

**YES! TOTAL VARROA ERADICATION IS POSSIBLE (Information supplied by B. Rawnsley on behalf of Sylvian Bille)**

**THE VARROA MITE NO LONGER A NIGHTMARE!**

The following research and discovery has been carried out over 10 years by a Kiwi (from Switzerland) and is being reported by Ben Rawnsley for Sylvian Bille of Dome Apiaries (P.O.Box 185, Wellsford.)

He has been a commercial beekeeper in New Zealand and Switzerland for 15 years operating bees in both countries - 6 1/2 months in Switzerland and 5 1/2 months in New Zealand.

Many beekeepers in Switzerland have given up beekeeping because of the increasing resistance of the varroa mites to the many chemical miticides used to treat the hives (Apistan [Ciba Geiga, Switzerland], Bayvarol [Bayer, Switzerland] Perrizen, Api-life, Thymovar and so on,.)

Even if 99.5% of the mites are destroyed by a miticide, the remaining few will quickly breed and reach a critical level again in a few months. This critical level of 2000 mites in a hive is unacceptable and would cause the hive to die in a very short time. Mr Bille says 'believe me, I have seen in the front of my own apiary 5 or 6 years ago, a large number of bees crawling on the grass to die, with wings chewed up or legs missing and weakened by the impact of the blood-sucking mite.

Formic acid will prove to be unsatisfactory in New Zealand because of changes in temperature and humidity causing massive desertion and queen loss. The queen loss is caused by irritability of bees in the hive and the balling of the queen.

Sylvian's discovery should make a major change and bring relief to all beekeepers against the extra work and huge losses in all countries affected by the varroa mite.

Through Sylvian's research, he has developed the following procedure to totally eradicate the varroa mite without destroying the bees or queen. There is no quarantining of the beehives, or any restriction for beekeepers going into pollination.

The first important observation made by Sylvian was that young bees, bred in the Autumn, have greater body fat and reserves, and are stronger, and will last through the winter. They have a longer life span than the Varroa Mite life cycle.

Mr Bille says that any good beekeeper will know that a strong autumn colony with young bees, will survive in good condition through the Winter in a broodless condition, provided the hive is supplied with strong queen pheromone by the retention of the queen in a special cage.

The second discovery is that, because of all the critical aspects being explained above, he came to the serious conclusion that he had to force (but absolutely force) all the mites to come out of the brood-rearing nest so as to give better efficiency to the various miticides at hand.

Even so, Mr Bille says that even if, let's say 99.5% of the mites would be killed through the miticide application, it would still leave, in the end, a very few resistant mites in the colony, leading of course to a new infestation within 6 months at a level that would be totally unacceptable.

A level of, let's say 2000 mites per hive he knows from his own experience that, very quickly, viruses being provoked from the bite of the varroa mite, would lead the total bee population to a tragic death within 2 or 3 weeks. All of this happens so suddenly that it is too late to act. This is caused by the wound done by the biting of the mite.

Sylvian says he almost wanted to give up commercial beekeeping in Switzerland but God's Will and his own destiny wasn't what he was planning.

One night, after being almost sleepless. There came a third discovery on top of the two previous discoveries. If he was able to keep all the queens confined in special queen cages for a very long time of confinement (3 - 4 months, and then, in a tricky way, deal with the very last mite, he would then achieve total success.

This was by attracting the very very last of the bee mite population which remained by giving, right in the middle of the colony, and beside the queen cage, a special 1/2 comb with only fresh eggs or unsealed grubs. In that way, the remaining mites would only have two possibilities. 1. To die because their life span would soon be over or 2. To catch the only last chance for them to reproduce.

'By this means I now had my last weapon because once the female varroa had entered the cells just before the grub was capped, it would find no alternative but to stay in the cells to reproduce in the bee milk and to be shut in by the cell cappings like being in jail!

Imagine my joy and excitement on that sleepless night for I would just put in that 1/2 comb of fresh eggs or grubs and once the brood is sealed (and of course before any chance of the bees emerging from the brood- 11 to 18 days maximum) this brood is taken away and totally destroyed. (burned)

*(This insert has been produced and paid for by Happy Valley Honey (NZ) Ltd).*

A second half frame, or even old comb with drone cells is then placed in the hive in the same position. (We know today from scientific research that the drone grub has strong pheromone and more space for the varroa to breed in the cell. The combination of drone and worker cells make it more attractive for the varroa for breeding.)

Straight after the destruction of the second 1/2 comb, the total release of all queens is to be done. Then the hive can be stimulated by feeding to help with the new Spring build-up.

Only a few hives are needed (in a separate apiary) ahead of time for the production of the half brood-combs for trapping the last of the mites.

"I did put all my knowledge into that very special designed Queen cage, allowing the worker bees free access through the Queen cage to redistribute all the Queen pheromone throughout the colony which is an absolute necessity. From experience there will be a small percentage, maybe 5 - 10% of queens lost due to long term confinement. So I would advise large commercial beekeepers to bank some extra queens to be available in case of shortages."

Mr Bille is at the moment developing a most exciting queen cage with a special method of trapping the queen straight into the cage without the need for the beekeeper to spend time looking for her, or even to handle her. This is the best time-saving work that the beekeeper would ever imagine. This new design queen cage will be the most useful tool in beekeeping. For total varroa eradication I do know that it will work but we will know more in the near future for there are financial considerations as well.

Sylvian expects that, for total eradication it would take two winters for success, or three years maximum because of the feral colonies having to die naturally through infestations of the varroa mite.

It is my contribution and really my great hope to see something good come about with the realistic cooperation of the Kiwi beekeepers or the varroa mite will cost the jobs of many people in the agricultural industries. This is not only for the short term future of 3-4 years, but for many many years to come. What a wonderful proof of the Kiwi ingenuity if together all beekeepers with other discoveries or good ideas would come to fight together for the total destruction of the Varroa mite. We will all be winners in the end.

## SUMMARY

For the New Zealand climate conditions, I would :  
**cage all the Queens by the last day of April or the first week of May.**

Then **three weeks later** once all of the brood has emerged, use **2 good miticides** to reduce any ongoing virus problem and loss of bees. This as I said before, would destroy 99.5% of all mites.

Then, **in the middle of August**, I would give, while the queen is still confined, **at two week intervals, the two unsealed, 1/2 brood combs.**

( It is very important for the brood to be unsealed, and to be destroyed before the brood emerges.) Timing and organisation will prove to be the main key to the total success.

Finally, all the queens are released and a completely new start for the colony is now ready.

I (Mr. S. Bille) give particular thanks to Mr and Mrs Ben Rawnsley for their great time consuming help for translating for proper understanding my way of total eradication of the varroa mite.

### Acknowledgment by Ben Rawnsley

We have read and understand the method which Sylvian has described for the successful eradication of the varroa mite. We believe that his method is sound and very possible for New Zealand beekeepers to achieve. Sylvian has had many years experience in dealing with Varroa mites in Switzerland and is sadly aware of the devastation they can cause. He has devised this excellent method and is happy to publish it for the benefit of beekeeping worldwide and New Zealand in particular.

It may seem at first reading to be complex, expensive and time consuming. But think again of the long-term cost and time involved in applying and removing Apistan strips twice a year to every hive (4 trips per hive) as well as the undesirable treatment of our hives with chemicals and the inevitable consequence of mite resistance to Apistan. Can you imagine doing this miticide treatment for ever on a large apiary?

This is why we believe that there are only two real options at hand to totally eliminate Varroa in New Zealand:

1. Total eradication by destroying all bees, both feral and domestic in probably the whole North Island and repopulating with package bees from the South Island. OR
2. The procedure as described above by Sylvian.

# N.B.A. OTAGO BRANCH

*invites you to attend the*

NATIONAL BEEKEEPERS ASSOCIATION of N.Z. INC

## A.G.M. & CONFERENCE

23<sup>rd</sup> to 26<sup>th</sup> JULY, 2001

At Rydges Hotel, 38-54 Lake Esplanade, QUEENSTOWN

The Otago Branch is pleased to offer an interesting and informative Seminar and Conference programme, along with the opportunity to enjoy the magnificent scenery and action-attractions of the Wakatipu area around Queenstown, Central Otago. We invite you to take the time to extend your visit to the area, and add to the enjoyment of meeting with others in the beekeeping industry with a winter holiday break for delegates and partners in the adventure-tourism capital of New Zealand.

### Accommodation:

Rydges are offering an excellent room rate of **\$88 per night** (plus GST) for single or double, which is also available both before and after the Conference period – just advise the hotel you are part of the Beekeeper's Conference.

Freephone: (0800) 478-847

Phone: (03) 442-7600, Fax: (03) 442-9653;

Email: [reservations\\_queenstown@rydges.com](mailto:reservations_queenstown@rydges.com)

### Travel:

There are regular daily flights in and out of Queenstown airport with both major airlines direct to many parts of the country – early bookings are recommended to take advantage of discount flight rates. Regular bus services are available into Queenstown from many South Island centres.

For travel assistance contact

Queenstown Flight Centre,

Phone: (03) 441-1740, Fax: (03) 441-1745.

### Conference Programme: (Subject to final confirmation)

**MONDAY 23<sup>rd</sup>:** Registration

*All Day:* **Specialty Group meetings:**  
- NZ Honey Packers Assn  
- Exporters Joint Action Group  
- NZ Queen Bee Producers Assn  
- Comb Honey Producers Assn  
- Pollination Groups

*Evening:* **"The Great Get-Together"**  
- Clancy's Bar  
**Poster Display Session**

**TUESDAY 24<sup>th</sup>:** Registration

*All Day:* **SEMINAR DAY:**  
(see over page for speaker details)

**"Controlling varroa in New Zealand"**  
**"Diversifying land use - the Southland Experience"**

*Evening:* 1) **Sponsors Presentations**  
2) **"The Great Beekeeping Debate":**  
Subject: "That Queens Rule the World"

**WEDNESDAY 25<sup>th</sup>:**

*Morning:* **AGM & Conference of Delegates**

*Afternoon:* **"The Great Buzz-Off to Adventure:**  
(see over page for details)

*Evening:* **"The Great Mid-Winter Xmas Dinner Party"**  
– (Skyline Restaurant)

**THURSDAY 26<sup>th</sup>:**

*All Day:* **Conference of Delegates and AGM**

**FRIDAY 27<sup>th</sup>:** **"The Great Break-a-Leg Ski Trip"**  
(subject to sufficient interest)

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# PROGRAMME DETAILS & REGISTRATION FEES

## SEMINAR PROGRAMME (Subject to final confirmation)

**Tuesday 24<sup>th</sup> July:**

**Part One: "Controlling Varroa in New Zealand":**

**Dr Denis L Anderson**, Principal Research Scientist, CSIRO Entomology, Canberra, Aust.

*"A new and innovative approach to finding a cure for the Varroa mite".*

**Dr Mark Goodwin**, Bee Research Scientist, Hort Research, Ruakura Research Centre, N.Z.

*"Dealing with varroa - A review of world treatment options and their application in N.Z."*

**Cliff Van Eaton**, Bee Research Scientist, Hort Research, Ruakura Research Centre, N.Z.

*"Detection of varroa - An evaluation of surveillance and detection methods."*

**Paul Bolger**, Varroa Control Programme Administrator, MAF Biosecurity Authority, N.Z.

*"The Varroa Control Programme in New Zealand - one year on."*

**David McMillan & James Driscoll**, Agriquality NZ Ltd, Invermay and Palmerston North

*"Varroa in the USA - A Study-Tour Update of the current situation."*

**A Panel of NZ Beekeepers** - From within the infected and buffer zones, N.Z.

*"Behind enemy lines – personal experiences of living with varroa in New Zealand."*

**Part Two: "Diversifying land use – the Southland experience"**

**Murray Ballantyne**, Southland Beekeeper & Chairman of Crops For Southland Group and Southland Topo-Climate Trust.

*"The Southland Topo-Climate Project – Partners in Success."*

**Wayne Hutchinson**, Economic Development Officer, Southland District Council, Invercargill

*"Crops for Southland – New Opportunities for land use"*

**Warwick Catto**, BOP Fertiliser Company, Mt Maunganui.

*"Environmentally sustainable use of fertilisers for pasture management"*

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**Wednesday July 25<sup>th</sup> – Afternoon "THE GREAT 'BUZZ-OFF' TOURS"**

Otago Branch is offering a mid-Conference breakaway for all delegates and partners. We have selected two options to choose from – one is more "adventurous" than the other.

**Option 1) Wakatipu Basin Tour:**

Gibbston Winery, Bungy Jump site, craft centre, afternoon tea in historic Arrowtown.

**Option 2) The Shotover River "Grand Canyon" Adventure Tour:**

Four-wheel drive into the awesome Shotover River canyon, Bungy jumping site, jet boating option, gold panning display, historic sites & inc. afternoon tea. (Jet boat ride and bungy jumping are optional extra costs)

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**Conference and Activity Fees: (per person) (GST Exclusive)**

<b>Conference Registration:</b> (includes a.m. & p.m. teas)	<b>\$30</b>	<b>Great 'Buzz-Off' Tours: (optional)</b> Option 1 – Wakatipu Tour	<b>\$48</b>
		or Option 2 – Shotover Adventure Tour	<b>\$55</b>
<b>Great Get-Together</b> (Happy hour & snacks)	<b>\$15</b>	<b>Great Mid-Winter Xmas Dinner Party</b> (At Skyline Restaurant on Bob's Peak – including fantastic night-time Gondola ride)	<b>\$60</b>
<b>Seminar (including Lunch)</b> (includes a.m. & p.m. teas)	<b>\$40</b>	<b>Late Payment Fee (after July 15<sup>th</sup>)</b>	<b>\$15</b>

Lunch will be available each day of Conference at approximately \$15 per person

(Note: A registration form will be included in the next issue of the "NZ Beekeeper")

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**For further enquiries, or to register early by FAX or e-mail, please contact:**

Allen McCaw, Otago Branch Conference Convenor, Milburn Apiaries, R.D.2. Milton, Sth Otago

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**Email:** amccaw@ihug.co.nz