



# Beekeepers Association of the ACT

PO Box 1482, Woden, ACT, 2606

Newsletter of the Beekeepers Association of the ACT Incorporated

Meetings of the Beekeepers Association of the ACT Inc are held on the second Wednesday of the month at 7.30 pm at the CIT, Heysen Street, Weston in Building A

## July 2000

---

### July Meeting

Our July meeting will be held on **12<sup>th</sup> July** at CIT Weston at 7.30 p.m. Colin Marshall can make it this time to give a presentation on beer and mead brewing..

### June Meeting

After formal business was finished there was a useful discussion about beekeeping gear which spilled over into other areas such as feeding bees, collecting swarms and heating honey. Cec Mercer ably fielded a lot of the questions. The main points were:

- ♦ painting and repairing boxes: acrylic paint is more flexible than oil paint and should cope better with expansion/contraction. Dipping boxes in melted paraffin greatly prolongs their life. Septone Builders' Filler is good for sealing holes and cracks.
- ♦ nailing up frames: Cec showed a cut-down box with holes allowing rods to be inserted so that 10 frames can be held at once for nailing.
- ♦ swarm collecting: Dick Johnston exhibited a plastic bucket on a long extendible stick. Cec pointed out that if a frame of comb is pulled up (using a rope) close to a high swarm, the bees will often cluster on it and can be collected.
- ♦ heating honey: commercial beekeepers often subject their honey to prolonged heating at 60° to aid handling and prevent candying, but this can destroy components that give the honey its antibacterial properties (see article below).
- ♦ feeding bees: some beekeepers add a pollen substitute to hives in the form of a patty, to supplement a winter honey flow or speed up the spring buildup. This contains components such as soy flour, yeast, wheat germ, etc. It was pointed out that the soy flour must not be the

solvent-treated version which is toxic to bees. Cec will look up a recipe for those interested; see also Dick's Bindaree advertisement.

### Code of Practice

The draft is nearly completed and, we hope, can be circulated next month for comments.

### Beekeeping Introduction Course

Under the Weston CIT's Adult Community Education Program, Neil Gow has developed a great course (16 hours in all) that will give you a sound working knowledge of beekeeping and honey production. The tutor will also advise on the purchase of veil/gloves and suit. The course starts on 5th October 2000 and costs \$210. The course code is ASC 2014. For enrolment phone 62074441.

### Beekeeping Course at Tocal (near Maitland)

The course will be given on August 12-13th by Bruce White (Technical Specialist, Apiculture) and John Rhodes (Apiary Officer, Tamworth). It is to be a hands-on course with hives on site, plenty of question time, colour slides, videos, handling hives. On site accommodation is available. The cost is \$198 including GST, morning and afternoon teas and lunch. Contact details are:

The Course Secretary  
CB Alexander Agricultural College  
"Tocal"  
Paterson NSW 2421  
Phone 1800 025520 or 02 4939888  
Fax 02 49385549  
Web site: [www.tocal.nsw.edu.au](http://www.tocal.nsw.edu.au)

Enrolment forms can be obtained from Bindaree.

## Healing Properties of Honey

Some Association members may have seen the segment “Honey Cure” on Quantum (ABC) a few weeks ago, in which honey dressings were able to cure a particularly nasty leg ulcer. It went on to feature the work of Craig Davis of DPI Queensland. He has used an agar plate assay to show that all raw honeys can (to different degrees) kill bacteria, but heated commercial honeys cannot. The most potent raw honey came from the Ballina area, from a plant called “jelly bush” which can be assumed, from the Quantum picture and the fact that the honey jellies in the comb, to be a species of tea tree (*Leptospermum*). Some of the antibacterial activity is caused by hydrogen peroxide, formed by an enzyme (glucose oxidase) secreted into the honey by the bees. However, also present are an unidentified, non-peroxide ingredient as well as healing growth factors.

More information can be got from the Web:

- ◆ Capilano is already selling tubes of “Medihoney” from *Leptospermum* as a wound dressing.
- ◆ The University of Waikato’s Honey Research Unit has been working for many years on the antibacterial effect of honey, and some of their findings are as follows. Part of the effect is due to the acidity (pH 3.2-4.5) and high sugar content of honey, but this is lost on dilution by body fluids. Just diluting raw honey causes more hydrogen peroxide to be formed. The honey most effective against bacteria is manuka honey (again a *Leptospermum*!). This honey is particularly effective against Golden Staph, the major wound-infecting and antibiotic-resistant bacterium. And again, this is due to a non-peroxide component of the honey. Other potential medical uses of honey, based on lab tests with a range of bacteria and fungi, are against peptic ulcers, gastroenteritis, tinea and bovine mastitis. But they warn that honey for these purposes should be liquefied by heating at no more than 37 °.

Not everyone agrees that honey is a miracle cure. The NSBA’s June newsletter quotes an article in which Prof. MacLellan questions whether honey is always the best treatment for wounds. He points out that supermarket honey might contain insecticides, that there are many other effective pharmaceuticals, and that for venous ulcers the most important factor is graduated compression by the bandage.

## Recipe of the Month

### Honey Bars

- \* 1 cup honey
- \* 3 eggs -- beaten
- \* 1 teaspoon baking powder
- \* 1 1/3 cups flour
- \* 1 cup chopped nuts
- \* 1 pound chopped dates
- \* 1 teaspoon vanilla

Mix honey and well-beaten eggs together.

Add baking powder and flour sifted together, then the chopped nuts, chopped dates, and flavoring.

Spread in a greased pan (jelly roll size – 11” x 15”). Bake at 350F for 15 to 25 minutes.

Cut in strips 1/2 inch wide and 3 inches long.

Before serving, roll in powdered sugar.

Recipe By : Memphis Area Beekeepers

## NZ Varroa Update

As of 30 June, the New Zealand government has not yet made a decision on the way ahead for a national response to the varroa outbreak. Confidence is quite high that varroa are currently confined to the North Island only.

In the first half of June the Ministry of Agriculture and Forestry released two draft operational plans – the first being a plan for the eradication of varroa in NZ and the second being for the control of varroa. Both papers will be used to advise Cabinet in its decision with respect to the government response to varroa. The Cabinet is expected to consider the matter on 3 July.

The draft operational plans for eradication and control of varroa (respectively) are available on the MAF website at [www.maf.govt.nz](http://www.maf.govt.nz)

The objective of the draft eradication plan is:

- ◆ “to return New Zealand to country freedom from the pest in 4 years”.

The objectives of the plan for control of varroa are:

- ◆ “to ensure that the South Island remains free of varroa for as long as possible”; and
- ◆ “to mitigate the effects of varroa on North Island beekeeping”.

MAF gives up-to-date information on the varroa situation at [www.maf.govt.nz/MAFnet/index.htm](http://www.maf.govt.nz/MAFnet/index.htm). The National Beekeepers' Association of NZ viewpoint can be found at [www.nba.org.nz/](http://www.nba.org.nz/).

## How Bees Measure Distance

Bees, as most of us know, tell their nestmates the distance and direction of a food source by means of a "waggle dance". But how do they know how far they have flown to find those particular flowers? For a long time it was thought that they do this by measuring their energy consumption. New work by Prof. Srinivasan and Dr. Zhang of ANU, however, shows that this is incorrect - the bees actually use their vision to detect the amount of "image motion". To quote from the "ANU Reporter": "To test the bees' perception of distance, the researchers sent them on a search for food inside a narrow tunnel decorated with a random black-and-white pattern, aimed at bombarding the bees with visual cues. 'Passing many visual landmarks - such as trees or flowers - makes insects feel they have travelled a long way, just as telephone poles whizzing by a car window may enhance a passenger's sensation of progress', Prof. Srinivasan said. 'Flying close to tunnel walls - particularly those decorated with patterned wallpaper - amplified the bees' perception of how far they had travelled.'

Although in reality the bees travelled six metres, they returned indicating the perception of a journey as long as 200 metres. These experiments revealed that the odometric cue is the angle through which the image of the environment moves on the eye as the bee flies to the food source."

This research is sponsored by both American and Australian defence agencies because it raises the "possibility of developing autonomous, flying vehicles that incorporate principles of insect vision for navigation, perhaps for surveillance applications."

## Why bees build hexagonal cells

From the "Canberra Times", 31/8/99:

After nearly 2000 years, mathematicians have finally proved that honey bees are among the world's most efficient builders. The fourth-century geometer Pappus suspected that the elegant shape of the honeycomb was a result not of an innate bee-sense of geometric beauty but of nature's efficiency. The repeating pattern of six-sided figures you see in a cross-section of a honeycomb, Pappus guessed, used the least amount of wax to build the walls. His guess, in an essay on "the sagacity of bees" became known as the Honeycomb Conjecture. It resisted all attempts to prove it until the 1940's and later.

Why don't bees make each cell triangular, or square, or some other shape? Why have straight sides in the first place? The warm wax could easily be formed into curved walls. Using straight sides, obviously only equilateral triangles, squares and hexagons can be fitted together to leave no gaps. In 1943 a Hungarian mathematician (Toth) proved that the regular hexagon pattern does give the smallest total perimeter for all patterns made up of any combination of straight-sided polygons.

It still seemed possible (to mathematicians, at least) that hexagons with curved walls might be still more efficient, and it took until 1999 for an American (Hales) to prove what most people would take for granted: that the bulges cancel out. So the bees knew best all along.

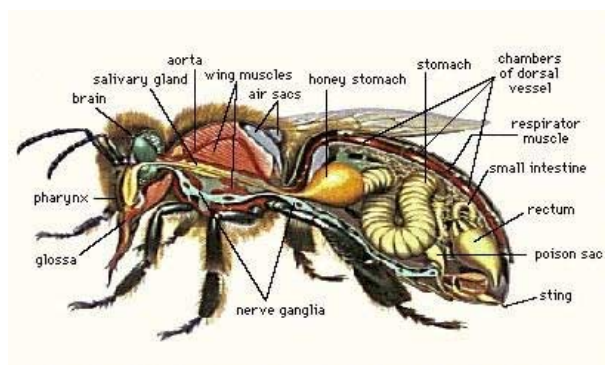
## Bees help GM genes to jump species

From a "Canberra Times" article (29/5/00):

Research by a leading German zoologist has shown that genes used to genetically modify crops can jump the species barrier. A three-year study by Prof. Kaatz at the University of Jena found that herbicide-resistant genes used to modify oil-seed rape transferred across to the bacteria and yeast living inside the intestines of young bees. The findings will undermine claims by the biotech industry and supporters of GM foods that genes cannot spread. They will also increase pressure on farmers across Europe to destroy fields of oil-seed rape contaminated with GM seeds.

## Editor's Note

For those who'd like to fax newsletter contributions to me, my number (given wrongly in the June newsletter) is 62465270.



## Bindaree Beenotes

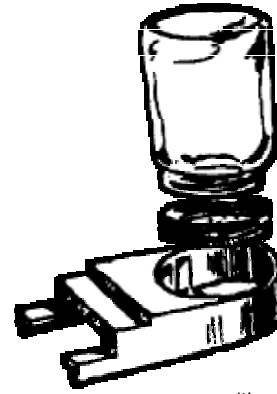
Beekeepers may need to feed bees at various times of the year:

- ♦ To keep the hive from immediate starvation
- ♦ To stimulate a hive for queen rearing
- ♦ To provide winter stores

To assist, Bindaree has:

**Boardman entrance feeders** in both wood and plastic. The entrance feeders are ideal for Canberra in the Winter because the top of the hive does not have to be removed, and

**Pollen patties.** The patty is a Protein Cake for feeding to bees and is made with a well tested and proven formula of pollen, protein supplements, vitamins and honey. Both the honey and pollen are irradiated.



(the jar is not included)

Prices including GST are:

1. Wooden entrance feeder – needs painting - \$11
2. Plastic entrance feeder - \$17
3. Protein patty - \$1.10 each



## Bindaree Bee Supplies

16 James St Curtin ACT 2605

Richard Johnston

Phone: 02 6281 2111

Email: [bindaree.bee@bigpond.com](mailto:bindaree.bee@bigpond.com)

Website: [www.bindaree.com.au](http://www.bindaree.com.au)

Shop open: Wed, Thur, Fri 4 pm to 6 pm, Sat 9 am to 4pm  
Closed: Sun, Mon, Tue.



## Bee-Line

### Horticultural Enterprises

- Horticulture Consultant
- Lawn Renovation
- Coring
- Dethatching
- Oversowing
- Fruit Tree & Rose Pruning

Telephone: 02 6241 5149