	<ul> <li>The Australian Government's funding of the National Sentinel Hive Program terminated in June 2013. The Program has been modified to become the National Bee Pest Surveillance Program, managed by Plant Health Australia (see <a href="http://www.planthealthaustralia.com.au/national-programs/national-bee-pest-surveillance-program">http://www.planthealthaustralia.com.au/national-programs/national-bee-pest-surveillance-program</a>). Investment has been made through the Pollination Program in the following project.</li> <li><i>National Bee Pest Surveillance Program (2013-15) and facilitator</i> (http://www.rirdc.gov.au/research-project-details/custr10_POL/PRJ-008711)</li> <li>The above project will facilitate the incorporation of outputs from the following Pollination Program investments, the reports of which have been provided to the manager of the National Bee Pest Surveillance Program, Plant Health Australia.</li> <li>Risk assessment of ports for bee pests and pest bees (<a href="http://www.rirdc.gov.au/research-project-details/custr10_HBE/PRJ-008376">http://www.rirdc.gov.au/research-project-details/custr10_HBE/PRJ-00876</a>)</li> <li>BeeForce: Improving high risk surveillance (<a href="http://www.rirdc.gov.au/research-project-details/custr10_POL/PRJ-005706">http://www.rirdc.gov.au/research-project-details/custr10_POL/PRJ-005706</a>)</li> <li>BeeForce: developing the regional model (<a href="http://www.rirdc.gov.au/research-project-details/custr10_POL/PRJ-005707">http://www.rirdc.gov.au/research-project-details/custr10_POL/PRJ-005706</a>)</li> </ul>
Recommendation 9	RIRDC has no comment against this term of reference.
The committee recommends that the Minister for Agriculture, Fisheries and Forestry request that the Australian Pesticides and Veterinary Medicines Authority fast track the pre-registration of pesticides and other chemicals necessary to combat a Varroa incursion.	

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<ul> <li>Recommendation 10</li> <li>The committee recommends that the Australian Government improve the nation's incursion response capacity by providing for: <ul> <li>Better education of those charged with border protection;</li> <li>Improved diagnostic capacity for pests and diseases;</li> <li>The establishment of national diagnostic protocols;</li> <li>The establishment of a national integrated pest and disease management protocol; and</li> <li>The establishment of a comprehensive biosecurity research program for the honey bee and pollination dependent industries.</li> </ul> </li> </ul>	<ul> <li>Related to this recommendation, investment has been made through the Pollination Program in the following publications and resources.</li> <li>The Industry Biosecurity Plan for Honey Bee Industry outlines key threats to the industry, risk mitigation plans, identification and categorisation of exotic pests and contingency plans and is available from Plant Health Australia</li> <li>Biosecurity manual for honey bee industry – reducing the risk of exotic and established pests affecting honey bees (http://www.planthealthaustralia.com.au/wp-content/uploads/2012/12/Biosecurity-Manual-for-the-Honey-Bee-Industry.pdf)</li> <li>Biosecurity online training module that provides advice on keeping honey bees healthy using industry best practice: Honey bee biosecurity module (http://www.planthealthaustralia.com.au/industries/honey-bees/)</li> <li>A Honey bee biosecurity threats brochure that describes established and exotic pests of honey bees in Australia (http://www.planthealthaustralia.com.au/wp-content/uploads/2013/03/Honey-bee-biosecurity-threats-brochure.pdf)</li> </ul>
<ul> <li>Recommendation 11</li> <li>The Committee recommends that the Minister for Agriculture, Fisheries and Forestry establish a new honey bee quarantine facility as a matter of urgency, this facility to be commissioned prior to the closure of the current facility at Eastern Creek, and that:</li> <li>This facility is integrated into a national honey bee and pollination research centre;</li> <li>This facility have a containment laboratory for research on honeybee genomics and biotechnology;</li> <li>The Minister for Agriculture, Fisheries and Forestry enter into immediate negotiations with his New South Wales counterpart to establish the new honey bee quarantine facility at the Elizabeth Macarthur Agricultural Institute, Camden, or some other suitable location.</li> </ul>	Related to this recommendation, RIRDC has invested in a project to develop <i>A test of</i> ' <i>Africanization' of imported semen</i> ( <u>http://www.rirdc.gov.au/research-project-</u> <u>details/custr10_HBE/PRJ-007774</u> ) in honey bees, which is due for completion in 2016. If successful, the test could be part of biosecurity measures to allow beekeepers to import semen more safely from countries where 'killer bees' exist.

### RIRDC submission to the Senate inquiry *Future of the beekeeping and pollination*

### service industries in Australia

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Recommendation 12	RIRDC has no comment against this term of reference.
The Committee recommends that the Minister for Agriculture, Fisheries and Forestry direct Biosecurity Australia to complete the import risk analysis for drone semen by the end of 2008.	
<b>Recommendation 13</b> The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish and fund a national endemic bee pest and diseases control program.	<ul> <li>Related to this recommendation, RIRDC is currently funding through the Honeybee Program a project being undertaken by Plant Health Australia that will:</li> <li>work towards actioning Priority Action 2 (<i>Develop an industry code of practice for bee health management</i>) and Priority Action 3 (<i>Develop an overarching national biosecurity program</i>) of the Australian Honey Bee Industry Council's National Honey Bee and Pollination Industry Biosecurity Management Strategy.</li> </ul>
Recommendation 14	RIRDC has no comment against this term of reference.
<ul> <li>The Committee recommends that the Australian</li> <li>Government, in conjunction with State and Territory</li> <li>governments, establish bee biosecurity regions based on</li> <li>natural boundaries, being:</li> <li>Eastern Australia, including New South Wales, Victoria,</li> <li>Queensland, Australian Capital Territory and South</li> <li>Australia;</li> <li>Tasmania;</li> <li>Western Australia;</li> <li>Northern Territory; and</li> <li>Kangaroo Island.</li> </ul>	
Recommendation 15 The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish a national system of registration for beekeepers, bee hives and apiary sites.	RIRDC funded through the Honeybee Program a report, completed in 2013, that investigated how to enhance biosecurity for the honeybee industry. The report concluded that "beekeepers should be registered similarly to all other livestock owners to enhance the capacity of dealing with biosecurity incursions." The report was provided to the Australian Honeybee Industry Council. The Council incorporated 'Implement a nationally consistent beekeeper registration system' as Priority Action 4 of their 2013 proposal for a <i>National Honey Bee and Pollination</i>

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	Industry Biosecurity Management Strategy.
Recommendation 16 The Committee recommends that the Australian Government commit \$50 million per annum in pursuit of biosecurity measures and research in support of the Australian honey bee industry and pollination dependent industries.	RIRDC is well positioned to manage the delivery of specific research in support of the Australian honeybee industry, were additional funding to be provided to the corporation. A large amount of RIRDC's investment in honeybee industry related research in recent years has been biosecurity related.
Recommendation 17	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government request the Australian Competition and Consumer Commission to investigate pricing practices for honey within the honey bee industry and the retail sector.	
Recommendation 18	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government request the Productivity Commission investigate the long term viability of the Australian honey bee industry in respect of industry organisation, marketing structures and the financial viability of producers and packers	
Recommendation 19	RIRDC has no comment against this term of reference.
The Committee recommends that the Department of Immigration and Citizenship look at the skilled migration program with a view to further refining opportunities for the honey bee industry and the emerging pollination industry.	
Recommendation 20	RIRDC has no comment against this term of reference.
The committee recommends that the Australian Government develop product standards for honey and other bee products with regard to food standards and chemical contamination in line with those in force in the European	

### RIRDC submission to the Senate inquiry Future of the beekeeping and pollination

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Union, and that all imported honey products are tested against this standard.	
Recommendation 21	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government develop labelling standards to more accurately reflect the place of origin and composition of honey and honey bee products.	
Recommendation 22	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government pursue the development of a uniform international standard for the testing and labelling of honey bee products and the removal of all tariffs on honey bee products.	
Recommendation 23	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government, in consultation with industry, reduce inspection charges, if possible, for queen and packaged bees to make the export of this product more cost effective to producers.	
Recommendation 24 The Committee recommends that the Australian Government establish a national centre for honey bee and pollination industry research, training and extension, funded as per Recommendation 16.	Through the Pollination Program funds were invested in an engagement process with stakeholders to ascertain whether sufficient support existed to submit an application in 2012 for the establishment of a <i>Honeybee and Pollination Cooperative Research Centre</i> . Despite enjoying strong support from important participant groups, the proposed application was ultimately unable to gain the required level of financial commitment from potential CRC members. Accordingly, development of the bid was not finalised.
Recommendation 25	RIRDC has no comment against this term of reference.
The Committee recommends that the Australian Government alter research funding arrangements to allow	

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for:	
<ul> <li>voluntary contributions to research funding to be matched by government funding; and</li> </ul>	
• a levy on pollination services to be allowed under law.	
Senate Inquiry - science underpinning the inability to eradicate the Asian honey bee	RIRDC has no comment against this term of reference.
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.	
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.	RIRDC has no comment against this term of reference.
f. any related matters.	RIRDC has no additional comments.