

Tutin is a very real issue for New Zealand's honey industry. Everyone needs to know about the risks from tutin, their legal obligations and where to find information. This paper is part of an education campaign launched by the Bee Products Standards Council in 2015 to raise awareness of this issue. We encourage you to check the resources available and to pass this information on to anyone who may find it useful.

## What is tutin?

- ◆ Tutin is a **neurotoxin** present in tutu bushes
- ◆ It is neurotoxic to mammals, including humans, but not to bees
- ◆ In certain circumstances it can make its way into honey
- ◆ Human ingestion of contaminated honey can cause giddiness, exhaustion, vomiting, stupor and coma. **In severe cases death is possible.**



In 2008, Tutin was responsible for poisoning **22 people**, who purchased comb honey from a Whangamata **hobbyist** beekeeper. Other cases of poisoning have also been reported.

## Tutin and honey

From **January to April**, tutin may be found in comb honey or extracted honey if three situations arise at the same time:



1. Significant concentration of **TUTU BUSHES**, a shrub that can grow up to 20 feet. Mostly found:

- ◆ Along roadsides
- ◆ On stream banks
- ◆ In regenerative native bush

2. High number of **PASSION VINE HOPPERS** that feed on tutu sap and secrete honeydew. Adults lay eggs until Autumn, so population is higher in summer



3. Presence of **HONEY BEES** that feed on honeydew, especially under hot, dry weather in the absence of more attractive food sources

## Is my honey at risk?

If you have hives in areas close to tutu bushes where passion vineoppers are prevalent your honey may be at risk. Risk areas include all of the North Island and the top of the South Island. High risk areas include **Coromandel, Eastern Bay of Plenty and Marlborough**.

For information and advice on how to mitigate the risks view the **BPSC** video [here](#) [1].



## Is there a standard?



Standard 1.4.1 and Schedule 19 of the **Australia New Zealand Food Standards Code** sets the maximum allowable level for tutin at

**0.7** MILLIGRAM OF TUTIN PER KILOGRAM  
OF BOTH HONEY AND COMB

This came into effect on **12 March 2015** and is legislated. Furthermore beekeepers are required by law to comply with rules within the **Food Standard: Tutin in Honey**. Over the page we explain how to go about this.

You can access the standard [here](#) [2].

## Who must comply?

All honey for **sale** or **export** must comply with the limits set out in the Code. **Beekeepers** and **packers** of honey must ensure that they take appropriate measures to not exceed the limit set out in the Code.

**MPI** recommends that **hobbyist** beekeepers who only produce honey for their own use follow the standard as well. **Donating** and **bartering** are forms of trade that must also comply with the standard.



Beekeepers, packers, and exporters are all **liable** for prosecution if someone is poisoned by honey.

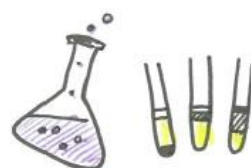
[1] <https://www.youtube.com/watch?v=ZO-Loed8pWw&feature=youtu.be>

[2] <http://www.foodsafety.govt.nz/industry/sectors/honey-bee/tutin/>

## Complying with the Standard

The Food Standard: Tutin in Honey gives beekeepers **FIVE options** for demonstrating compliance. Beekeepers can select the option most appropriate for them.

**Option 1.** Send samples of all honey produced to a certified laboratory for testing before selling or distributing.



**Option 2.** 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.

**Option 3.** Demonstrate that tutu is not significantly present within the predictable range of bee foraging. Given bees can forage up to 3km this is a significant undertaking requiring drone or satellite mapping.



**Option 4.** Run your hives in a low risk geographical zone i.e. below 42 Degrees South, a line south of Westport on the West Coast and south of Cape Campbell on the East Coast of the South Island where there are no passion vine hoppers.

Low Risk Zone



**Option 5.** Demonstrate you operate in a low risk area with a targeted testing regime. If over three consecutive years your honey has tutin levels below 0.035 mg/kg (and levels in comb below 0.01 mg/kg) you are only required to test one in every ten years thereafter.

## Additional information

A guide to compliance provided by MPI explaining what you must do, including information on how testing is done can be accessed below.

<http://www.foodsafety.govt.nz/elibrary/industry/tutin-compliance-guide.pdf>

For queries or any additional information, please contact us :  
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**Ministry for Primary Industries**  
Manatū Ahu Matua

