
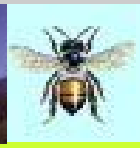


FEBRUARY 2011

Taranaki Beekeeping Club

WHAT'S ON IN TARANAKI

Greetings and a Happy New Year to you all!

Well the Beekeeping season has started with a hiss and a roar. There was a good flow of nectar this Spring which got the bees off to a good start so that there was a surplus of honey and many of us were extracting before Christmas. We have had since then a good intermittent supply of alternate moisture and warm days with the occasional hot cloudless day. Many days have been overcast but warm but these days don't seem to warm up the soil surface as well as the bright sunshine and nectar flow has been sluggish but trickling into the hives.

This can be deceptive, as it would seem that there is plenty of room for them to place nectar the last time you looked but now they have run out of room. I collected a large swarm last weekend, I think that is what happened to them. Being in the city, it is warmer and there are a greater number of nectar sources for the bees so be warned. When the outside frames are being used to store nectar, it is time for another super to go on. Remember to put two frames containing nectar into the new box to encourage them up into it. If you do, by chance, arrive at the hive to find that the top box is very full with burr comb everywhere. you will find it difficult to get the bees to start collecting again.

Many people take their honey off about the middle to the end of next month but you can take full frames off any time if you are short of frames. At the next meeting on Monday 21st February at the Plunket Rooms at 6.30 pm we will talk about how to get the honey off the hive with the least trauma to you and the bees. There are several methods to chose from and we will discuss the best way to do it if your hives are in the town. Taking honey off the hives is the greatest problem if you have difficult neighbors, as the bees tend to get somewhat annoyed when they have to part with their hard-earned stores. We must also have a field day to inspect the Club Hives – maybe the following Sunday – the 27th Feb. so you can make comparisons to your hives.

See you on the 21st.

Adrian.


Next club meeting

21st February 2011

In the PLUNKET ROOMS

6.30pm

Next to New World Supermarket

Third Monday of every month

HONEY GRANULATION

"***All honeys granulate***" - This is a natural chemical process. Honeys is a supersaturated solution containing more dissolved material that can normally stay in solution. These solutions are more or less unstable and in time will return to a stable saturated condition by crystallizing the excess solution. The solid material is a monohydrate of dextrose.

The extent of crystallization (sugaring) is related to sugar content, moisture content and temperature. Granulation texture is a major factor in the quality of this semi-solid product marketed as creamed honey or honey spread. It should be soft enough to spread, but not runny. It will soften if stored at temperatures of 27 - 30 deg C. The crystal size should be imperceptible to the tongue.

There is a down side to granulation. Most natural honey fermentation occurs after granulation. the reason for this is that the removal of dextrose hydrate (9.09% water) from solution in honey leaves a higher moisture liquid phase. Surface layers exposed to high moisture will absorb even more moisture and can become liable to fermentation. Some honeys granulate quicker than others. Pohutukawa within 4 days of being extracted, while honey dew can take up to 4 years.

HOW TO GRANULATE HONEY

Honey granulates at 13 - 14 dec C. To start it off add some fine grain honey (200 mil) to 2 kg of your honey. Stir this three times a day for about three days (keep covered as honey is hydroscopic) until you see a cloudy bloom through it, then put this into a bigger container and repeat. (2 kg into 5 kg, then 5 kg into 20 l bucket etc.) This will allow the honey to go hard (when touched) but spreads easily.

For the larger producer: Honey processed with the use of extractors and honey pumps granulates faster than comb honey. Also honey that has been through a honey pump generally produces a finer granulation.

Only about 15% of honey is solid. Add 5 - 10 % by weight into the container and turn the pump on for a few hours. MAKE SURE IT IS WATCHED or all hoses secured.

Sunday, October 24, 2010

Plant Toxin May be Found in Honey, Bee Pollen

Pyrrolizidine Alkaloids in Food: Downstream Contamination in the Food Chain Caused by Honey and Pollen

In recent years, there has been a steadily growing number of published data on pyrrolizidine alkaloids (PAs) in honey and pollen. This raises the question whether honey and/or pollen used as ingredients in food processing might provoke a downstream contamination in the food chain. Here we addressed two different facets in connection with PAs in honey and pollen.

First, we analysed the PA content of several food types such as mead (n = 19), candy (n = 10), fennel honey (n = 9), soft drinks (n = 5), power bars and cereals (n = 7), jelly babies (n = 3), baby food (n = 3), supplements (n = 3) and fruit sauce (n = 1) that contained honey as an ingredient in the range of 5% to approximately 37%.

Eight out of 60 retail samples were tested as being PA-positive, corresponding to 13%. Positive samples were found in mead, candy and fennel honey, and the average PA content was calculated to be 0.10 µg g(-1) retronecine equivalents (ranging from 0.010 to 0.484 µg g(-1)).

Furthermore, we investigated the question whether and how PAs from PA pollen are transferred from pollen into honey. We conducted model experiments with floral pollen of Senecio vernalis and PA free honey and tested the influence of the quantity of PA pollen, contact time and a simulated honey filtration on the final PA content of honey.

It could clearly be demonstrated that the PA content of honey was directly proportional to the amount of PA pollen in honey and that the transfer of PAs from pollen to honey was a rather quick process. Consequently, PA pollen represents a major source for the observed PA content in honey. On the other hand, a good portion remains in the pollen. This fraction is not detected by the common analytical methods, but will be ingested, and it represents an unknown amount of 'hidden' PAs.

In addition, the results showed that a technically and legally possible honey filtration (including the removal of all pollen) would not be an option to reduce the PA level of the final product significantly.

Friday, January 14, 2011

Honey May be Used as a Sugar Substitute by Diabetes Patients

The Glycemic and Peak Incremental Indices of Honey, Sucrose and Glucose in Patients with Type 1 Diabetes Mellitus: Effects on C-peptide Level—A Pilot Study Acta Diabetologica, Online First

Our study was a case–control cross-sectional study that was conducted on 20 children and adolescents suffering from type 1 diabetes mellitus and ten healthy non-diabetic children and adolescents serving as controls.

The mean age of patients was 10.95 years. Oral sugar tolerance tests using glucose, sucrose and honey and measurement of fasting and postprandial serum C-peptide levels were done for all subjects in three separate sittings. The glycemic index (GI) and the peak incremental index (PII) were then calculated for each subject.

Honey, compared to sucrose, had lower GI and PII in both patients ($P < 0.001$) and control ($P < 0.05$) groups. In the patients group, the increase in the level of C-peptide after using honey was not significant when compared with using either glucose or sucrose. However, in the control group, honey produced a significant higher C-peptide level, when compared with either glucose or sucrose.

In conclusion, honey, because of its lower GI and PII when compared with sucrose, may be used as a sugar substitute in patients with type 1 diabetes mellitus.

Some interesting points on Bee Stings:

For a wasp or bee sting, open or crush a charcoal tablet and place on a cotton ball. Place the cotton ball on the affected area and cover with an adhesive bandage. This will reduce pain and swelling. Honeybees leave their stinger in their victim, and this should be removed immediately. Redmond Clay or Honey will help to draw out stinger. A cold pack or ice will relieve the pain and swelling.

To avoid bee stings, wear plain, light-coloured clothing; avoid wearing anything that is flowered or dark. Don't wear perfume, suntan lotion, hair spray, or shiny jewelery. Avoid wearing sandals and loose-fitting clothes.

Researchers in Gainesville, Florida, have found that squashing a yellow jacket releases a chemical that causes other yellow jackets in the area to attack. Instead of swatting at the insect, it is best to run from it.

In the US, a venom extractor called "Lil Sucker" is available. It fits inside your pocket or purse. If you get stung, it produces a vacuum that sucks the venom out within 2 minutes. The end of the extractor can also be used to remove a honeybee stinger. 1 800 ITCHING is the US number to call for more information.

Apply poultices made from White Oak bark and leaves, Comfrey, Chamomile and Slippery elm. Also good are a Lobelia poultice and a Plantain poultice or salve. Apparently Tobacco also works well as a poultice.

Apply pure lemon juice, honey, or cider vinegar to a wasp sting to relieve the pain. Raw onion, Aloe Vera, or the juice of a spring onion can soothe a sting.