

## Challenges of producing manuka honey

Manuka also had another problem, one that English heather honey producers know all too well. It is thixotropic, and the gel-like consistency of the honey made it very difficult to remove from the comb. A method was developed using a board with handles on one side and lots of small nails on the other. It was found that if you pushed the board repeatedly onto the face of the comb, the nails would momentarily free up the proteins creating the gel, and the honey could be spun out. But it was a laborious job, it tended to ruin combs, and worst of all, at least some of the honey still remained in the cells.

## The tide of fortune turns

It was not until the early 1980s that the change in manuka honey's fortunes began to occur. Several large-scale commercial beekeepers travelled overseas to sell comb honey. They returned to New Zealand very disenchanted with the returns that were being obtained by the marketing board for even the standard honeys, like clover. They petitioned the government, and after a series of rambunctious beekeepers association meetings, export controls for all honey were finally removed.

This 'free market revolution' was not an overnight success, however. In fact there is evidence to suggest that for a time manuka honey prices went down even further, since private exporters also found it easier to trade in a recognised international commodity honey like clover. Thankfully, though, something almost miraculous happened and it triggered one of the most amazing turn-arounds for a honey anywhere in the world.

In early 1980, a young lecturer in biochemistry at Waikato University, who had only recently arrived from Wales, got together with his friend, the head of science at a local high school. They were both taking their summer break, but the high school teacher was keen on honey bees, and so they decided to have some fun testing three local honeys against a standard line of bacteria, which they grew in petri dishes.

There was nothing sophisticated about their experiment. In fact it could easily have been carried out in any hospital laboratory. But the results for one of those honeys just did not make sense. It was known that hydrogen peroxide, present in all honeys, can kill bacteria, so in their experiments, they knocked out the hydrogen peroxide to remove any effect it might have on the bacteria. Under these conditions they found that although two of the honeys lost their antibacterial effect the single sample of manuka did kill the bacteria growing in the petri dish. Luckily, that lecturer, Dr Peter Molan, decided to follow his own edict, the thing he always said when students came to him with a seemingly unexpected result: "do the test again".



That little piece of scientific serendipity was the beginning of a career of scientific breakthroughs on manuka honey for Peter Molan, and beekeepers the world over now know just how special the honey really is. Numerous trials have shown that manuka honey with a high level of non-peroxide antibacterial activity is able to kill species of bacteria resistant to normal antibiotics, and dressings made with the product are now used in clinical settings around the world to treat both burns and chronic wounds.



Honey bee on manuka. Photo by Cliff Van Eaton.

Manuka honey has become the most expensive major honey sold in the world, and beekeepers in New Zealand do everything in their power to produce as much of it as they can. Throughout the country many apiaries have now been shifted from clover pastures and into bush areas where the manuka shrub grows, and helicopters have become a routine means of transporting hives into many of these remoter locations not accessible by trucks.

## Added benefits of increased demand for manuka honey

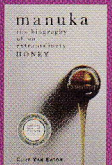
Most remarkably, at a time when people have become quite rightly concerned about the possibility of honey bees disappearing from some parts of world, in New Zealand the number of beehives has increased by two-thirds in the space of little more than a decade. Commercial beekeeping in New Zealand is now big business, and plans are underway to increase the acreage of manuka in the country by creating plantations of a native species that was once considered by farmers to be an invasive weed. A recent report by the country's Ministry of Primary Industries suggested that such developments could increase the value of manuka honey production to over NZ\$1 billion per year.

### BBKA Member Offer

*Manuka: The Biography of an Extraordinary Honey* was released in the UK by Exisle Publishing late last year. In March it was named a finalist in the 2015 Royal Society of New Zealand Science Book Prize.

To order a copy at the special price of £11.95 (with free UK P&P), telephone 01667 453351 or email [djstchairtynairn@fsmail.net](mailto:djstchairtynairn@fsmail.net) and quote offer code **BBKAMANUKA** with your name and address.

Cheques should be made payable to: David St John Thomas Charitable trust and sent to: PO Box 6055, Nairn, Scotland IV12 YB. Credit card payments will show on your statement under The David St John Thomas Charitable Trust. Credit card details will need to be phoned or sent by post.



### NORTHERN BEE BOOKS THE BEE BOOK SPECIALISTS

Scout Bottom Farm, Mytholmroyd,  
Hebden Bridge HX7 5JS (UK)  
Phone: 01422 882751 Fax: 01422 886157  
Email: [jerry@northernbeebooks.co.uk](mailto:jerry@northernbeebooks.co.uk)  
Website: [www.northernbeebooks.co.uk](http://www.northernbeebooks.co.uk)