

30 March 2011

**Submission to the Senate Standing committees on Rural Affairs and Transport:****Inquiry into Science Underpinning the Inability to Eradicate the Asian Honeybee**

I served on the on the CCEAD and CCAHB (Consultative Committee on Asia Honey Bees) on behalf of AHBIC on the Asian Honey Bee (AHB) incursion at Cairns, not the current "Plant Industry" effort.

The Queensland Government and Beekeeping industry jointly, surveyed the Cairns area and placed movement restrictions for beekeepers with European Honey Bees. This area is known as the "Restricted Area" in which the AHB remain contained.

A programme was developed to contain or eradicate the Asian Honey Bees in the restricted area. The programme also gave attention to potential roads of expansion of the AHB outside the restricted area. The staff of 40 are trained and have become very experienced; it is also the first time such a programme has been tried against the "Asian Honey Bee" anywhere in the world.

There has been a good public response to reporting of Asian Honey Bee nests or swarms to date from the general public. It is a credit to all involved that the Asian Honey Bee is still contained within the restricted area as proclaimed.

The only negative is the announcement that funding may cease on the 31<sup>st</sup> March 2011. This date could well go down in history as being the date that we missed our last chance to eradicate the Asian Honey Bee.

Beekeeper pollinators have seen an increase in the number and area of seed crops being grown for seed that are destined for clients who are in the USA, South Africa, Argentine and Europe. There has also been a modest increase in the Australian domestic seed market.

I refer here to essential staple vegetable, pasture and oilseed crops; areas planted are increasing right across the board, as water for irrigation had been nil or in short supply for the last ten years.

Some overseas countries have established companies in Australia; also purchased both the land and water with aim to export to home base or global markets, using our European Honey Bee resource as most countries world wide have lost both European Honey Bees and native pollinators.

Australia has to maintain this last European Honey Bee haven, and to continue the eradication programme of the Asian Honey Bee at Cairns and be ready for the varroa bee mite, without the added complication that the Asian Honey Bee would pose if not contained or eradicated. AHB is a well documented vector for the mites that decimated the world's EHB population

It is essential that the Asian Honey Bee be contained if we are going to achieve the task set to double our food production by 2050 or earlier.

Global food production security is as important as climate change.

Australia needs to watch the situation carefully.

As I write, a large sector of the third world food supply channels are already under extreme stress, especially for high protein crops, and staple food items at record prices.

Australia is also currently under food stress, which also places extreme food stress on other countries if we don't export on a reliable basis, especially essential seeds, fruit, nuts and grains etc that are classed as essential.

The loss of our European Honey Bee as our major pollinator, also the pollinator of origin for most of our food chain, could result in a loss as high as 60%, and this will affect both essential human food chains and our animal food chains. There would be price increases, and the severe food shortages can initiate recession in a country, or even globally.

There is a large global dependence on our agricultural production and surpluses in the global market.

**My background:** 1959 – 1967 Tropical plantation agriculture (cocoa, coconut, oil palm).

Information sources for AHB was through Dutch author D.H.Urquhart, Imperial College of Tropical Agriculture, Deventer, Port of Spain, Trinidad.

Memory recall – AHB at the time 1959/60 was being used as pollinators in coconut plantations; the coconut plantations were also planted with rubber trees. Location of plantations – Malaya.

Comments from D.H. Urquhart: hives small – regular swarming and absconding – most hives had no bees or little population, also very aggressive towards plantation labour.

I spent 34 years prior to 1996 -with DPI NSW as Advisory Officer with a regulatory role servicing beekeeping, crop pollination and pesticides affecting beekeeping and crop pollination. Specialised in crop pollination, was involved in the Leafcutter Bee importation for lucerne seed production. This programme has not really been able to generate enough bees to be commercially viable at this stage.

1995 – Present: Now a beekeeper-pollinator who has researched his crops, pesticides and diseases. My son and I use 1600 hives of bees (European Honey Bees) to pollinate vegetable seed crops (cauliflower/onions), canola seed, kiwi fruit, seedless water melon, rock melon, sunflower seed, lucerne seed. I have been representative on Australian Honey Bee Industry Council (AHBIC), Pollination Council NCPA. Our clients are large employers, over a 12 month period many hundreds of workers have jobs as a result of crop being pollinated. There are also sole operators, and family owned.

AHB eradication is still possible at Cairns despite 4.1/2 or so years having passed since the incursion was discovered. All involved at Cairns need to be congratulated for their achievements and outcomes to date. Programme revenue is necessary to ensure that the objectives are met. Bearing in mind how long this is all taking, things have to be speeded up or the window of opportunity will be lost.

The EHB beekeeping industry is the cornerstone of Australian agriculture and Australian food security.

AHB would already be in use worldwide as managed pollinators if this bee had met the required selection criteria for this to occur. In the countries of origin it is classed as an incidental pollinator and a lot of pollination is carried out by manual human labour, not insects. The exotic food chain that supports Australia and Europe, Canada, U.S and many other countries is using the European Honey Bees to pollinate many of the crops used. (European Honey Bee is the pollinator from country of origin of most of our food chain) The EHB has also shown that it can be managed to pollinate most crops in the absence of that crop's main pollinator.

Other insect pollinators in Australia are flies, moths, plus some 1400 named different species of native bees. These insects only account for 10 – 15% of insect visitors to flowering crops, whereas European Honey Bees account for up to 80 – 90% of visitors to flowering crops. The AHB is only an incidental pollinator, not like the EHB that are dedicated pollinators responsible for 80 – 90% of visitation.

Current research at University of Western Sydney, Richmond and research in South Australia are looking at Trigona, also Blue Banded Australian native bees. It is early days in this research due to management problems to increase their numbers to be commercially used as pollinators. AHB has been shown to attack Trigona colonies, robbing honey as they will do to EHB at Cairns.

AHB is a major biosecurity threat to Australia EHB and native insect biota.

Asian Honey Bee – at this point in time is a major threat to Australian food security, particularly as a vector of many of the diseases/mites that affect EHB our major pollinator, the European Honey Bee. One can only suggest that the effect would also be seen in our native bee population – some 1400 named different species, two of which I indicated as being researched and assessed for use as potential pollinators. Amongst the 1400 Australian native bees there are also Leafcutters (megachile species) and other alkali types that could be researched to increase the pool of available pollinators. AHB could well put this possibility beyond reach.

European Honeybee - Managed pollination at present is using about 300,000 hives from a possible 460,000 – 500,000 hive Australia wide pool. There has been a need to ask the Australian Beekeepers to maintain a pool of 500,000 EHB for pollination use. The fruit and nut, vegetable seed, pasture seed, canola, sunflower etc. etc. The total pool available is around 500,000 hives to cover both pollination and honey production. The beekeeping industry in Australia, through migratory efforts are able to move their hives to cover the current pollination demand. There are problems in WA. and NT due to isolation and administration. SA, VIC, NSW and QLD seem to be able to cover most demands for pollination in the eastern states but there will be a need into the future to address the supply problems in WA and NT as the agricultural production base moves to those states which have suitable water, temperature and land availability. Australia is producing more of the world's seed requirements, especially vegetable seed, pasture seed and oil seed crops. A relaxation of our control on AHB has caused loss of our live bee exports (packages and queen bees), so essential to our overseas customers' pollination programmes using EHB pollination programmes. These countries have the Asian Honeybee on their banned list for a very good reason. Australia as yet does not have the mites but we do have AHB in the restricted area at Cairns, at this stage still contained.

It may be 4.1/2 years down the track since AHB incursion – an all out effort could well eradicate AHB from the restricted area.

My only further comment would be -

AHB public awareness programme Australia wide should be increased, aimed at both the general public; also to trigger concern from industries that will be directly impacted if AHB is allowed to establish. States and territories such as VIC , NSW, QLD, SA, WA, NT and TAS that have dependence on European Honey Bee (EHB) pollination programmes for maintenance of their food chain and livestock food chains, have most to lose, with export markets to protect. These industry players need to be advised and kept in the picture, as the AHB incursion has the potential to remove the ability to economically manage the EHB for production of honey or for use in pollination service. Remaining feral EHB hives will also be lost; other beneficial native insect biorta will also be impacted, forcing up the costs of pollination of plants that partly or wholly require pollination to set or produce an economic crop. AHB has made its home in all temperature zones that are found in Australia – so over time all states will see an AHB presence. There is no room for skeptics with AHB.

If the public support at Cairns is any indication of the public concern, not just the damage to the environment or native biorta, the public response to AHB has been well documented, also the potential problem facing our communities if AHB spreads. There is a photo gallery of AHB intrusion into the community in every aspect, documented at Cairns.

Yours faithfully,

**Warren A. Jones, H.D.A. J.P.**

Full time Pollinator, Seed production of vegetables, fruit, oilseed, pasture crops

Additional reference material:

**“More than Honey: the future of the Australian honey bee and pollination industries”** (Standing Committee on Primary Industries and Resources, May 2008). My submission, no. 52.