

Submission to the Inquiry by the Rural Affairs and Transport Reference Committee

Science Underpinning the Inability to Eradicate the Asian Honeybee

By Trevor Weatherhead

My name is Trevor Francis Weatherhead and I am putting in a written submission. I would like to thank the Committee for the opportunity to appear before it in Canberra on 24 March, 2011. As time was limited, I felt the need to further explore with the Committee some aspects of your Inquiry.

Firstly I would like to correct some information I gave on 24 March. I said that the value of crops in Australia that rely on honey bees for pollination was \$400 billion. This figure should be \$4 billion. I apologise to the Committee for my error.

I am on the Executive of the Australian Honey Bee Industry Council where I chair the Quarantine and Disease Committee. There are other positions that I hold which I did not mention on 24 March because I felt the time would be better served discussing the terms of reference for the Committee.

Other positions I hold within industry at the present time are President of the Queensland Beekeepers Association Inc and Secretary of the Australian Queen Bee Breeding Group. I have held many positions in the past including being a member of the Honey Research Council, the Honey Bee Research and Development Committee, President and Secretary of the Australian Queen Bee Breeders Association. I was on the organising Committee for the 2007 Apimondia Conference in Melbourne. Apimondia is a worldwide beekeeping organisation which holds conferences every second year in various parts of the world. I have attended conferences in Vancouver Canada, where I presented a paper and Dublin in Ireland and Melbourne where I again presented a paper.

My association with the Java genotype of the Asian bee (*Apis cerana*) goes back to the early 1990's when we were informed by Dr. Denis Anderson of CSIRO of the spread of the Asian bee through Papua New Guinea. Together with the Australian Quarantine and Inspection Service, industry developed some strategies to look at what we would do when the Asian bee arrived in Torres Strait as it did around 1993. I made several trips to Torres Strait representing industry looking at how the Northern Australian Quarantine Strategy (NAQS) was working.

Fortunately the Asian bee has been confined to the northern most islands of Saibai, Boigu and Dauan not far from Papua New Guinea. Only several kilometres separate Papua New Guinea from these islands. When they arrived, it was decided that eradication was not practical as each year when the monsoon trough came down and the winds changed from south-east to northerly, swarms of the Asian bee would again come across to these islands.

Fortunately, the Asian bee has not been able to spread further south as there is a large gap to the next island, Gabba. The NAQS program does constant monitoring in Torres Strait to make sure the Asian bee has not spread further south.

In 1998, a nest of Asian bees was found in Darwin and I spent four (4) weeks there helping out with the surveillance. Fortunately no further nests or swarms were found. Could we call this a successful eradication program?

Since that time there have been several discoveries of Asian bees at ports in Australia. Most have been in Brisbane and I was involved in the destruction of these swarms and nests. There was one in Melbourne and one at Cairns, prior to 2007, and these were also destroyed.

Looking at the terms of reference for the Committee I would make comments as follows.

(a) The science underpinning the technical assumption that *Apis cerana*, the Asian honey bee, cannot be eradicated in Australia

Thinking further about the assumptions in Dr. Paskin's paper that there were all these undetected nests of Asian bees out there, I find it hard to reconcile this statement. It says that only 20 to 30% are being found. If there were all these undetected nests out there, then there should be evidence of these nests as they need to have foraging bees out there collecting nectar and pollen to keep the nest going. This amount of foraging bees was not seen in the field so I would suggest that these figures are wrong.

At the Primary Industries Ministerial Council (PIMC) meeting on 5 November, 2010, it was decided to extend the funding for the Asian bee eradication program till 31 March, 2011 and noted that advice was to come to the National Management Committee in late November regarding the technical feasibility of eradication.

The PIMC meeting was held before the casual staff were dismissed (15 November 2010) and I would assume by the wording that it was the full eradication program that was to be funded. This did not happen.

At the 29 October, 2010 meeting of the Consultative Committee of Emergency Plant Pests (CCEPP) it was my perception that not all parties were in favour of the proposal being put forward by Dr. Evan Sergeant that it needed another six (6) months of data. I heard the comment by some attending that they had been told to not vote in favour of continuation of the program. This was despite the fact that there were presentations at this meeting by Dr. Sergeant and those involved in the eradication in Cairns.

(b) The science underpinning the assumption that the Asian Honey bee will not spread throughout Australia

When the cost sharing deed was being drawn up, the Queensland Department had some modelling done. The Department reported that the Climex modelling showed the potential for the spread of the Asian bee throughout the eastern States, South Australia and the Northern

Territory. This information was available to all participants, including DAFF, so I am at a loss to understand why DAFF still continues with the proposition that the Asian bee will only spread to Brisbane or maybe northern New South Wales.

Often modelling is conservative. In the United States of America, there was modelling carried out to see how far it was estimated the Africanised bee would spread. I am told that the original predictions have now been revised and the Africanised bee is expected to spread further north into cooler climates. So taking this into consideration and taking into consideration the evidence of Dr. Denis Anderson on 24 March, I would put it to the Committee that the Climex modelling is credible.

I have raised the issue that if DAFF continues to hold the opinion that the Asian bee will not spread further south than northern New South Wales and it does, will those affected beekeepers be entitled to compensation because of the incorrect advice given.

(c) The science relating to the impacts of the spread of the Asian honey bee on biodiversity, pollination and the European honey bee

In a letter from the Department of the Environment, Water, Heritage and the Arts dated 15 January, 2010 to the Australian Honey Bee Industry Council, it said “At this stage, there is limited evidence of environmental impact of AHB on native flora and fauna.” AHB is Asian honey bee.

At the time, our AHBIC Executive Director rang the Department and they said they had made a mistake and were going to send another letter. Another letter never came so I am not sure if they forgot or decided to stick with their opinion.

The impact on pollination services will not become evident for many years to come. It will depend on the rate of spread of the Asian bee if the eradication program is abandoned. Broad acre pollination will be the big loser and to suggest, as some have, that native bees will fill the void is, in my view, not realistic. I have no doubt that native bees will have niche pollination markets but when it comes to broad acre e.g. almonds, native bees will not fly at the lower temperatures experienced during the time of pollination. There is also the question of numbers.

As for the impact on European honey bees, we need look no further than Papua New Guinea and the Solomon Islands and see the disastrous effects on the European honey bee in those countries once the Asian bee became established.

(d) The cost benefit of eradication of the Asian honey bee

As I mentioned in my evidence on 24 March, there was a cost benefit analysis prepared but I believe that it was not published because there was not agreement by all parties.

When the categorisation was carried out it was decided to go for category 2 with an 80:20 split, being 80 Government and 20 affected parties. Industry had argued for a 90:10 split but was told that was not possible.

As I said on 24 March, I believe it should now be category 1 which is 100% Government. With myrtle rust, when eradication was being attempted, it was category 1. To me there are clear beneficiaries within the nursery industry that would benefit from eradication of myrtle rust however category 1 was determined. So using the precedence of myrtle rust, I would submit that the Asian bee eradication program should now be reclassified as category 1.

The costs borne by the public are well documented in the paper by Terry Ryan “Estimating the Potential Public Costs of the Asian Honeybee Incursion” available on the RIRDC website.

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