BEE EDITORIAL

Bees are one of the powerhouses of New Zealand’s economy. They’re responsible for contributing $5 billion into the New Zealand economy and supporting one third of the food that we eat. They are also responsible for producing one of the highest valued honeys in the world – manuka.

However, bees are no different to any other living plant or creature and are therefore susceptible to viruses, bacteria and other pathogens. This affects their ability to pollinate and for honey bees, to produce honey.

dnature diagnostics & research is a specialised DNA company that has, in recent years, become involved in researching and developing diagnostic tests for these diseases directly affect the health of bees. Part of this interest evolves from the technical director, John Mackay, becoming a hobbyist beekeeper seven years ago and the lab manager, Tammy Waters, completing her Masters’ thesis on the distribution and population of parasites *Lotmaria passim* and *Crithidia mellificae*.

The team at dnature were the first to discover *Lotmaria passim* in New Zealand, using DNA diagnostics, in 2015. Since then they have expanded their suite of tests to include American Foulbrood (AFB), Nosemas (apis & ceranae) and Deformed Wing virus to name just a few. “The beauty about DNA testing”, says technical director John Mackay, “is that it’s fast, accurate and quantifiable so you can find out the level of virus or pathogen in your bees, honey or hive. When you’ve got an issue with your bees, you don’t want to be waiting weeks for a result. With DNA testing we can typically get answers to you in a few days”.

The team has developed new assays for viruses recently uncovered and is continuing to research their relevance in NZ