

Adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease

**25.08.2022 To Whom it May Concern**

Thank you for the opportunity to make this submission to the Senate Enquiry.

This submission is respectfully provided for your consideration and is based in the fact that we have known of a *Varroa destructor* incursion possibility for decades, and its imminent threat since 2000 when it was identified in New Zealand.

The point I wish to address for your deliberation is -

***“a. the adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and mouth disease and varroa mite.”***

My name is Kevin Tracy. I have been in the Beekeeping Industry for over 10 years and have been involved in honey production, pollination services, and the Breeding/Production of Honey bee Queens.

Over the past several years I have been pedominately employed in education and training of Beekeepers in both the Commercial and Recreational sectors.

My knowledge and skills have given me opportunities to meet and know key stakeholders in the Beekeeping world, including Dr Doug Sommerville, Danny LeFeuve (Agrifutures), Presidents of AHBIC and State Apiarist Associations, Biosecurity Officers, and Compliance Officers.

I also have amongst my friends and colleagues Honey bee Queen Breeders/Producers and Beekeeping educators in Australia and the USA eg Susan Cobey (Internationally renowned Queen bee geneticist), Kelly O'Day (World's largest Honey bee queen breeder: Kona Queen, Hawaii), Dr Jamie Ellis (University of Florida, Honey bee Research and Extension Laboratory).

I hold the Certificate 3 in Beekeeping and a Certificate IV TAE.

I have completed a certificate in the Honey bee Biosecurity Emergency Response Training (BERT).

I have also given presentations at various Beekeeping Conferences in four States to both Commercial and Recreational beekeeper audiences.

Included is a PDF of Subjects/qualifications gained, all of which I have the qualifications and experience to teach and most of which I have taught in NSW, Qld, SA, Victoria.

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I worked for NSW DPI at Tocal Agricultural College (2018-2020) in Beekeeping Education Delivery as Lead Trainer and Traineeship Development Officer.

**Please Note -**

It is my perspective that there was an unfortunate lack of preparation for the imminent and subsequent incursion of *Varroa destructor* into NSW, Australia.

This apparent unpreparedness became evident in the way management of the incursion response lacked clarity, timely actions, and poor communications.

**Key Points -**

1. Australia has had sufficient warning, time for preparedness, and the establishment of protocols appropriate for management.
  - i) *Varroa destructor* was detected in USA in 1987, UK in 1992, and NZ in 2000
  - ii) In 2013, Queen breeder, C. Jordan made a formal request for the importation of Drone bee semen for the purpose of developing an Australian Varroa Sensitive Hygiene (VSH) Honey bee queen. (This formal request was denied).
2. The Sentinel Hive surveillance numbers were few and inspections far between
  - i. 2 hives at Port of Newcastle
  - ii. Inspections at 6 weekly intervals
  - iii. It was assumed that swarms from a container vessel would automatically/only go directly into catch boxes for detection
3. Moneys being made available post-discovery of mite incursion would have been better used to improve Biosecurity before the incursion
  - iii) Increased Surveillance hive numbers
  - iv) Increased Surveillance locations
  - v) Increased compliance/biosecurity officer numbers
  - vi) Better and more readily available/affordable education programme/s for beekeepers and horticulture in response.
4. **There has been no evidence of clear/in-place protocols for this incursion**

When I underwent BERT training for *Varroa destructor* incursion (Biosecurity Emergency Response Training), we were told that Protocols were in place and involved:

- Readily available miticide strips and sticky mats for monitoring Varroa mite
- Money was immediately available for compensation of beekeepers
- BERT personnel would be first responders

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Methodology would be to :

- Alcohol wash test
- Insert miticide strips and sticky mats
- monitor to make determinations as to numbers of mites and establishment of Zones

**My understanding, observations and concerns are primarily with reference to number 4 above.**

1. Insufficient miticide strips and sticky mats were readily available
  - i. These were not ordered from New Zealand until approximately one-week post-incursion and then took 3 days to arrive
  - ii. Permits for use were not in place for other than Biosecurity personnel
  - iii. Were there surplus miticide strips from *Apis ceranae* incursion in Townsville that might have been accessed?
  
2. Alcohol washes were only carried out on a small percentage of suspect colonies
  - i. All colonies in the apiary were then euthanised and equipment burned
  - ii. Varroa cannot live in broodless equipment so there is no need to burn hives
  - iii. Low percentage of inspections can't provide an accurate indication as to extent/numbers of pest
  
3. Beekeepers were instructed to carry out Sugar Shakes for detection
  - i. Sugar shake is far less efficacious than Alcohol Wash
  
4. The response effort appeared improvised and as a "work in progress"
  - i. BERT personnel were not contacted
  - ii. Volunteer responders were called for, and mostly recruited, from novice and amateur beekeepers with minimal experience in beekeeping and pest management
  - iii. Initial monitoring was limited to an Alcohol wash of a small percentage of an apiary.
  - iv. Alcohol washes were determined to be of limited value when strips and mats eventually became available
  - v. Burning of equipment became "optional"
  - vi. No plan included the burning option for plastic and polystyrene equipment.

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- vii. Honey, at first was not allowed to be harvested then became able to be harvested
  - viii. Travel permits have been established but are to be 'self-tested' and reported by the beekeeper
  - ix. Protocols for Queen bee shipments and production and were only provided 23/08/2022, weeks after the incursion was identified. (evidently, never considered in planning)
  - x. There was no clear plan for swarming of bees
  - xi. Response for Feral colonies has been slow
  - xii. Compensation is slow in being forthcoming
  - xiii. There is still no clarity with regards to re-establishment protocols for Red Zones
  - xiv. Beekeepers still wait to hear about plans for use of public lands for which they pay a fee
5. There is still no confirmation as to from where the Biosecurity Breach took place -
- i. From container vessel?
  - ii. Via post?
  - iii. Through smuggled bees?
  - iv. How long had it been from last inspection of Sentinal Hives at Port of Newcastle?

6. There is still no indication as to how long the Varroa mites may have already been here
- i. An episode of the ABC programme "Landline" revealed that the Varroa mite may have already been in Australia prior to the Sentinel Hive discovery
  - ii. From where did this mite originate (no genetics shared with stakeholders)?
  - iii. What generation of mite are being found?
  - iv. What numbers of mites are being found in colonies?

Based on my above points:

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I suggest that a more genuine effort with funding, personnel, education and protocols would have better served the Australian Honey bee and Pollination Industries if there had actually been the intention of a serious effort to keep this mite out of our Country.

Australia was not without plenty of warning and information.

This *Varroa destructor* incursion may not have happened, or been better contained, if there had been vigilance, protocols, and preparations in place.

There has been an overall lack of accountability to stakeholders:

Questions are left unanswered

Beekeeper compensation was determined late in the eradication with a clear lack of communication applicable to stakeholders

Beekeepers are flooded with emails that give very little hope or direction to help or work towards their future business or hobby pursuits.

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It is my hope that answers will be forthcoming, the response organisers held to account, where necessary, that preparedness and funding pre-Biosecurity breaches be put into place for future cases, whatever they may be.

Again, thank you.

I wish you all the best in your deliberations to bring better outcomes for the future of Biosecurity in Australia.

Kind regards,

Kevin Tracy