

SUBMISSION FOR SCIENCE UNDERPINNING THE INABILITY TO ERADICATE THE ASIAN HONEYBEE

The Science relating to the impacts of the spread of the Asian honeybee on biodiversity, pollination and the European honeybee.

- If the current incursion is not eradicated, it will be difficult to identify any further incursion of the Asian honeybee, which may be a carrier of the Varroa Mite.
- The Apis Cerana swarms profusely and generally the swarms are of lesser volume than the Apis Mellifera currently managed in Australia. This could mean that the Cerana swarms will occupy many of the small nesting holes that our current population of parrots and native birds occupy.
- Australia has supported many foreign aid programs around the world, particularly Indonesia and the Pacific Islands, to improve food productivity by the introduction of Apis Mellifera. This has been necessary because the Apis Cerana has proved to be less efficient as a pollinator of food crops than Apis Mellifera.
- This could well be the case in Australia if the Apis Cerana is to become endemic.
- Apis Cerana are very difficult to manage and their intensity to swarm prolifically makes them very difficult to manage for intended pollination.

The cost benefit of eradication of the Asian honeybee

- The Asian honeybee is a natural host to the bee mite, Varroa.
- This mite has had a serious impact on the Mellifera bee populations in all continents around the world. The consequence of this has been greater costs in apiculture husbandry and a depletion in the number of bees available for intended and incidental pollination on the production of food crops.
- Currently Australia exports queens and packaged bees to a number of countries requiring pollination services by Apis Mellifera. If this incursion is not eradicated, access to these markets could be seriously affected from the risk of Cerana genes being introduced into the importing countries.
- The Apis Cerana drones interfere with the drone columns when the Mellifera virgin queens are mating resulting in unproductive queens.
- Should international markets drop off, then many of the Queen Breeders currently providing stock to the Australian Apiculture Industry may well become unviable. This will impact on the Australian Apiculture Industry through a lack of local production of replacement queens.
- Should Apis Cerana become endemic in Australia, the production of quality Australian honey will become more difficult due to the interference of the Apis Cerana on the management of our Apis Mellifera bees. The evidence found on the Solomon Islands indicates that the managed Apis Mellifera honeybees are now almost completely depleted following the introduction of Apis Cerana.

In Summary:

This Australian Quarantine programs have prevented many pests and diseases from entering the Australian main land. This incursion of Apis Cerana, if not eradicated, has the potential to have a very serious impact on the commercial managers of Apis Mellifera and consequently the provision of intended and incidental pollination.

The Apis Cerana has the ability to prosper in many areas ranging from the highlands of New Guinea to the coastal areas and has established on Solomon Island. Under the Australian weather conditions and climate, there is no reason to doubt, with the prolific swarming tendency of these bees, that they will not prosper in the Australian environment as well.

Their impact on the queen breeding industry of Australia could be of such an extent that many of the commercial breeders will not remain viable and thus put the complete industry at risk.

Should Cerana become established in Australia and the Varroa Mite does enter our country, then the cost of control of Varroa Mite in Apis Mellifera will be greatly magnified because of the availability of cross-infection from the natural host Cerana. Apis Cerana over years of evolution has learnt to live or coexist with the parasite Varroa Mite and should it become endemic across Australia and is hosting the Mite will cross-infect the managed hives. This will place the Australian apiculturist in the most difficult position when trying to meet the requirements of the pollination service providing quality foods.

The risk of these smaller type swarms occupying smaller cavities, ie under containers, in pallets or even in the cavity of cars could be a big cost to the Australian exporter in ensuring that the bees are not present or that the products have been fumigated. The worst case scenario is that the export of some products from Australia could be seriously hindered due to the risk of these bees inadvertently being introduced into the importing country.

The biggest risk if these bees are not eradicated, is that the next incursion, which may well go unnoticed, is a carrier of the Varroa Mite. Also of concern is that other strains of bees may secure themselves on our shores which may well be the host of other mites and viruses not yet present in Australia.

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We have been professional beekeepers for almost 40 years and have been involved in preparing programs for the Apiculture Industry for the prevention of exotic incursions and working with AQIS and other Government Agencies during the period 1990 – 1998. Many of these programs were focused on the prevention of Cerana entering Australia, particularly from Papua New Guinea into Northern Queensland and developing protocols on behalf of the Industry for coastal and international shipping through the then peak body, the Federal Council of Australian Apiarist Associations.