packed and labelled in New Zealand. New Zealand's government has strict requirements in place to prevent honey that does not meet specific mānuka chemical and DNA markers from being marketed and exported as 'mānuka'. To read more about this, visit our government's website here: https:// www.mpi.govt.nz/food-business/ honey-bee-products-processingrequirements/manuka-honey-testing/

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BEEKEEPING

Managing risks of tutin poisoning

Food Regulation, New Zealand Food Safety (part of the Ministry for Primary Industries) in partnership with Apiculture New Zealand



Passion vine hopper adult and nymphs. Photo: Wikimedia.

WHAT IS TUTIN AND WHAT DO I NEED TO KNOW?

Tutin is a toxin found in tutu plants which requires careful management by the honey industry.

To ensure that no one gets sick, there is a food safety limit for tutin that must be met by all beekeepers who sell honey. The Australia New Zealand Food Standards Code sets the maximum level for tutin in both honey and honeycomb. The maximum level of tutin allowed is 0.7 mg/kg.

Beekeepers need to keep a record to show how they manage tutin in their honey and provide this information to anyone extracting and packing their honey as per the Food (Tutin in Honey) Standard 2016. There are five options for showing how tutin is managed, and beekeepers can choose the option most appropriate for them.

These are:

- sending samples of all honey produced to a certified laboratory for testing before selling or distributing
- harvesting honey early. Honey from supers put into hives on or after 1 July does not need testing if it's harvested no later than 31 December, which is before the main risk period
- running the hives in a low-risk geographical zone, situating hives in the bottom two-thirds of the South Island (below 42 degrees South)
- demonstrating that tutu is not significantly present within the predictable range of bee foraging
- demonstrating how they operate in a low-risk area with a targeted testing regime.

The last person to pack the honey is responsible for ensuring that one of the options in the tutin standard has been met. It is illegal for anyone to sell honey with more than 0.7 mg/kg tutin.

New Zealand Food Safety also recommends that hobbyist beekeepers (who only produce honey for their own use) ensure their honey is safe to eat by using one of these options to show how tutin is managed. Hobbyist beekeepers may be able to join with other beekeepers to get their honey tested in a composite sample, which can save on testing costs. Beekeeping clubs may be able to assist with this.

For more information, refer to the MPI food standard Food (Tutin in Honey) Standard (mpi.govt.nz) or visit www.mpi.govt.nz/managing-tutincontamination-in-honey/

Tutu plant. Photo: Duncan Lash, MPI.



TUTIN TESTING SAVINGS

ApiNZ members can access savings on tutin testing and other laboratory tests as part of their membership benefits. For more details, contact memberships@apinz.org.nz



Tutin Quiz:

What is tutin?

- **) a.** A poisonous plant
- **b.** A toxin that is present in tutu plants
- **c.** A poisonous insect

What symptom/s can be caused by tutin poisoning?

- 🔵 **a.** Dizziness and vomiting
- **b.** Delirium and excitement
- 🔵 **c.** Rapid heartbeat
- 🔵 **d.** All of the above

What is the main risk period for tutin getting into honey?

- 🔵 **a.** January to April
- 🔵 **b.** May to July
- **c.** August to October

Test your tutin risk awareness!

- What are the risk areas for tutin getting into honey?
 - 🔵 **a.** All of New Zealand
 - **b.** The North Island
 - 🔵 **c.** The South Island
 - **d.** All of the North Island and the top of the South Island

5 If you don't sell your honey and only give it to friends and family, are you legally obliged to have it tested for tutin?

- 🔵 **a.** Yes
- **b.** Yes, but not if your friends or family say you don't have to
- **c.** No, but you should follow one of the options anyway to ensure the honey you are giving is safe to eat
- **d.** No, because you ate a teaspoon and didn't get a headache

Answers: 1. b 2. d 3. a 4. d 5. c 6. b 7.f

- What is the maximum allowable level of tutin in honey?
 - 🔵 **a.** 0.07 mg per kg
 - 🔵 **b.** 0.7 mg per kg
 - 🔵 **c.** 1 mg per kg

7 How can beekeepers comply with the standard?

- **a.** Send samples of all honey produced to a certified laboratory for testing before selling or distributing
- **b.** Harvest honey early (honey from supers put into hives on or after 1 July does not need testing if harvested no later than 31 December)
- C. Demonstrate that tutu is not significantly present within a predictable range of bee foraging from the geographical location of the hives
- **d.** Run your hives in a low-risk zone (below 42 degrees latitude South)
- **e.** Demonstrate you operate in a low-risk area with a targeted testing regime
- 🔵 **f.** Any of the above