



THE FULL RANGE OF HONEY AND BEE PRODUCT TESTING

ABOUT HILL LABORATORIES

At Hill Laboratories we offer an extensive suite of tests to a broad range of customers in the agriculture, environmental and food & bioanalytical sectors.

For food producers we provide testing for chemical residues on a range of fruit, vegetables and other crops for; export clearance, food safety and GLP trial purposes as well as trace elements, basic composition and nutritional values.

We now offer an extensive range of analyses for honey and bee products including tests on honey/wax/propolis.



OUR CUSTOMERS TELL US THAT THE RANGE AND QUALITY OF OUR TESTS GIVE US THE EDGE, BUT IT'S THE QUALITY OF OUR CUSTOMER SERVICE THAT SETS US APART.

...SETS US APART

RANGE OF HONEY AND BEE PRODUCT TESTING

TUTIN

Tutin may be present in honey that has been produced in areas where tutu plants are established and the honeydew producing vine hoppers are also present. Bees harvest this toxic honeydew which can lead to the contamination of honey.

Recently developed in response to the new NZFSA food standard, Hills offers very cost effective testing options, including compositing of samples for added value. We use the latest technology to offer the lowest detection limit and best sensitivity for better accuracy of results.

pDCB - PARA- DICHLOROBENZENE

pDCB is a hexagonal crystalline structure primarily used in the bee keeping industry as an insect repellent against the wax codling moth. It sublimes (from a solid crystalline form directly into a gas) at room temperature and is lipophilic, so will accumulate and remain relatively stable in beeswax. It is not water soluble, so cannot be washed away. Hill Laboratories is the only lab in New Zealand to offer this test, with options for wax and propolis samples as well. We also offer a combined screen with naphthalene for all options.

FLUMETHRIN & FLUVALINATE

Flumethrin and Fluvalinate are both used globally to combat the varroa mite. These compounds are fat soluble and remain in beeswax for extended time periods. They do not often transfer into honey, however are often detected in propolis. Flumethrin and Fluvalinate are often not distributed homogeneously throughout sample matrices so representative sampling is crucial. A cost effective combined screen with low detection limits, the combined Flumethrin Fluvalinate is a very labour intensive analysis and requires extensive quality control measures.

MULTIRESIDUES

A large number of pesticide residues can be screened for in the 2 major Multiresidue tests Hill Laboratories offer. Our MultiresGC screen covers over 230 common compounds including a large number of insecticides. Our LCMSMS1 screen covers approximately 50 more, including many of the neonicotinoid family, such as imidacloprid and acetamiprid. While these neonicotinoids are primarily used against biting and sucking insects (such as aphids) there is strong anecdotal evidence to indicate they are also toxic to bees.

HEAVY METALS

Our Heavy Metal screen covers 9 elements, including Arsenic, Lead, Copper, Mercury and Zinc.

Heavy metals, in particular lead, arsenic and mercury can have severe effects on human health. Lead was previously commonly used in water pipes, paint and petrol, while arsenic occurs naturally in the environment, particularly in geothermal areas and was used to treat timber. Other arsenic based compounds were used as insecticides, though the practice has long since been discontinued. Heavy metals are generally very stable and persist in the environment for many years after use.

METHYLGLYOXAL

An indicator of the activity in Manuka honey, this is an alternative to the standard UMF test. We are also currently developing a method to analyse for DHA (dihydroxyacetone), which is the precursor to methylglyoxal activity and may indicate potential activity increases in honey after processing and storage.

HMF

Hydroxymethylfurfural is created by the thermal decomposition of sugars and can provide evidence that honey has been heated or "cooked" or otherwise adulterated with other sugars, such as sucrose or fructose, though it does occur naturally at low levels and can increase over time, even at ambient temperatures. Hill Labs uses HPLC-UV to analyse for HMF, with a detection limit of 1mg/kg.

FOR FURTHER INFORMATION

contact one of our Client Services Managers:

CHRIS BERKERS

T 07 857 0607

F 0274 786 341

E Chris.Berkers@hill-labs.co.nz

BARRY AXON

T 07 857 0609

F 027 4786 324

E Barry.Axon@hill-labs.co.nz

