Lotmaria passim & *Crithidia mellificia* Research - Victoria University of Wellington Masters Thesis

My project will identify the presence of the honey bee pathogens *Lotmaria passim* and *Crithidia mellificae* in honeybee hives across New Zealand. These pathogens have been recently suggested to be associated with hive losses in New Zealand, but as yet there is no scientific evidence for such effects. This project will provide a valuable first set of data and also open the door to, and direct future research into these pathogens and their effects and mitigation of their effects. Beekeepers submitting samples for this project will receive results of testing free of charge and be a part of a greater study into hive health.

How will I do this study?

1. First I will identify the infection rates of *L. passim* and *C. mellificae* across New Zealand by taking a one off "snap-shot" of 50-100 samples from hives located from Northland to Dunedin. Samples may also be tested for Nosemas.

   Beekeepers who want to take part will need to submit a sample of 100 bees from a robust hive during the week of ***21-25 November 2016***. A submission form will need to accompany the sample so that I can map the samples accurately.

2. Secondly I will require repeat samples from 10-20 hives every 4-6 weeks over the course of a year. These hives are yet to be chosen but will again be located from Northland to Dunedin and will give data on infection dynamics in hives over an entire year. Given the infection dynamics elsewhere, we expect high levels of infection in spring and winter with lower infection rates during the rest of the year. These samples will also be tested for *Nosema* species.

   Beekeepers interested in the yearlong trial will need to get in touch with me by email tammy@dnature.co.nz and I will give you a call to discuss.

Additional Information

Beekeepers please take samples by brushing approximately 100 bees into a plastic container or bag and place in the freezer overnight. Then send the frozen bees to this address:

Lotmaria Project
C/- Tammy Waters
dnature diagnostics & research Ltd
24 Island Road
Whataupoko
GISBORNE

Results will be made available by email so please include this on the submission form.

I appreciate the support of dnature diagnostics & research in completing testing and beekeepers from the East Coast and greater regions for your contribution to the research project. Currently I am applying for funding and grants to complete my research and would appreciate any support in this project.

Beekeepers Submission
One off sample of 100 bees from a robust hive 1 sample per person unless otherwise agreed
Collect 21-25 November 2016

Name: _____

Address: _____

Email: (required to receive results) _____

Hive site GPS Co-ordinates: (as accurate as possible) _____

Date of Collection: _____

Date of Freezing: _____

Date Sent: _____

Details of Hives - please be as comprehensive as you can

Varroa Treatment type/date: _____

_____

_____

_____

Queen status: (time of requeening Eg; Spring 2015) _____

_____

_____

Split date: (if from Nuc hive/swarm/split from existing hive) _____

_____

_____

_____

Please ensure bees are not part of a sugar shake or any other treatment before taking sample. Sample should be frozen as soon as possible after being taken and sent out the following day to:

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