

BIOSECURITY

NEW SOUTH WALES DPI AND BIOSECURITY NEW ZEALAND BEE BIOSECURITY COLLABORATION

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Two Bee Biosecurity Officers from the New South Wales Department of Primary Industries (NSW DPI) recently visited Biosecurity New Zealand's Animal Health Laboratory in Wallaceville as part of a joint bee biosecurity initiative.

Our directorate, Diagnostic and Surveillance Services (DSS), hosted Mark Page and Rod Bourke from NSW DPI. They wanted to learn about how apiculture is safeguarded in New Zealand. Australia does not have the highly destructive mite *Varroa destructor*, and we do. It arrived in New Zealand in 2000 and has spread to hives throughout the country, but never made it to the Chathams or Stewart Island. Australia is looking to New Zealand's biosecurity experience to help them prepare.

As part of their visit, the Bee Biosecurity Officers were shown varroa-affected hives in Wairarapa, Whānganui, Rotorua and Auckland. The Bee Biosecurity officers also learnt about other challenges that face our bee industry, like the viral pathogens that are associated with varroa, the elimination of American foulbrood (which they also have) and the much higher hive densities that New Zealand has (because we have more flowers).

A reciprocal visit for some of our bee biosecurity specialists is now planned so we can learn about significant pests and pathogens that pose a biosecurity risk to New Zealand. We will learn about small hive beetle (*Aethina tumida*) trapping and how it can be incorporated into routine surveillance, and also their experience with European foulbrood (*Melissococcus plutonius*).

There are multiple bee-biosecurity initiatives within DSS:

- The Exotic Apiculture Surveillance Programme. We go out to hives at high-risk sites and look for exotic bee disease or pests, and samples are tested by our labs.
- The Bee Pathogen Programme. A three-year Operational Research Project that ran



Left to right: New South Wales Bee Biosecurity Officers and Wairarapa beekeeper Kevin Gibbs looking for varroa in a beekeeper's hive in the Wairarapa.

Left to right: Rod Bourke (NSW), Whanganui beekeeper Allan Richards and Mark Page (NSW) inspect a frame.





Left to right: Mark Page, Hayley Pragert (DSS) and Kevin Gibbs testing bees in the field for varroa.

Fogging hives with oxalic acid and mineral oil to treat for varroa.

from 2016–2019 and followed 60 apiaries through the seasons: inspecting and testing bees, and interviewing beekeepers to better understand endemic pathogen profiles.

- The Colony Loss Survey. An annual voluntary survey where beekeepers tell us what their winter-colony losses were, and the reasons they suspect their colonies died.
- The ApiWellbeing Project. A new three-year Operational Research Project that will look deeply into the viruses of New Zealand honey bees, discover the molecular epidemiology of American foulbrood in New Zealand, publish a new Bee Biosecurity manual, and provide a centralised open-access biosecurity resource for beekeepers, industry and the public.

More information on what Biosecurity New Zealand is doing to protect bees include the Apiculture Surveillance Programme, Bee Pathogen Programme and the Colony Loss Survey (see links below).

Further reading

Apiculture Surveillance Programme: <https://www.mpi.govt.nz/protection-and-response/finding-and-reporting-pests-and-diseases/surveillance-programmes/>



Bee Pathogen Programme: <https://www.mpi.govt.nz/protection-and-response/readiness/bee-pathogen-programme/>

Colony Loss Survey: <https://www.mpi.govt.nz/growing-and-harvesting/honey-and-bees/bee-colony-loss-survey/>



Dead varroa mite on sticky board. Photos courtesy of Biosecurity New Zealand.