



# *Victorian Apiarists' Association Inc.*

FOUNDED 1892 REG No. A8347 ABN 88 895 471 810

Victoria's Peak Beekeeping Body – “For the Advancement of Apiculture”  
Publishers of *THE AUSTRALIAN BEE JOURNAL* (Monthly) since 1918

STATE PRESIDENT: Mr R. McDonald,  
STATE SECRETARY: Ms K Williams,  
RESOURCES: Mr L Briggs,

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20 October, 2011

## **SUBMISSION No. 121** **Inquiry into the Australian forestry industry**

The terms of reference of the above Inquiry were today provided to the Victorian Apiarists' Association Inc., this state's peak representative apiculture (beekeeping) industry body. The Association is also the Victorian representative body on the national peak body, the Australian Honey Bee Industry Council.

While the Inquiry is convened to investigate and report on the current and future prospects of the Australian forestry industry, two of the published terms of reference are of particular interest to the Association and its membership. The Association submits the following commentary generated by response to the said terms of reference will add a further dimension of evidence that may not otherwise have been available for consideration by the Standing Committee.

The terms of reference referred to are:

- Land use competition between the forestry and agricultural sectors
- Environmental impacts of forestry

The Association also draws attention to a previous Commonwealth Standing Committee Inquiry report of May 2008 – More than Honey, which investigated the future of the Australian honeybee and crop pollination industries. The report reflects in its recommendations among other considerations, the scale and scope of the Australian apiculture industry's interaction with the state governments in the management of public land native forests that are also utilized by other forest products industries. In particular, the report has a concern about ensuring the future economic viability of the Australian apiculture industry, recommending measures be taken by the Commonwealth and State governments to ensure the maintenance of the industry's public land floral resource security. In doing so, the report recognizes that native forest floral resource security for the apiculture industry is the principal driver of the immense food security public benefit that derives from crop pollination (effecting fertilization) services provided by a vigorous national honeybee population. The Association informs the current Inquiry that native plants of the Myrtaceae family represent the principal melliferous (nectar and pollen producing) resource base for the Australian apiculture industry, of which eucalypt species growing on public land form most of the resource base. Australian hardwood forest industries are similarly dependent on eucalypt species for resource security, sourcing product from freehold and public land.

For the information of, and consideration by the current Inquiry into the Australian forestry industry, attached is a series of documentation which the Victorian Apiarists' Association submits is directly related to the above cited terms of reference. The issues raised within the documentation are currently being worked through by state government personnel attached to the respective Ministries of Agriculture and Food Security, and Environment and Climate Change, in consultation with the Victorian Apiarists' Association Inc., and the Victorian Farmers' Federation Horticulture Commodity Group beekeepers' Section. Consultation has now reached a stage where a government sponsored steering committee and a working party has been established to review existing public land management guideline policy for apiculture, and to develop new policy addressing other issues such as accommodated within the attached documentation that includes some contemporary hardwood forestry harvesting practices and their impacts on apiculture industry floral resource security, and ecological bio diversity in general. The coincidental timing of the current Victorian initiatives with the Standing Committee forestry inquiry should mutually benefit both conversations.

The Association also informs the Inquiry that of all the authorized commercial occupiers of Victorian public land native forests, the apiculture industry operates over a greater area of country than any other user body. All public land native forest in the state where access is authorized by statute is worked from time to time by migratory beekeepers. More than 3,500 licences and permits to do so are issued or renewed annually by the Victorian Department of Sustainability and Environment, Forests and Parks Division.

Attached documentation:

Attachment 1

Report, East Gippsland Apiculture Public Land Management Discussion Forum and Field Excursion, 21 June 2010

Attachment 2

Submission, Review of Victoria's Regional Forests Agreements directed to the Forests and Parks Division, Victorian Department of Sustainability and Environment, 1 December 2010

Attachment 3

Letter, seeking discussion and resolution of a number of issues impacting on the operations of the apiculture (beekeeping) industry in Victoria's public lands, directed to the Victorian Ministers for Environment and Climate Change, and for Agriculture and Food Security, 6 April 2011

Attachment 4

Paper, Food security needs bee security, authored by Dr. M.J. Whitten, AM, Chairman of Directors, When Bee Foundation, April 2011

Yours faithfully,

Ms, Kerrin Williams, State Secretary, V.A.A. Inc.  
Linton Briggs, Secretary, V.A.A. Inc. Resources Committee

**Attachment 1**

**Report**

**East Gippsland Apiculture Public Land Management  
Discussion Forum and Field Excursion**

**21 June 2010**

# *Victorian Apiarists' Association Inc.*

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STATE PRESIDENT:

Mrs. E. Papworth,

STATE SECRETARY:

Ms K. Williams,

RESOURCES COMMITTEE ACTING SECRETARY:

Mr. L. Briggs,

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## **East Gippsland Apiculture Public Land Management Discussion Forum and Field Excursion**

**Monday, 21<sup>st</sup> June, 2010, Bairnsdale, Vic**

### **R E P O R T**

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#### **1. PREAMBLE**

1.1 Hosted by the Victorian Department of Sustainability and Environment (D.S.E.) Bairnsdale and the Gippsland Apiarists' Association Inc., (G.A.A.) the exercise examined management issues relating in particular to the formally scheduled 5-year review of the Gippsland Forest Apiary Plan by D.S.E. The exercise represented a first step forward in the review process. G.A.A. invited observers and participants were Ken Gell and Linton Briggs, respectively chairman and secretary of the Victorian Apiarists' Association Inc. (V.A.A.) Resources Committee. Ken and Linton are also V.A.A. accredited representatives to the statewide Apiculture in Public Land Liaison Group (A.P.L.L.G.) chaired by D.S.E.

1.2 This report, inclusive of several findings and recommendations, was developed for consideration by D.S.E. and the G.A.A., and for the information of other public and private entities interested in the management of Victoria's public land native forests. The G.A.A. has confirmed its approval of the report, its findings, and recommendations.

#### **2. BACKGROUND**

2.1 The A.P.L.L.G. is a statewide public land management entity, chaired by D.S.E., which liaises with the Victorian beekeeping industry about its utilisation of public land floral resources. A.P.L.L.G. composition incorporates D.S.E. regional management, D.S.E. Forests and Parks Division, D.P.I., V.A.A. Inc. and the Victorian Farmers' Federation Inc. beekeepers' group. An ongoing A.P.L.L.G. function has been the promotion of regional discussion forums and field excursions in the interests of promoting understanding of respective stakeholders' needs, with the objective of facilitating soundly based working relationships.

2.2 The Gippsland Forest Apiary Plan, (G.F.A.P.) is a D.S.E. management prescription designed to provide a measure of protection for floral resources on certain authorized apiary sites in the forests of Gippsland from the impacts of clear fell timber harvesting operations throughout, in particular, the region's coastal and foothill forests. Other bee sites throughout the region are provided protection from timber harvesting impacts through their accommodation within special protection zones (S.P.Z.), parks estates, or public land of other tenure.

- 2.3 The G.F.A.P. prescription was developed as a result of consultation between the Gippsland Apiarists' Association Inc. (G.A.A.) and the Department of Sustainability and Environment (D.S.E.), Bairnsdale, and implemented in 2004.
- 2.4 The scheduled five-year review of the G.F.A.P., postponed from earlier in 2009-10, was assisted on 21 June 2010 through a round table discussion and field excursion between all stakeholder representatives at the D.S.E. regional office in Bairnsdale and at Nowa Nowa. Twenty-seven stakeholders present included D.S.E. (regional public land management), D.S.E. (Forests and Parks Division), VicForests, G.A.A. members and bee site licensees, Victorian Apiarists' Association Inc. (V.A.A.) representatives and V.F.F. beekeepers' group.

### **3. ROUND TABLE FORUM**

3.1 Meeting Chair, Rob Stewart, (Bairnsdale D.S.E. regional management) commented on the value of continuing dialogue with apiarists, informing D.S.E. about apiculture industry requirements that need to be considered for reflection where possible in management policy. The forum presented an opportunity to learn more about the apiculture industry and its needs. Management of the State Forest estate has to take into account the requirements of all user stakeholders, their coexistence to be provided for with balance. The development of the G.F.A.P. was a first attempt in the state of Victoria to introduce an enabling prescription such as the G.F.A.P. to help provide that balance for the apiculture industry. VicForests timber harvesting operations were now being implemented at an increasing distance from D.S.E. public land forests management. The Department of Primary Industry (D.P.I.) now has oversight responsibility for VicForests timber harvesting operations.

3.2 G.A.A. member and licensee Ian Cane reflected on the long gestation period of the G.F.A.P.. Eighty percent of the Gippsland region honey production economy derives from the utilisation of the region's coastal mix of native species forests, producing high quality honeys of multiple floral origins. After more than 100 years of utilisation, the ecological impact footprint of commercial apiculture is virtually negligible.

A recent (2008) Commonwealth Parliamentary Inquiry into the future development of the Australian honey bee and crop pollination industries, MORE THAN HONEY, found that honeybee pollination (effecting fertilization) of agricultural and horticultural animal and human food crops maximized crop yields, contributing \$4 billion to \$6 billion annually to the Australian economy, illustrating the very important link between honey bee crop pollination and the nation's food security. Access to public land native forest systems, principally eucalypt such as occurs in the Gippsland region, provide the necessary floral resources security to maintain a viable apiculture industry and deliver the significant public benefit.

3.3 In East Gippsland, the shift away from sustainable saw log select harvesting of mixed forest species to strategic clear fell harvesting, relying on regrowth rates for future timber harvesting sustainability, brought with it particular long term floral resource security problems for the apiculture industry which needed to be addressed. This led to the development of the G.F.A.P. prescription, designed to provide for a measure of security for apiary site licensees by limiting clear fell timber harvesting operations on sites so that at any one time, 66% of the area of native forest on bee sites would remain at least 40 years of age, a nominal 120 year rotation harvesting program being applied. Implementation of the prescription was an attempt to facilitate the coexistence of apiculture and future timber harvesting in Gippsland forests, addressing a number of requirements. For example: growth rates at 40 years having matured enough for efficient beekeeping industry usage; the impact of climate change over a 120 year nominal rotation period; the retention of authentic forest species mix.

3.4 The field excursion would inspect and observe several locations where clear fell harvesting had occurred over time with some resulting implications for future industry floral resources security, including changes to species mix, erratic regeneration growth rates, and where over cutting on a particular bee site had occurred exceeding that sanctioned by the G.F.A.P. A location that had been managed by D.S.E. strategically

for saw log harvesting would also be inspected. The resulting observations and their analysis would form a precursor to consideration of the G.F.A.P. review.

3.5 Ian also informed the meeting the beekeeping industry necessarily is highly mobile in operation, Gippsland forests being utilized from time to time by apiarists residing elsewhere in the state and interstate as floral opportunities sporadically occur.

#### 4. **DISCUSSION**

4.1 The Gippsland Forest Management Plan (G.F.M.P., distinct from G.F.A.P.) has been in place since 1995. It is now under consideration by D.S.E. for review and updating. The lack of management provisions for apiculture in the plan was a drafting oversight, eventually helping to provide impetus for the development of the G.F.A.P. Alterations to existing zoning provisions in a new G.F.M.P. have been foreshadowed, providing for all authorized uses, and other values. Consultation with all stakeholders would be engaged at a time yet to be decided.

4.2 The observation was made the Victorian State Government's Timber Industry Strategy states it is committed to the sustainable management of Victoria's State Forests, complying with the Sustainable Forest Management Framework to ensure that the variety of uses and values of the state forest estate are maintained and enhanced, and the long-term productivity and values of the estate are preserved. Also observed was that D.S.E., as management regulator, is responsible for the compliance and enforcement of these requirements. In addition, D.S.E., in line with the terms of the international Montreal Agreement to which Australia is a signatory, is obligated to comply with the Agreement's provisions that require respective countries' governments to manage forest utilisation in a manner that is genuinely sustainable.

4.3 The observation was made that the Victorian beekeeping industry was not informed or consulted during the twelve months leading to the release of the draft 2009 Timber Industry Strategy, even though it is a significant forest management stakeholder operating under more than 3,300 authorized bee site annual licences and permits throughout Victoria's public land native forests. Industry remains extremely disappointed and uneasy as to how or why this occurred. In spite of Timber Industry Strategy assurances to the contrary, reserve was expressed about the sustainability of clear fell harvesting in terms of long term floral resource security, maintenance of bio diversity, and even long term timber production sustainability, given the significant reduction in saw log harvesting rotation periods of 120 years (established by the East Gippsland Regional Forest Agreement), to the proposed much shorter Timber Industry Strategy rotation periods as short as 60 years, depending on species harvested, particularly having regard to the impacts of climate change now being exerted on the landscape.

4.4 Some G.A.A. members likened such practice to quarrying a resource for short term gain which, even on bee sites that are afforded a measure of protection by the G.F.A.P., would in the long term, through erratic growth rates and loss of species mix diversity in harvested coupes, eventually reduce bee site productivity and other values.

4.5 Responding to a question about progress of the application to amend the current D.S.E. Timber Release Plan to facilitate an expansion of timber harvesting in Gippsland, Central Highlands, and North Eastern Victorian forests, the meeting was advised that some difficulties were still being worked through, and a response could still be two months or so away from resolution.

4.6 G.A.A. members advised that bee site productivity would be enhanced through a stem-thinning program being developed and implemented around G.F.A.P. bee site perimeters. D.S.E. advised that management is trying to achieve resource utilisation balance, an objective of the G.F.A.P.

4.7 Within D.S.E., a new Forests and Parks Division had been created, in the interest of bringing together the administration of State Forests and Parks into a closer working relationship. The Division would be concerned with the development of forest management regulations and policies. The Division has no issue with the right of access by beekeepers to public land native forest floral resources, and acknowledges

initiatives by the V.A.A. that seek the establishment of more bee sites in the public land estate in its endeavours to improve floral resources security. D.S.E./Parks beekeeping on public land policy 21.5PL will be the subject of early review commencing next financial year. Discussion about policy review including reference area buffer zone policy will be generated through the Apiculture on Public Land Liaison Group, regarded by the Division as an important consultative mechanism.

4.8 D.S.E. has not yet completed resolving all issues in relation to the implementation of the 2009 Timber Industry Strategy, zoning for particular purposes among them. While VicForests has responsibility for harvesting operations, D.S.E. establishes regulations and policies with which VicForests must comply, including those concerned with the sustainability of timber harvesting practices.

4.9 The issue of D.S.E. prescribed forest floor fuel reduction burning programs was discussed. At the time of writing this report D.S.E. is waiting on release of the current Bushfire Royal Commission recommendations in this regard. Already by government direction to increase significantly the area to be annually subject to fuel reduction burning programs, the recommendations may seek to elevate the protection of community assets by strategic forest floor fuel reduction. D.S.E. is in a difficult management situation. Community expectations for greater protection are high, the seasonal window of opportunity to safely conduct programs is small, and the dryness of the landscape and forest floor fuel load increases the risk of collateral damage to bee site floral resources and the biota in general. D.S.E. acknowledges that better outcomes for all forest values need to be achieved. D.S.E. is committed to consulting with the apiculture industry through the G.A.A. to try and achieve better outcomes. The observation was made the G.A.A. needs to get on the front foot in consultation with D.S.E., particularly in the off season, so that the best planning models for prescribed burning in the interest of floral resource security can be achieved.

## **5. FIELD EVALUATION and DISCUSSION**

5.1 The stakeholder group traveled to the Nowa Nowa district east of Bairnsdale to inspect and discuss issues at locations where:

- Clear fell harvesting had occurred 35 years or so ago.
- The rate of 35-year-old regrowth could be observed.
- Over cutting (clear fell) on a particular bee site by VicForests had exceeded the G.F.A.P. prescription.
- A mixed species forest precinct is being managed for saw log production and firewood collection.

The rate of regrowth observed on the coupe clear felled about 35 years ago was very poor, and will fail badly to meet the G.F.A.P. prescription expectation that 40 years old regrowth would again be mature enough to satisfactorily restore floral resources and honey production traditional potential.

### **Commentary**

The unsatisfactory rate of growth observed at this site is probably due to a number of factors – poor soil fertility, and stem density of the regrowth inhibiting the rate of growth would seem to be obvious reasons. In addition, eucalypt species proportional mix alteration was observed to have occurred, compared to neighbouring precincts, loss of red iron bark most noticeable. It was reported that variation of regrowth rates observable at other coupes is probably also associated with soil fertility variation, moisture availability, and geographic aspect. Hot burns resulting from the firing of forest harvest residues are thought to be a negative factor to successful regeneration of native species through seed bank damage. Long term monitoring by D.S.E. of coupe regeneration and reporting was considered an essential function that needs to occur, more so now because of negative climate change impacts.

5.2 Over cutting (clear fell) exceeding the G.F.A.P. prescription probably occurred because of uncertainty about the true centre of the bee site.

## **Commentary**

Again, the rate of regrowth on this site was observed to be unsatisfactory, and thinning of stem density would seem to be appropriate to promote floral resource sustainability. A project jointly engaged by D.S.E. and the G.A.A. designed to unambiguously locate and peg the centre of all bee sites would be beneficial to both management and site holders. A project such as this would also assist remedy the excessive overlapping of some bee site boundaries in some locations. This issue of adequate notification by VicForests of an intention to harvest on bee sites was also discussed, the emphasis being that consultation at times had been less than adequate.

- 5.3 Of particular interest to the group was observance of a forest precinct being managed for saw log production and fire wood collection that included thinning of stems to promote growth rates and achieve a shorter harvest rotation period than defined by the East Gippsland forest Agreement. (120 years)

## **Commentary**

Authentic species mix has been retained. Saw log harvesting (clear fell) would probably begin about 20 years from the present. Understorey species mix is very diverse and vigorous. Maturing eucalypts were of excellent form, and given the considerable height of species, growth rates appear to have been more than adequate, attributable to the lower density of stems per hectare, and availability of sufficient soil nutrition. Firewood collection in this precinct has significantly reduced forest floor fuel loads. Floral resource security of this precinct has been maintained for the time being.

## **6. FINDINGS**

- 6.1 During the evening of 21<sup>st</sup> June, a small working party representing the G.A.A. and V.A.A. assembled the following findings and recommendations for consideration by D.S.E. and the G.A.A.. The working party formed the opinion that, in response to timber harvesting in Gippsland coastal and foothill forests changing from a mainly select saw log driven enterprise to a clear fell pulp wood driven enterprise that threatened the viability of the beekeeping industry, the prototype G.F.A.P. development and implementation by D.S.E. and the G.A.A. has provided a measure of floral resource security for the industry. Subject to evaluation over time, the proposal by VicForests to harvest timber by clear fell operations from a much larger estate in Gippsland, Central Victorian Highlands and North Eastern Victoria (600,000 ha over 15 years), generates impetus for a similar prescription to be developed and implemented in these regions.
- 6.2 Given the erratic regeneration growth rates and alterations to authentic species mix, particularly the reduction of highly productive melliferous species (nectar and/or pollen producers) on coupes already harvested by clear fell operations, a strong case is established for the phasing out of clear fell operations within bee site perimeters as defined by the current G.F.A.P. prescription. Given the visual evidence beginning to emerge, the working group proposes the gradual encroachment of clear fell harvesting across bee sites over the long term will inevitably and permanently depreciate forest floral resource and other bio diversity values.
- 6.3 In the interest of assessing what regional impact significance (likely relatively minor), a prescription of this nature would have on VicForests immediate timber harvest production targets, the working group proposes there is merit for an independent study to be commissioned by D.S.E. that would generate this information. For example, according to the G.A.A., about 100 authorized bee sites overlaid with the G.F.A.P. in East Gippsland forest management areas would fall within the scope of such a study. If measured over all Gippsland bee sites over 120 years, (theoretical example: 3 cuts per bee site each of 100 ha + at 40 year intervals), the impact is even less likely to be significant, given the overall area of state forest proposed for predominantly clear fell harvesting.
- 6.4 The working group found merit in proposing that a moratorium on clear fell harvesting within G.F.A.P. prescribed bee site perimeters should be applied at least until such time as a study can be conducted and results assessed, and the outcome of the G.F.A.P. review is finalized.



6.5 The working group found merit in proposing that clear fell timber harvesting within the G.F.A.P. prescription should be replaced by a return to sustainable selective saw log harvesting, accompanied where necessary by agreed prescriptive stem thinning programs, accommodating mixed species, mixed aged naturally regenerating native forest.

The working party found a legitimate question the wider community may well ask is – *“what do we want our native state forests (ex Parks etc.) to look like in say 40, 60, 120, 240, or 360 years from now?”*

6.6 The working group found merit in proposing that a study be engaged by an independent authority to assess the long term relative values of clear fell timber production and the production of apiary products from a designated Gippsland native state forest estate over say 120 years. Terms of reference for such a study could include the following:

- Royalties/licence fees respectively receivable by D.S.E. over 120 years.
- The value of production sold in respective market places over 120 years.
- The likely condition/health of state forest floral resource diversity and other natural values after 40, 60, 120, 240 or 360 years of respective utilisation.
- External community benefits accruing after 120 years of respective utilisation.

## **7. RECOMMENDATIONS**

7.1 That a Gippsland Forest Apiary Plan (G.F.A.P.) be incorporated in the D.S.E. Gippsland Forest Management Plan, (G.F.M.P.) soon to be reviewed.

7.2 That D.S.E. Gippsland regional office continue to engage the Gippsland Apiarists' Association Inc. (G.A.A.) in consultation about incorporation of a G.F.A.P. within the G.F.M.P.

7.3 That during consultation between D.S.E. and the G.A.A. about the review of G.F.A.P. provisions, the above commentary and following recommendations be taken into account.

7.4 That for the time being, a moratorium on clear fell timber harvesting within bee site perimeters as defined by the G.F.A.P. prescription be proclaimed.

7.5 That clear fell timber harvesting operations within bee site perimeters as defined by the G.F.A.P. prescription be phased out, to be replaced by sustainable selective saw log harvesting, accompanied by agreed prescriptive stem thinning programs accommodating maintenance of mixed species of mixed ages, arboreal wildlife habitat, and natural regeneration of native forest.

7.6 As a prerequisite to proposed change to the timber harvesting prescription within bee site perimeters defined by the G.F.A.P., that D.S.E. commission a study to determine what impact the changed timber harvesting prescription cited at 7.5 would have on VicForests immediate timber production targets and enterprise productivity, for consideration. The cumulative area of maturing softwood and hardwood timber plantation resources across the state, increasingly becoming available for harvest, be factored into decision making about clear fell timber harvesting within bee site perimeters.

7.7 In the event of change from the current timber harvest prescription to select saw log harvesting within bee site perimeters defined by the G.F.A.P., that forest timber harvest residues be made available for public firewood collection or other specified purposes, regulated by D.S.E.

7.8 That a study be commissioned by D.S.E., engaging an independent authority to assess the long term relative market values of clear fell timber production and the production of apiary products from a designated East Gippsland native forest public land estate over a period of 120 years, according to terms of reference cited in commentary at 6.6 above.

7.9 That D.S.E. and the G.A.A. collaborate to unambiguously locate and peg the centre of all bee sites in the region for future timber harvest operational reference, and to help

provide remedy for the excessive overlap of some bee site prescribed perimeters throughout the region.

- 7.10 That all current and future timber harvest planning specifications for designated coupes within G.F.A.P. perimeters include a requirement that at least 30 days notice of intention to harvest be provided to authorized bee site licensees.
- 7.11 That in the interest of trying to achieve better outcomes of prescribed fuel reduction burning programs in Gippsland forests, D.S.E. and the G.A.A. collaborate in strategic planning.

Linton Briggs

Secretary,

V.A.A. Inc. Resources Committee

**Attachment 2**

**Submission**

**Review of Victoria's Regional Forests Agreements directed to the  
Forests and Parks Division,  
Victorian Department of Sustainability and Environment  
1 December 2010**

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Mr Lee Miezis,  
Director, Management and Operations  
Forests and Parks Division  
Department of Sustainability and Environment  
P.O. Box 500  
East Melbourne, Victoria, 3002

## **RE: REVIEW OF VICTORIA'S REGIONAL FOREST AGREEMENTS – DRAFT REPORT**

The Victorian Apiarists Association Inc' (VAA) acknowledges and appreciates Dr Appleford's advice the Department would be pleased to receive any comment on the Draft Report and for his undertaking to provide such comment to the Joint Victorian and Australian Steering Committee.

To provide the Steering Committee with a snap shot of how dependent the Victorian beekeeping industry is on access to native forest systems for economic viability and how vulnerable the industry is to the impacts of unsustainable forest timber harvesting practices on public land, (both matters of interest addressed during the development of RFAs in Victoria) the VAA recommends the attached report to a recent East Gippsland Apiculture in Public Land forum be furnished to the Steering Committee, drawing attention to the report's findings and recommendations.

The VAA observes that an objective of the RFA's and their implementation is to provide long-term stability for forests and the forest industries. The VAA submits the attached report establishes that for the apiculture (beekeeping) industry this long term RFA objective will not be realised in large areas of East Gippsland, North East Victoria and the Victorian Central Highlands forest estates where native forest is being subject to clear fell timber harvest operations, or will in the future, according to forward planning arrangements.

An outcome of the East Gippsland public land forum was the reinforcement of long standing industry observations that natural, authentic species mix regeneration of coupes harvested by clear fell operations is less than satisfactory to very poor in many locations. Deleterious impacts on long term resource security for all commercial stakeholders, the success of native flora and fauna reproduction, and the maintenance of bio-diversity throughout the designated clear fell timber harvest estate in the opinion of the VAA will continue, as inevitable consequences of long term clear fell timber harvesting.

Under Victorian RFA agreements, the VAA notes monitoring by public land management for impacts such as described, and remedy if necessary, are required to be actioned and subject to review. The VAA draws attention to the Victoria RFA's draft report on progress with

implementation in the Gippsland, East Gippsland, Central Highlands and North East regions, (pages 49-52) where the approach to determine sustainable timber harvesting levels through volume and area based Allocation Orders is discussed. Interestingly it is the responsibility of Vic Forests to determine the volume of timber that can be harvested from within allocated areas. Clearly, early modelling for predicting sustainable harvest levels was well wide of the mark, given the evidence emerging of unsatisfactory natural regeneration on coupes harvested by clear felling over an extended period.

Modelling by Vic Forests since the 2006-07 Great Divide wildfires to predict required sustainable harvest levels from a much larger area in eastern Victoria to provide 500,000m<sup>3</sup> of wood products per annum over 15 years needs to be subject to rigorous review, particularly so if the impacts of climate change are expected to continue and exert downward pressure on the successful regeneration of clear felled native forest. The RFA's review draft report in-part has this to say;

“The effective regeneration of harvested areas within State forest is required to maintain ecosystem sustainability and future productive capacity of the forest. Successful regeneration is required to meet the objectives of the Sustainability Charter, in particular:

- Objective 1: To maintain and conserve biodiversity in state forests, and
- Objective 2: To maintain and improve the capacity of forest ecosystems to produce wood and non wood products.

The *Code of practice for Timber Production 2007* requires all State forest areas in Victoria which have been subjected to timber harvesting to be regenerated to approximate the composition and spatial distribution of canopy species common to the coupe prior to harvesting, where they can be determined. Compliance with the code is required under the SFT Act.

Harvested stands that do not meet the required standards following the first regeneration treatment must be re-treated until that standard is achieved. *Monitoring Annual Harvesting Performance in Victoria's State Forests 2006-07* (DSE 2008b) reported that:

- 4690 hectares of forest is known to require re-treatment to achieve successful post harvest regeneration. A further 2501 hectares is predicted to require re-treatment to achieve successful regeneration making a total estimated area requiring re-treatment of 7191 ha, and
- an additional 19,000 hectares of forest is estimated to be overdue for regeneration surveys, with 63% of this area occurring in the East Gippsland FMA.

The majority of forest areas requiring re-treatment were harvested prior to 1 August 2004, and are therefore DSE's responsibility to regenerate. DSE is progressively addressing this issue. Re-treatment operations are higher risk than standard first-attempt operations due to increased browsing by herbivores. The effects of adverse growing conditions, such as frosts and desiccation, are usually amplified on re-treated coupes due to the lack of shelter from slash and overwood”

The VAA submits the above excerpt from the RFA' review draft report confirms the beekeeping industry's observations and apprehension that clear fell timber harvesting in Eastern Victorian native forests in the long term is not ecologically sustainable, even more so when considering current modelling reduces eucalypt saw log harvest rotation periods from 120 years (calculated during the initial establishment of the East Gippsland RFA) to rotations as low as 60 years for eucalypt Ash species. Further that in 2006-7 more than 7000 hectares of clear fell country was found to have not regenerated satisfactorily, requiring re-treatment and that a further 19000 hectares was overdue for regeneration survey, 63% of this area occurring in the East Gippsland RFA . The reported difficulty DSE has encountered in trying to re-treat coupes that have failed to successfully regenerate post harvest, underline the concerns the industry continues to express.

The VAA submits its interpretation of the draft report on the progress of implementation of Victoria's Regional Forest Agreements is that the report establishes strong indicators that Sustainable Charter objectives cited by the report are unlikely to be achieved – i.e.; the maintenance and conservation of biodiversity and the capacity of these native forest systems in the long term to maintain and improve production of wood and non wood products, thereby compromising Victorian

and Australia's obligations under the international Montreal Agreement to which Australia is a signatory.

The VAA acknowledges that through the progressive implementation of CAR reserves throughout the Victorian RFA's, the Victorian Government is meeting its obligations to do so. The VAA notes also that the establishment of some national parks was not always in accordance with respective RFA's, but in each case this has not lead to a deterioration in the protection of identified CAR values.

For the record, and information of the Australian and State RFA Steering Committee, the conservation of native forest systems aligns with the beekeeping industry's most fundamental need which is to maintain security of the principal component of the industry's total melliferous (nectar and pollen producing) natural resource base. Over time however, as the Victorian conserved forest estate has expanded through CAR and other reservations, it has become difficult in most cases to negotiate and maintain traditional levels of access by the beekeeping industry to these estates. RFA's should continue to accommodate apiculture as an authorised use of respective reservations including specified protection zones, as authorised and regulated by Victorian Government statutes.

The lodgement by your office of this letter and its attachment with the Victorian and Australian Government Steering Committee will be greatly appreciated.

Yours faithfully,

Linton Briggs  
Secretary, VAA Inc' Resources Committee

**Attachment 3**

**Letter**

**Seeking discussion and resolution of a number of issues impacting on the operations of the apiculture (beekeeping) industry in Victoria's public lands, directed to the Victorian Ministers for Environment and Climate Change, and for Agriculture and Food Security.**

**6 April 2011**



# *Victorian Apiarists' Association Inc.*

FOUNDED 1892 REG No. A8347 ABN 88 895 471 810

Victoria's Peak Beekeeping Body – "For the Advancement of Apiculture"  
Publishers of *THE AUSTRALIAN BEE JOURNAL* (Monthly) since 1918

STATE PRESIDENT: Mrs E Papworth,  
STATE SECRETARY: Ms K Williams,  
RESOURCES: Mr L Briggs.

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6<sup>th</sup> April, 2011

The Hon. Ryan Smith M.P.,  
Minister for Environment and Climate Change,  
Parliament House,  
Spring Street,  
Melbourne, Vic. 3002

My dear Minister,

**Re: Our letter of the 5<sup>th</sup> January, 2011, seeking discussion and resolution of a number of issues impacting on the operations of the apiculture (beekeeping) industry in Victoria's public lands.**

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Thank you for your manager of executive services Mr. Ian Mooney's response of the 14<sup>th</sup> February, advising that our letter raised issues that fall outside your Ministerial portfolio responsibilities, and as a consequence, the letter has been referred to the Minister for Agriculture, Food Security and Water, the Hon. Peter Walsh M.P. for a direct response.

At the time of writing, a copy of our letter of the 5<sup>th</sup> January was also directed to the Hon. Peter Walsh, recognizing that some of the issues raised with you involved an overlap of ministerial oversight that include the impacts of clear fell timber harvesting on long term floral resources security for the apiculture industry, as well as the wider public benefit issue of food security deriving from those agricultural and horticultural crops which depend substantially on honeybees to maximize yield.

The licencing of more than three thousand bee sites by D.S.E. and Parks Victoria throughout Victoria's public lands, and the harvesting of timber from within such authorized areas, is an example of public land forest management overlap administered by both D.S.E. and D.P.I.. It may be necessary for round table discussion to proceed, involving personnel representing both departments and the V.A.A. Inc. representing industry. A copy of this letter will be provided by the V.A.A. Inc. to the Minister for Agriculture, Food Security and Water in its approach to that department.

Our letter of the 5<sup>th</sup> January, 2011 flagged a need to discuss with you other issues of long standing concern mainly to do with the implementation and impact certain Government policies have for apiculture in public land which limit access to areas of public land floral resources, both in the reserved and conserved estates. The Association asks you, at your convenience, to receive an industry delegation to work through the issues with the objective of achieving relief for an industry disadvantaged by restrictive policy settings, their interpretation, and implementation.

Our letter of the 5<sup>th</sup> January, 2011 also foreshadowed your office would be provided with a comprehensive briefing of each issue well in advance of any consultation. Accordingly, accompanying this letter is supporting documentation for consideration.



## CCONCLUSION

The V.A.A. Inc. submits the review of policy settings and some management prescriptions hold the key to providing a way forward for the industry to achieve its dual objectives of obtaining improved access to the state's conserved and reserved public lands, and for achieving greater future floral resources security throughout the state.

An additional measure flagged last year with D.S.E. and VicForests was to explore opportunities for the authorization of new apiary sites in reserved forest opened up for the salvage of fire damaged timber in the state's eastern higher rainfall regions. While the establishment of such sites in the short term may not be very productive for apiculture, their establishment would contribute to the maintenance of long term floral resources security. Consultation on this issue will be reengaged by the industry.

Another important issue currently under discussion with D.S.E. is the question of how to better manage the increased area of forest floor fuel reduction by burning to try and reduce the adverse impacts on the industry's public land floral resources security and bio diversity values in general. Some control burns over the past two seasons have caused extensive, long term damage to flora species by burning too hot or in out of control situations, most recently in East Gippsland. The Association appreciates the round table dialogue that has been proceeding between the department and the Association. Historically the Association has understood and worked with the philosophy and need to reduce fuel loads from time to time. The increased area required to be subject to annual fuel reduction as a result of the Royal Commission recommendations now places the relevant departmental personnel and the industry in a very difficult situation in trying to achieve management targets without causing extensive collateral damage to the reproductive success of native fauna and flora species. The Association will continue to liaise with your department on this difficult but important matter.

The function of the government sponsored Apiculture in Public Land Liaison Group, (A.P.L.L.G.) regularly bringing together personnel in round table forum representing statewide regional public land management, public land policy, agriculture, and the apiculture industry, is considered by the V.A.A. Inc. to be an important proactive mechanism for dealing with and resolving issues associated with the day to day interaction between regional public land management and the operations of authorized apiculture industry members in the public lands. The A.P.L.L.G. does not, however, have any statutory authority to process for resolution matters such as those which form the substance of this approach to the Ministries of Environment and Climate Change, and Agriculture.

Yours faithfully,

E. Papworth  
President

c.c. The Hon. Ted Baillieu, M.P., Premier of Victoria  
The Hon. Peter Walsh, M.P., Minister for Agriculture, Food Security and Water  
Ms. Liz Blandamer, Victorian Farmers' Federation

## THE ISSUES AND PROPOSED RESPECTIVE HEADS OF DISCUSSION

1. Reference areas beekeeping buffer zone policy review
  - The case for review, lodged with the Minister for Environment and Climate Change, December, 2007, for consideration.
  - Government responses to date
  - Government's current position regarding the conduct of a review
  - V.A.A. Inc. objectives
  
2. Review of the D.S.E./Parks Victoria guidelines (21.5PL, 12/95, Apiculture (Beekeeping) on Public Land), and PMG-CEO1, Apiculture (Beekeeping) in Parks
  - The guidelines expressed "conservative approach" to apiculture in conserved and reserved public land, and their continuing, incremental negative impact on levels of access for apiculture purposes.
  - The Ministerial determination of 1994, providing a definition for the intent of the guidelines' "conservative approach" for apiculture in public land.
  - The V.A.A. Inc. objective to ameliorate the guidelines' "conservative approach" towards apiculture in public land.
  
3. Conserved Public Land Management Plan Development
  - A former determination for the allocation of apiary sites in each conserved (parks) estate. (a maximum number of sites eligible for occupation at any one time).
  - Abandonment of the former determination, and its impact on levels of access in most conserved estates, expressed through respective management plans.
  - Case study – development of the current Alpine Park Management Plan.
  - The V.A.A. Inc. objective to restore previous levels of available access to conserved estates.
  
4. Clear fell timber harvesting on authorized apiary sites in reserved forest.
  - V.A.A. Inc. endorsement for public land multiple use policy.
  - The D.S.E. Gippsland Forest Apiary Management Plan (G.F.A.M.P.) – a first attempt by D.S.E. and industry to provide long term public land floral resource security for the apiculture industry in Gippsland.
  - The impacts of clear fell harvesting on apiary site floral resource security – the East Gippsland D.S.E./industry forum findings and recommendations, 21 June, 2010.
  - The links between public land floral resource security for managed honeybees and the state's wider community food security.
  - The case for phasing out clear fell timber harvesting on authorized apiary sites without compromising the G.F.A.M.P..
  - The case for managing all authorized apiary sites in reserved forest statewide as special management zones, primary purposes apiculture, and where appropriate, for sustainable, selective saw log production.



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RESOURCES: Mr L Briggs,

The following documentation and briefing notes accompany the letter of 6<sup>th</sup> April, 2011 to the Hon. Ryan Smith, M.P., Minister for Environment and Climate Change which seeks consultation with the Minister to discuss and resolve issues associated with the operations of the apiculture (beekeeping) industry in Victoria's public lands, and in particular, the adverse effect Government policy in some areas continues to have on the extent of industry access to floral resources.

## **1. REFERENCE AREAS BEEKEEPING BUFFER ZONE POLICY REVIEW**

### Documentation:

- A case for the review of Victorian public land reference areas buffer zone beekeeping policy, lodged December, 2007.
- Honey Bees in Australian Conserved Forests – policy document, Australian Honey Bee Industry Council (A.H.B.I.C.).
- Parks Victoria policy, PMG-CEO1, Apiculture, (Beekeeping) in Parks.

### Notes

The A.H.B.I.C. policy document establishes the industry's case that on the evidence, the ecological impacts of honey bees managed by the migration of apiaries for short periods to periodically abundant floral resources in public land does not impact adversely on the long term reproductive success of native flora and fauna. It is therefore a practice compatible with the objects of nature conservation. Key studies performed in Victoria (1991-92, Latrobe University, Cobboboonee State Forest), and in South Australia (1990-91 University of Adelaide, Ngarkat National Park) provide substantial scientific rigor for the basis of A.H.B.I.C. policy. The case for the review of reference areas beekeeping buffer zone policy rests on A.H.B.I.C. policy for access by managed honey bees to Australian conserved public land.

The conservative management policy emphasis towards managed honey bees in conserved public land, enshrined in the Parks guidelines, has had the effect of significantly reducing access by managed honey bees over the past 16 years in both conserved and reserved public land forest estates. For example, implementation of government policy to exclude the location of managed honey bee apiary sites from within the perimeter of 2 km. Reference areas buffer zones reduces reserved (State) forest areas, otherwise cumulatively available to industry, by more than 1000 square kilometers of native forest.

## **2. REVIEW of the D.S.E./PARKS VICTORIA GUIDELINES (21.5PL, 12/95), APICULTURE (BEEKEEPING) ON PUBLIC LAND, AND PARKS POLICY GUIDELINE (PMG-CEO1, 26/6/09), APICULTURE (BEEKEEPING) IN PARKS.**

### Documentation

- Parks Policy Guideline PMG-CEO1, 25/6/09, Apiculture (Beekeeping) in Parks
- D.S.E./Parks Victoria Guidelines, 21.5PL, 12/95, Apiculture (Beekeeping) on Public Land
- The Ministerial Determination (Birrel, 1994) – Definition of "conservative approach" to beekeeping in public land.

## Notes

The conservative management policy emphasis of both guidelines towards the location of managed honey bee apiaries in conserved and reserved public land has had the effect of significantly reducing, over time, opportunities to maintain former levels of access to more Parks estates throughout the state. Attention is drawn to the Ministerial determination of 1994, sought by the V.A.A. to clarify what in effect the Government of the time meant by its conservative approach policy towards beekeeping in the state's public lands.

### **3. CONSERVED PUBLIC LAND MANAGEMENT PLAN DEVELOPMENT**

#### Documentation

- Total Apiary Sites in Parks Permitted to have Apiculture – extract from D.S.E. publication "Apiculture in Parks", Nov. 1995
- V.A.A. Inc. letter to the development of the draft Alpine National Park Management Plan, May 2010.

#### Notes

Since 1995, five parks listed in the D.S.E. publication "Apiculture in Parks" and available for apiculture are no longer listed, in the main incorporated into new or expanded parks as listed in Appendix 1, Parks Apiculture Policy (POL-CEO1 above). The new parks each provide for the location of some apiary sites within respective estates. A return to a prescription for the maximum number of sites that can be occupied at any one time would restore previous opportunities for the location of apiary sites in each park, and provide unambiguous guidance for the level of access by the apiculture industry to be taken into account during the development of each management plan.

### **4. CLEAR FELL TIMBER HARVESTING ON AUTHORIZED APIARY SITES IN RESERVED FORESTS**

#### Documentation

- East Gippsland Apiculture Public Land Management Discussion Forum and Field Excursion 21 June 2010.
- V.A.A. Inc. letter to the Director, Management and Operations, Forests and Parks Division, D.S.E., October, 2010 – Regional Forests Agreement (R.F.A.) draft report review comments

#### Notes

The East Gippsland forum report details the V.A.A. Inc. case for the phasing out of clear fell timber harvesting within apiary site perimeters, calling for a moratorium on clear fell harvesting operations on apiary sites in the meantime. The V.A.A. Inc. proposes that clear fell harvesting on apiary sites statewide be replaced by a management prescription where appropriate for sustainable saw log harvesting, in the primary interest of providing future certainty for the industry's floral resource security, which on the evidence is demonstrated to be at risk in East Gippsland through significant natural regeneration failure following clear fell harvesting.

While the certainty of floral resource security will underpin the future viability and growth of the apiculture industry, by far the greater public benefit would be served through the certainty of maintenance and growth of prosperous managed honeybee populations that increasingly are in demand to provide contracted crop pollination services (effecting fertilization) to producers of many of the human and animal food crops that require insect pollination to maximize yield.

Attention is also drawn to the V.A.A. Inc. letter to D.S.E. Forests and Parks Division observing that the 2010 R.F.A. draft report review provides sufficient evidence to confirm the apiculture industry's observations and apprehension that clear fell timber harvesting operations on apiary sites is an unsustainable operation in terms of its deleterious impacts on the apiculture industry's long term floral resources security objectives.



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6 April 2011

The Hon. Peter Walsh, M.P.,  
Minister for Agriculture, Food Security and Water,  
Parliament House,  
Spring Street,  
Melbourne, Vic. 3002

My dear Minister,

Re: **Victorian Public Lands Access for the Apiculture (beekeeping) Industry**

Our letter of the 5<sup>th</sup> January, 2011 to the Minister for Environment and Climate Change, the Hon. Ryan Smith, M.P., seeking discussion and resolution of a number of issues relating to the operations of beekeepers in the public lands was referred to your office for a direct response, as the letter raised issues which at least in part fall outside the Hon. Ryan Smith's portfolio of responsibilities. Recognizing the overlap of ministerial responsibilities, our letter was also directed to your office at the same time.

The Association has now provided the Minister for Environment and Climate Change with a detailed briefing of the issues which need consultation and resolution, particularly pertaining to government policy areas. Attached to this letter is a copy of the briefing, for your consideration.

The overlap of ministerial responsibility complicates consultation and resolution of these matters. The Association seeks the opportunity, at your convenience, to meet with both yourself and the Hon. Ryan Smith. The Association also seeks your guidance as to how most efficiently facilitate the accommodation of an Association delegation to work through the issues. Independent ministerial meetings, a combined ministerial approach, or a round table forum with all interested stakeholders providing input appear to be among options which could be considered.

The Association is encouraged by the Coalitions pre-election announcements relating to the operations of beekeepers in Victoria's public lands. The Association looks forward to consultation with you as soon as convenient to your office.

Yours faithfully,

E. Papworth,  
President, V.A.A. Inc.

c.c. The Hon. Ryan Smith, M.P. Minister for Environment and Climate Change  
Ms. Liz Blandamer, Victorian Farmers' Federation

**Attachment 4**

**Paper**

**Food Security Needs Bee Security,  
authored by Dr. M.J. Whitten, AM,  
Chairman of Directors, When Bee Foundation,  
April 2011**



# FOOD SECURITY NEEDS BEE SECURITY

## **The Asian Bee Invasion: why we should be worried**

**By Dr Max Whitten**

The European honeybee, *Apis mellifera*, was undoubtedly the most valuable insect ever introduced to Australia by humans. The European honeybee provides Australia's honey worth around \$80m pa. But this premier pollinator services crops with a combined value of over \$4b pa. The nation's food security owes much to this one insect.

The Asian bee, *Apis cerana*, although related to *A mellifera*, would rank as the most unwanted insect ever to reach our shores, arriving uninvited near Cairns in 2007. We must ensure that it is eradicated.

The Asian bee was found in a mast on a boat in dry dock at the port of Cairns in May 2007. It's not the first time this pest species came ashore. A previous incursion near Darwin was successfully eliminated.

The Cairns incident is different. The dry dock nest was not the primary invader. It was an off-shoot of a nest on shore. An undetected beachhead had already been established by the Asian Bee.

After some initial and unedifying chaos amongst State and Federal biosecurity agencies, a further 8 nests were found and destroyed in the following 12 months. Thereafter, a more serious effort was mounted, eventually leading to a task force of around 40 field workers in May 2010, designed to find and eliminate all nests of the Asian bee in a 50km zone around Cairns. By 18 February this year 352 nests of Asian bee have been found and destroyed.

In November 2010, financial restrictions caused a premature reduction of the field team back to six; and on 31 January 2011, the Commonwealth Government decided to abandon further attempts to eradicate the Asian bee and declare it endemic. Why should we worry?

Previous honeybee-related breaches of quarantine allowed chalkbrood disease to enter the country (1990); and in 2000 the Small Hive Beetle (SHB) came ashore, probably through Richmond Air Force Base. Beekeepers can cope with chalkbrood, but they are only beginning to appreciate SHB's devastating impact on both managed hives and feral colonies of the European honeybee, with enormous flow-on harm to paid and incidental pollination.

Unlike chalkbrood and SHB, the spread of Asian bee IS different. It is possible that AB will eventually lead to the elimination of all feral colonies of the European honeybee in Australia; and damage both commercial and amateur beekeeping. But there's worse.

The Asian bee is a species complex native to South and Southeast Asia. The ecological habitats it occupies are broader than European honeybee. It can survive dryer and colder climates than its European counterpart. The particular biotype of Asian bee surviving around Cairns comes from

[www.securefoodssavebees.com](http://www.securefoodssavebees.com)

Java. While it clearly thrives under tropical conditions, it would be a serious mistake to presume that this Javanese strain is only capable of surviving under tropical conditions.

The spread of Asian bee beyond Java and neighbouring islands further east into Papua (the western portion of New Guinea, previously called Irian Jaya) took place during the 1970s with the huge Indonesian transmigration program. The Asian bee entered PNG through the coastal town of Vanimo around 1987. By 1996, it had reached the eastern port of Milne Bay and populated much of the intervening parts of PNG. Its ability to colonise the colder higher altitudes of Papua and PNG demonstrates that the Asian bee was not restricted to Java by its own physiological limitations. More likely, physical barriers, such as stretches of water, had prevented its spread eastwards.

Around 2000, the Asian bee jumped from PNG to the far eastern regions of the Solomon Island, probably on a shipping vessel, and became well established there by 2003. Within five years, it had destroyed the fledgling European industry funded by Australian and New Zealand aid agencies.

The ability of Asian bee to quickly colonise new habitats was amply demonstrated by the PNG invasion. There is little doubt, as predicted by Asian bee expert, Dr Denis Anderson of CSIRO Entomology, it will quickly spread over much of Australia if left to its own devices. It will likely displace feral colonies of European honeybee. Unassisted it can travel over 100km per year. With assisted passage, its spread would be more rapid.

The Asian bee will pose a major threat to biodiversity through negative impacts on native flora and fauna. For environmentalists, this is the primary threat. It will also pose a significant problem for human health and public amenity. The jury is out in terms of the role Asian bee will have on incidental crop pollination. Indeed, in the short term, it may do as well, or even better, than European honeybees in crop and pasture pollination.

However, the insidious threat of Asian bee comes from another source. Its presence can act as a conduit for the introduction and spread of parasitic mites. The Asian bee has evolved with *Varroa* spp. Asian bees and the mites have learned to co-exist. But not so with the European honeybee; without intervention the mite will destroy a hive.

Host-switches of *Varroa* mites between the two species are not common. Throughout thousands of years of co-evolution the Asian bee has tweaked its own internal chemistry to cope with mites. However, when the majority of *Varroa* mites jump onto European honeybees that have been artificially introduced to Asia in recent human history, they fail to recognise chemistry cues essential for reproduction and survival. Consequently, these infestations are relatively harmless. However, a very few individual mites have overcome this barrier with devastating effect.

What is thought to be single female mite from a Korean population of *Varroa destructor* conquered this barrier. Its offspring soon multiplied on European honeybees in the Korean Peninsula and then, with human intervention, they showed up in Europe and, a little later, in the USA. Today they are the scourge of European honeybees in all countries, except Australia. Another female mite in Japan made the same jump but its progeny are less harmful on European bees.

In 2008, another mite species, *Varroa jacobsoni*, switched host from the Asian Bee to European honeybees. The switch occurred in PNG when previously harmless mites suddenly overcame the host barriers and began killing local European honeybees. This switch is very relevant to the Cairns incursion of Asian bee. The Cairns population is a descendent of the Asian bee in PNG.



As fate would have it, the original parent swarm of Asian bee that arrived at Cairns was free of varroa mites. However, if this incursion is allowed to spread, it would provide a population suitable for *V jacobsoni* to exploit should another swarm arrive in Australia carrying this mite. Initially, if the Asian bee is already established here, it would be almost impossible to recognise new incursions of the mite. The only way these could be detected is when mites showed up in Asian bee populations already established here. But by then, it would be too late to attempt to eradicate the mite.

Ironically, it is probable that the Varroa would not initially be able to reproduce on the European honeybee at the time of introduction; but it would quickly evolve this capacity just as it did in Korea, Japan and PNG. The combined effect of Asian bee AND a new virulent *V jacobsoni* (or possibly *Varroa destructor*, whose arrival here is considered inevitable), could spell the end of the European honeybee which has served this country so well since 1820.

We would lose the capacity to produce honey; we would lose the ability to provide paid pollination services to crops like almonds, apples, pears, canola etc. We would have to rely on the unknown incidental pollination capacity of the Asian bee to protect domestic food supply through incidental pollination services.

With Australia the only non-Asian country harbouring the Java strain of Asian bee, importing countries, like the USA and NZ, would need watertight guarantees that all sorts of exports, like cars and machinery, not remotely related to agricultural exports, are free of Asian bee. The USA has already slapped a ban on package bees and queens from southern Australia because of the localised outbreak of Asian bee in northern Queensland. Not only will this ban be maintained if Asian bee becomes endemic, similar bans could be expected on a wide range of export commodities.

In summary, if Australia allows the Asian bee to become endemic, our agriculture faces a double whammy. The Java strain of the Asian bee, incapable of domestication, and ineffectual as a honey producer but a determined robber, will have eliminated feral populations of European honeybee. Meanwhile, it will have posed a serious nuisance to managed hives of European honeybee. More importantly, the Asian bee will be acting as an incubator for virulent strains of Varroa. The European honeybee is unlikely to survive in the longer term this dual onslaught, either in managed hives or as feral colonies.

In that scenario, Australian agriculture faces a future without the European honeybee. Our food future will largely depend on the Asian bee, through incidental pollination. That's a risk we should avoid at all costs.

We really need to give our best endeavours to keeping the Asian bee out of Australia. The decision to abandon efforts to eradicate this pest from around Cairns was premature and not well informed. It should be reversed.