

AHB SAG Minutes

Meeting Three of the Asian Honey Bee Scientific Advisory Group (AHB SAG)

Face-to-Face meeting held at the Cairns DEEDI Office on Thursday 19th January 2012

Attendees: Rod Turner PHA (Chair), Sam Malfroy PHA (Secretariat), Glynn Maynard DAFF, Denis Anderson CSIRO, Simon Barry CSIRO, Doug Somerville NSW DPI, Trevor Weatherhead AHBIC, Max Whitten FCAAA, Sharon De Wet DEEDI, Boris Baer UWA, (all following attendees joined the meeting as observers at 1:30pm) Neil O'Brien DEEDI, Rick Symons DEEDI, Russell Gilmour DEEDI, Shirin Hyatt DEEDI, Corey Bell DEEDI and Glenn Docherty DEEDI.

Apologies: Nil

Item 1: Welcome by the Chair

The Chair welcomed the Members of the Asian Honey Bee Scientific Advisory Group (AHB SAG) to the meeting and stated that DEEDI staff involved in the program would be joining the meeting at 1:30pm as observers.

Item 2: Comment and discussion

AHB T2M Program: All Members strongly agreed that research projects associated with the AHB T2M program should focus on two separate components. The first should be research conducted on pests and diseases of the existing population of Asian honey bee in Cairns to determine what it is carrying and the potential transmission of these pests and diseases to European honey bees. The second should be on improved means for detection, surveillance as well as local suppression of Asian honey bee using Fipronil remote poisoning within selected areas in the Cairns region.

RIRDC Proposals: RIRDC preliminary research proposals were tabled with the Members and discussed. All Members raised the issue that although some of the research proposals could provide benefits to achieving AHB T2M objectives, not all components of the research proposals were considered appropriate to the AHB T2M program, or specifically to the Asian honey bee in Cairns (*Apis cerana* Java strain).

The Chair proposed that PHA, on behalf of the SAG, hold preliminary discussions with RIRDC to put out a formal tender for research proposals specifically related to the AHB T2M Program and *Apis cerana* Java strain. If this course of action were to be approved by the Asian Honey Bee Transition Management Group (AHB TMG), the SAG could advise on the information outlined in the tender, as well as provide scientific advice and feedback to RIRDC and the AHB TMG on which projects would be beneficial to the AHB T2M program. All Members strongly endorsed this motion.

Recommendation 1: The SAG requests that PHA discuss options with RIRDC to organise a tender process for research proposals related to specific objectives in the AHB T2M program.

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Remote Poisoning Trials: The remote poisoning trials using Fipronil were discussed extensively amongst the Members and it was agreed that this chemical could provide a useful means to test and validate suppressing the Asian honey bee in specific areas, such as transport hubs or ports. The SAG expressed that they would like to be involved in experimental design of these trials.

DEEDI stated that the Fipronil remote poisoning experimental methodology would be provided to the SAG for scientific comment and feedback so that any amendments or changes can be discussed at the next meeting.

Recommendation 2: The SAG requested that they be involved in experimental design and implementation of the Fipronil remote poisoning trial.

Recommendation 3: The SAG requests that the tomato dust experiment listed in AG Project 2 be dropped and, instead, all effort should focus on using Fipronil for remote poisoning.

Surveillance: The Members discussed the scientific validity of the surveillance currently being conducted by DEEDI, and the levels of confidence of presence or absence of the Asian honey bee in each of their surveillance techniques. It was recommended that future surveillance in the outer fringes of the Asian honey bee incursion be surveyed for presence or absence of the Asian honey bee using an improved surveillance methodology. This included incorporating sweep netting, with replicable factors such as surveillance area, time surveyed and floral source surveyed which would be useful in developing techniques for management by other jurisdictions if AHB were to spread.

It was also proposed by the SAG that it would be beneficial for potential future incursions of Asian honey bees if the DEEDI staff, with their extensive experience and expertise, record and document their methods and procedures of surveillance. Techniques that should be recorded and documented include DEEDI staff conducting bee lining, inspecting bee-eater roosts, floral sweeping, destroying a nest, as well as inspecting swarm and bait traps.

Recommendation 4: The SAG requests that DEEDI develop a more appropriate methodology to confirm absence/presence of AHB. The SAG stated that they would be happy to advise on experimental design.

Recommendation 5: The SAG requests that DEEDI video and documents various methods of surveillance that DEEDI staff are currently using. This would capitalise on their expertise for the future benefit of industry and the public.

Pollen Analysis: The issue of the nectar and pollen resources being used by the Asian honey bee was discussed amongst the SAG. All Members agreed that a pollen analysis should replace the nectar analysis as listed in AG Project 2 and that funding could also be sourced from AG Project 4 "Limiting impact on natural environments" in determining the floral resources that the Asian honey bee is foraging on.

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Recommendation 6: The SAG requests that the stored combs from detections since 2007 be used for pollen research to understand what the bee is feeding on, and breeding on, at specific times of the year. This is to replace the nectar analysis project which is outlined in AG Project 2.

All Members of the SAG agree that analysing the pollen in the stored frozen comb of Asian honey bee nests collected since 2007 could potentially provide a tool to understand what the bee is using a protein source.

Sniffer Dog: The SAG discussed whether the sniffer dog was achieving results in the AHB T2M program and if it aided in the scientific validity of the program. The Chair stated the sniffer dog and handler and kennel costs are significant. The SAG noted that while the program costs were high, they proposed that the dog be scientifically tested with appropriate methodology in high density areas, such as port and urban environments, to determine the cost effectiveness of the dog.

Sex allele and Microsatellite Research: The possibility of conducting research to identify microsatellite markers to determine the difference between the Cairns population of *Apis cerana* Java strain, to the populations in the Solomon Islands and Papua New Guinea was discussed. It was stated that preliminary research conducted by leading scientists in DEEDI has identified 20 markers that could potentially be used to test this hypothesis. The SAG when it was stated that it would only cost \$3000 to undertake preliminary trials, recommended that a preliminary research trial be conducted to see if the populations between Cairns, PNG and the Solomon's can be distinguished by these markers.

Recommendation 7: The SAG agreed that DEEDI may conduct preliminary micro-satellite work to determine any differences between the Asian honey bee Australian, Solomon Islands and Papua New Guinean populations but that this was not a high priority and based on the information that the trial would only cost \$3000.

Future meetings: It was proposed that the next meeting be a teleconference held on Wednesday the 8th of February 12:00pm (AEDST).

Summary and close of meeting: The Chair thanked all DEEDI staff involved with the SAG Cairns visit for their time and effort in organising a very enjoyable and worthwhile trip.